



OWNER'S MANUAL

tricker

XG250

4D6-28199-E0

Welcome to the Yamaha world of motorcycling!

As the owner of the XG250, 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 XG250. The owner's manual does not only instruct you in how to operate, inspect and maintain your motorcycle, but also in how to safeguard yourself and others from trouble and injury.



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

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

IMPORTANT MANUAL INFORMATION

EAU10150

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

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

NOTE:

- This manual should be considered a permanent part of this motorcycle and should remain with it even if the motorcycle is subsequently sold.
- Yamaha continually seeks advancements in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your motorcycle and this manual. If you have any questions concerning this manual, please consult your Yamaha dealer.

EWA10030



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

IMPORTANT MANUAL INFORMATION

EAU10200

**XG250
OWNER'S MANUAL
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TABLE OF CONTENTS

SAFETY INFORMATION	1-1	OPERATION AND IMPORTANT RIDING POINTS	5-1	Adjusting the brake lever free play	6-16
DESCRIPTION	2-1	Starting a cold engine	5-1	Adjusting the rear brake light switch	6-17
Left view	2-1	Starting a warm engine	5-2	Checking the front and rear brake pads	6-17
Right view	2-2	Shifting	5-2	Checking the brake fluid level	6-18
Controls and instruments.....	2-3	Tips for reducing fuel consumption	5-3	Changing the brake fluid	6-19
INSTRUMENT AND CONTROL FUNCTIONS	3-1	Engine break-in	5-3	Drive chain slack	6-19
Main switch/steering lock	3-1	Parking	5-4	Cleaning and lubricating the drive chain	6-20
Indicator lights	3-2	PERIODIC MAINTENANCE AND MINOR REPAIR	6-1	Checking and lubricating the cables	6-21
Speedometer unit	3-2	Owner's tool kit	6-1	Checking and lubricating the throttle grip and cable	6-21
Handlebar switches	3-3	Periodic maintenance and lubrication chart	6-2	Checking and lubricating the brake and shift pedals	6-22
Clutch lever	3-4	Removing and installing panels	6-5	Checking and lubricating the brake and clutch levers	6-22
Shift pedal	3-4	Checking the spark plug	6-6	Checking and lubricating the sidestand	6-23
Brake lever	3-4	Engine oil and oil filter element	6-8	Lubricating the rear suspension	6-23
Brake pedal	3-5	Replacing the air filter element and cleaning the check hose	6-11	Checking the front fork	6-24
Fuel tank cap	3-5	Adjusting the carburetor	6-12	Checking the steering	6-24
Fuel	3-6	Adjusting the engine idling speed	6-12	Checking the wheel bearings	6-25
Fuel cock	3-6	Checking the throttle cable free play	6-13	Battery	6-25
Starter (choke) knob "⌘"	3-7	Valve clearance	6-13	Replacing the fuse	6-27
Seat	3-8	Tires	6-13	Replacing the headlight bulb	6-27
Helmet holder	3-8	Spoke wheels	6-15	Replacing the tail/brake light bulb	6-29
Storage pouch	3-9	Adjusting the clutch lever free play	6-16		
Shock absorber	3-9				
Sidestand	3-9				
Ignition circuit cut-off system	3-10				
PRE-OPERATION CHECKS	4-1				
Pre-operation check list	4-2				

TABLE OF CONTENTS

Replacing a turn signal light bulb	6-29
Replacing the auxiliary light bulb	6-30
Supporting the motorcycle	6-31
Front wheel	6-31
Rear wheel	6-33
Troubleshooting	6-34
Troubleshooting chart	6-35

MOTORCYCLE CARE AND

STORAGE	7-1
Matte black caution	7-1
Care	7-1
Storage	7-3

SPECIFICATIONS	8-1
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CONSUMER INFORMATION	9-1
Identification numbers	9-1

SAFETY INFORMATION

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

HE OR SHE SHOULD:

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

TIONS.

Safe riding

- Always make pre-operation checks. Careful checks may help prevent an accident.
- This motorcycle is designed to carry the operator and a passenger.
- The failure of motorists to detect and recognize motorcycles in traffic is the predominating cause of automobile/motorcycle accidents. Many accidents have been caused by an automobile driver who did not see the motorcycle. Making yourself conspicuous appears to be very effective in reducing the chance of this type of accident.
- **Therefore:**
 - Wear a brightly colored jacket.
 - Use extra caution when approaching and passing through intersections, since intersections are the most likely places for motorcycle accidents to occur.
 - Ride where other motorists can see you. Avoid riding in another motorist's blind spot.

- Many accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current motorcycle license.
 - Make sure that you are qualified and that you only lend your motorcycle to other qualified operators.
 - Know your skills and limits. Staying within your limits may help you to avoid an accident.
 - We recommend that you practice riding your motorcycle where there is no traffic until you have become thoroughly familiar with the motorcycle and all of its controls.
- Many accidents have been caused by error of the motorcycle operator. A typical error made by the operator is veering wide on a turn due to EXCESSIVE SPEED or undercornering (insufficient lean angle for the speed).
 - Always obey the speed limit and never travel faster than warranted by road and traffic conditions.

- Always signal before turning or changing lanes. Make sure that other motorists can see you.
- The posture of the operator and passenger is important for proper control.
- The operator should keep both hands on the handlebar and both feet on the operator footrests during operation to maintain control of the motorcycle.
- The passenger should always hold onto the operator, the seat strap or grab bar, if equipped, with both hands and keep both feet on the passenger footrests.
- Never carry a passenger unless he or she can firmly place both feet on the passenger footrests.
- Never ride under the influence of alcohol or other drugs.

Protective apparel

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

- Always wear an approved helmet.

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

Modifications

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

torcycle illegal to use.

Loading and accessories

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

Loading

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

Maximum load: 180 kg (397 lb)

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

- Cargo and accessory weight should be kept as low and close to the motorcycle as possible. Make sure to distribute the weight as evenly as possible on both sides of

SAFETY INFORMATION

1

the motorcycle to minimize imbalance or instability.

- Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the motorcycle before riding. Check accessory mounts and cargo restraints frequently.
- Never attach any large or heavy items to the handlebar, front fork, or front fender. These items, including such cargo as sleeping bags, duffel bags, or tents, can create unstable handling or a slow steering response.

Accessories

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

Keep the following guidelines in mind, as well as those provided under “Load-

ing” when mounting accessories.

- Never install accessories or carry cargo that would impair the performance of your motorcycle. Carefully inspect the accessory before using it to make sure that it does not in any way reduce ground clearance or cornering clearance, limit suspension travel, steering travel or control operation, or obscure lights or reflectors.
- Accessories fitted to the handlebar or the front fork area can create instability due to improper weight distribution or aerodynamic changes. If accessories are added to the handlebar or front fork area, they must be as lightweight as possible and should be kept to a minimum.
- Bulky or large accessories may seriously affect the stability of the motorcycle due to aerodynamic effects. Wind may attempt to lift the motorcycle, or the motorcycle may become unstable in cross winds. These accessories may also cause

instability when passing or being passed by large vehicles.

- Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the operator and may limit control ability, therefore, such accessories are not recommended.
 - Use caution when adding electrical accessories. If electrical accessories exceed the capacity of the motorcycle’s electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power.
- ## **Gasoline and exhaust gas**
- **GASOLINE IS HIGHLY FLAMMABLE:**
 - Always turn the engine off when refueling.
 - Take care not to spill any gasoline on the engine or exhaust system when refueling.
 - Never refuel while smoking or in the vicinity of an open flame.
 - Never start the engine or let it run

for any length of time in a closed area. The exhaust fumes are poisonous and may cause loss of consciousness and death within a short time. Always operate your motorcycle in an area that has adequate ventilation.

- Always turn the engine off before leaving the motorcycle unattended and remove the key from the main switch. When parking the motorcycle, note the following:
 - The engine and exhaust system may be hot, therefore, park the motorcycle in a place where pedestrians or children are not likely to touch these hot areas.
 - Do not park the motorcycle on a slope or soft ground, otherwise it may fall over.
 - Do not park the motorcycle near a flammable source (e.g., a kerosene heater, or near an open flame), otherwise it could catch fire.
- When transporting the motorcycle in another vehicle, make sure that it is kept upright and that the fuel

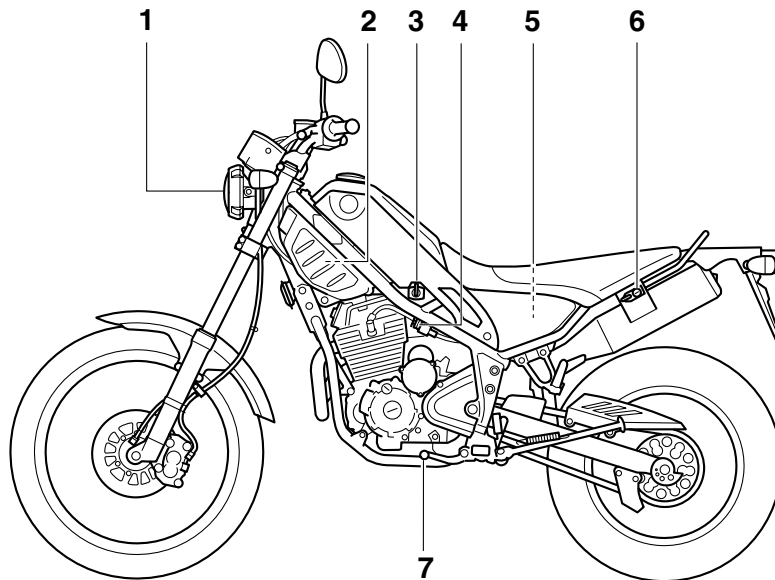
cock(s) are turned to “ON” or “RES” (for vacuum type)/“OFF” (for manual type). If the motorcycle should lean over, gasoline may leak out of the carburetor or fuel tank.

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

DESCRIPTION

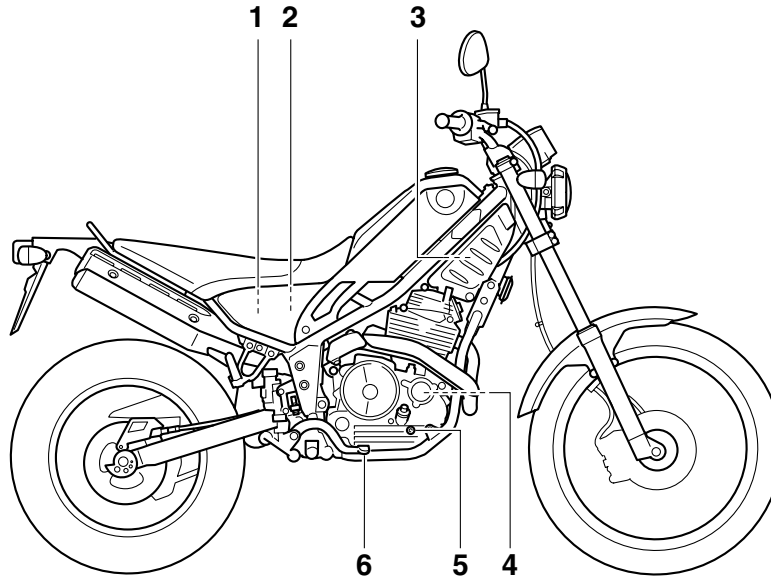
EAU10410

Left view



1. Headlight (page 6-27)
2. Storage pouch (page 3-9)
3. Fuel cock (page 3-6)
4. Starter (choke) knob (page 3-7)
5. Air filter element (page 6-11)
6. Helmet holder (page 3-8)
7. Shift pedal (page 3-4)

Right view



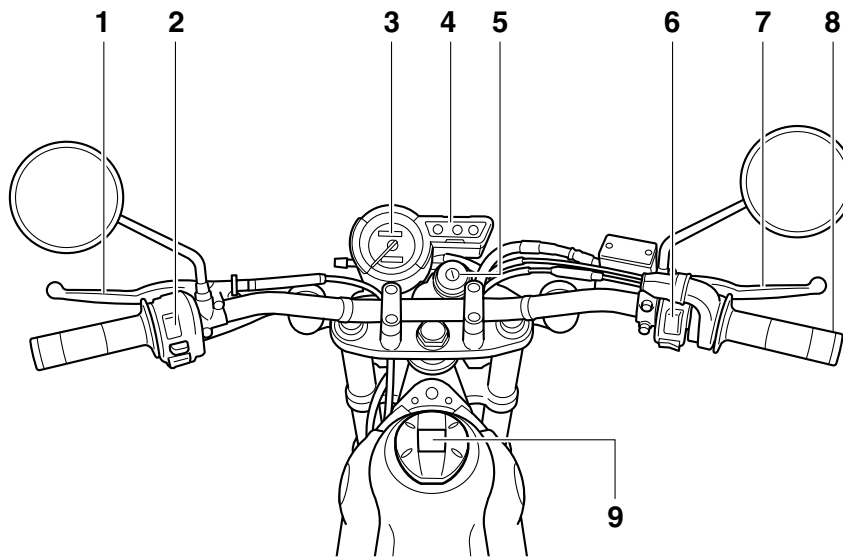
1. Battery (page 6-25)
2. Fuse (page 6-27)
3. Owner's tool kit (page 6-1)
4. Engine oil filter element (page 6-8)
5. Engine oil level check window (page 6-8)
6. Brake pedal (page 3-5)

DESCRIPTION

EAU10430

Controls and instruments

2



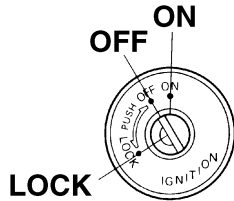
- 1. Clutch lever (page 3-4)
- 2. Left handlebar switches (page 3-3)
- 3. Speedometer unit (page 3-2)
- 4. Indicator lights (page 3-2)
- 5. Main switch/steering lock (page 3-1)
- 6. Right handlebar switches (page 3-3)
- 7. Brake lever (page 3-4)
- 8. Throttle grip (page 6-13)

9. Fuel tank cap (page 3-5)

INSTRUMENT AND CONTROL FUNCTIONS

Main switch/steering lock

EAU10460



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

ON

EAU10570

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

NOTE:

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

OFF

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

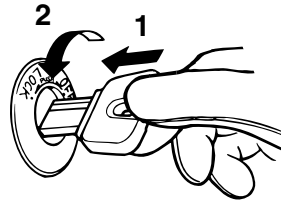
EAU10660

LOCK

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

EAU10690

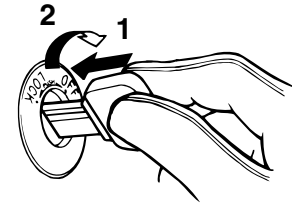
To lock the steering



1. Push.
2. Turn.

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

To unlock the steering



1. Push.
2. Turn.

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

WARNING

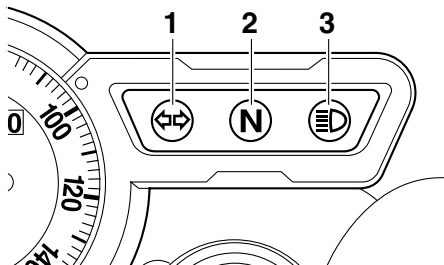
Never turn the key to "OFF" or "LOCK" while the vehicle is moving, otherwise the electrical systems will be switched off, which may result in loss of control or an accident. Make sure that the vehicle is stopped before turning the key to "OFF" or "LOCK".




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INSTRUMENT AND CONTROL FUNCTIONS

Indicator lights

EAU10980



1. Turn signal indicator light “ ”
2. Neutral indicator light “**N**”
3. High beam indicator light “”

Turn signal indicator light “ ”

EAU11020

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

Neutral indicator light “**N**”

EAU11060

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

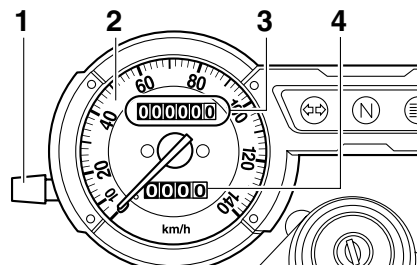
High beam indicator light “”

EAU11080

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

Speedometer unit

EAU11630



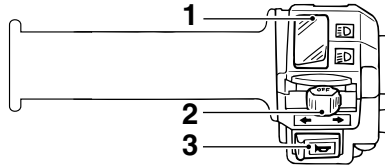
1. Reset knob
2. Speedometer
3. Odometer
4. Tripmeter

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

INSTRUMENT AND CONTROL FUNCTIONS

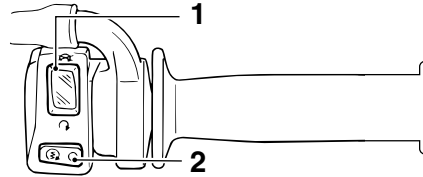
Handlebar switches Left

EAU12343



1. Dimmer switch “/”
2. Turn signal switch “/”
3. Horn switch “”

Right



1. Engine stop switch “/”
2. Start switch “”

Dimmer switch “/”

EAU12400

Set this switch to “” for the high beam and to “” for the low beam.

EAU12460

Turn signal switch “/”

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

Horn switch “”

EAU12500

Press this switch to sound the horn.

EAU12660

Engine stop switch “/”

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

3

EAU12710

Start switch “”

Push this switch to crank the engine with the starter.

ECA10050

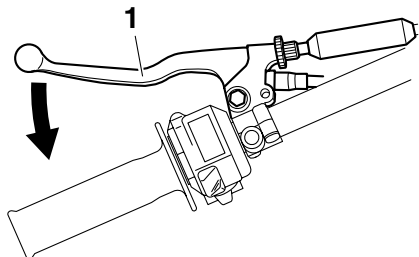
CAUTION:

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

INSTRUMENT AND CONTROL FUNCTIONS

Clutch lever

EAU12820



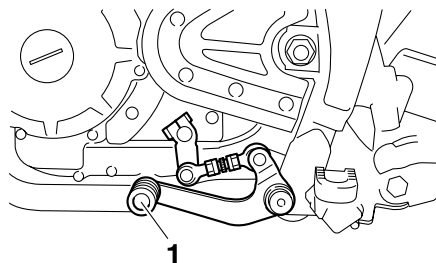
1. Clutch lever

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

The clutch lever is equipped with a clutch switch, which is part of the ignition circuit cut-off system. (See page 3-10.)

Shift pedal

EAU12870

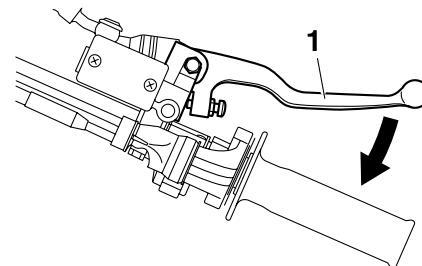


1. Shift pedal

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

Brake lever

EAU12890

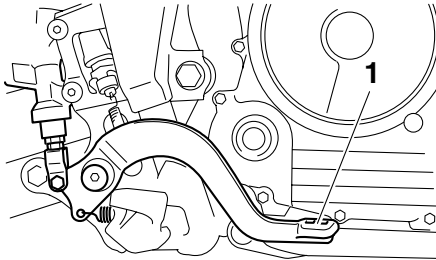


1. Brake lever

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

Brake pedal

EAU12941



1. Brake pedal

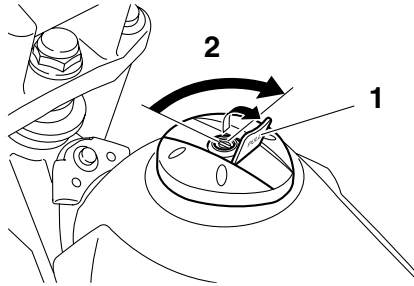
The brake pedal is on the right side of the motorcycle. To apply the rear brake, press down on the brake pedal.

Fuel tank cap

EAUM1791

To remove the fuel tank cap

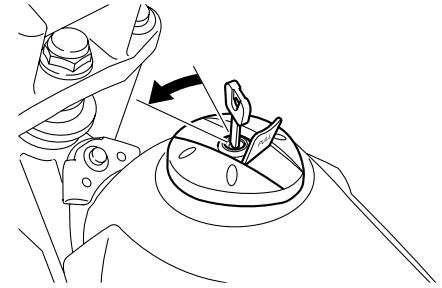
1. Open the fuel tank cap lock cover.
2. Insert the key into the lock and turn it 1/4 turn clockwise. The lock will be released and the fuel tank cap can be removed.



1. Fuel tank cap lock cover
2. Unlock.

To install the fuel tank cap

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



1. Lock.

NOTE:

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

WARNING

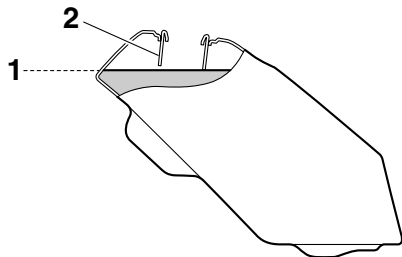
Make sure that the fuel tank cap is properly installed before riding.

EWA11140

INSTRUMENT AND CONTROL FUNCTIONS

Fuel

EAU13210



1. Fuel level
2. Fuel tank filler tube

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

EWA10880

WARNING

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

ECA10070

CAUTION:

Immediately wipe off spilled fuel with a clean, dry, soft cloth, since

fuel may deteriorate painted surfaces or plastic parts.

EAU13320

Recommended fuel:
REGULAR UNLEADED GASOLINE ONLY
Fuel tank capacity:
6.0 L (1.59 US gal) (1.32 Imp.gal)
Fuel reserve amount:
1.9 L (0.50 US gal) (0.42 Imp.gal)

ECA11400

CAUTION:

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

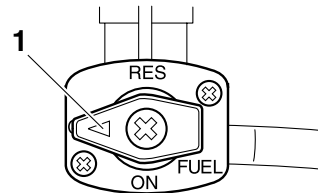
Your Yamaha engine has been designed to use regular unleaded gasoline with a research octane number of 91 or higher. If knocking (or pinging) occurs, use a gasoline of a different brand or premium unleaded fuel. Use of unleaded fuel will extend spark plug life and reduce maintenance costs.

EAU13560

Fuel cock

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

The fuel cock has three positions:
OFF

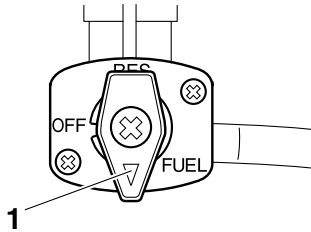


1. Pointed end positioned over "OFF"

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

INSTRUMENT AND CONTROL FUNCTIONS

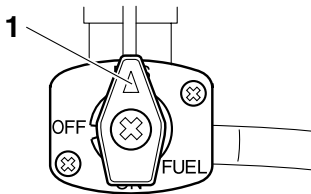
ON



1. Pointed end 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



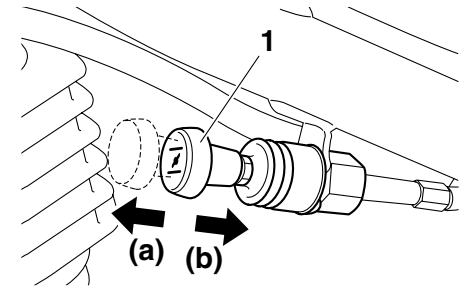
1. Pointed end positioned over "RES"

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!

Starter (choke) knob " |x| "

EAU13600



1. Starter (choke) knob " |x| "

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).

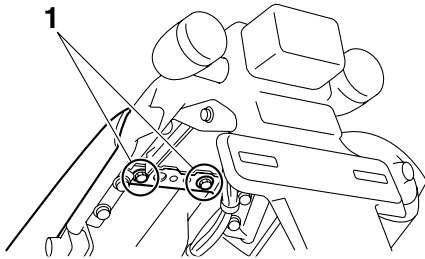
Move the knob in direction (b) to turn off the starter (choke).

INSTRUMENT AND CONTROL FUNCTIONS

Seat

To remove the seat

Remove the bolts, and then pull the seat off.

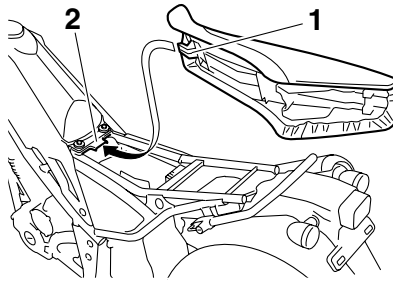


1. Bolt

To install the seat

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

EAU13970



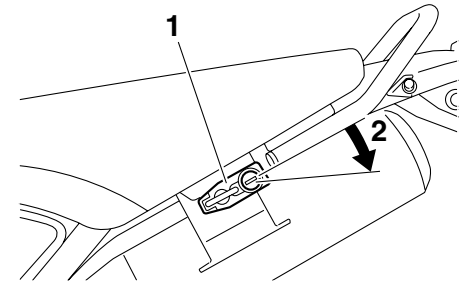
1. Projection
2. Seat holder

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

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

Helmet holder

EAU14281



1. Helmet holder
2. Open.

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

To lock the helmet holder, place it in the original position, and then remove the key.

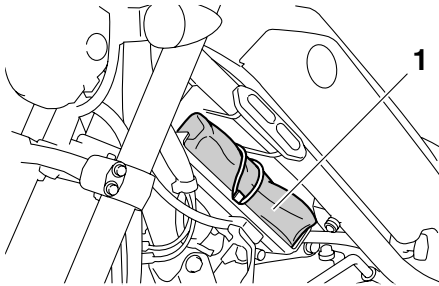
! WARNING

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

EWA10160

Storage pouch

EAU37841



1. Storage pouch

The storage pouch is located behind panel A. (See page 6-5.)

ECA15201

CAUTION:

Keep the following points in mind when using the pouch.

- Wrap any items stored in the pouch in a plastic bag so that they will not get wet.
- Do not keep anything valuable or breakable in the pouch.

Shock absorber

EAU15090

EWA10220

⚠ WARNING

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

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

Sidestand

EAU15301

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

NOTE:

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

EWA10240

⚠ WARNING

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

INSTRUMENT AND CONTROL FUNCTIONS

pair it if it does not function properly.

EAU15311

Ignition circuit cut-off system

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

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

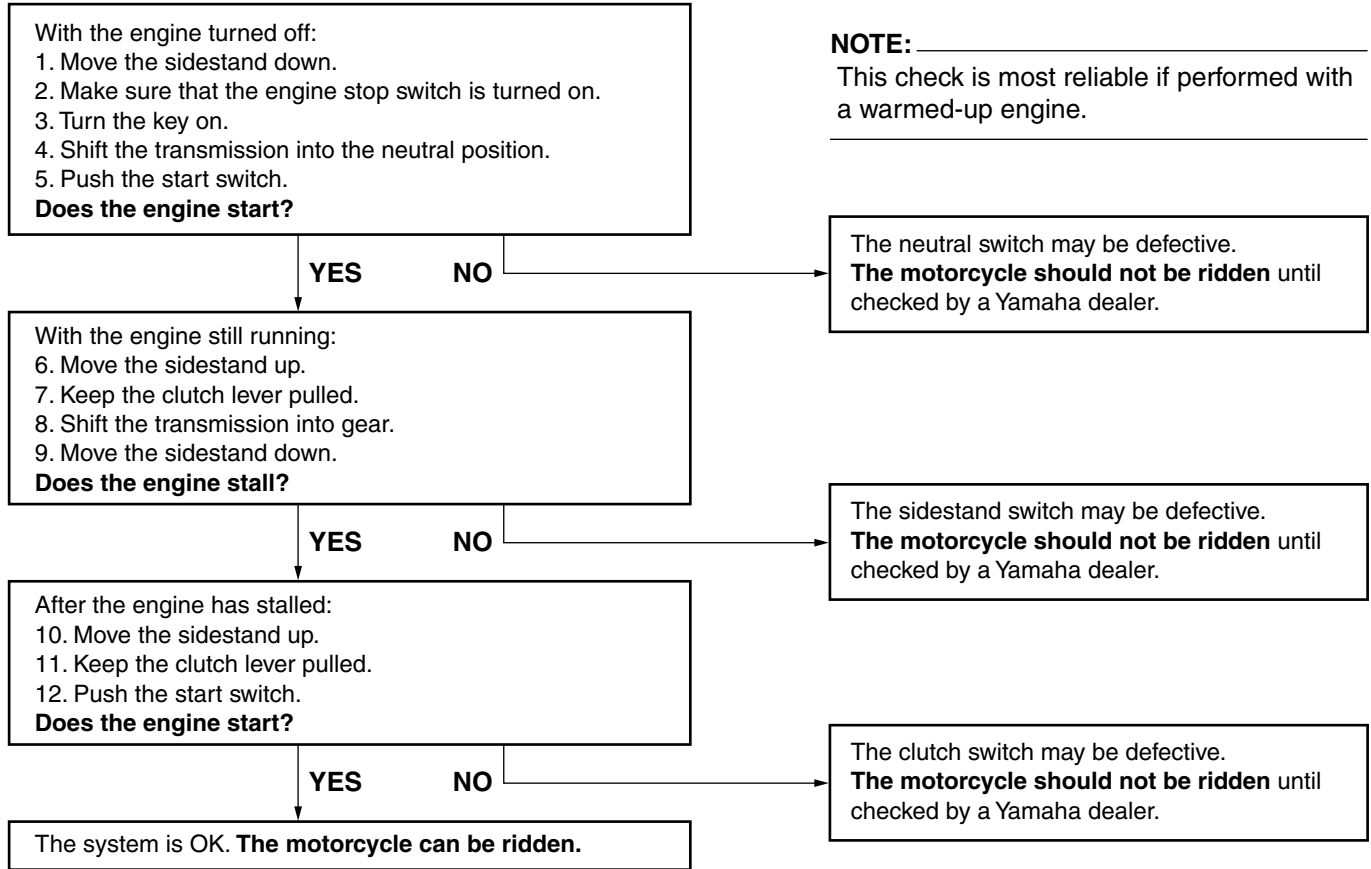
Periodically check the operation of the ignition circuit cut-off system according to the following procedure.

EWA10250



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

INSTRUMENT AND CONTROL FUNCTIONS



PRE-OPERATION CHECKS

EAU15591

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

NOTE:

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

EWA11150

 WARNING

4

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

PRE-OPERATION CHECKS

EAU15603

Pre-operation check list

ITEM	CHECKS	PAGE
Fuel	<ul style="list-style-type: none">• Check fuel level in fuel tank.• Refuel if necessary.• Check fuel line for leakage.	3-6
Engine oil	<ul style="list-style-type: none">• Check oil level in engine.• If necessary, add recommended oil to specified level.• Check vehicle for oil leakage.	6-8
Front brake	<ul style="list-style-type: none">• Check operation.• If soft or spongy, have Yamaha dealer bleed hydraulic system.• Check lever free play.• Adjust if necessary.• Check brake pads for wear.• Replace if necessary.• Check fluid level in reservoir.• If necessary, add recommended brake fluid to specified level.• Check hydraulic system for leakage.	6-16, 6-17, 6-18
Rear brake	<ul style="list-style-type: none">• Check operation.• If soft or spongy, have Yamaha dealer bleed hydraulic system.• Check brake pads for wear.• Replace if necessary.• Check fluid level in reservoir.• If necessary, add recommended brake fluid to specified level.• Check hydraulic system for leakage.	6-17, 6-18
Clutch	<ul style="list-style-type: none">• Check operation.• Lubricate cable if necessary.• Check lever free play.• Adjust if necessary.	6-16
Throttle grip	<ul style="list-style-type: none">• Make sure that operation is smooth.• Check cable free play.• If necessary, have Yamaha dealer adjust cable free play and lubricate cable and grip housing.	6-13, 6-21

PRE-OPERATION CHECKS

ITEM	CHECKS	PAGE
Control cables	<ul style="list-style-type: none"> • Make sure that operation is smooth. • Lubricate if necessary. 	6-21
Drive chain	<ul style="list-style-type: none"> • Check chain slack. • Adjust if necessary. • Check chain condition. • Lubricate if necessary. 	6-19, 6-20
Wheels and tires	<ul style="list-style-type: none"> • Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary. 	6-13, 6-15
Brake and shift pedals	<ul style="list-style-type: none"> • Make sure that operation is smooth. • Lubricate pedal pivoting points if necessary. 	6-22
Brake and clutch levers	<ul style="list-style-type: none"> • Make sure that operation is smooth. • Lubricate lever pivoting points if necessary. 	6-22
Sidestand	<ul style="list-style-type: none"> • Make sure that operation is smooth. • Lubricate pivot if necessary. 	6-23
Chassis fasteners	<ul style="list-style-type: none"> • Make sure that all nuts, bolts and screws are properly tightened. • Tighten if necessary. 	—
Instruments, lights, signals and switches	<ul style="list-style-type: none"> • Check operation. • Correct if necessary. 	—
Sidestand switch	<ul style="list-style-type: none"> • Check operation of ignition circuit cut-off system. • If system is defective, have Yamaha dealer check vehicle. 	3-9

OPERATION AND IMPORTANT RIDING POINTS

EAU15950

EAU16060

EWA10270

WARNING

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

Starting a cold engine

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

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

EWA10290

WARNING

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

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

NOTE: When the transmission is in the neutral position, the neutral indicator light

should be on, otherwise have a Yamaha dealer check the electrical circuit.

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

NOTE:

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

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

ECA11040

CAUTION:

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

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

OPERATION AND IMPORTANT RIDING POINTS

NOTE: _____

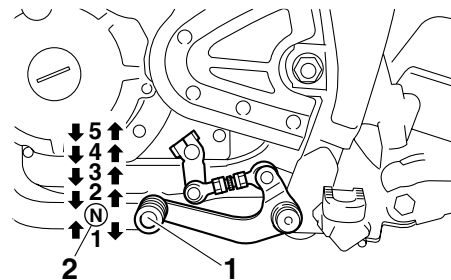
The engine is warm when it responds normally to the throttle with the starter (choke) turned off.

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.

EAU16640

Shifting



EAU16671

1. Shift pedal
2. Neutral position

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

The gear positions are shown in the illustration.

NOTE: _____

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

ECA10260

CAUTION: _____

- Even with the transmission in

the neutral position, do not coast for long periods of time with the engine off, and do not tow the motorcycle for long distances. The transmission is properly lubricated only when the engine is running. Inadequate lubrication may damage the transmission.

- Always use the clutch while changing gears to avoid damaging the engine, transmission, and drive train, which are not designed to withstand the shock of forced shifting.

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).

EAU16800

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.

EAU16841

EAU17021

0–1000 km (0–600 mi)

Avoid prolonged operation above 1/3 throttle.

1000–1600 km (600–1000 mi)

Avoid prolonged operation above 1/2 throttle.

ECA11281

CAUTION:

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

OPERATION AND IMPORTANT RIDING POINTS

the oil filter cartridge or element replaced.

1600 km (1000 mi) and beyond

The vehicle can now be operated normally.

ECA10270

CAUTION:

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

EAU17170

Parking

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

EWA10310

WARNING

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

EAU17240

EAU17340

EWA10350

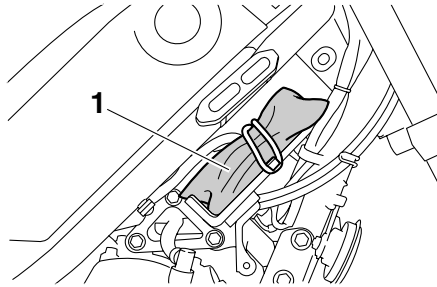
Safety is an obligation of the owner. Periodic inspection, adjustment and lubrication will keep your vehicle in the safest and most efficient condition possible. The most important points of inspection, adjustment, and lubrication are explained on the following pages. The intervals given in the periodic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

EWA10320

! WARNING

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

Owner's tool kit



1. Owner's tool kit

The owner's tool kit is located behind panel D. (See page 6-5.)

The service information included in this manual and the tools provided in the owner's tool kit are intended to assist you in the performance of preventive maintenance and minor repairs. However, additional tools such as a torque wrench may be necessary to perform certain maintenance work correctly.

NOTE:

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

! WARNING

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU17705

Periodic maintenance and lubrication chart

NOTE:

- The annual checks must be performed every year, except if a kilometer-based maintenance is performed instead.
- From 50000 km, repeat the maintenance intervals starting from 10000 km.
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (× 1000 km)					ANNUAL CHECK
			1	10	20	30	40	
1	* Fuel line	<ul style="list-style-type: none"> ● Check fuel hoses for cracks or damage. 		√	√	√	√	√
2	Spark plug	<ul style="list-style-type: none"> ● Check condition. ● Clean and regap. 		√		√		
		<ul style="list-style-type: none"> ● Replace. 			√		√	
3	* Valves	<ul style="list-style-type: none"> ● Check valve clearance. ● Adjust. 		√	√	√	√	
4	Air filter element	<ul style="list-style-type: none"> ● Replace. 					√	
5	Clutch	<ul style="list-style-type: none"> ● Check operation. ● Adjust. 	√	√	√	√	√	
6	* Front brake	<ul style="list-style-type: none"> ● Check operation, fluid level and vehicle for fluid leakage. 	√	√	√	√	√	√
		<ul style="list-style-type: none"> ● Replace brake pads. 	Whenever worn to the limit					
7	* Rear brake	<ul style="list-style-type: none"> ● Check operation, fluid level and vehicle for fluid leakage. 	√	√	√	√	√	√
		<ul style="list-style-type: none"> ● Replace brake pads. 	Whenever worn to the limit					
8	* Brake hoses	<ul style="list-style-type: none"> ● Check for cracks or damage. 		√	√	√	√	√
		<ul style="list-style-type: none"> ● Replace. 	Every 4 years					
9	* Wheels	<ul style="list-style-type: none"> ● Check runout, spoke tightness and for damage. ● Tighten spokes if necessary. 		√	√	√	√	

PERIODIC MAINTENANCE AND MINOR REPAIR

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (× 1000 km)					ANNUAL CHECK
			1	10	20	30	40	
10	* Tires	<ul style="list-style-type: none"> • Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary. 		√	√	√	√	√
11	* Wheel bearings	<ul style="list-style-type: none"> • Check bearing for looseness or damage. 		√	√	√	√	
12	* Swingarm	<ul style="list-style-type: none"> • Check operation and for excessive play. • Lubricate with molybdenum disulfide grease. 		√	√	√	√	
13	Drive chain	<ul style="list-style-type: none"> • Check chain slack, alignment and condition. • Adjust and lubricate chain with a special O-ring chain lubricant thoroughly. 	Every 500 km and after washing the motorcycle or riding in the rain					
14	* Steering bearings	<ul style="list-style-type: none"> • Check bearing play and steering for roughness. • Lubricate with lithium-soap-based grease. 	√	√	√	√	√	
15	* Chassis fasteners	<ul style="list-style-type: none"> • Make sure that all nuts, bolts and screws are properly tightened. 		√	√	√	√	√
16	Sidestand	<ul style="list-style-type: none"> • Check operation. • Lubricate. 		√	√	√	√	√
17	* Sidestand switch	<ul style="list-style-type: none"> • Check operation. 	√	√	√	√	√	√
18	* Front fork	<ul style="list-style-type: none"> • Check operation and for oil leakage. 		√	√	√	√	
19	* Shock absorber assembly	<ul style="list-style-type: none"> • Check operation and shock absorber for oil leakage. 		√	√	√	√	
20	* Rear suspension relay arm and connecting arm pivoting points	<ul style="list-style-type: none"> • Check operation. 		√	√	√	√	
		<ul style="list-style-type: none"> • Lubricate with molybdenum disulfide grease. 			√		√	
21	* Carburetor	<ul style="list-style-type: none"> • Check starter (choke) operation. • Adjust engine idling speed. 	√	√	√	√	√	√
22	Engine oil	<ul style="list-style-type: none"> • Change. • Check oil level and vehicle for oil leakage. 	√	√	√	√	√	√
23	Engine oil filter element	<ul style="list-style-type: none"> • Replace. 	√		√		√	

PERIODIC MAINTENANCE AND MINOR REPAIR

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (× 1000 km)					ANNUAL CHECK
			1	10	20	30	40	
24	* Front and rear brake switches	<ul style="list-style-type: none"> • Check operation. 	√	√	√	√	√	√
25	Moving parts and cables	<ul style="list-style-type: none"> • Lubricate. 		√	√	√	√	√
26	* Throttle grip housing and cable	<ul style="list-style-type: none"> • Check operation and free play. • Adjust the throttle cable free play if necessary. • Lubricate the throttle grip housing and cable. 		√	√	√	√	√
27	* Lights, signals and switches	<ul style="list-style-type: none"> • Check operation. • Adjust headlight beam. 	√	√	√	√	√	√

EAU18680

NOTE:

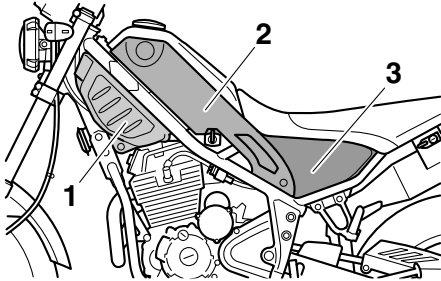
- Air filter
 - This model's air filter is equipped with a disposable oil-coated paper element, which must not be cleaned with compressed air to avoid damaging it.
 - The air filter element needs to be replaced more frequently when riding in unusually wet or dusty areas.
- Hydraulic brake service
 - Regularly check and, if necessary, correct the brake fluid level.
 - Every two years replace the internal components of the brake master cylinders and calipers, and change the brake fluid.
 - Replace the brake hoses every four years and if cracked or damaged.

PERIODIC MAINTENANCE AND MINOR REPAIR

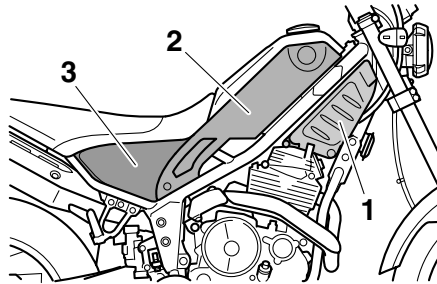
EAU18771

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
2. Panel B
3. Panel C



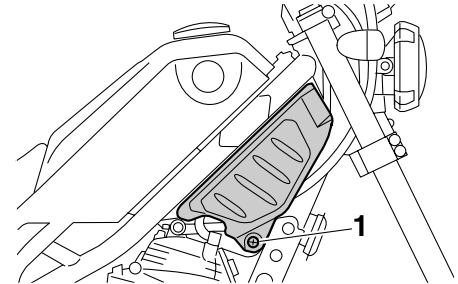
1. Panel D
2. Panel E
3. Panel F

Panels A and D

To remove one of the panels

Remove the screw, and then pull the panel off.

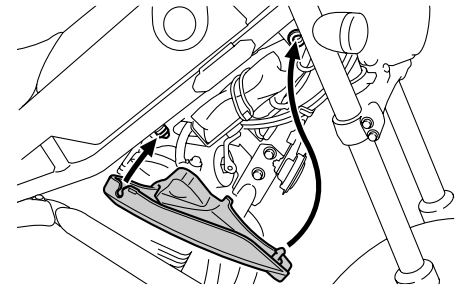
EAU37812



1. Screw

To install the panel

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



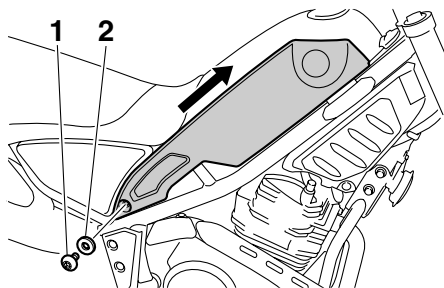
Panels B and E

To remove one of the panels

Remove the bolt and washer, and then remove the panel by sliding it forward as shown.

PERIODIC MAINTENANCE AND MINOR REPAIR

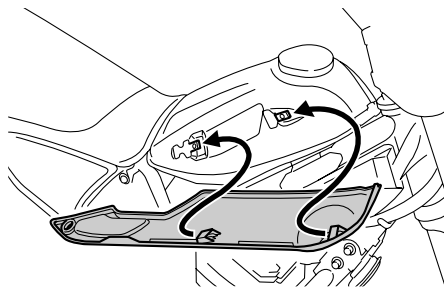
EAU19602



1. Bolt
2. Washer

To install the panel

Place the panel in the original position, and then install the washer and bolt.

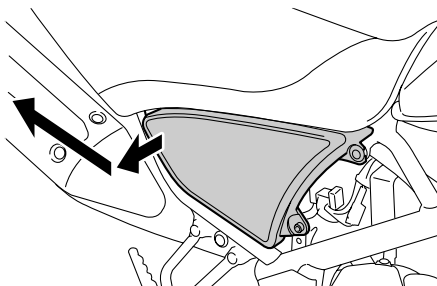


Panels C and F

To remove one of the panels

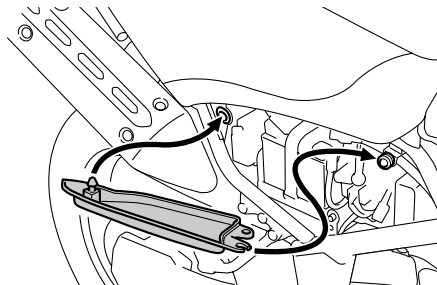
1. To remove panel C, first remove panel B, and to remove panel F,

- first remove panel E.
2. Remove panel C or F by pulling it off as shown.



To install the panel

1. Place the panel in the original position.



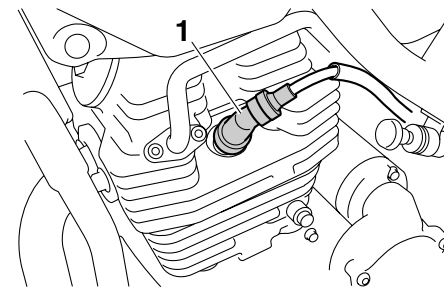
2. Install panel B or E.

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

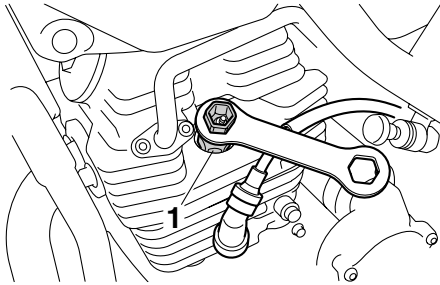
1. Remove the spark plug cap.



1. Spark plug cap

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

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Spark plug wrench

To check the spark plug

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

NOTE:

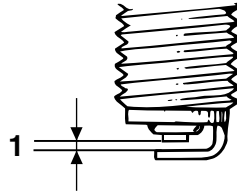
If the spark plug shows a distinctly different color, the engine could be defective. Do not attempt to diagnose such problems yourself. Instead, have a Yamaha dealer check the vehicle.

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

Specified spark plug:
NGK/DR7EA

To install the spark plug

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



1. Spark plug gap

Spark plug gap:
0.6–0.7 mm (0.024–0.028 in)

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

en it to the specified torque.

Tightening torque:

Spark plug:
17.5 Nm (1.75 m·kgf, 12.7 ft·lbf)

NOTE:

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

4. Install the spark plug cap.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU37801

Engine oil and oil filter element

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

To check the engine oil level

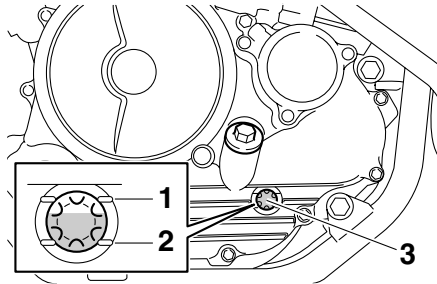
1. Place the vehicle on a level surface and hold it in an upright position.

NOTE:

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

2. Start the engine, warm it up for several minutes, and then turn it off.
3. Wait a few minutes until the oil settles, and then check the oil level through the check window located at the bottom-right side of the crankcase.

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



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

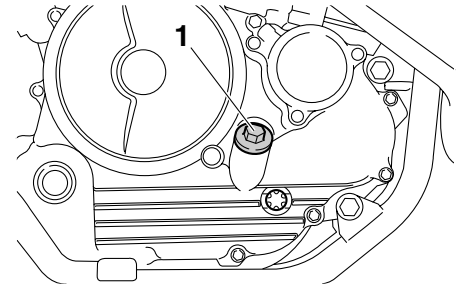
4. If the engine oil is below the minimum level mark, add sufficient oil of the recommended type to raise it to the correct level.

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

1. Start the engine, warm it up for several minutes, and then turn it off.
2. Place an oil pan under the engine

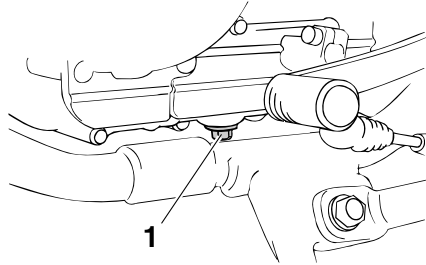
to collect the used oil.

3. Remove the engine oil filler bolt and drain bolt to drain the oil from the crankcase.



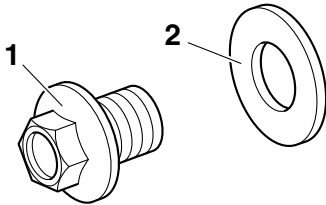
1. Engine oil filler bolt

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Engine oil drain bolt

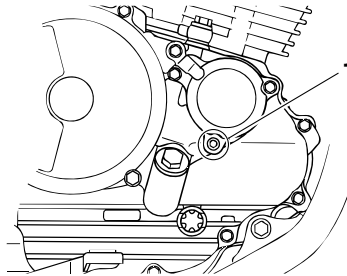
NOTE: _____
Check the washer for damage and replace it if necessary.



1. Engine oil drain bolt
2. Washer

4. Remove the oil filter element drain

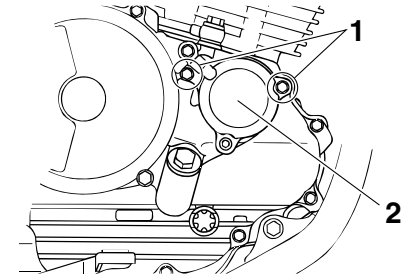
bolt to drain the oil from the oil filter element.



1. Oil filter element drain bolt

NOTE: _____
Skip steps 5–7 if the oil filter element is not being replaced.

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

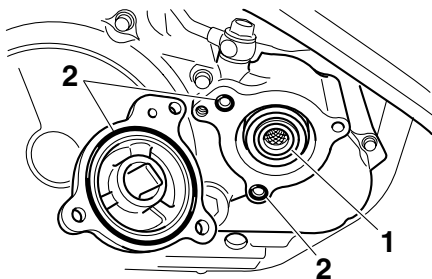


1. Bolt
2. Oil filter element cover

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

NOTE: _____
Make sure that the O-rings are properly seated.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Oil filter element
2. O-ring

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

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

Tightening torque:

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

Tightening torques:

Engine oil drain bolt:
20 Nm (2.0 m·kgf, 14.5 ft·lbf)
Oil filter element drain bolt:
10 Nm (1.0 m·kgf, 7.2 ft·lbf)

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

Recommended oil:
See page 8-1.

Oil quantity:

Without oil filter element replacement:
1.20 L (1.27 US qt) (1.06 Imp.qt)
With oil filter element replacement:
1.30 L (1.37 US qt) (1.14 Imp.qt)

ECA11620

CAUTION:

- In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of “CD” or oils of a higher quality than specified. In addition, do not use oils labeled “ENERGY CONSERVING II” or

higher.

- Make sure that no foreign material enters the crankcase.

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

PERIODIC MAINTENANCE AND MINOR REPAIR

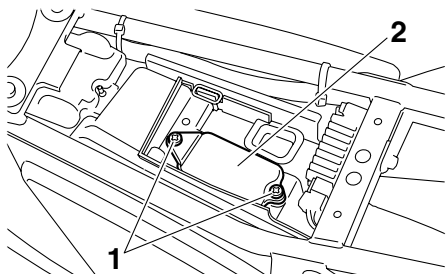
EAU37870

Replacing the air filter element and cleaning the check hose

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

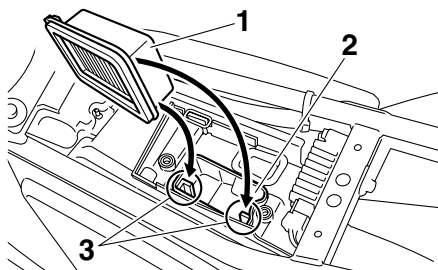
To replace the air filter element

1. Remove the seat. (See page 3-8.)
2. Remove the air filter case cover by removing the screws.



1. Screw
2. Air filter case cover

3. Pull the air filter element out.
4. Insert a new air filter element into the air filter case as shown.



1. Air filter element
2. Air filter case
3. Slot

ECA10480

CAUTION:

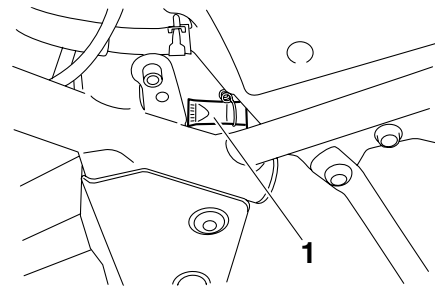
- Make sure that the air filter element is properly seated in the air filter case.
- The engine should never be operated without the air filter element installed, otherwise the piston(s) and/or cylinder(s) may become excessively worn.

5. Install the air filter case cover by installing the screws.

6. Install the seat.

To clean the air filter check hose

1. Remove panel C. (See page 6-5.)
2. Check the hose on the side of the air filter case for accumulated dirt or water.



1. Air filter check hose

3. If dirt or water is visible, remove the hose, clean it, and then install it.
4. Install the panel.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU21280

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.

ECA10550

CAUTION:

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.

6

EAU21340

Adjusting the engine idling speed

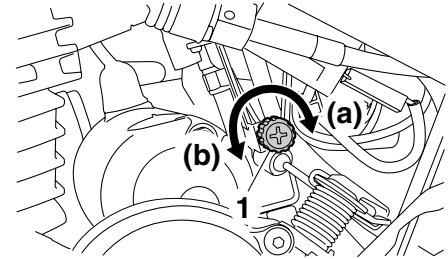
The engine idling speed must be checked and, if necessary, adjusted as follows at the intervals specified in the periodic maintenance and lubrication chart.

The engine should be warm before making this adjustment.

NOTE:

- 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

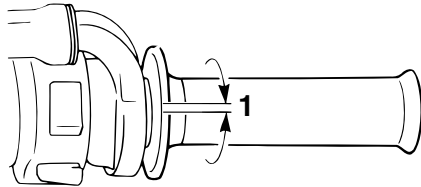
Engine idling speed:
1300–1500 r/min

NOTE:

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

EAU21381

Checking the throttle cable free play



1. Throttle cable free play

The throttle cable free play should measure 3.0–5.0 mm (0.12–0.20 in) at the throttle grip. Periodically check the throttle cable free play and, if necessary, have a Yamaha dealer adjust it.

EAU21401

Valve clearance

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

EAU21581

Tires

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

Tire air pressure

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

EWA10500

WARNING

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

PERIODIC MAINTENANCE AND MINOR REPAIR

Tire air pressure (measured on cold tires):

0–90 kg (0–198 lb):

Front:

125 kPa (18 psi) (1.25 kgf/cm²)

Rear:

150 kPa (22 psi) (1.50 kgf/cm²)

90–180 kg (198–397 lb):

Front:

150 kPa (22 psi) (1.50 kgf/cm²)

Rear:

175 kPa (25 psi) (1.75 kgf/cm²)

Maximum load*:

180 kg (397 lb)

* Total weight of rider, passenger, cargo and accessories

EWA11200

6

⚠ WARNING

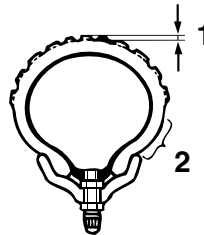
Because loading has an enormous impact on the handling, braking, performance and safety characteristics of your vehicle, you should keep the following precautions in mind.

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

not exceed the specified maximum load for the vehicle.

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

Tire inspection



1. Tire 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):
1.6 mm (0.06 in)

NOTE:

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

Tire information

This motorcycle is equipped with tube tires.

EWA10460

⚠ WARNING

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU21940

Front tire:

Size:

80/100-19M/C 49P

Manufacturer/model:

BRIDGESTONE/TW201

Rear tire:

Size:

120/90-16M/C 63P

Manufacturer/model:

BRIDGESTONE/TW202

EWA10570

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.

Spoke wheels

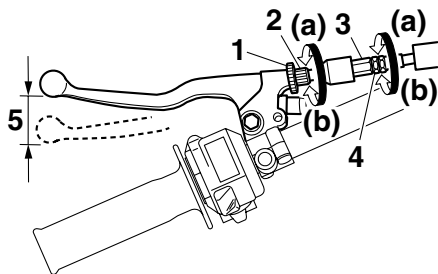
To maximize the performance, durability, and safe operation of your motorcycle, note the following points regarding the specified wheels.

- The wheel rims should be checked for cracks, bends or warpage, 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.
- Ride at moderate speeds after changing a tire since the tire surface must first be “broken in” for it to develop its optimal characteristics.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU22030

Adjusting the clutch lever free play



1. Locknut (clutch lever)
2. Adjusting bolt
3. Adjusting nut
4. Locknut (clutch cable)
5. Clutch lever free play

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

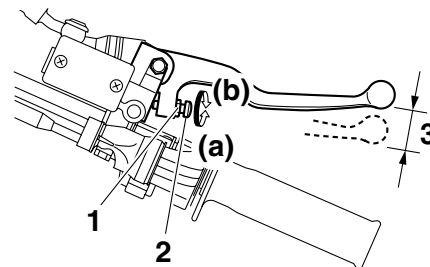
1. Loosen the locknut at the clutch lever.
2. To increase the clutch lever free play, turn the adjusting bolt in direction (a). To decrease the clutch

lever free play, turn the adjusting bolt in direction (b).

3. If the specified clutch lever free play could be obtained as described above, tighten the locknut and skip the rest of the procedure, otherwise proceed as follows.
4. Fully turn the adjusting bolt in direction (a) to loosen the clutch cable.
5. Loosen the locknut further down the clutch cable.
6. To increase the clutch lever free play, turn the adjusting nut in direction (a). To decrease the clutch lever free play, turn the adjusting nut in direction (b).
7. Tighten both locknuts.

EAU22092

Adjusting the brake lever free play



1. Locknut
2. Brake lever free play adjusting screw
3. Brake lever free play

The brake lever free play should measure 2.0–5.0 mm (0.08–0.20 in) as shown. Periodically check the brake lever free play and, if necessary, adjust it as follows.

1. Loosen the locknut at the brake lever.
2. To increase the brake lever free play, turn the adjusting screw in direction (a). To decrease the brake lever free play, turn the adjusting screw in direction (b).

3. Tighten the locknut.

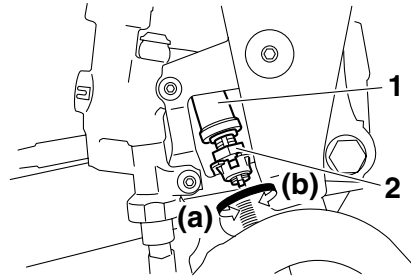
EWA10630

WARNING

- After adjusting the brake lever free play, check the free play and make sure that the brake is working properly.
- A soft or spongy feeling in the brake lever can indicate the presence of air in the hydraulic system. If there is air in the hydraulic system, have a Yamaha dealer bleed the system before operating the motorcycle. Air in the hydraulic system will diminish the braking performance, which may result in loss of control and an accident.

Adjusting the rear brake light switch

EAU22270



1. Rear brake light switch
2. Adjusting nut

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

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

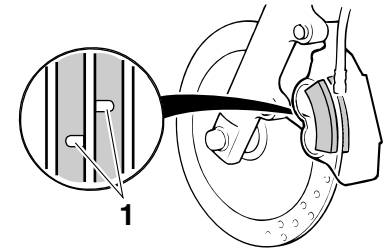
Checking the front and rear brake pads

EAU22390

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

Front brake pads

EAU22420



1. Wear indicator groove

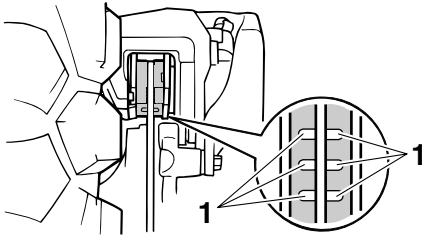
Each front brake pad is provided with a wear indicator groove, which allows you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the wear indicator groove. If a brake pad has worn to the point that the wear

PERIODIC MAINTENANCE AND MINOR REPAIR

indicator groove has almost disappeared, have a Yamaha dealer replace the brake pads as a set.

Rear brake pads

EAU36720

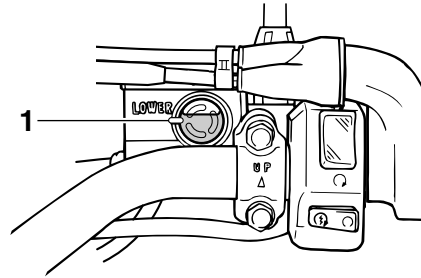


1. Wear indicator groove

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

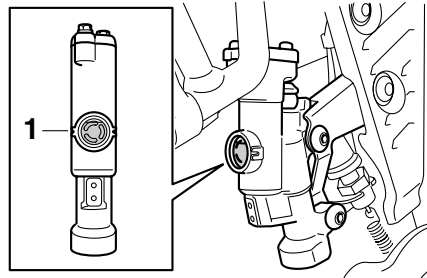
Checking the brake fluid level Front brake

EAU22580



1. Minimum level mark

Rear brake



1. Minimum level mark

Insufficient brake fluid may allow air to enter the brake system, possibly caus-

ing it to become ineffective.

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

Observe these precautions:

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

Recommended brake fluid:
DOT 4

- Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor braking performance.
- Be careful that water does not enter the brake fluid reservoir when refilling. Water will significantly

PERIODIC MAINTENANCE AND MINOR REPAIR

lower the boiling point of the fluid and may result in vapor lock.

- Brake fluid may deteriorate painted surfaces or plastic parts. Always clean up spilled fluid immediately.
- As the brake pads wear, it is normal for the brake fluid level to gradually go down. However, if the brake fluid level goes down suddenly, have a Yamaha dealer check the cause.

Changing the brake fluid

EAU22730

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

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

Drive chain slack

EAU22760

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

To check the drive chain slack

EAU22771

1. Place the motorcycle on the side-stand.

NOTE:

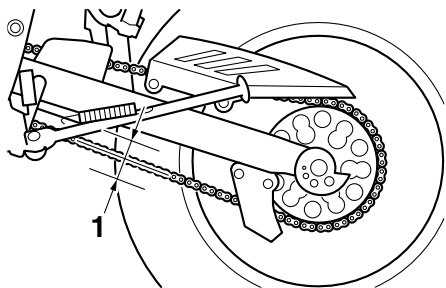
When checking and adjusting the drive chain slack, there should be no weight on the motorcycle.

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

Drive chain slack:
40.0–45.0 mm (1.57–1.77 in)

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU23022



1. Drive chain slack

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

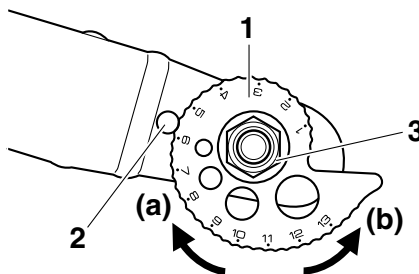
EAU22960

To adjust the drive chain slack

1. Loosen the axle nut.
2. To tighten the drive chain, turn the 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.

NOTE:

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



1. Adjusting plate
2. Stopper
3. Axle nut

ECA10570

CAUTION:

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

3. Tighten the axle nut to the specified torque.

Tightening torque:

Axle nut:
85 Nm (8.5 m·kgf, 61.5 ft·lbf)

Cleaning and lubricating the drive chain

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

ECA10581

CAUTION:

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

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

ECA11120

CAUTION:

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

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

PERIODIC MAINTENANCE AND MINOR REPAIR

CAUTION:

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

ECA11110

Checking and lubricating the cables

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

Recommended lubricant:
Engine oil

EAU23100

Checking and lubricating the throttle grip and cable

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

EAU23111

WARNING

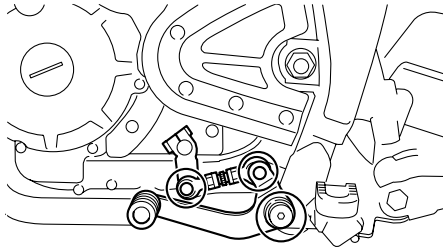
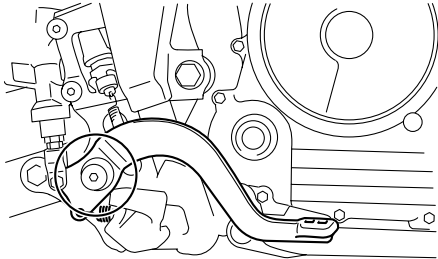
Damage to the outer sheath may interfere with proper cable operation and will cause the inner cable to rust. Replace a damaged cable as soon as possible to prevent unsafe conditions.

EWA10720

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU23131

Checking and lubricating the brake and shift pedals



6

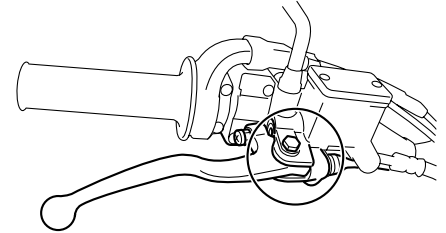
The operation of the brake and shift pedals should be checked before each ride, and the pedal pivots should be lubricated if necessary.

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

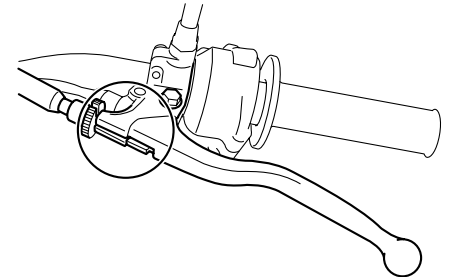
EAU23140

Checking and lubricating the brake and clutch levers

Brake lever



Clutch lever



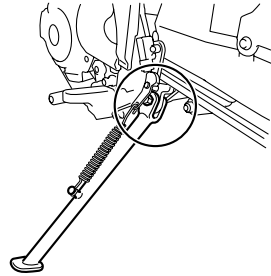
The operation of the brake and clutch levers should be checked before each ride, and the lever pivots should be lubricated if necessary.

PERIODIC MAINTENANCE AND MINOR REPAIR

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

Checking and lubricating the sidestand

EAU23200



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

EWA10730

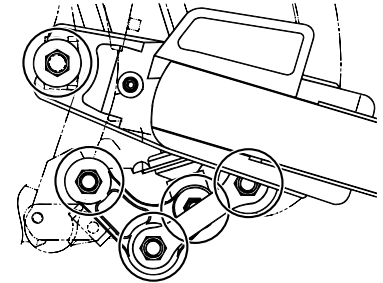
WARNING

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

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

Lubricating the rear suspension

EAU23240



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

Recommended lubricant:
Molybdenum disulfide grease

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU23271

Checking the front fork

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

To check the condition

EWA10750

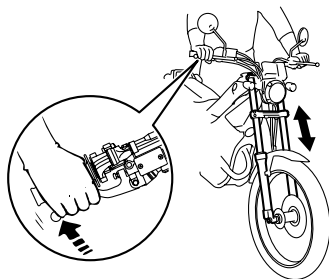
⚠ WARNING

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

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

To check the operation

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



ECA10590

CAUTION:

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

EAU23280

Checking the steering

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

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

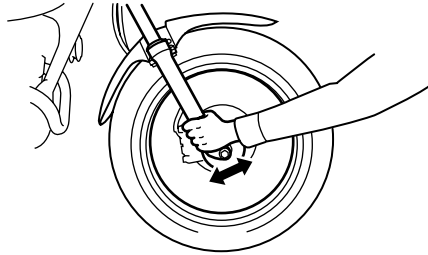
EWA10750

⚠ WARNING

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

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

PERIODIC MAINTENANCE AND MINOR REPAIR



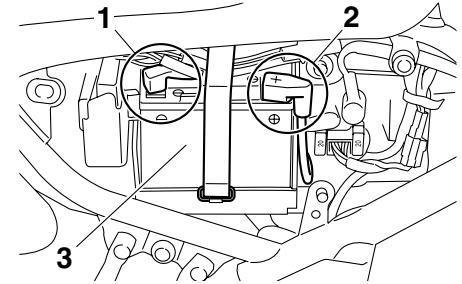
EAU23290

Checking the wheel bearings

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

EAU23390

Battery



1. Negative battery terminal
2. Positive battery terminal
3. Battery

The battery is located behind panel F. (See page 6-5.)

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

To charge the battery

1. 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 vehi-

PERIODIC MAINTENANCE AND MINOR REPAIR

cle is equipped with optional electrical accessories.

EWA10760

WARNING

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

IES OUT OF THE REACH OF CHILDREN.

To store the battery

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

ECA10630

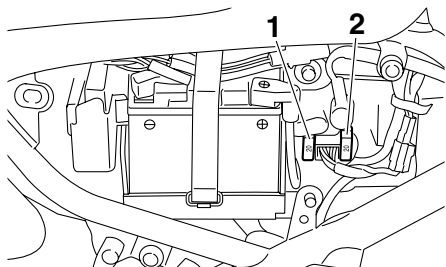
CAUTION:

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

sealed-type (MF) battery charger, have a Yamaha dealer charge your battery.

EAU23502

Replacing the fuse



1. Fuse
2. Spare fuse

The fuse holder is located behind panel F. (See page 6-5.)

If the fuse is blown, replace it as follows.

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

Specified fuse:
20.0 A

ECA10640

CAUTION:

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

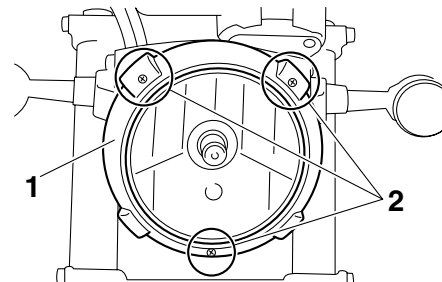
3. Turn the key to "ON" and turn on the electrical circuits to check if the devices operate.
4. If the fuse immediately blows again, have a Yamaha dealer check the electrical system.

EAU37920

Replacing the headlight bulb

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

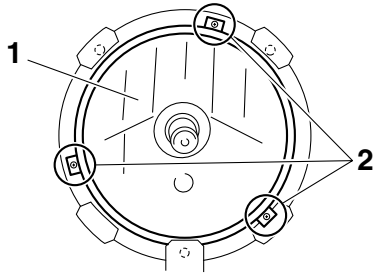
1. Remove the headlight rim by removing the screws.



1. Headlight rim
2. Screw

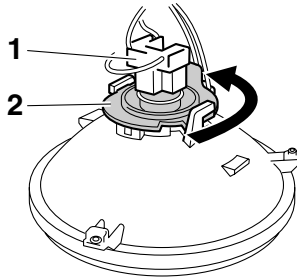
2. Remove the headlight unit by removing the screws.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Headlight unit
2. Screw

3. Disconnect the headlight coupler.
4. Remove the headlight bulb holder by turning it counterclockwise, and then remove the defective bulb.



1. Headlight coupler
2. Headlight bulb holder

WARNING

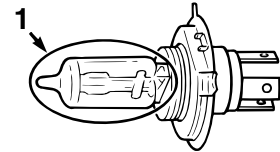
Headlight bulbs get very hot. Therefore, keep flammable products away from a lit headlight bulb, and do not touch the bulb until it has cooled down.

5. Place a new headlight bulb into position, and then install the headlight bulb holder into its original position by turning it clockwise.

CAUTION:

Do not touch the glass part of the headlight bulb to keep it free from oil, otherwise the transparency of

the glass, the luminosity of the bulb, and the bulb life will be adversely affected. Thoroughly clean off any dirt and fingerprints on the headlight bulb using a cloth moistened with alcohol or thinner.



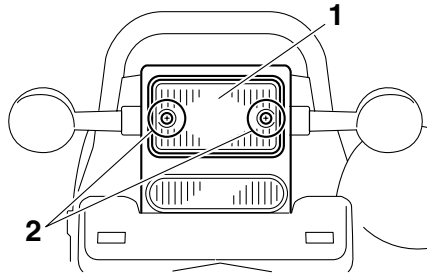
1. Do not touch the glass part of the bulb.
6. Connect the headlight coupler.
7. Install the headlight unit by installing the screws.
8. Install the headlight rim by installing the screws.
9. Have a Yamaha dealer adjust the headlight beam if necessary.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU24131

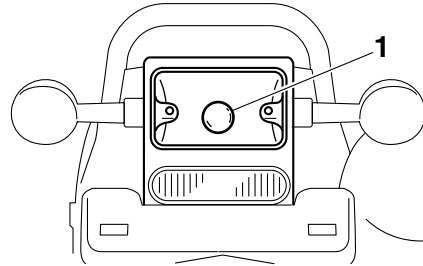
Replacing the tail/brake light bulb

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



1. Tail/brake light lens
2. Screw

2. Remove the defective bulb by pushing it in and turning it counter-clockwise.



1. Tail/brake light bulb

3. Insert a new bulb into the socket, push it in, and then turn it clockwise until it stops.
4. Install the lens by installing the screws.

ECA10680

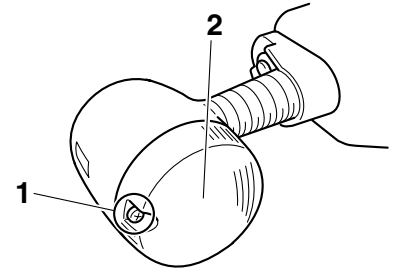
CAUTION:

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

EAU24202

Replacing a turn signal light bulb

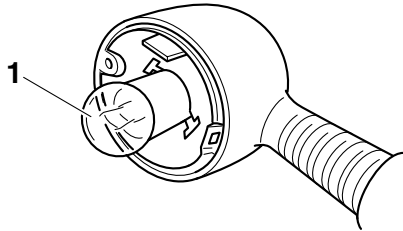
1. Remove the turn signal light lens by removing the screw.



1. Screw
2. Turn signal light lens

2. Remove the defective bulb by pushing it in and turning it counter-clockwise.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Turn signal light bulb
3. Insert a new bulb into the socket, push it in, and then turn it clockwise until it stops.
4. Install the lens by installing the screw.

ECA11190

CAUTION:

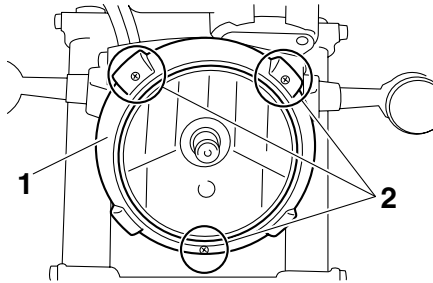
Do not overtighten the screw, otherwise the lens may break.

EAU37930

Replacing the auxiliary light bulb

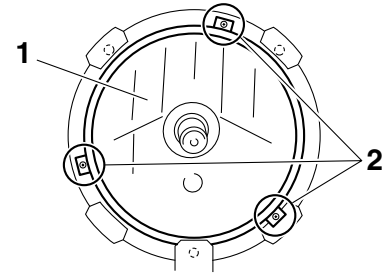
If the auxiliary light bulb burns out, replace it as follows.

1. Remove the headlight rim by removing the screws.



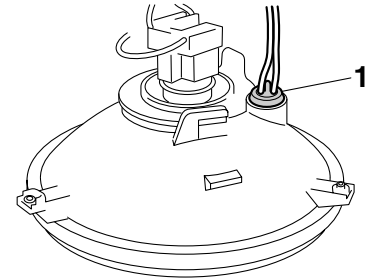
1. Headlight rim
2. Screw

2. Remove the headlight unit by removing the screws.



1. Headlight unit
2. Screw

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



1. Auxiliary light bulb socket
4. Remove the defective bulb by pulling it out.
5. Insert a new bulb into the socket.

PERIODIC MAINTENANCE AND MINOR REPAIR

6. Install the socket (together with the bulb) by pushing it in.
7. Install the headlight unit by installing the screws.
8. Install the headlight rim by installing the screws.

Supporting the motorcycle

EAU24350

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

To service the front wheel

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

To service the rear wheel

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

Front wheel

EAU24360

To remove the front wheel

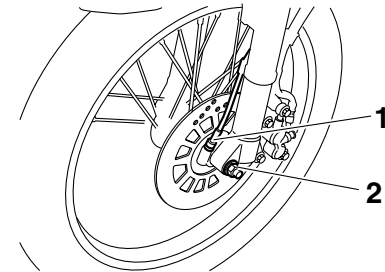
EAU24580

EWA10820

⚠ WARNING

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

1. Disconnect the speedometer cable from the front wheel.
2. Loosen the axle nut.



1. Speedometer cable
2. Axle nut

3. Lift the front wheel off the ground

PERIODIC MAINTENANCE AND MINOR REPAIR

according to the procedure on page 6-31.

4. Remove the axle nut, pull the wheel axle out, and then remove the wheel.

ECA11070

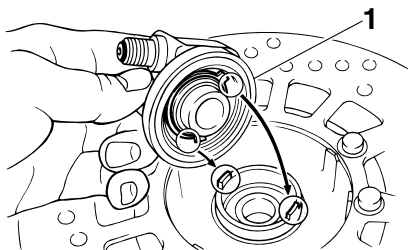
CAUTION:

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

EAU24981

To install the front wheel

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

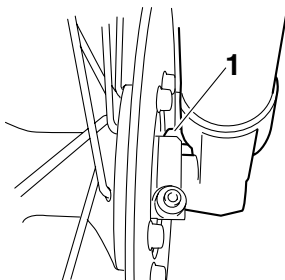


1. Speedometer gear unit

2. Lift the wheel up between the fork legs.

NOTE:

Make sure that there is enough space between the brake pads before inserting the brake disc and that the slot in the speedometer gear unit fits over the retainer on the fork leg.



1. Retainer

3. Insert the wheel axle, and then install the axle nut.
4. Lower the front wheel so that it is on the ground.
5. Tighten the axle nut to the specified torque.

Tightening torque:

Axle nut:

85 Nm (8.5 m·kgf, 61.5 ft·lbf)

6. Connect the speedometer cable.

PERIODIC MAINTENANCE AND MINOR REPAIR

Rear wheel

EAU25080

To remove the rear wheel

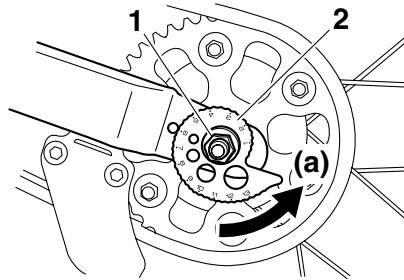
EAU37851

EWA10820

WARNING

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

1. Loosen the axle nut.
2. Lift the rear wheel off the ground according to the procedure on page 6-31.
3. Turn the drive chain adjusting plate on each side of the swingarm fully in direction (a).
4. Push the wheel forward, and then remove the drive chain from the rear sprocket.

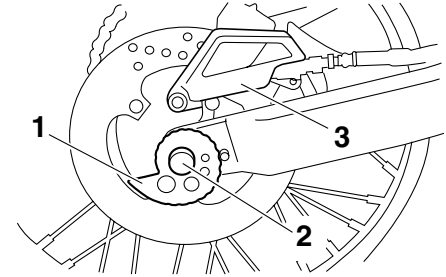


1. Axle nut
2. Chain adjusting plate

NOTE:

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

5. Remove the axle nut.
6. While supporting the brake caliper, pull the wheel axle out from the right-hand side.



1. Chain adjusting plate
2. Wheel axle
3. Brake caliper

7. Remove the drive chain adjusting plates.
8. Remove the wheel by pulling it to the back.

ECA11070

CAUTION:

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

EAU37860

To install the rear wheel

1. Install the drive chain adjusting plates, the wheel and the brake

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU25850

caliper bracket by inserting the wheel axle from the right-hand side.

NOTE:

- Make sure that the drive chain adjusting plates are installed with the punched sides facing to the outside and that the retainer on the swingarm is inserted into the slot in the brake caliper bracket.
- Make sure that there is enough space between the brake pads before installing the wheel.

3. Install the axle nut, and then lower the rear wheel so that it is on the ground.
4. Tighten the axle nut to the specified torque.

Tightening torque:

Axle nut:
85 Nm (8.5 m·kgf, 61.5 ft·lbf)

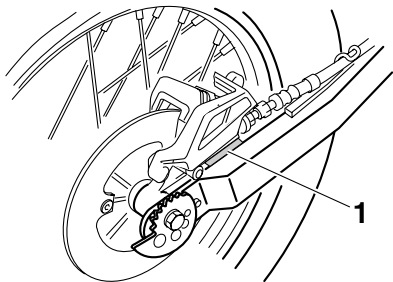
Troubleshooting

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.

6



1. Retainer

2. Install the drive chain onto the rear sprocket, and then adjust the drive chain slack. (See page 6-19.)

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU25901

Troubleshooting chart

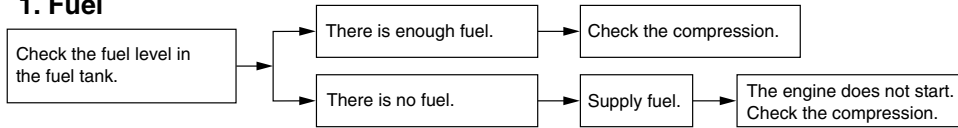
EWA10840



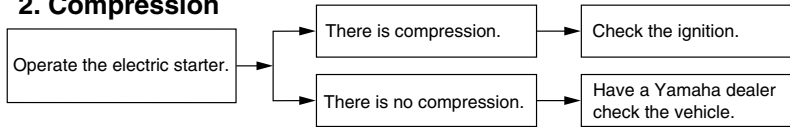
WARNING

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

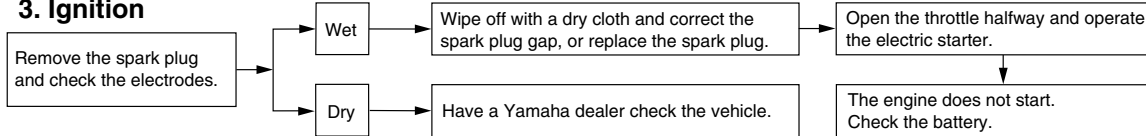
1. Fuel



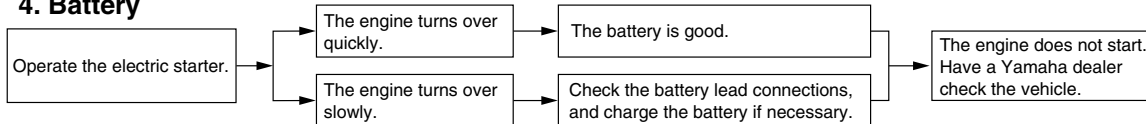
2. Compression



3. Ignition



4. Battery



MOTORCYCLE CARE AND STORAGE

Matte black caution

EAU37831

ECA15191

CAUTION:

Some models are equipped with matte black 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 black finished parts.

Care

EAU26000

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, sprock-

ets, the drive chain and wheel axles. Always rinse the dirt and degreaser off with water.

Cleaning

ECA10770

CAUTION:

- Avoid using strong acidic wheel cleaners, especially on spoked wheels. If such products are used on hard-to-remove dirt, do not leave the cleaner on the affected area any longer than instructed. Also, thoroughly rinse the area off with water, immediately dry it, and then apply a corrosion protection spray.
- Improper cleaning can damage windshields, cowlings, panels and other plastic parts. Use only a soft, clean cloth or sponge with mild detergent and water to clean plastic.
- Do not use any harsh chemical products on plastic parts. Be sure to avoid using cloths or sponges which have been in contact with strong or abrasive cleaning products, solvent or thinner, fuel (gasoline), rust re-

MOTORCYCLE CARE AND STORAGE

movers or inhibitors, brake fluid, antifreeze or electrolyte.

- **Do not use high-pressure washers or steam-jet cleaners since they cause water seepage and deterioration in the following areas: seals (of wheel and swing-arm bearings, fork and brakes), electric components (couplers, connectors, instruments, switches and lights), breather hoses and vents.**
- **For motorcycles equipped with a windshield: Do not use strong cleaners or hard sponges as they will cause dulling or scratching. Some cleaning compounds for plastic may leave scratches on the windshield. Test the product on a small hidden part of the windshield to make sure that it does not leave any marks. If the windshield is scratched, use a quality plastic polishing compound after washing.**

After normal use

Remove dirt with warm water, a mild

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

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

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

NOTE: _____

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

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

ECA10790

CAUTION: _____

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

2. Apply a corrosion protection spray

on all metal, including chrome- and nickel-plated, surfaces to prevent corrosion.

After cleaning

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

MOTORCYCLE CARE AND STORAGE

EWA10930

WARNING

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

ECA10800

CAUTION:

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

NOTE:

Consult a Yamaha dealer for advice on

what products to use.

EAU26150

Storage

Short-term

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

ECA10810

CAUTION:

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

Long-term

Before storing your motorcycle for several months:

1. Follow all the instructions in the “Care” section of this chapter.
2. For motorcycles equipped with a fuel cock that has an “OFF” position: Turn the fuel cock lever to “OFF”.
3. Drain the carburetor float chamber

MOTORCYCLE CARE AND STORAGE

by loosening the drain bolt; this will prevent fuel deposits from building up. Pour the drained fuel into the fuel tank.

4. Fill up the fuel tank and add fuel stabilizer (if available) to prevent the fuel tank from rusting and the fuel from deteriorating.
5. Perform the following steps to protect the cylinder, piston rings, etc. from corrosion.
 - a. Remove the spark plug cap and spark plug.
 - b. Pour a teaspoonful of engine oil into the spark plug bore.
 - c. Install the spark plug cap onto the spark plug, and then place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
 - d. Turn the engine over several times with the starter. (This will coat the cylinder wall with oil.)
 - e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap.

EWA10950

WARNING

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

6. Lubricate all control cables and the pivoting points of all levers and pedals as well as of the sidestand/centerstand.
7. Check and, if necessary, correct the tire air pressure, and then lift the motorcycle so that both of its wheels are off the ground. Alternatively, turn the wheels a little every month in order to prevent the tires from becoming degraded in one spot.
8. Cover the muffler outlet with a plastic bag to prevent moisture from entering it.
9. Remove the battery and fully charge it. Store it in a cool, dry place and charge it once a month. Do not store the battery in an excessively cold or warm place [less than 0 °C (30 °F) or more than 30 °C (90 °F)]. For more in-

formation on storing the battery, see page 6-25.

NOTE:

Make any necessary repairs before storing the motorcycle.

SPECIFICATIONS

EAU2633D

Dimensions:

- Overall length:
2010 mm (79.1 in)
- Overall width:
800 mm (31.5 in)
- Overall height:
1145 mm (45.1 in)
- Seat height:
790 mm (31.1 in)
- Wheelbase:
1330 mm (52.4 in)
- Ground clearance:
280 mm (11.02 in)
- Minimum turning radius:
1900 mm (74.8 in)

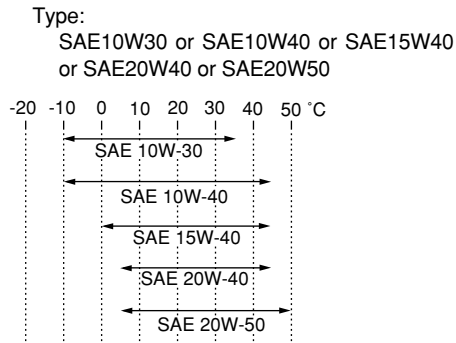
Weight:

- With oil and fuel:
120.0 kg (265 lb)

Engine:

- Engine type:
Air cooled 4-stroke, SOHC
- Cylinder arrangement:
Forward-inclined single cylinder
- Displacement:
249.0 cm³ (15.19 cu.in)
- Bore × stroke:
74.0 × 58.0 mm (2.91 × 2.28 in)
- Compression ratio:
9.50 :1
- Starting system:
Electric starter
- Lubrication system:
Wet sump

Engine oil:



- Recommended engine oil grade:
API service SE, SF, SG type or higher

Engine oil quantity:

- Without oil filter element replacement:
1.20 L (1.27 US qt) (1.06 Imp.qt)
- With oil filter element replacement:
1.30 L (1.37 US qt) (1.14 Imp.qt)

Air filter:

- Air filter element:
Oil-coated paper element

Fuel:

- Recommended fuel:
Regular unleaded gasoline only
- Fuel tank capacity:
6.0 L (1.59 US gal) (1.32 Imp.gal)
- Fuel reserve amount:
1.9 L (0.50 US gal) (0.42 Imp.gal)

Carburetor:

- Manufacturer:
TEIKEI
- Type × quantity:
MV33 × 1

Spark plug (s):

- Manufacturer/model:
NGK/DR7EA
- Spark plug gap:
0.6–0.7 mm (0.024–0.028 in)

Clutch:

- Clutch type:
Wet, multiple-disc

Transmission:

- Primary reduction system:
Spur gear
- Primary reduction ratio:
74/24 (3.083)
- Secondary reduction system:
Chain drive
- Secondary reduction ratio:
45/15 (3.000)
- Transmission type:
Constant mesh 5-speed
- Operation:
Left foot operation

Gear ratio:

- 1st:
37/13 (2.846)
- 2nd:
29/16 (1.812)
- 3rd:
29/22 (1.318)

4th:
29/28 (1.035)

5th:
23/28 (0.821)

Chassis:

Frame type:
Semi double cradle

Caster angle:
25.17 °

Trail:
92.0 mm (3.62 in)

Front tire:

Type:
With tube

Size:
80/100-19M/C 49P

Manufacturer/model:
BRIDGESTONE/TW201

Rear tire:

Type:
With tube

Size:
120/90-16M/C 63P

Manufacturer/model:
BRIDGESTONE/TW202

Loading:

Maximum load:
180 kg (397 lb)

* (Total weight of rider, passenger, cargo
and accessories)

Tire air pressure (measured on cold tires):

Loading condition:
0–90 kg (0–198 lb)

Front:
125 kPa (18 psi) (1.25 kgf/cm²)

Rear:
150 kPa (22 psi) (1.50 kgf/cm²)

Loading condition:
90–180 kg (198–397 lb)

Front:
150 kPa (22 psi) (1.50 kgf/cm²)

Rear:
175 kPa (25 psi) (1.75 kgf/cm²)

Front wheel:

Wheel type:
Spoke wheel

Rim size:
19x1.85

Rear wheel:

Wheel type:
Spoke wheel

Rim size:
16x2.15

Front brake:

Type:
Single disc brake

Operation:
Right hand operation

Recommended fluid:
DOT 4

Rear brake:

Type:
Single disc brake

Operation:
Right foot operation

Recommended fluid:
DOT 4

Front suspension:

Type:
Telescopic fork

Spring/shock absorber type:
Coil spring/oil damper

Wheel travel:
180.0 mm (7.09 in)

Rear suspension:

Type:
Swingarm (link suspension)

Spring/shock absorber type:
Coil spring/gas-oil damper

Wheel travel:
172.0 mm (6.77 in)

Electrical system:

Ignition system:
CDI

Charging system:
AC magneto

Battery:

Model:
YTZ7S

Voltage, capacity:
12 V, 6.0 Ah

SPECIFICATIONS

Headlight:

Bulb type:

Halogen bulb

Bulb voltage, wattage × quantity:

Headlight:

12 V, 60 W/55.0 W × 1

Tail/brake light:

12 V, 5.0 W/21.0 W × 1

Front turn signal light:

12 V, 10.0 W × 2

Rear turn signal light:

12 V, 10.0 W × 2

Auxiliary light:

12 V, 5.0 W × 1

Meter lighting:

14 V, 3.0 W × 1

Neutral indicator light:

12 V, 1.7 W × 1

High beam indicator light:

12 V, 1.7 W × 1

Turn signal indicator light:

12 V, 1.7 W × 1

Fuse:

Fuse:

20.0 A

EAU26351

Identification numbers

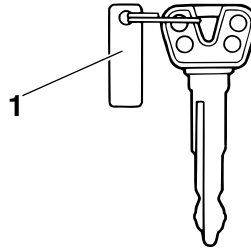
Record the key identification number, vehicle identification number and model label information in the spaces provided below for assistance when ordering spare parts from a Yamaha dealer or for reference in case the vehicle is stolen.

KEY IDENTIFICATION NUMBER:

VEHICLE IDENTIFICATION NUMBER:

MODEL LABEL INFORMATION:

Key identification number

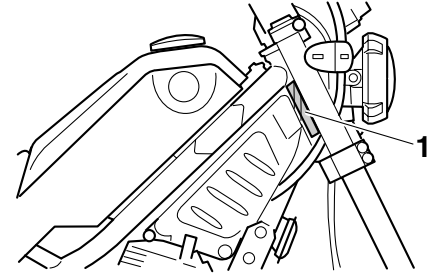


1. Key identification number

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

EAU26381

Vehicle identification number



1. Vehicle identification number

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

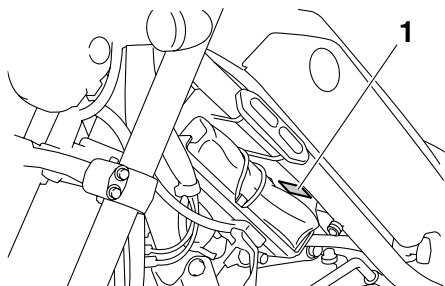
NOTE: _____

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

CONSUMER INFORMATION

EAU36980

Model label



1. Model label

The model label is affixed to the frame behind panel A. (See page 6-5.) Record the information on this label in the space provided. This information will be needed when ordering spare parts from a Yamaha dealer.

- A**
- Air filter element and check hose, replacing and cleaning6-11
 - Auxiliary light bulb, replacing6-30
- B**
- Battery6-25
 - Brake and clutch levers, checking and lubricating6-22
 - Brake and shift pedals, checking and lubricating6-22
 - Brake fluid, changing6-19
 - Brake fluid level, checking6-18
 - Brake lever3-4
 - Brake lever free play, adjusting6-16
 - Brake pedal3-5
- C**
- Cables, checking and lubricating6-21
 - Carburetor, adjusting6-12
 - Care7-1
 - Caution, matte black7-1
 - Clutch lever3-4
 - Clutch lever free play, adjusting6-16
- D**
- Dimmer switch3-3
 - Drive chain, cleaning and lubricating6-20
 - Drive chain slack6-19
- E**
- Engine break-in5-3
 - Engine idling speed6-12
 - Engine oil and oil filter element6-8
 - Engine, starting a warm5-2
 - Engine stop switch3-3
- F**
- Front and rear brake pads, checking6-17
- Front fork, checking6-24
 - Fuel3-6
 - Fuel cock3-6
 - Fuel consumption, tips for reducing5-3
 - Fuel tank cap3-5
 - Fuse, replacing6-27
- H**
- Handlebar switches3-3
 - Headlight bulb, replacing6-27
 - Helmet holder3-8
 - High beam indicator light3-2
 - Horn switch3-3
- I**
- Identification numbers9-1
 - Ignition circuit cut-off system3-10
 - Indicator lights3-2
- K**
- Key identification number9-1
- M**
- Main switch/steering lock3-1
 - Model label9-2
- N**
- Neutral indicator light3-2
- P**
- Panels, removing and installing6-5
 - Parking5-4
 - Part locations2-1
 - Periodic maintenance and lubrication chart6-2
 - Pre-operation check list4-2
- R**
- Rear brake light switch, adjusting6-17
 - Rear suspension, lubricating6-23
- S**
- Safety information1-1
 - Seat3-8
 - Shifting5-2
 - Shift pedal3-4
 - Shock absorber3-9
 - Sidestand3-9
 - Sidestand, checking and lubricating6-23
 - Spark plug, checking6-6
 - Specifications8-1
 - Speedometer unit3-2
 - Starter (choke) knob3-7
 - Starting a cold engine5-1
 - Start switch3-3
 - Steering, checking6-24
 - Storage7-3
 - Storage pouch3-9
 - Supporting the motorcycle6-31
- T**
- Tail/brake light bulb, replacing6-29
 - Throttle cable free play, checking6-13
 - Throttle grip and cable, checking and lubricating6-21
 - Tires6-13
 - Tool kit6-1
 - Troubleshooting6-34
 - Troubleshooting chart6-35
 - Turn signal indicator light3-2
 - Turn signal light bulb, replacing6-29
 - Turn signal switch3-3
- V**
- Valve clearance6-13
 - Vehicle identification number9-1


INDEX

W

Wheel bearings, checking.....	6-25
Wheel (front)	6-31
Wheel (rear)	6-33
Wheels	6-15



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