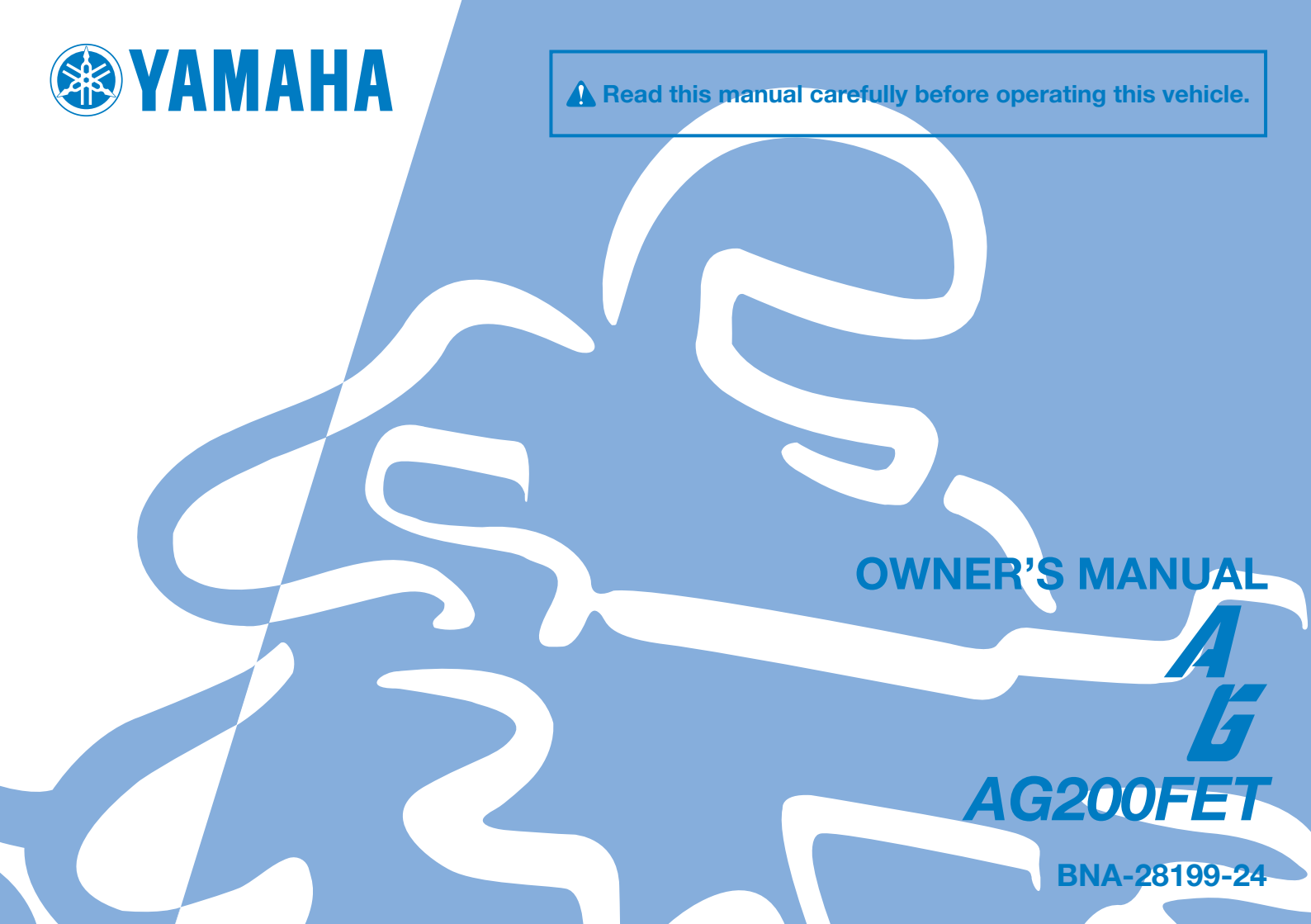
YAMAHA

⚠ Read this manual carefully before operating this vehicle.



OWNER'S MANUAL

AG

AG200FET

BNA-28199-24

EAU46091

⚠ Read this manual carefully before operating this vehicle. This manual should stay with this vehicle if it is sold.

EAU10103

Welcome to the Yamaha world of motorcycling!
As the owner of the AG200FET, 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 AG200FET. 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!
Yamaha continually seeks advancements in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your motorcycle and this manual. If there is any question concerning this manual, please consult a Yamaha dealer.

EWA10032

⚠ WARNING

Please read this manual carefully and completely before operating this motorcycle.

Important manual information

EAU10134

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

⚠	**This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.**
⚠ WARNING	**A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.**
NOTICE	**A NOTICE indicates special precautions that must be taken to avoid damage to the vehicle or other property.**
TIP	A TIP provides key information to make procedures easier or clearer.

*Product and specifications are subject to change without notice.

EAU10201

AG200FET
OWNER'S MANUAL
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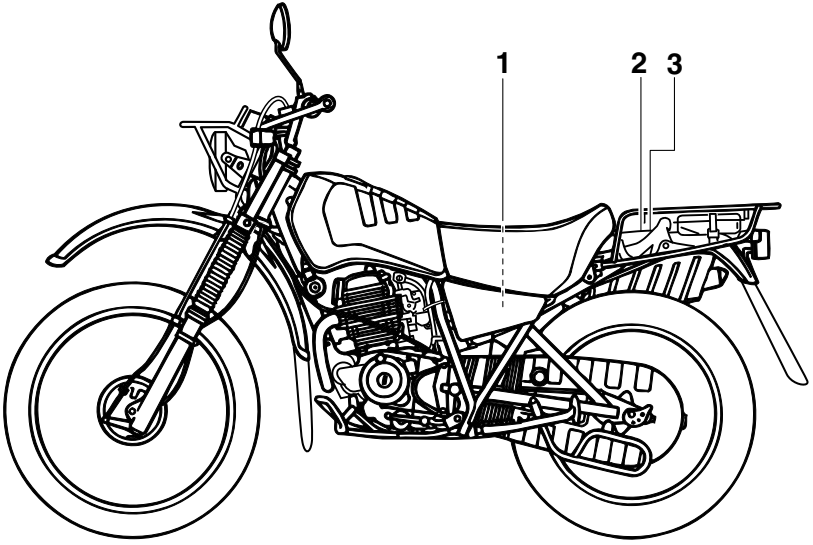
Index 11-1

Location of important labels

EAU10385

1

Read and understand all of the labels on your vehicle. They contain important information for safe and proper operation of your vehicle. Never remove any labels from your vehicle. If a label becomes difficult to read or comes off, a replacement label is available from your Yamaha dealer.



1



2

TIRE INFORMATION

Cold tire normal pressure should be set as follows.

FRONT : 125 kPa,{1.25 kgf/cm^2}, 18 psi

REAR : 150 kPa,{1.50 kgf/cm^2}, 22 psi

3GX-21668-00

3



EAU35139

2

Be a Responsible Owner

As the vehicle's owner, you are responsible for the safe and proper operation of your motorcycle.

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 this Owner's Manual.
- Obtain qualified training in safe and proper riding techniques.
- Obtain professional technical service as indicated in this Owner's Manual and/or when made necessary by mechanical conditions.
- Never operate a motorcycle without proper training or instruction. Take a training course. Beginners should receive training from a certified instructor. Contact an authorized motorcycle dealer to find out about the training courses nearest you.

Safe Riding

Perform the pre-operation checks each time you use the vehicle to make sure it is in safe operating condition. Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment damage. See page 5-1 for a list of pre-operation checks.

- This motorcycle is designed for off-road use only, therefore, it is illegal to operate it on public streets, roads, or highways, even a dirt or gravel one. Off-road use on public lands may be illegal. Please check local regulations before riding.
- This motorcycle is designed to carry the operator only. No passengers.
- 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.
  - Never maintain a motorcycle without proper knowledge. Contact an authorized motorcycle dealer to inform you on basic motorcycle maintenance. Certain maintenance can only be carried out by certified staff.
- Many accidents involve inexperienced operators.
  - Make sure that you are qualified and that you only lend your motorcycle to other qualified opera-

tors.
- Know your skills and limits. Staying within your limits may help you to avoid an accident.
- We recommend that you practice riding your motorcycle 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). Never travel faster than warranted by conditions.
- Ride cautiously in unfamiliar areas. You may encounter hidden obstacles that could cause an accident.
- The posture of the operator 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.
- Never ride under the influence of alcohol or other drugs.

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.
- Always wear protective clothing that covers your legs, ankles, and feet. The engine or exhaust system become very hot during or after operation and can cause burns.

Avoid Carbon Monoxide Poisoning

All engine exhaust contains carbon monoxide, a deadly gas. Breathing carbon monoxide can cause headaches, dizziness, drowsiness, nausea, confusion, and eventually death.

Carbon Monoxide is a colorless, odorless, tasteless gas which may be present even if you do not see or smell any engine exhaust. Deadly levels of carbon monoxide can collect rapidly and you can quickly be overcome and unable to save yourself. Also, deadly levels of carbon monoxide can linger for hours or days in enclosed or poorly ventilated areas. If you experience any symptoms of carbon monoxide poisoning, leave the area immediately, get fresh air, and SEEK MEDICAL TREATMENT.

- Do not run engine indoors. Even if you try to ventilate engine exhaust with fans or open windows and doors, carbon monoxide can rapidly reach dangerous levels.
- Do not run engine in poorly ventilated or partially enclosed areas such as barns, garages, or carports.

- Do not run engine outdoors where engine exhaust can be drawn into a building through openings such as windows and doors.

Genuine Yamaha Accessories

Choosing accessories for your vehicle is an important decision. Genuine Yamaha accessories, which are available only from a Yamaha dealer, have been designed, tested, and approved by Yamaha for use on your vehicle.

Many companies with no connection to Yamaha manufacture parts and accessories or offer other modifications for Yamaha vehicles. Yamaha is not in a position to test the products that these aftermarket companies produce. Therefore, Yamaha can neither endorse nor recommend the use of accessories not sold by Yamaha or modifications not specifically recommended by Yamaha, even if sold and installed by a Yamaha dealer.

Aftermarket Parts, Accessories, and Modifications

While you may find aftermarket products similar in design and quality to genuine Yamaha accessories, recognize that some aftermarket accessories or modifications are not suitable because of potential safety hazards to you or others. Installing aftermarket products or having other modifications performed to your vehicle that change any of the vehicle's design or operation characteristics can put you and others at greater risk of serious injury or death. You are responsible for injuries related to changes in the vehicle.

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

- Never install accessories 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. 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. Wind may attempt to lift the motorcycle, or the motorcycle may become unstable in cross winds.
  - Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the operator and may limit control ability, therefore, such accessories are not recommended.
- Use caution when adding electrical accessories. If electrical accessories exceed the capacity of the motorcycle's electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power.

Aftermarket Tires and Rims

The tires and rims that came with your motorcycle were designed to match the

performance capabilities and to provide the best combination of handling, braking, and comfort. Other tires, rims, sizes, and combinations may not be appropriate. Refer to page 7-15 for tire specifications and more information on replacing your tires.

Transporting the Motorcycle

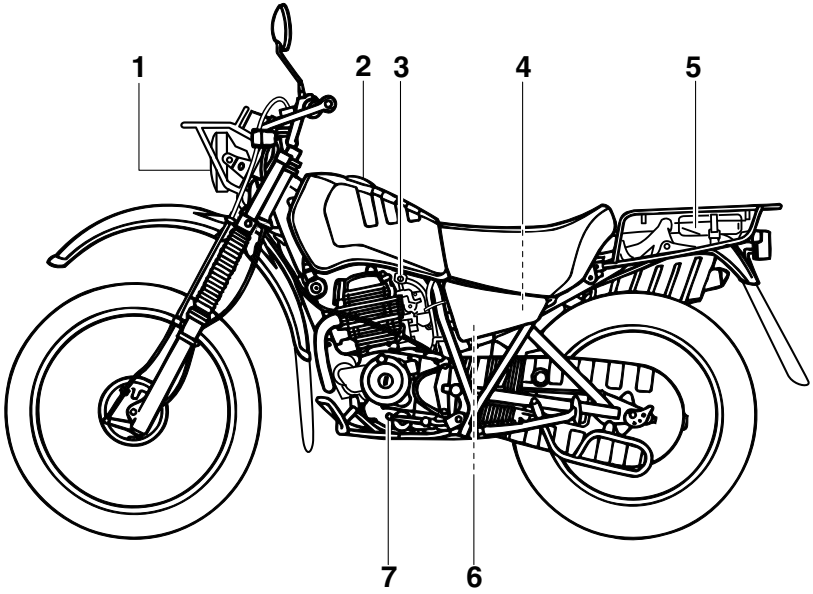
Be sure to observe following instructions before transporting the motorcycle in another vehicle.

- Remove all loose items from the motorcycle.
- Check that the fuel cock (if equipped) is in the “OFF” position and that there are no fuel leaks.
- Point the front wheel straight ahead on the trailer or in the truck bed, and choke it in a rail to prevent movement.
- Shift the transmission in gear (for models with a manual transmission).
- Secure the motorcycle with tie-downs or suitable straps that are attached to solid parts of the motorcycle, such as the frame or upper front fork triple clamp (and not, for example, to rubber-mounted handlebars or turn signals, or parts that could break). Choose the location for the straps carefully so the straps will not rub against painted surfaces during transport.
- The suspension should be compressed somewhat by the tie-downs, if possible, so that the motorcycle will not bounce excessively during transport.

Description

EAU10411

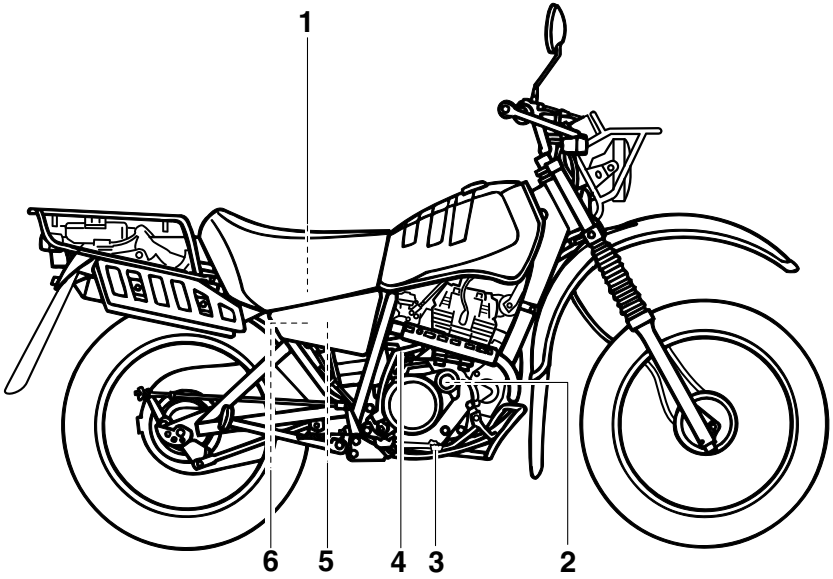
Left view



1. Headlight (page 7-30)
2. Fuel tank cap (page 4-5)
3. Fuel cock (page 4-6)
4. Main fuse (page 7-29)
5. Owner's tool kit (page 7-2)
6. Air filter element (page 7-12)
7. Shift pedal (page 4-4)

EAU10421

Right view

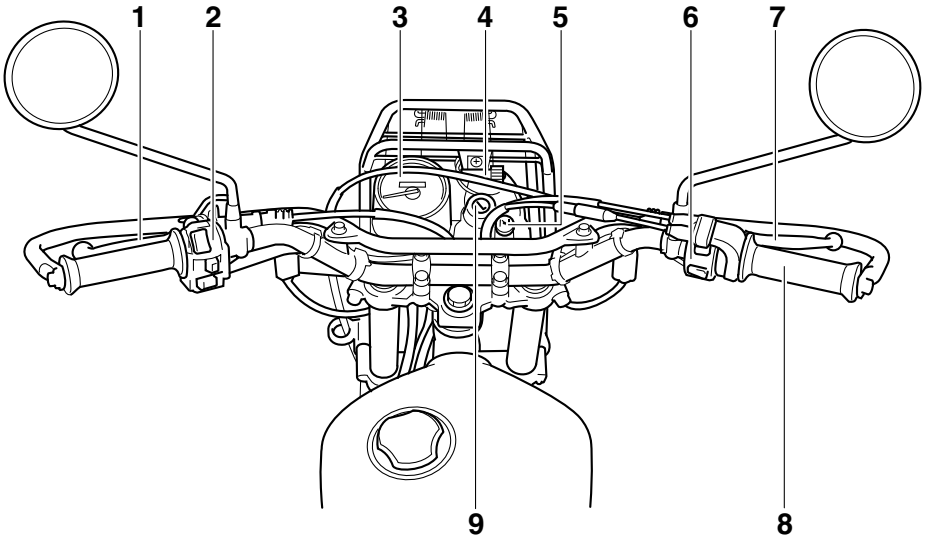


1. Shock absorber assembly spring preload adjusting ring (page 4-9)
2. Engine oil filter element (page 7-9)
3. Brake pedal (page 4-4)
4. Kickstarter (page 4-8)
5. Battery (page 7-27)
6. Auxiliary DC jack fuse (page 7-29)

Description

EAU10431

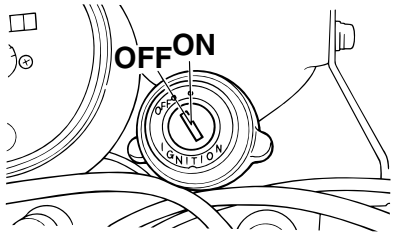
Controls and instruments



1. Clutch lever (page 4-3)
2. Left handlebar switches (page 4-2)
3. Speedometer unit (page 4-2)
4. Auxiliary DC jack (page 4-12)
5. Starter (choke) knob (page 4-7)
6. Right handlebar switches (page 4-2)
7. Brake lever (page 4-4)
8. Throttle grip (page 7-14)
9. Main switch (page 4-1)

EAU10452

Main switch



The main switch controls the ignition and lighting systems. The various main switch positions are described below.

EAU10631

ON

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

EAU45752

OFF

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

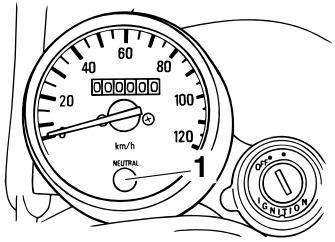
EWA10073

⚠ WARNING

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

EAU11011

Indicator light



1. Neutral indicator light

EAU63680

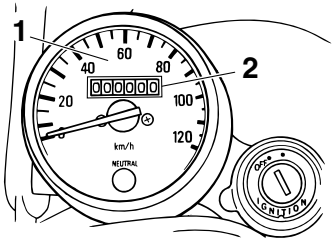
Neutral indicator light

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

4

EAUT1822

Speedometer unit



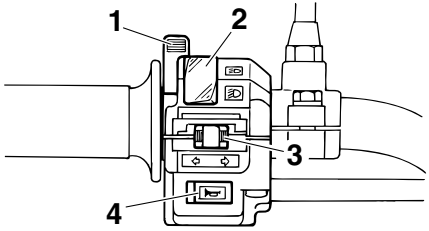
1. Speedometer
2. Odometer

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

EAU1234M

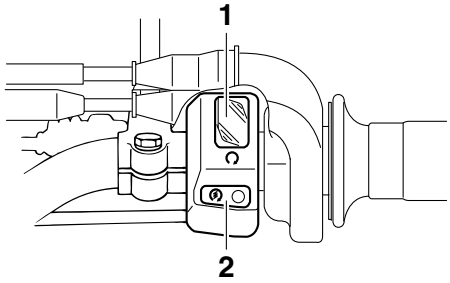
Handlebar switches

Left



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

Right



1. Engine stop switch "⟳/⊠"
2. Start switch "Ⓢ"

EAU12401

Dimmer switch "≣D/≣D"

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

EAU12461

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.

EAU12501

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

EAU12582

Light switch "☼/●"
Set the light switch to "☼" to turn on the headlight, taillight and meter lighting. Set the switch to "●" to turn off all the lights.

EAU12662

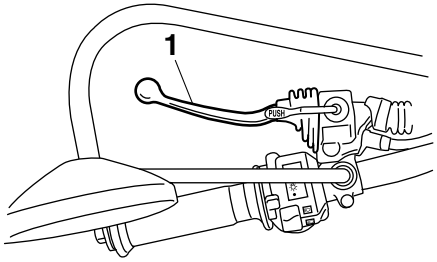
Engine stop switch "○/⊠"
Set this switch to "○" before starting the engine. Set this switch to "⊠" to stop the engine in case of an emergency, such as when the vehicle overturns or when the throttle cable is stuck.

EAU12713

Start switch "ⓢ"
Push this switch to crank the engine with the starter. See page 6-1 for starting instructions prior to starting the engine.

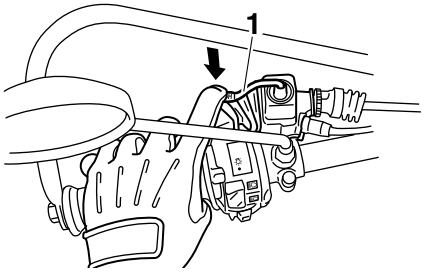
EAU35002

Clutch lever



1. Clutch lever

The clutch lever is located on the left side of the handlebar. 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 starting circuit cut-off system. (See page 4-10.)

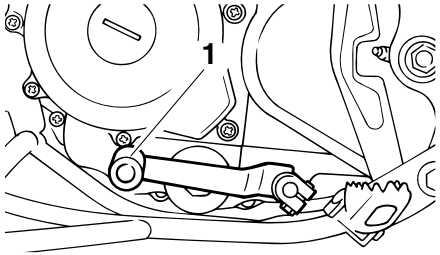


1. Clutch lever lock

A clutch lever lock is provided to keep the clutch disengaged. To lock the clutch lever, push down the clutch lever lock while holding the clutch lever pulled towards the handlebar grip. To release the lever lock, simply pull the clutch lever.

EAU12872

Shift pedal

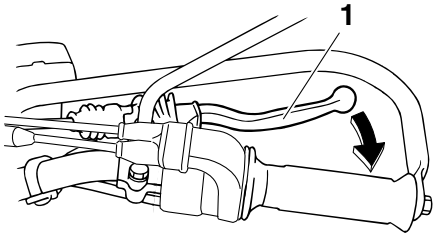


1. Shift pedal

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

EAU12892

Brake lever

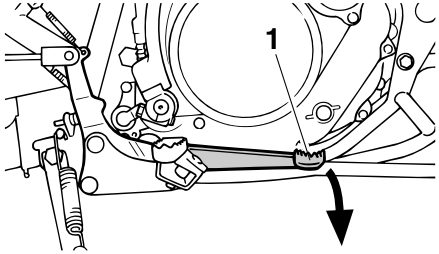


1. Brake lever

The brake lever is located on the right side of the handlebar. To apply the front brake, pull the lever toward the throttle grip.

EAU12944

Brake pedal

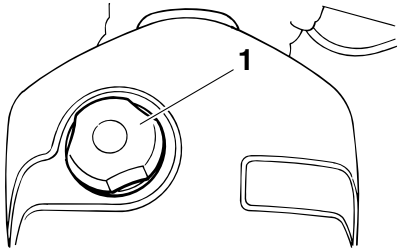


1. Brake pedal

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

EAU13183

Fuel tank cap



1. Fuel tank cap

To remove the fuel tank cap, turn it counterclockwise, and then pull it off.
To install the fuel tank cap, insert it into the tank opening, and then turn it clockwise.

EWA11092

⚠ WARNING

Make sure that the fuel tank cap is properly closed after filling fuel. Leaking fuel is a fire hazard.

EAU13213

Fuel

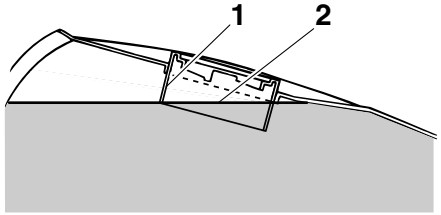
Make sure there is sufficient gasoline in the tank.

EWA10882

⚠ WARNING

Gasoline and gasoline vapors are extremely flammable. To avoid fires and explosions and to reduce the risk of injury when refueling, follow these instructions.

1. Before refueling, turn off the engine and be sure that no one is sitting on the vehicle. Never refuel while smoking, or while in the vicinity of sparks, open flames, or other sources of ignition such as the pilot lights of water heaters and clothes dryers.
2. Do not overfill the fuel tank. Stop filling when the fuel reaches the bottom of the filler tube. Because fuel expands when it heats up, heat from the engine or the sun can cause fuel to spill out of the fuel tank.



1. Fuel tank filler tube
2. Maximum fuel level

3. Wipe up any spilled fuel immediately. ***NOTICE:*** **Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.**[ECA10072]
4. Be sure to securely close the fuel tank cap.

EWA15152

⚠ WARNING

Gasoline is poisonous and can cause injury or death. Handle gasoline with care. Never siphon gasoline by mouth. If you should swallow some gasoline or inhale a lot of gasoline vapor, or get some gasoline in

your eyes, see your doctor immediately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your clothing, change your clothes.

EAU53073

4

Recommended fuel:
Regular unleaded gasoline (Gasohol [E10] acceptable)
Fuel tank capacity:
10 L (2.6 US gal, 2.2 Imp.gal)
Fuel reserve amount:
2.0 L (0.53 US gal, 0.44 Imp.gal)

ECA11401

NOTICE

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

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

Gasohol

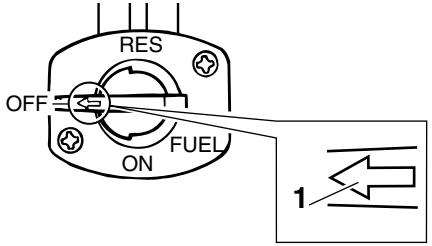
There are two types of gasohol: gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if the ethanol content does not exceed 10% (E10). Gasohol containing methanol is not recommended by Yamaha because it can cause damage to the fuel system or vehicle performance problems.

EAU13562

Fuel cock

The fuel cock supplies fuel from the tank to the carburetor while filtering it also.
The fuel cock has three positions:

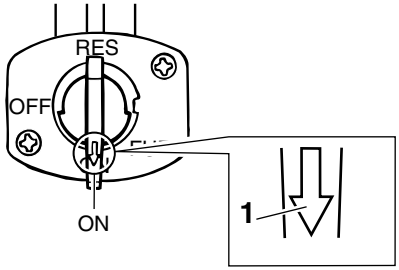
OFF



1. Arrow mark positioned over “OFF”

With the lever in this position, fuel will not flow. Always return the lever to this position when the engine is not running.

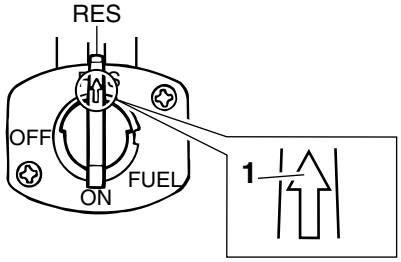
ON



1. Arrow mark positioned over “ON”

With the lever in this position, fuel flows to the carburetor. Normal riding is done with the lever in this position.

RES

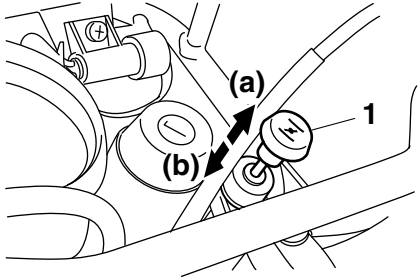


1. Arrow mark positioned over “RES”

This indicates reserve. If you run out of fuel while riding, move the lever to this position. Fill the tank at the first opportunity. Be sure to set the lever back to “ON” after refueling!

EAU13601

Starter (choke) knob “ ”

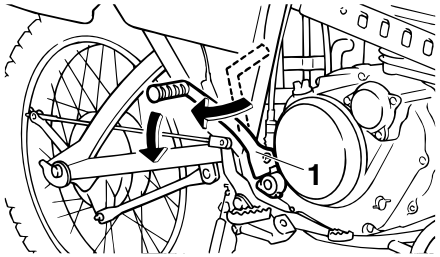


1. Starter (choke) knob “ ”

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

EAU13651

Kickstarter



1. Kickstarter

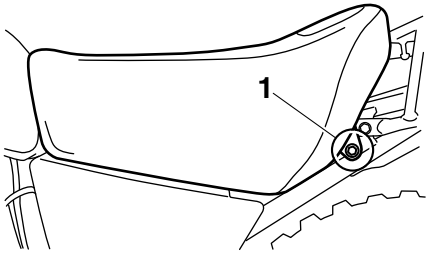
To start the engine, fold out the kickstarter lever, move it down lightly with your foot until the gears engage, and then push it down smoothly but forcefully. This model is equipped with a primary kickstarter, allowing the engine to be started in any gear if the clutch is disengaged. However, shifting the transmission into the neutral position before starting is recommended.

EAU13962

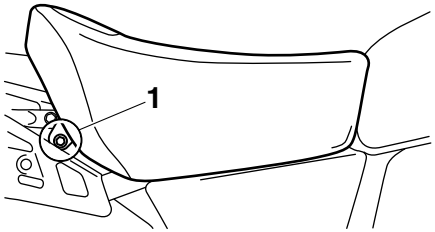
Seat

To remove the seat

Remove the bolts, and then pull the seat off.



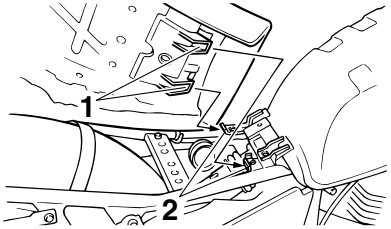
1. Bolt



1. Bolt

To install the seat

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



1. Projection
2. Seat holder

2. Place the seat in the original position, and then tighten the bolts.

TIP

Make sure that the seat is properly secured before riding.

EAU36466

Adjusting the shock absorber assembly

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

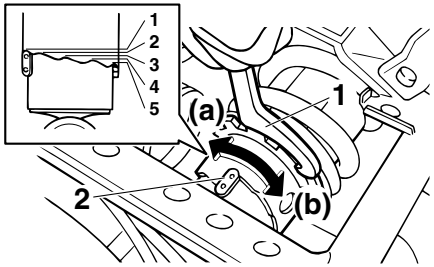
ECA10102

NOTICE

To avoid damaging the mechanism, do not attempt to turn beyond the maximum or minimum settings.

Adjust the spring preload as follows.

1. Remove the seat. (See page 4-8.)
2. Turn the adjusting ring in direction (a) to increase the spring preload. Turn the adjusting ring in direction (b) to decrease the spring preload.
   - Align the appropriate notch in the adjusting ring with the position indicator on the shock absorber.
   - Use the special wrench included in the tool kit to make the adjustment.



1. Special wrench
2. Position indicator

Spring preload setting:
Minimum (soft):
1
Standard:
1
Maximum (hard):
5

3. Install the seat.

EWA10222

⚠ WARNING

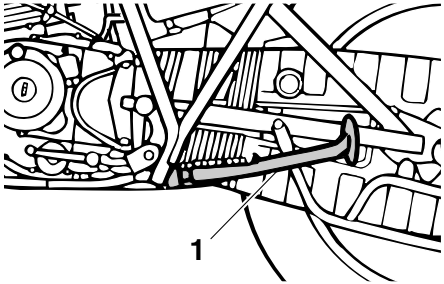
This shock absorber assembly contains highly pressurized nitrogen gas. Read and understand the following information before handling the shock absorber assembly.

- **Do not tamper with or attempt to open the cylinder assembly.**
- **Do not subject the shock absorber assembly to an open flame or other high heat source. This may cause the unit to explode due to excessive gas pressure.**
- **Do not deform or damage the cylinder in any way. Cylinder damage will result in poor damping performance.**
- **Do not dispose of a damaged or worn-out shock absorber assembly yourself. Take the shock absorber assembly to a Yamaha dealer for any service.**

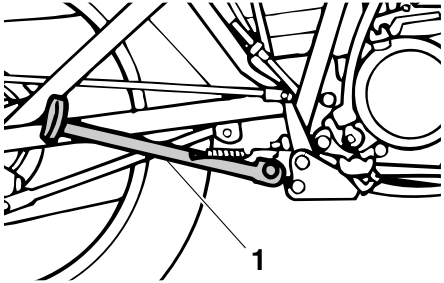
4

EAU48861

Sidestands



1. Sidestand (left)



1. Sidestand (right)

The sidestands are located on the left and right side of the frame. Raise a sidestand or lower it with your foot while holding the vehicle upright.

EWA15411

⚠ WARNING

The vehicle must not be ridden with either sidestand down, or if a sidestand cannot be properly moved up (or does not stay up); otherwise the sidestands could contact the ground and distract the operator, resulting in a possible loss of control.

EAU53131

Starting circuit cut-off system

The starting circuit cut-off system (comprising the clutch switch and the neutral switch) prevents starting when the transmission is in gear and the clutch lever is not pulled.

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

TIP

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

With the engine turned off:
1. Make sure that the engine stop switch is set to "◯".
2. Turn the key to "ON".
3. Shift the transmission into the neutral position.
4. Push the start switch or push the kickstarter lever down.

Does the engine start?

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

5. Turn the engine off.
6. Shift the transmission into gear.
7. Keep the clutch lever pulled.
8. Push the start switch or push the kickstarter lever down.

Does the engine start?

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

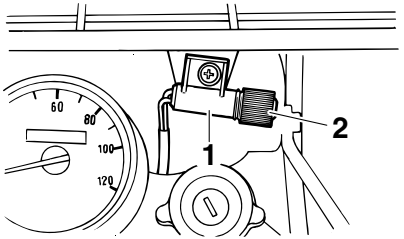
The system is OK. **The motorcycle can be ridden.**

⚠ WARNING

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

Auxiliary DC jack

EAU15404



1. Auxiliary DC jack
2. Dust cap

ECA13071

NOTICE

The accessories connected to the auxiliary DC jack should not be used with the engine turned off, and their combined load must never exceed 6 A or 72 W, otherwise the battery may discharge.

The auxiliary DC jack is located on the front carrier.
12-V accessories connected to this jack can be used when the key is in the "ON" position and should only be used when the engine is running.

Refer to the following chart for correct usage.

Amperage chart

Idling speed	
Headlight/taillight "ON"	12 V, 3 A
Headlight/taillight "OFF"	12 V, 6 A

To use the auxiliary DC jack

1. Turn the key to "OFF".
2. Remove the dust cap from the receptacle.
3. Insert the accessory plug into the receptacle and secure it with the screw-on cap.
4. Turn the key to "ON", and then start the engine. (See page 6-1.)
5. When the auxiliary DC jack is not being used, make sure that the dust cap is installed onto the receptacle for protection.

EAU15599

Inspect your vehicle each time you use it to make sure the vehicle is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in the Owner's Manual.

EWA11152

⚠ WARNING

Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment damage. Do not operate the vehicle if you find any problem. If a problem cannot be corrected by the procedures provided in this manual, have the vehicle inspected by a Yamaha dealer.

Before using this vehicle, check the following points:

ITEM	CHECKS	PAGE
Fuel	• Check fuel level in fuel tank. • Refuel if necessary. • Check fuel line for leakage.	4-5
Engine oil	• Check oil level in engine. • If necessary, add recommended oil to specified level. • Check vehicle for oil leakage.	7-9
Front brake	• Check operation. • Lubricate cable if necessary. • Check lever free play. • Adjust if necessary.	7-18, 7-21
Rear brake	• Check operation. • Check pedal free play. • Adjust if necessary.	7-19, 7-21
Clutch	• Check operation. • Lubricate cable if necessary. • Check lever free play. • Adjust if necessary.	7-17
Throttle grip	• Make sure that operation is smooth. • Check throttle grip free play. • If necessary, have Yamaha dealer adjust throttle grip free play and lubricate cable and grip housing.	7-14, 7-24

For your safety – pre-operation checks

ITEM	CHECKS	PAGE
Control cables	• Make sure that operation is smooth. • Lubricate if necessary.	7-24
Drive chain	• Check chain slack. • Adjust if necessary. • Check chain condition. • Lubricate if necessary.	7-22, 7-24
Wheels and tires	• Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary.	7-15, 7-17
Shift pedal	• Make sure that operation is smooth. • Correct if necessary.	7-21
Brake pedal	• Make sure that operation is smooth. • Lubricate pedal pivoting point if necessary.	7-25
Brake and clutch levers	• Make sure that operation is smooth. • Lubricate lever pivoting points if necessary.	7-25
Sidestands	• Make sure that operation is smooth. • Lubricate pivot if necessary.	7-25
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.	—

EAU15952

Read the Owner's Manual carefully to become familiar with all controls. If there is a control or function you do not understand, ask your Yamaha dealer.

EWA10272

⚠ WARNING

Failure to familiarize yourself with the controls can lead to loss of control, which could cause an accident or injury.

EAU52371

Starting and warming up a cold engine

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

- The transmission is in the neutral position.
- The transmission is in gear with the clutch lever pulled.
  See page 4-10 for more information.

1. Turn the fuel cock lever to "ON".
2. Turn the key to "ON" and make sure that the engine stop switch is set to "○".
3. Shift the transmission into the neutral position. The neutral indicator light should come on. If not, ask a Yamaha dealer to check the electrical circuit.
4. Turn the starter (choke) on and completely close the throttle. (See page 4-7.)
5. Start the engine by pushing the start switch or by pushing the kick-starter lever down.
   If the engine fails to start by pushing the start switch, release the 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. If the engine does not start with the starter motor, try using the kick-starter.
6. After starting the engine, move the starter (choke) back halfway.
7. When the engine is warm, turn the starter (choke) off.

TIP

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

ECA11043

NOTICE

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

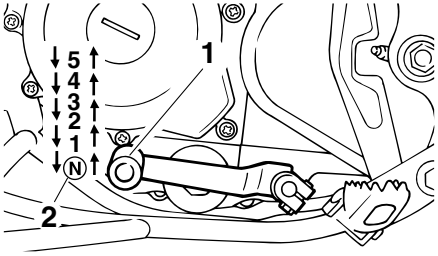
EAU16641

Starting a warm engine

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

EAUE0953

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.

TIP

To shift the transmission into the neutral position (**N**), press the shift pedal down repeatedly until it reaches the end of its travel.

ECA10262

NOTICE

- **When shifting, press the shift pedal firmly until you feel the gear shift is complete.**
- **Even with the transmission in the neutral position, do not coast for long periods of time with the engine off, nor 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.**

EAU16801

Tips for reducing fuel consumption

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

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

EAU16842

Engine break-in

There is never a more important period in the life of your engine than the period between 0 and 1600 km (1000 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 1600 km (1000 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.

EAU17064

0–1000 km (0–600 mi)

Avoid prolonged operation above 1/3 throttle. ***NOTICE:*** **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. If any engine trouble should occur during the engine break-in period, immediately have a Yamaha dealer check the vehicle.**[ECA10363]

1000–1600 km (600–1000 mi)

Avoid prolonged operation above 1/2 throttle.

1600 km (1000 mi) and beyond

The vehicle can now be operated normally.

EAU17172

Parking

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

EWA10312

⚠ 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 and be burned.**
- **Do not park on a slope or on soft ground, otherwise the vehicle may overturn, increasing the risk of a fuel leak and fire.**
- **Do not park near grass or other flammable materials which might catch fire.**

EAU17246

Periodic inspection, adjustment, and lubrication will keep your vehicle in the safest and most efficient condition possible. Safety is an obligation of the vehicle owner/operator. The most important points of vehicle inspection, adjustment, and lubrication are explained on the following pages.

The intervals given in the periodic maintenance charts 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.

EWA10322

⚠ WARNING

Failure to properly maintain the vehicle or performing maintenance activities incorrectly may increase your risk of injury or death during service or while using the vehicle. If you are not familiar with vehicle service, have a Yamaha dealer perform service.

EWA15123

⚠ WARNING

Turn off the engine when performing maintenance unless otherwise specified.

- **A running engine has moving parts that can catch on body parts or clothing and electrical parts that can cause shocks or fires.**
- **Running the engine while servicing can lead to eye injury, burns, fire, or carbon monoxide poisoning – possibly leading to death. See page 2-2 for more information about carbon monoxide.**

EWA15461

⚠ WARNING

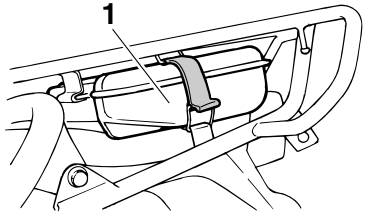
Brake discs, calipers, drums, and linings can become very hot during use. To avoid possible burns, let brake components cool before touching them.

EAU17303

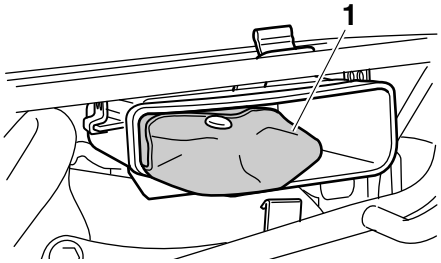
Emission controls not only function to ensure cleaner air, but are also vital to proper engine operation and maximum performance. In the following periodic maintenance charts, the services related to emissions control are grouped separately. These services require specialized data, knowledge, and equipment. Maintenance, replacement, or repair of the emission control devices and systems may be performed by any repair establishment or individual that is certified (if applicable). Yamaha dealers are trained and equipped to perform these particular services.

Owner's tool kit

EAU35012



1. Tool box



1. Owner's tool kit

The owner's tool kit is located inside the tool box.
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.

TIP

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

EAU46872

TIP

- **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.

EAU46921

Periodic maintenance chart for the emission control system

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	*	**Carburetor**	• Check starter (choke) operation. • Adjust engine idling speed.	√	√	√	√	√	√

7

EAU1771A

General maintenance and lubrication chart

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		Air filter element	• Clean. • Replace if necessary.		√	√	√	√	
2		Clutch	• Check operation. • Adjust.	√	√	√	√	√	
3	*	Front brake	• Check operation and adjust brake lever free play.	√	√	√	√	√	√
			• Replace brake shoes.	Whenever worn to the limit					
4	*	Rear brake	• Check operation and adjust brake pedal free play.	√	√	√	√	√	√
			• Replace brake shoes.	Whenever worn to the limit					
5	*	Wheels	• Check runout, spoke tightness and for damage. • Tighten spokes if necessary.	√	√	√	√	√	
6	*	Tires	• Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary.		√	√	√	√	√
7	*	Wheel bearings	• Check bearings for looseness or damage.		√	√	√	√	
8	*	Swingarm	• Check operation and for excessive play.		√	√	√	√	
			• Lubricate with molybdenum disulfide grease.	Every 24000 km (14000 mi)					
9		Drive chain	• Check chain slack, alignment and condition. • Adjust and thoroughly lubricate chain with engine oil.	Every 500 km (300 mi) and after washing the motorcycle, riding in the rain or riding in wet areas					

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)	
10	*	**Steering bearings**	• Check bearing play and steering for roughness.	√	√	√	√	√	
			• Lubricate with lithium-soap-based grease.	Every 24000 km (14000 mi)					
11	*	**Chassis fasteners**	• Make sure that all nuts, bolts and screws are properly tightened.		√	√	√	√	√
12		**Brake lever pivot shaft**	• Lubricate with lithium-soap-based grease.		√	√	√	√	√
13		**Brake pedal pivot shaft**	• Lubricate with lithium-soap-based grease.		√	√	√	√	√
14		**Clutch lever pivot shaft**	• Lubricate with lithium-soap-based grease.		√	√	√	√	√
15		**Sidestands**	• Check operation. • Lubricate.		√	√	√	√	√
16	*	**Front fork**	• Check operation and for oil leakage.		√	√	√	√	
17	*	**Shock absorber assembly**	• Check operation and shock absorber for oil leakage.		√	√	√	√	
18		**Engine oil**	• Change. • Check oil level and vehicle for oil leakage.	√	√	√	√	√	√
19		**Engine oil filter element**	• Clean.	√		√		√	
20	*	**Engine oil strainer**	• Clean.	√					
21	*	**Front and rear brake switches**	• Check operation.	√	√	√	√	√	√
22		**Moving parts and cables**	• Lubricate.		√	√	√	√	√

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)	
23	*	**Throttle grip**	• Check operation. • Check throttle grip free play, and adjust if necessary. • Lubricate cable and grip housing.		√	√	√	√	√
24	*	**Lights, signals and switches**	• Check operation. • Adjust headlight beam.	√	√	√	√	√	√

EAU18691

TIP

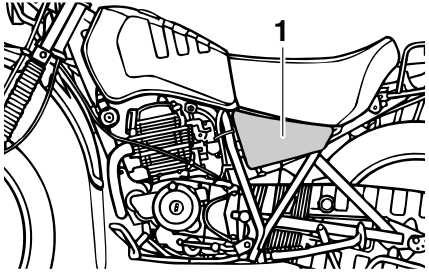
The air filter needs more frequent service if you are riding in unusually wet or dusty areas.

7

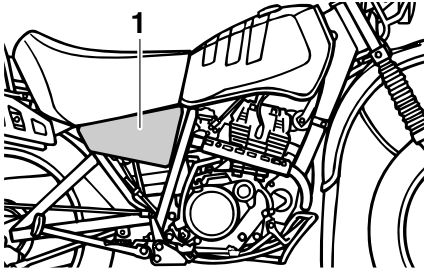
EAU18773

Removing and installing panels

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



1. Panel A



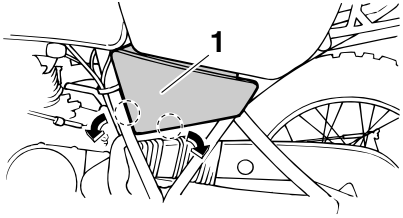
1. Panel B

EAU19303

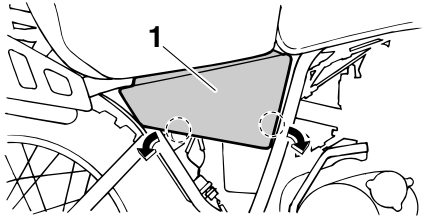
Panels A and B

To remove a panel

Pull the panel off as shown.



1. Panel A



1. Panel B

To install a panel

Place the panel in the original position.

7

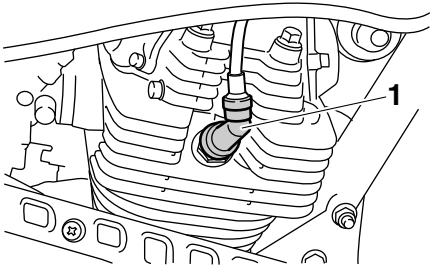
EAU19607

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.

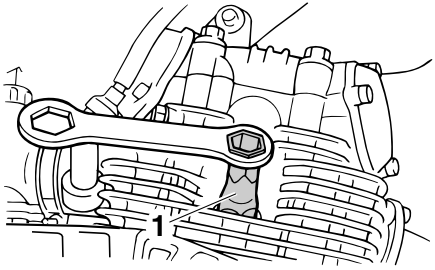
To remove the spark plug

1. Remove the spark plug cap.



1. Spark plug cap

2. 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).

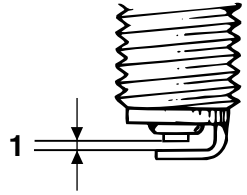
TIP

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/DR8EA
DENSO/X24ESR-U

3. 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:
0.6–0.7 mm (0.024–0.028 in)

To install the spark plug

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

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

Tightening torque:
Spark plug:
18 N·m (1.8 kgf·m, 13 lb·ft)

TIP

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.

3. Install the spark plug cap.

EAU19797

Engine oil and oil filter element

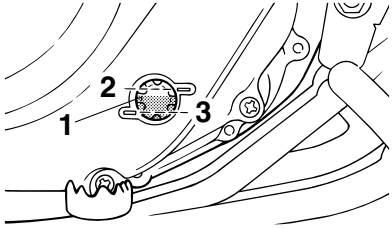
The engine oil level should be checked before each ride. In addition, the oil must be changed and the oil filter element cleaned at the intervals specified in the periodic maintenance and lubrication chart.

To check the engine oil level

1. Place the vehicle on a level surface and hold it in an upright position. A slight tilt to the side can result in a false reading.
2. Start the engine, warm it up for several minutes, and then turn it off.
3. Wait a few minutes until the oil settles, and then check the oil level through the check window located at the bottom-right side of the crankcase.

TIP

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



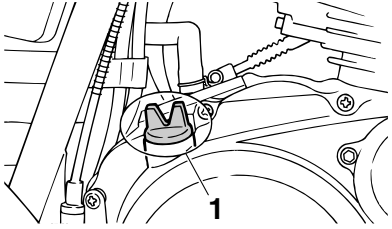
1. Engine oil level check window
2. Maximum level mark
3. Minimum level mark

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.

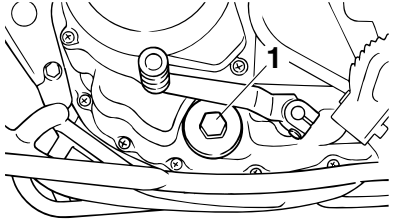
To change the engine oil (with or without oil filter element cleaning)

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

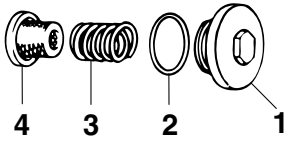
removing the engine oil drain bolt, the O-ring, compression spring, and oil strainer will fall out. Take care not to lose these parts.[ECA11002]



1. Engine oil filler cap



1. Engine oil drain bolt

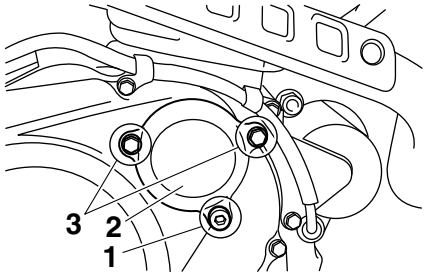


1. Engine oil drain bolt
2. O-ring
3. Compression spring
4. Oil strainer

TIP

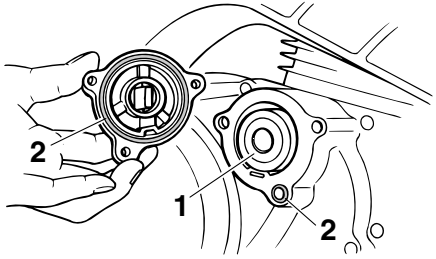
Skip steps 4–9 if the oil filter element is not being cleaned.

4. Remove the oil filter element drain bolt to drain the oil from the oil filter element.



1. Oil filter element drain bolt
2. Oil filter element cover
3. Oil filter element cover bolt

5. Remove the oil filter element cover by removing the bolts.
6. Remove the oil filter element and O-rings.



1. Oil filter element
2. O-ring

7. Check the O-rings for damage and replace them if necessary.
8. Clean the oil filter element with solvent, and then install it.

TIP

Check the oil filter element for damage and replace it if necessary.

9. Install the oil filter element cover by installing the bolts and the drain bolt, then tightening them to the specified torques.

Tightening torques:
Oil filter element cover bolt:
10 N·m (1.0 kgf·m, 7.2 lb·ft)
Oil filter element drain bolt:
10 N·m (1.0 kgf·m, 7.2 lb·ft)

TIP

Make sure that the O-rings are properly seated.

10. Clean the oil strainer with solvent, and then check it for damage and replace it if necessary.
11. Install the oil strainer, compression spring, a new O-ring and engine oil drain bolt, and then tighten the drain bolt to the specified torque.

Tightening torque:
Engine oil drain bolt:
43 N·m (4.3 kgf·m, 31 lb·ft)

12. Refill with the specified amount of the recommended engine oil, and then install and tighten the oil filler cap.

Recommended engine oil:
See page 9-1.
Oil quantity:
Oil change:
1.00 L (1.06 US qt, 0.88 Imp.qt)
With oil filter removal:
1.10 L (1.16 US qt, 0.97 Imp.qt)

TIP

Be sure to wipe off spilled oil on any parts after the engine and exhaust system have cooled down.

ECA11621

NOTICE

- **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.**

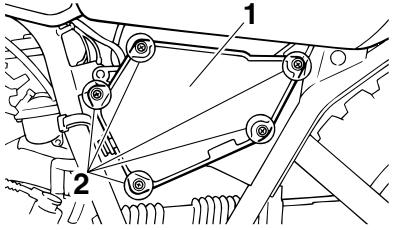
13. Start the engine, and then let it idle for several minutes while checking it for oil leakage. If oil is leaking, immediately turn the engine off and check for the cause.
14. Turn the engine off, and then check the oil level and correct it if necessary.

EAU20864

Cleaning the air filter element

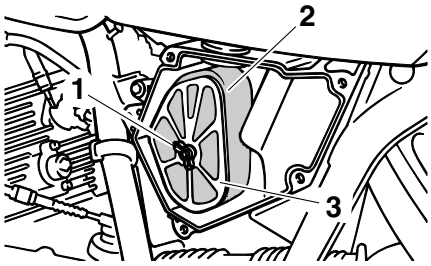
The air filter element should be cleaned at the intervals specified in the periodic maintenance and lubrication chart. Clean the air filter element more frequently if you are riding in unusually wet or dusty areas.

1. Remove panel A. (See page 7-7.)
2. Remove the air filter case cover by removing the screws.



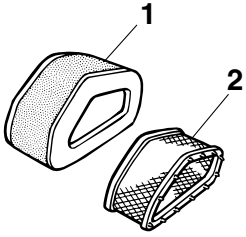
1. Air filter case cover
2. Screw

3. Remove the wing bolt and the air filter element plate, and then pull the air filter element out of the air filter case.



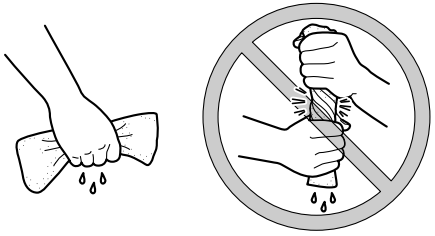
1. Wing bolt
2. Air filter element
3. Air filter element plate

4. Remove the sponge material from the air filter element frame.



1. Sponge material
2. Air filter element frame

5. Clean the sponge material with solvent, and then squeeze the remaining solvent out.



6. Apply oil of the recommended type to the entire surface of the sponge material, and then squeeze the excess oil out.

TIP

The sponge material should be wet but not dripping.

Recommended oil:
Foam air filter oil

7. Install the sponge material onto the air filter element frame.
8. Insert the air filter element into the air filter case.
9. Install the air filter element plate, and then tighten the wing bolt.

NOTICE: **Make sure that the air filter element is properly seated in the air filter case. The engine should never be operated without the air filter element installed, otherwise the piston(s) and/or cylinder(s) may become excessively worn.**[ECA10482]

10. Install the air filter case cover by installing the screws.
11. Install the panel.

EAU21281

Adjusting the carburetor

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

ECA10551

NOTICE

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

EAU21341

Adjusting the engine idling speed

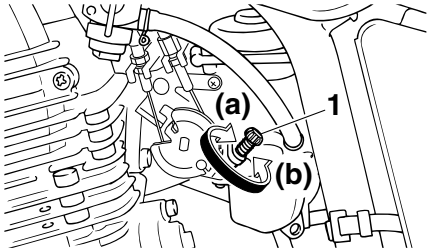
The engine idling speed must be checked and, if necessary, adjusted as follows at the intervals specified in the periodic maintenance and lubrication chart.

The engine should be warm before making this adjustment.

TIP

- The engine is warm when it quickly responds to the throttle.
- A diagnostic tachometer is needed to make this adjustment.

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



1. Throttle stop screw

Engine idling speed:
1300–1400 r/min

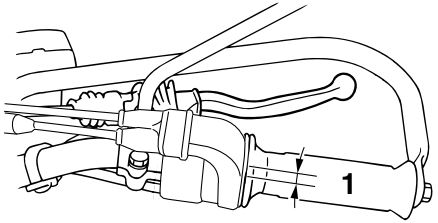
TIP

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

EAU21386

Checking the throttle grip free play

Measure the throttle grip free play as shown.



1. Throttle grip free play

Throttle grip free play:
3.0–5.0 mm (0.12–0.20 in)

Periodically check the throttle grip free play and, if necessary, have a Yamaha dealer adjust it.

EAU21402

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.

EAU64911

Tires

Tires are the only contact between the vehicle and the road. Safety in all conditions of riding depends on a relatively small area of road contact. Therefore, it is essential to maintain the tires in good condition at all times and replace them at the appropriate time with the specified tires.

Tire air pressure

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

EWA10442

⚠ WARNING

Operation of this vehicle with improper tire pressure may cause severe injury or death from loss of control.

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

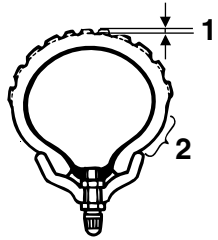
Tire air pressure (measured on cold tires):
Front:
125 kPa (1.25 kgf/cm^2, 18 psi)
Rear:
150 kPa (1.50 kgf/cm^2, 22 psi)

EWA10512

⚠ WARNING

Never overload your vehicle. Operation of an overloaded vehicle could cause an accident.

Tire inspection



1. Tire tread depth
2. Tire sidewall

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):
1.5 mm (0.06 in)

TIP

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

7

Tire information

This model is equipped with tube tires. Tires age, even if they have not been used or have only been used occasionally. Cracking of the tread and sidewall rubber, sometimes accompanied by carcass deformation, is an evidence of ageing. Old and aged tires shall be checked by tire specialists to ascertain their suitability for further use.

EWA10462

⚠ WARNING

The front and rear tires should be of the same make and design, otherwise the handling characteristics of the vehicle may be different, which could lead to an accident.

After extensive tests, only the tires listed below have been approved for this model by Yamaha.

Front tire:
Size:
80/100-21 51M
Manufacturer/model:
IRC/VE-32
Rear tire:
Size:
4.10-18 59M
Manufacturer/model:
IRC/FARM SPECIAL-Z2

EWA10572

⚠ WARNING

- **Have a Yamaha dealer replace excessively worn tires. Besides being illegal, operating the motorcycle with excessively worn tires decreases riding stability and can lead to loss of control.**
- **The replacement of all wheel- and brake-related parts, including the tires, should be left to a Yamaha dealer, who has the necessary professional knowledge and experience.**
- **It is not recommended to patch a punctured tube. If unavoidable, however, patch the tube very carefully and replace it as soon as possible with a high-quality product.**
- **Ride at moderate speeds after changing a tire since the tire surface must first be "broken in" for it to develop its optimal characteristics.**

EAU21944

Spoke wheels

EWA10611

⚠ WARNING

The wheels on this model are not designed for use with tubeless tires. Do not attempt to use tubeless tires on this model.

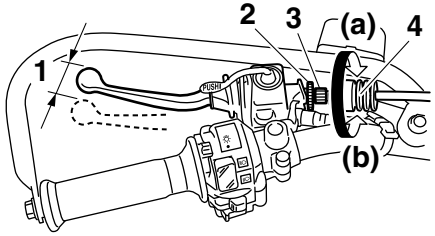
To maximize the performance, durability, and safe operation of your motorcycle, note the following points regarding the specified wheels.

- The wheel rims should be checked for cracks, bends, warpage or other damage, and the spokes for looseness or damage 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.

EAU22047

Adjusting the clutch lever free play

Measure the clutch lever free play as shown.



1. Clutch lever free play
2. Locknut (clutch lever)
3. Clutch lever free play adjusting bolt
4. Rubber cover

Clutch lever free play:
10.0–15.0 mm (0.39–0.59 in)

Periodically check the clutch lever free play and, if necessary, adjust it as follows.

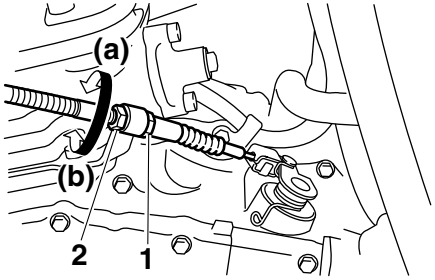
1. Slide the rubber cover back at the clutch lever.
2. Loosen the locknut.
3. To increase the clutch lever free

play, turn the clutch lever free play adjusting bolt in direction (a). To decrease the clutch lever free play, turn the adjusting bolt in direction (b).

TIP

If the specified clutch lever free play could be obtained as described above, skip steps 4–7.

4. Fully turn the adjusting bolt at the clutch lever in direction (a) to loosen the clutch cable.
5. Loosen the locknut at the crankcase.



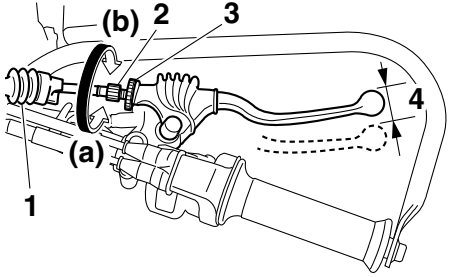
1. Locknut (crankcase)
2. Clutch lever free play adjusting nut

6. To increase the clutch lever free play, turn the clutch lever free play adjusting nut in direction (a). To decrease the clutch lever free play, turn the adjusting nut in direction (b).
7. Tighten the locknut at the crankcase.
8. Tighten the locknut at the clutch lever and then slide the rubber cover to its original position.

EAU49304

Adjusting the brake lever free play

Measure the brake lever free play as shown.



1. Rubber cover
2. Brake lever free play adjusting bolt
3. Locknut
4. Brake lever free play

Brake lever free play:
10.0–20.0 mm (0.39–0.79 in)

Periodically check the brake lever free play and, if necessary, adjust it as follows.

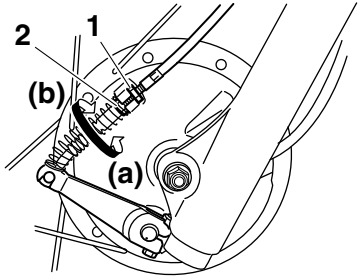
1. Slide the rubber cover back.
2. Loosen the locknut at the brake lever.
3. To increase the brake lever free

play, turn the brake lever free play adjusting bolt in direction (a). To decrease the brake lever free play, turn the adjusting bolt in direction (b).

TIP

If the specified brake lever free play could be obtained as described above, skip steps 4–7.

4. Fully turn the adjusting bolt at the brake lever in direction (a) to loosen the brake cable.
5. Loosen the locknut at the brake shoe plate.
6. To increase the brake lever free play, turn the brake lever free play adjusting nut at the brake shoe plate in direction (a). To decrease the brake lever free play, turn the adjusting nut in direction (b).



1. Brake lever free play adjusting nut
2. Locknut

7. Tighten the locknut at the brake shoe plate.
8. Tighten the locknut at the brake lever and then slide the rubber cover back to its original position.

EAU22199

Adjusting the brake pedal height and free play

EWA10671

⚠ WARNING

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

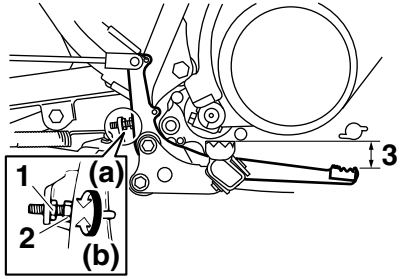
Brake pedal height

The top of the brake pedal should be positioned at the specified distance below the top of the footrest as shown.

Brake pedal height:
10.0 mm (0.39 in)

Periodically check the brake pedal height and, if necessary, adjust it as follows.

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



1. Brake pedal height locknut
2. Brake pedal height adjusting bolt
3. Brake pedal height

3. Tighten the locknut.

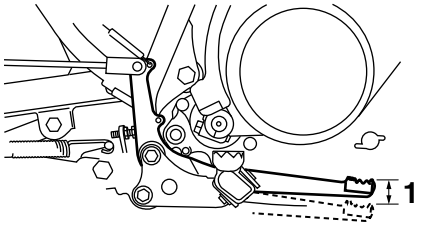
EWA11232

⚠ WARNING

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

7

Brake pedal free play

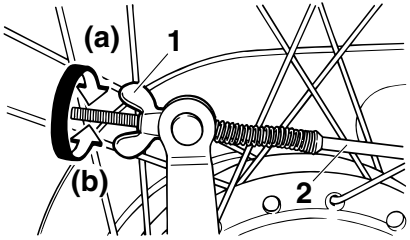


1. Brake pedal free play

Measure the brake pedal free play as shown.

Brake pedal free play:
20.0–30.0 mm (0.79–1.18 in)

Periodically check the brake pedal free play and, if necessary, adjust it as follows.
To increase the brake pedal free play, turn the brake pedal free play adjusting nut at the brake rod in direction (a). To decrease the brake pedal free play, turn the adjusting nut in direction (b).



1. Brake pedal free play adjusting nut
2. Brake rod

EWA10681

⚠ WARNING

- **After adjusting the drive chain slack or removing and installing the rear wheel, always check the brake pedal free play.**
- **If proper adjustment cannot be obtained as described, have a Yamaha dealer make this adjustment.**
- **After adjusting the brake pedal free play, check the operation of the brake light.**

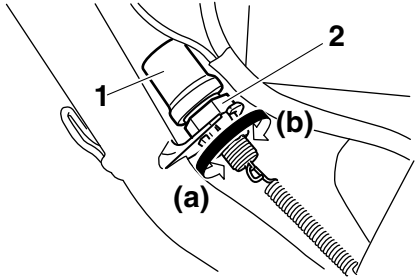
EAU44821

Checking the shift pedal

The operation of the shift pedal should be checked before each ride. If operation is not smooth, have a Yamaha dealer check the vehicle.

EAU22274

Brake light switches



1. Rear brake light switch
2. Adjusting nut

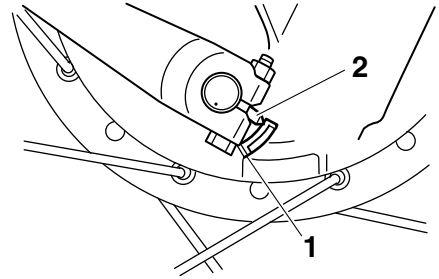
The brake light, which is activated by the brake pedal and brake lever, should come on just before braking takes effect. If necessary, adjust the rear brake light switch as follows, but the front brake light switch should be adjusted by a Yamaha dealer.

Turn the rear brake light switch adjusting nut while holding the rear brake light switch in place. To make the brake light come on earlier, turn the adjusting nut in direction (a). To make the brake light come on later, turn the adjusting nut in direction (b).

EAU22363

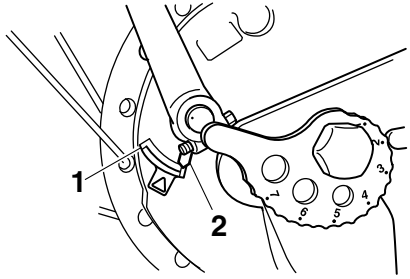
Checking the front and rear brake shoes

Front



1. Brake shoe wear limit line
2. Brake shoe wear indicator

Rear



1. Brake shoe wear limit line
2. Brake shoe wear indicator

7

The front and rear brake shoes must be checked for wear at the intervals specified in the periodic maintenance and lubrication chart. Each brake is provided with a wear indicator, which allows you to check the brake shoe wear without having to disassemble the brake. To check the brake shoe wear, check the position of the wear indicator while applying the brake. If a brake shoe has worn to the point that the wear indicator reaches the wear limit line, have a Yamaha dealer replace the brake shoes as a set.

EAU22762

Drive chain slack

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

EAU49264

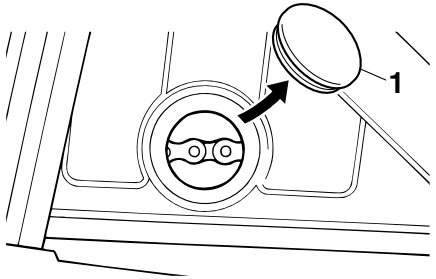
To check the drive chain slack

1. Place the motorcycle on the sidestand.

TIP

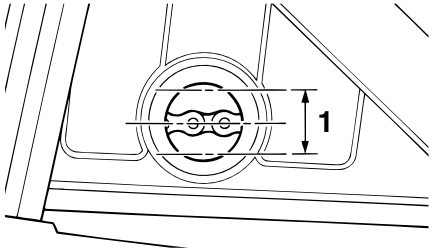
When checking and adjusting the drive chain slack, there should be no weight on the motorcycle.

2. Shift the transmission into the neutral position.
3. Remove the drive chain slack check hole cap.



1. Drive chain slack check hole cap

4. Measure the drive chain slack as shown.



1. Drive chain slack

Drive chain slack:
20.0–30.0 mm (0.79–1.18 in)

5. If the drive chain slack is correct,

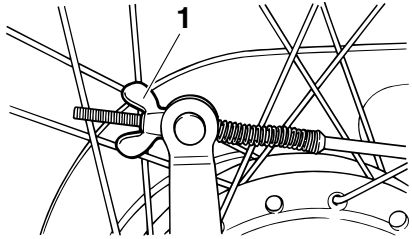
install the check hole cap. If the drive chain slack is incorrect, adjust it as follows. ***NOTICE:*** **Improper drive chain slack will overload the engine as well as other vital parts of the motorcycle and can lead to chain slippage or breakage. To prevent this from occurring, keep the drive chain slack within the specified limits.**[ECA10572]

EAU35028

To adjust the drive chain slack

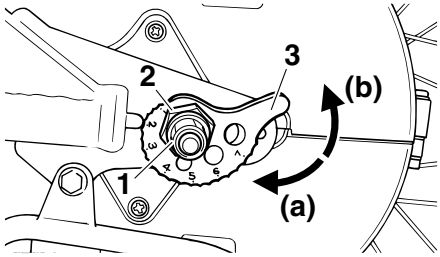
Consult a Yamaha dealer before adjusting the drive chain slack.

1. Loosen the brake pedal free play adjusting nut.



1. Brake pedal free play adjusting nut

2. Loosen the axle nut and the rear sprocket nut.



1. Axle nut
2. Rear sprocket nut
3. Drive chain slack adjusting plate

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

TIP

Make sure that both drive chain slack adjusting plates are in the same position for proper wheel alignment.

4. Tighten the rear sprocket nut and the axle nut to the specified torques.

Tightening torques:
Rear sprocket nut:
85 N·m (8.5 kgf·m, 61 lb·ft)
Axle nut:
85 N·m (8.5 kgf·m, 61 lb·ft)

5. Adjust the brake pedal free play. (See page 7-19.)

EWA10661

⚠ WARNING

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

6. Make sure that the drive chain slack adjusting plates are in the same position, the drive chain slack is correct, and the drive chain moves smoothly.
7. Install the drive chain slack check hole cap.

EAU23018

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.

ECA10584

NOTICE

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

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

TIP

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

2. Spray Yamaha chain lubricant or other suitable chain lubricant on the entire chain, making sure that all side plates and rollers have been sufficiently oiled.

EAU23098

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. **WARNING! Damage to the outer housing of cables may result in internal rusting and cause interference with cable movement. Replace damaged cables as soon as possible to prevent unsafe conditions.**[EWA10712]

Recommended lubricant:
Yamaha cable lubricant or other suitable cable lubricant

EAU23115

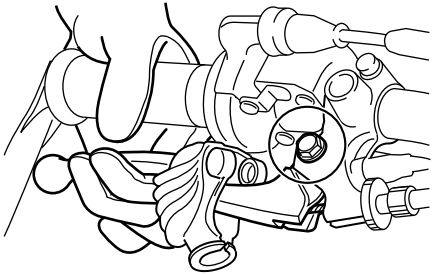
Checking and lubricating the throttle grip and cable

The operation of the throttle grip should be checked before each ride. In addition, the cable should be lubricated by a Yamaha dealer at the intervals specified in the periodic maintenance chart.
The throttle cable is equipped with a rubber cover. Make sure that the cover is securely installed. Even though the cover is installed correctly, it does not completely protect the cable from water entry. Therefore, use care not to pour water directly onto the cover or cable when washing the vehicle. If the cable or cover becomes dirty, wipe clean with a moist cloth.

EAU43612

Checking and lubricating the brake and clutch levers

Brake lever



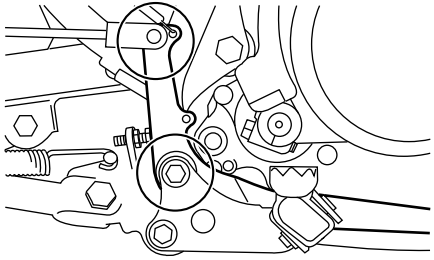
The operation of the brake and clutch levers should be checked before each ride, and the lever pivots should be lubricated if necessary.

Recommended lubricant:
Lithium-soap-based grease

EAU23185

Checking and lubricating the brake pedal

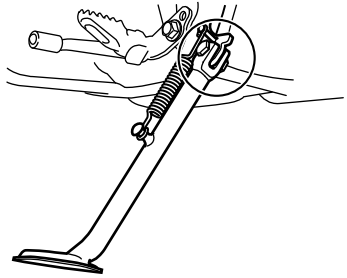
The operation of the brake pedal should be checked before each ride, and the pedal pivot should be lubricated if necessary.



Recommended lubricant:
Lithium-soap-based grease

EAU49251

Checking and lubricating the sidestands



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

EWA10732

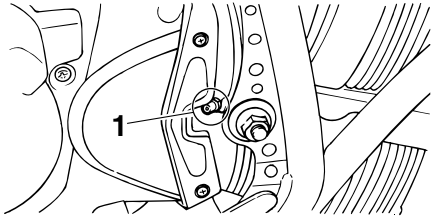
⚠ WARNING

If the sidestand does not move up and down smoothly, have a Yamaha dealer check or repair it. Otherwise, the sidestand could contact the ground and distract the operator, resulting in a possible loss of control.

Recommended lubricant:
Lithium-soap-based grease

EAU85250

Lubricating the rear suspension



1. Grease nipple

The pivoting points of the rear suspension must be lubricated by a Yamaha dealer at the intervals specified in the periodic maintenance and lubrication chart.

Recommended lubricant:
Molybdenum disulfide grease

EAU51951

Checking the front fork

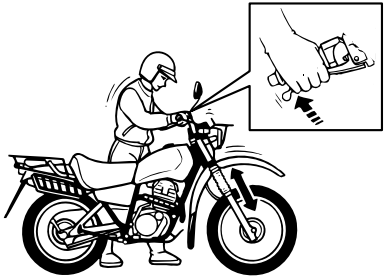
The condition and operation of the front fork must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

To check the condition

Check the front fork for damage and excessive oil leakage.

To check the operation

1. Place the vehicle on a level surface and hold it in an upright position. **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.**[EWA10752]
2. While applying the front brake, push down hard on the handlebars several times to check if the front fork compresses and rebounds smoothly.



ECA10591

NOTICE

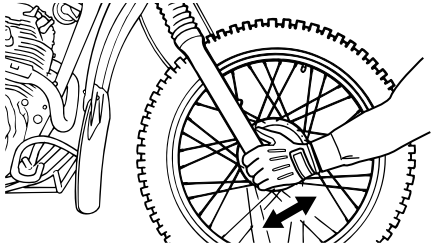
If any damage is found or the front fork does not operate smoothly, have a Yamaha dealer check or repair it.

EAU23285

Checking the steering

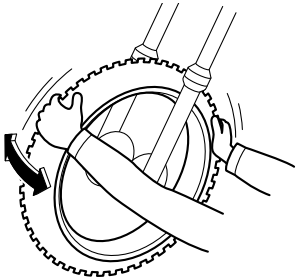
Worn or loose steering bearings may cause danger. Therefore, the operation of the steering must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

1. Raise the front wheel off the ground. (See page 7-32.) **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.**[EWA10752]
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.



EAU23292

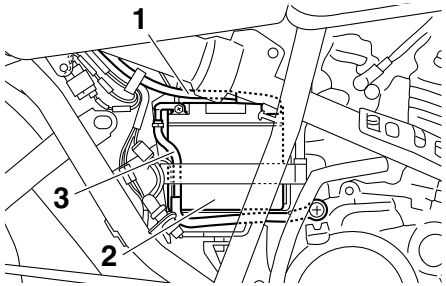
Checking the wheel bearings



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.

EAU23389

Battery



1. Positive battery lead (red)
2. Battery
3. Negative battery lead (black)

The battery is located behind panel B. (See page 7-7.)

This model is equipped with a VRLA (Valve Regulated Lead Acid) battery. There is no need to check the electrolyte or to add distilled water. However, the battery lead connections need to be checked and, if necessary, tightened.

EWA10761

⚠ WARNING

- **Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe burns. Avoid any contact with**

7

skin, eyes or clothing and always shield your eyes when working near batteries. In case of contact, administer the following FIRST AID.
- **EXTERNAL: Flush with plenty of water.**
- **INTERNAL: Drink large quantities of water or milk and immediately call a physician.**
- **EYES: Flush with water for 15 minutes and seek prompt medical attention.**

- **Batteries produce explosive hydrogen gas. Therefore, keep sparks, flames, cigarettes, etc., away from the battery and provide sufficient ventilation when charging it in an enclosed space.**
- **KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.**

ECA10621

NOTICE

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

To charge the battery

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

ECA16522

NOTICE

To charge a VRLA (Valve Regulated Lead Acid) battery, a special (constant-voltage) battery charger is required. Using a conventional battery charger will damage the battery.

To store the battery

1. If the vehicle will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place. ***NOTICE:*** **When removing the battery, be sure the key is turned to "OFF", then disconnect the negative lead before disconnecting the positive lead.**[ECA16303]
2. If the battery will be stored for more than two months, check it at least once a month and fully charge it if necessary.
3. Fully charge the battery before installation. ***NOTICE:*** **When installing the battery, be sure the key is turned to "OFF", then connect the positive lead before connecting the negative lead.**[ECA16841]
4. After installation, make sure that the battery leads are properly connected to the battery terminals.

ECA16531

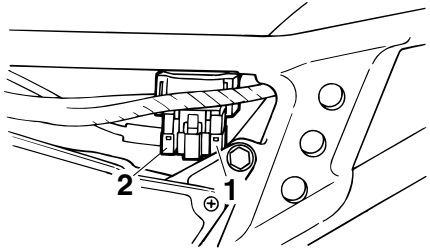
NOTICE

Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.

EAU23563

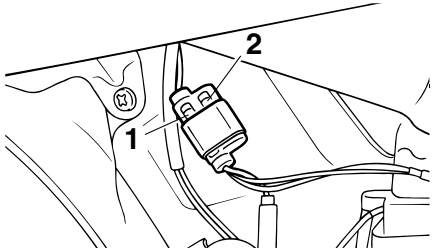
Replacing the fuses

The main fuse is located behind panel A. (See page 7-7.)



1. Main fuse
2. Spare main fuse

The auxiliary DC jack fuse is located behind panel B. (See page 7-7.)



1. Auxiliary DC jack fuse
2. Spare fuse

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. **WARNING! 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.**[EWA15132]

Specified fuses:
Main fuse:
20.0 A
Auxiliary DC jack fuse:
10.0 A

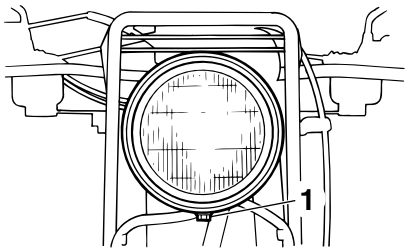
3. Turn the key to "ON" and turn on the electrical circuit in question to check if the device operates.
4. If the fuse immediately blows again, have a Yamaha dealer check the electrical system.

EAU24015

Replacing the headlight bulb

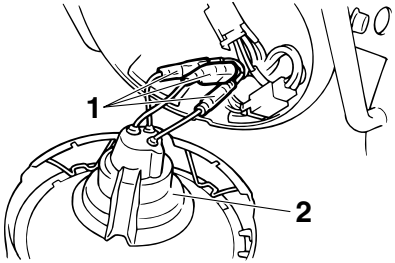
If the headlight bulb burns out, replace it as follows.

1. Remove the headlight unit by removing the bolt.



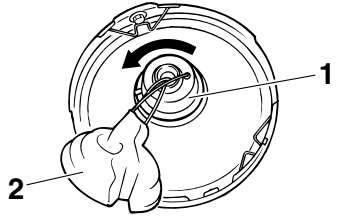
1. Bolt

2. Disconnect the headlight lead connectors, and then remove the headlight bulb cover.



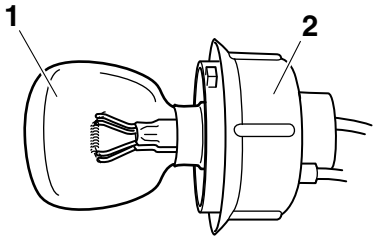
1. Headlight lead connector
2. Headlight bulb cover

3. Remove the headlight bulb holder by turning it counterclockwise.



1. Headlight bulb holder
2. Headlight bulb cover

4. Remove the burnt-out bulb by turning it counterclockwise.
5. Place a new bulb into position, and then secure it with the headlight bulb holder.



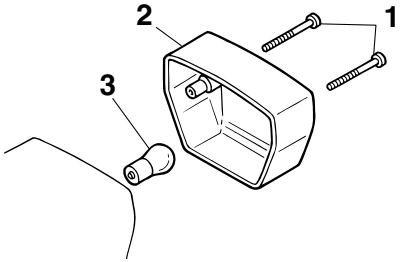
1. Headlight bulb
2. Headlight bulb holder

6. Install the headlight bulb holder by turning it clockwise.
7. Install the bulb cover, and then connect the headlight lead connectors.
8. Install the headlight unit by installing the bolt.
9. Have a Yamaha dealer adjust the headlight beam if necessary.

EAU70550

Replacing the brake/tail light bulb

1. Remove the brake/tail light lens by removing the screws.



1. Screw
2. Brake/tail light lens
3. Brake/tail light bulb

2. Remove the burnt-out bulb by pushing it in and turning it counterclockwise.
3. Insert a new bulb into the socket, push it in, and then turn it clockwise until it stops.
4. Install the lens by installing the screws. ***NOTICE:*** **Do not overtighten the screws, otherwise the lens may break.**[ECA10682]

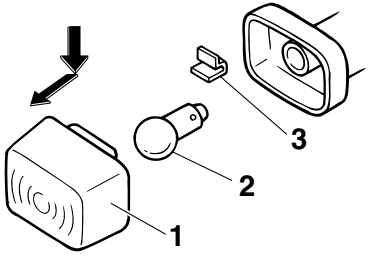
EAU24233

Replacing a turn signal light bulb

1. Remove the turn signal lens by pushing it down lightly, then pulling it outward.

TIP

The lens holder will fall out of the turn signal when removing the lens, so take care not to loose it.



1. Turn signal light lens
2. Turn signal light bulb
3. Lens holder

2. Remove the burnt-out 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 holder, and then place the lens in the original position.

EAU24351

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.

EAU24361

Front wheel

EAU56471

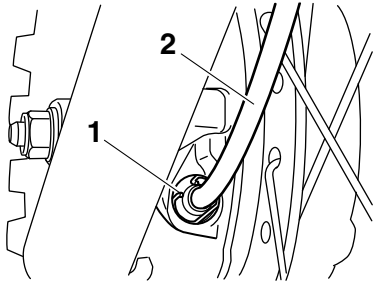
To remove the front wheel

EWA10822

⚠ WARNING

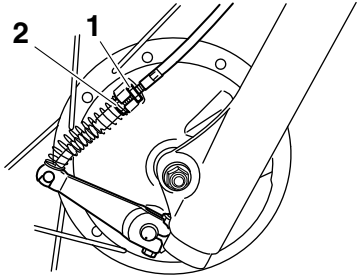
To avoid injury, securely support the vehicle so there is no danger of it falling over.

1. Disconnect the speedometer cable from the front wheel by removing the clip, then pulling the cable out.



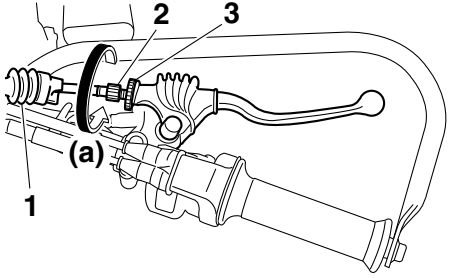
1. Clip
2. Speedometer cable

2. Loosen the locknut at the brake shoe plate and the brake lever free play adjusting nut.



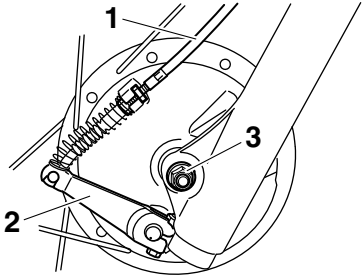
1. Brake lever free play adjusting nut
2. Locknut

3. Slide the rubber cover back.
4. Loosen the locknut at the brake lever, and then fully turn the brake lever free play adjusting bolt in direction (a).



1. Rubber cover
2. Brake lever free play adjusting bolt
3. Locknut

5. Disconnect the brake cable from the front brake lever, then from the brake camshaft lever.

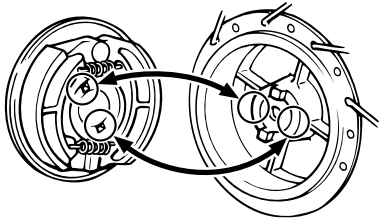


1. Brake cable
2. Brake camshaft lever
3. Axle nut

6. Loosen the axle nut.
7. Lift the front wheel off the ground according to the procedure in the previous section “Supporting the motorcycle”.
8. Remove the axle nut, pull the wheel axle out, and then remove the wheel.

To install the front wheel

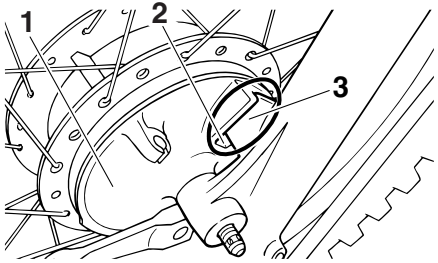
1. Install the brake shoe plate into the wheel hub as shown.



2. Lift the wheel up between the fork legs.

TIP

Make sure that the slot in the brake shoe plate fits over the retainer on the fork leg.



1. Brake shoe plate
2. Slot
3. Retainer

3. Insert the wheel axle from the right side, and then install the axle nut.
4. Lower the front wheel so that it is on the ground.
5. Connect the brake cable at the brake shoe plate and then at the handlebar lever holder.
6. Connect the speedometer cable and install the clip.
7. Tighten the axle nut to the specified torque.

Tightening torque:
Axle nut:
39 N·m (3.9 kgf·m, 28 lb·ft)

8. Adjust the brake lever free play. (See page 7-18.)
9. Slide the rubber cover back to its original position.

EAU25081

Rear wheel

EAU56772

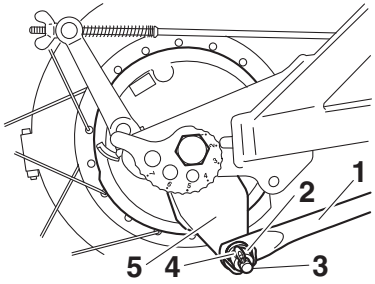
To remove the rear wheel

EWA10822

⚠ WARNING

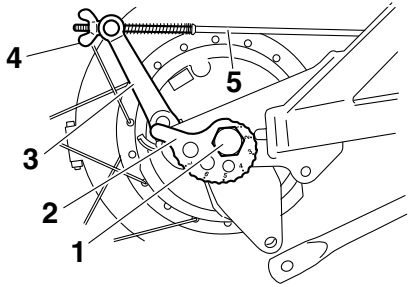
To avoid injury, securely support the vehicle so there is no danger of it falling over.

1. Disconnect the brake torque rod from the brake shoe plate by removing the cotter pin, the nut, and the bolt.



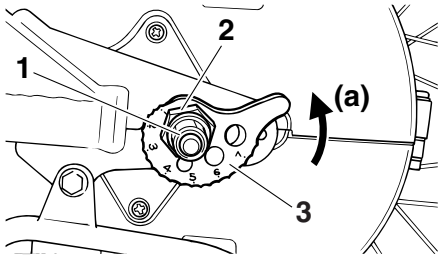
1. Brake torque rod
2. Nut
3. Bolt
4. Cotter pin
5. Brake shoe plate

2. Remove the brake pedal free play adjusting nut, and then disconnect the brake rod from the brake camshaft lever.



1. Wheel axle
2. Drive chain slack adjusting plate
3. Brake camshaft lever
4. Brake pedal free play adjusting nut
5. Brake rod

3. Loosen the axle nut and the rear sprocket nut.



1. Axle nut
2. Rear sprocket nut
3. Drive chain slack adjusting plate

4. Lift the rear wheel off the ground according to the procedure on page 7-32.
5. Turn the drive chain slack adjusting plate on each side of the swingarm fully in direction (a).
6. Remove the axle nut.
7. Pull the wheel axle out together with the drive chain slack adjusting plate from the right side, and then remove the collar.
8. Slide the wheel to the right, and then remove it by pulling it back.

To install the rear wheel

1. Install the drive chain slack adjusting plate and the wheel by inserting the wheel axle from the right side.

TIP

Make sure that the drive chain slack adjusting plate is installed with the punched side facing to the outside.

2. Install the axle nut.
3. Install the brake rod onto the brake camshaft lever, and then install the brake pedal free play adjusting nut onto the brake rod.
4. Connect the brake torque rod to the brake shoe plate by installing the bolt and the nut, and then tighten the nut to the specified torque.

Tightening torque:
Brake torque rod nut:
19 N·m (1.9 kgf·m, 14 lb·ft)

5. Insert a new cotter pin. **WARNING! Always use a new cotter pin.** [EWA10832]
6. Check and adjust the drive chain slack. (See page 7-22.)
7. Check and adjust the brake pedal free play. (See page 7-19.)

EWA10661

⚠ WARNING

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

EAU25853

Troubleshooting

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

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

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

EWA15142

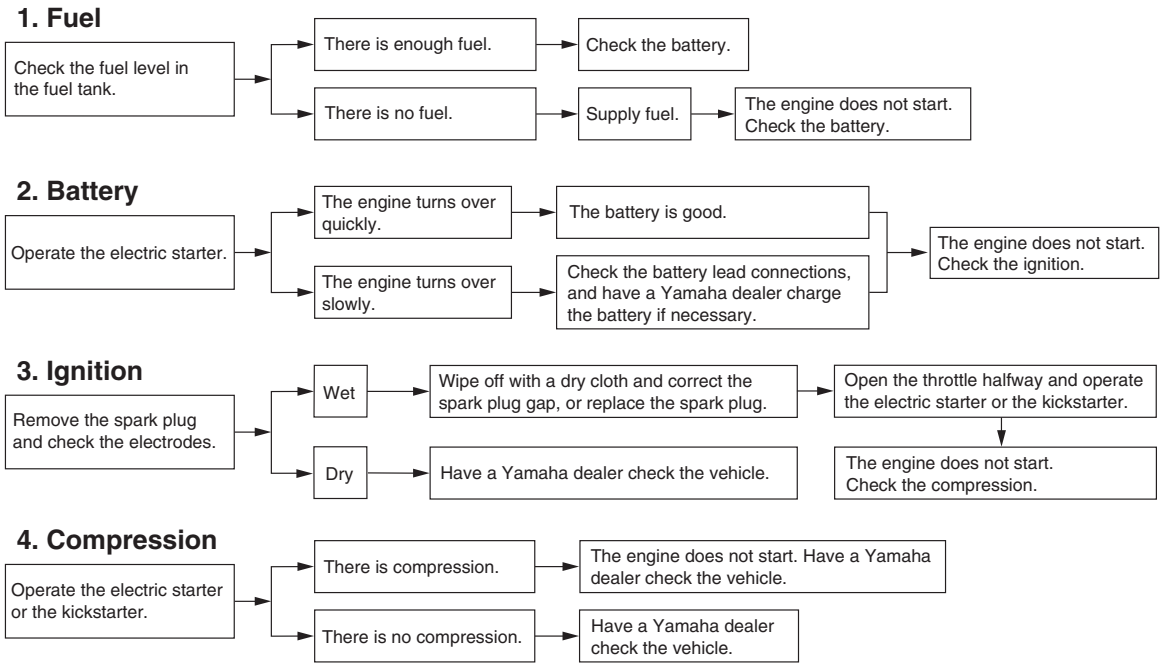
⚠ WARNING

When checking the fuel system, do not smoke, and make sure there are no open flames or sparks in the area, including pilot lights from water

heaters or furnaces. Gasoline or gasoline vapors can ignite or explode, causing severe injury or property damage.

EAU54872

Troubleshooting chart



7

EAU37834

Matte color caution

ECA15193

NOTICE

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.

EAU26005

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

ECA10773

NOTICE

- **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.) and the mufflers. Use only a soft, clean cloth or sponge with water to clean plastic. However, if the plastic parts cannot be thoroughly cleaned with water, diluted mild detergent with water may be used. Be sure to rinse**

off any detergent residue using plenty of water, as it is harmful to plastic parts.

- **Do not use any harsh chemical products on plastic parts. Be sure to avoid using cloths or sponges which have been in contact with strong or abrasive cleaning products, solvent or thinner, fuel (gasoline), rust removers or inhibitors, brake fluid, antifreeze or electrolyte.**
- **Do not use high-pressure washers or steam-jet cleaners since they cause water seepage and deterioration in the following areas: seals (of wheel and swingarm bearings, fork and brakes), electric components (couplers, connectors, instruments, switches and lights), breather hoses and vents.**
- **For motorcycles equipped with a windshield: Do not use strong cleaners or hard sponges as they will cause dulling or scratching. Some cleaning compounds for plastic may leave scratches on the windshield. Test the product on a small hidden part of the windshield to make sure that it does not leave any marks. If the windshield is scratched, use a quality plastic polishing compound after washing.**

After normal use

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

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

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

TIP

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. ***NOTICE:*** **Do not use warm water since it increases the corrosive action of the salt.**[ECA10792]
2. Apply a corrosion protection spray on all metal, including chrome- and nickel-plated, surfaces to prevent corrosion.

After cleaning

1. Dry the motorcycle with a chamois or an absorbing cloth.
2. Immediately dry the drive chain and lubricate it to prevent it from rusting.
3. Use a chrome polish to shine chrome, aluminum and stainless-steel parts, including the exhaust system. (Even the thermally induced discoloring of stainless-steel exhaust systems can be removed through polishing.)
4. To prevent corrosion, it is recommended to apply a corrosion protection spray on all metal,

including chrome- and nickel-plated, surfaces.
5. Use spray oil as a universal cleaner to remove any remaining dirt.
6. Touch up minor paint damage caused by stones, etc.
7. Wax all painted surfaces.
8. Let the motorcycle dry completely before storing or covering it.

EWA11132

⚠ WARNING

Contaminants on the brakes or tires can cause loss of control.

- **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.**

ECA10801

NOTICE

- **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.**

TIP

- Consult a Yamaha dealer for advice on what products to use.
- Washing, rainy weather or humid climates can cause the headlight lens to fog. Turning the headlight on for a short period of time will help remove the moisture from the lens.

EAU26153

Storage

Short-term

Always store your motorcycle in a cool, dry place and, if necessary, protect it against dust with a porous cover. Be sure the engine and the exhaust system are cool before covering the motorcycle.

ECA10811

NOTICE

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

Long-term

Before storing your motorcycle for several months:

1. Follow all the instructions in the "Care" section of this chapter.

2. For motorcycles equipped with a fuel cock that has an “OFF” position: Turn the fuel cock lever to “OFF”.
3. Drain the carburetor float chamber by loosening the drain bolt; this will prevent fuel deposits from building up. Pour the drained fuel into the fuel tank.
4. Fill up the fuel tank and add fuel stabilizer (if available) to prevent the fuel tank from rusting and the fuel from deteriorating.
5. Perform the following steps to protect the cylinder, piston rings, etc. from corrosion.
   a. Remove the spark plug cap and spark plug.
   b. Pour a teaspoonful of engine oil into the spark plug bore.
   c. Install the spark plug cap onto the spark plug, and then place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
   d. Turn the engine over several times with the starter. (This will coat the cylinder wall with oil.)

      WARNING! To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.[EWA10952]
   e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap.
6. Lubricate all control cables and the pivoting points of all levers and pedals as well as of the sidestand/centerstand.
7. Check and, if necessary, correct the tire air pressure, and then lift the motorcycle so that both of its wheels are off the ground. Alternatively, turn the wheels a little every month in order to prevent the tires from becoming degraded in one spot.
8. Cover the muffler outlet with a plastic bag to prevent moisture from entering it.
9. Remove the battery and fully charge it. Store it in a cool, dry place and charge it once a month. Do not store the battery in an excessively cold or warm place [less than 0 °C (30 °F) or more than 30 °C (90 °F)]. For more information on storing the battery, see page 7-27.

TIP

Make any necessary repairs before storing the motorcycle.

Dimensions:
- Overall length:
  - 2160 mm (85.0 in)
- Overall width:
  - 930 mm (36.6 in)
- Overall height:
  - 1155 mm (45.5 in)
- Seat height:
  - 830 mm (32.7 in)
- Wheelbase:
  - 1345 mm (53.0 in)
- Ground clearance:
  - 255 mm (10.04 in)
- Minimum turning radius:
  - 2.0 m (6.56 ft)

Weight:
- Curb weight:
  - 128 kg (282 lb)

Engine:
- Combustion cycle:
  - 4-stroke
- Cooling system:
  - Air cooled
- Valve train:
  - SOHC
- Number of cylinders:
  - Single cylinder
- Displacement:
  - 196 cm^3
- Bore × stroke:
  - 67.0 × 55.7 mm (2.64 × 2.19 in)
- Compression ratio:
  - 9.5 : 1
- Starting system:
  - Electric starter and kickstarter
- Lubrication system:
  - Wet sump

Engine oil:
- Recommended brand:
  - YAMALUBE
- SAE viscosity grades:
  - 10W-40
- Recommended engine oil grade:
  - API service SG type or higher, JASO standard MA
- Engine oil quantity:
  - Oil change:
    - 1.00 L (1.06 US qt, 0.88 Imp.qt)
  - With oil filter removal:
    - 1.10 L (1.16 US qt, 0.97 Imp.qt)

Air filter:
- Air filter element:
  - Wet element

Fuel:
- Recommended fuel:
  - Regular unleaded gasoline (Gasohol [E10] acceptable)
- Fuel tank capacity:
  - 10 L (2.6 US gal, 2.2 Imp.gal)
- Fuel reserve amount:
  - 2.0 L (0.53 US gal, 0.44 Imp.gal)

Carburetor:
- Type × quantity:
  - BS26 × 1

Spark plug(s):
- Manufacturer/model:
  - NGK/DR8EA
  - DENSO/X24ESR-U
- Spark plug gap:
  - 0.6–0.7 mm (0.024–0.028 in)

Clutch:
- Clutch type:
  - Wet, multiple-disc

Drivetrain:
- Primary reduction ratio:
  - 3.700 (74/20)
- Final drive:
  - Chain
- Secondary reduction ratio:
  - 3.857 (54/14)
- Transmission type:
  - Constant mesh 5-speed
- Gear ratio:
  - 1st:
    - 3.182 (35/11)
  - 2nd:
    - 2.067 (31/15)
  - 3rd:
    - 1.429 (30/21)
  - 4th:
    - 0.962 (25/26)
  - 5th:
    - 0.710 (22/31)

Chassis:
- Frame type:
  - Diamond
- Caster angle:
  - 27.4 °
- Trail:
  - 87 mm (3.4 in)

Specifications

Front tire:
Type:
With tube
Size:
80/100-21 51M
Manufacturer/model:
IRC/VE-32

Rear tire:
Type:
With tube
Size:
4.10-18 59M
Manufacturer/model:
IRC/FARM SPECIAL-Z2

Tire air pressure (measured on cold tires):
Front:
125 kPa (1.25 kgf/cm^2, 18 psi)
Rear:
150 kPa (1.50 kgf/cm^2, 22 psi)

Front wheel:
Wheel type:
Spoke wheel
Rim size:
21 x 1.60

Rear wheel:
Wheel type:
Spoke wheel
Rim size:
18 x 1.85

Front brake:
Type:
Mechanical leading trailing drum brake

Rear brake:
Type:
Mechanical leading trailing drum brake

Front suspension:
Type:
Telescopic fork
Spring:
Coil spring
Shock absorber:
Hydraulic damper
Wheel travel:
200 mm (7.9 in)

Rear suspension:
Type:
Swingarm
Spring:
Coil spring
Shock absorber:
Gas-hydraulic damper
Wheel travel:
155 mm (6.1 in)

Electrical system:
System voltage:
12 V
Ignition system:
CDI
Charging system:
AC magneto

Battery:
Model:
YTZ7S
Voltage, capacity:
12 V, 6.0 Ah (10 HR)

Headlight:
Bulb type:
Incandescent bulb

Bulb wattage:
Headlight:
RP35, 45.0 W/45.0 W x 1
Brake/tail light:
21.0 W/5.0 W × 1
Front turn signal light:
10.0 W × 2
Rear turn signal light:
10.0 W × 2
Meter lighting:
1.7 W × 1
Neutral indicator light:
1.7 W × 1

Fuse(s):
Main fuse:
20.0 A
Auxiliary DC jack fuse:
10.0 A

EAU53562

Identification numbers

Record the vehicle identification number, engine serial number, and the model label information in the spaces provided below. These identification numbers are needed when registering the vehicle with the authorities in your area and when ordering spare parts from a Yamaha dealer.

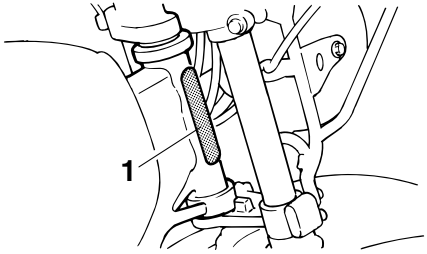
VEHICLE IDENTIFICATION NUMBER:

ENGINE SERIAL NUMBER:

MODEL LABEL INFORMATION:

EAU26401

Vehicle identification number



1. Vehicle identification number

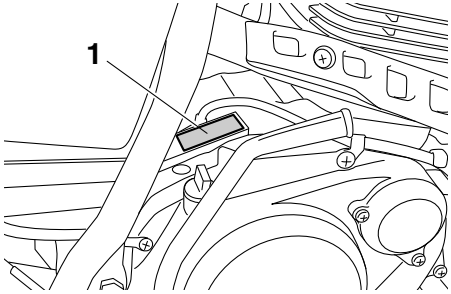
The vehicle identification number is stamped into the steering head pipe. Record this number in the space provided.

TIP

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.

EAU26442

Engine serial number



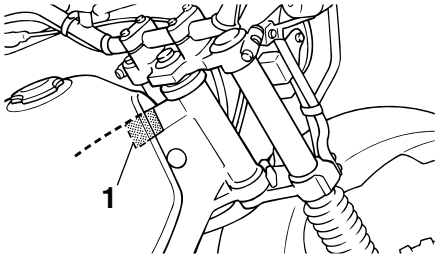
1. Engine serial number

The engine serial number is stamped into the crankcase.

10

EAU26461

Model label



1. Model label

The model label is affixed to the location shown. Record the information on this label in the space provided. This information will be needed when ordering spare parts from a Yamaha dealer.

EAU26571

Motorcycle noise regulation (for Australia)

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED:

Owners are warned that the law may prohibit:

a. The removal or rendering inoperative by any person other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; and
b. The use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

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