



OWNER'S MANUAL

 **Read this manual carefully
before operating this vehicle.**



MOTORCYCLE

YZF320-A

BRA-FU199-E0



ผู้ใดมีไว้ในครอบครอง หรือ ใช้ซึ่งเครื่องวิทยุคมนาคมหรือตั้งสถานีวิทยุคมนาคมนี้ ต้องได้รับใบอนุญาตจากเจ้าพนักงานผู้ออกใบอนุญาต หากฝ่าฝืน มาตรา 6 หรือมาตรา 11 มีความผิดตามมาตรา 23 แห่งพระราชบัญญัติวิทยุคมนาคม พ.ศ. 2498 ต้องระวางโทษปรับไม่เกินหนึ่งแสนบาท หรือจำคุกไม่เกินห้าปี หรือทั้งปรับทั้งจำ



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กำกับดูแลเพื่อประชาชน
Call Center 1200 (InswS)

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

Welcome to the Yamaha world of motorcycling!

As the owner of the YZF320-A, 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 YZF320-A. The Owner's Manual does not only instruct you in how to operate, inspect and maintain your scooter, 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 scooter in the best possible condition. If you have any further questions, do not hesitate to contact your Yamaha dealer.

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

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

Introduction

EWA12412



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

Important manual information

EAU89891

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

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

*Product and specifications are subject to change without notice.

Important manual information

EAUN0430

**YZF320-A
OWNER'S MANUAL
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Manufacturing
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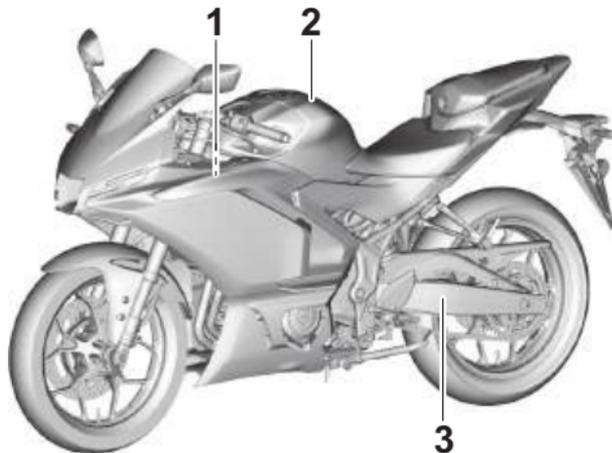
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Location of important labels

EAU10387

1

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



Location of important labels

1



2



1

3

 	
100kPa=1bar	kPa, psi
	200, 29
	200, 29

2MS-F1668-01

Be a Responsible Owner

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

Motorcycles are single-track vehicles. Their safe use and operation are dependent upon the use of proper riding techniques as well as the expertise of the operator. Every operator should know the following requirements before riding this motorcycle.

He or she should:

- Obtain thorough instructions from a competent source on all aspects of motorcycle operation.
- Observe the warnings and maintenance requirements in this Owner's Manual.

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

Safe Riding

Perform the pre-operation checks each time you use the vehicle to make sure it is in safe operating condition. Failure to inspect or maintain the vehicle properly

increases the possibility of an accident or equipment damage. See page 6-1 for a list of pre-operation checks.

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

Therefore:

- Wear a brightly colored jacket.

- Use extra caution when you are approaching and passing through intersections, since intersections are the most likely places for motorcycle accidents to occur.
- Ride where other motorists can see you. Avoid riding in another motorist's blind spot.
- Never maintain a motorcycle without proper knowledge. Contact an authorized motorcycle dealer to inform you on basic motorcycle maintenance. Certain maintenance can only be carried out by certified staff.

Safety information

2

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

- The posture of the operator and passenger is important for proper control.
 - The operator should keep both hands on the handlebar and both feet on the operator footrests during operation to maintain control of the motorcycle.
 - The passenger should always hold onto the operator, the seat strap or grab bar, if equipped, with both hands and keep both feet on the passenger footrests. Never carry a passenger unless he or she can firmly place both feet on the passenger footrests.
- Never ride under the influence of alcohol or other drugs.
- This motorcycle is designed for on-road use only. It is not suitable for off-road use.

Protective Apparel

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

- Always wear an approved helmet.
- Wear a face shield or goggles. Wind in your unprotected eyes could contribute to an impairment of vision that could delay seeing a hazard.
- The use of a jacket, heavy boots, trousers, gloves, etc., is effective in preventing or reducing abrasions or lacerations.

Safety information

2

- Never wear loose-fitting clothes, otherwise they could catch on the control levers, footrests, or wheels and cause injury or an accident.
- Always wear protective clothing that covers your legs, ankles, and feet. The engine or exhaust system become very hot during or after operation and can cause burns.
- A passenger should also observe the above precautions.

Avoid Carbon Monoxide Poisoning

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

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

- Do not run engine indoors. Even if you try to ventilate engine exhaust with fans or open windows and doors, carbon monoxide can rapidly reach dangerous levels.

- Do not run engine in poorly ventilated or partially enclosed areas such as barns, garages, or carports.
- Do not run engine outdoors where engine exhaust can be drawn into a building through openings such as windows and doors.

Loading

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, along with the information about

accessories below, are some general guidelines to follow if loading cargo to your motorcycle:

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

Operation of an overloaded vehicle could cause an accident.

<p>Maximum load: 160 kg (353 lb)</p>

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. Securely pack your heaviest items as close to the center of the vehicle as possible and make sure to distribute the weight as evenly as possi-

Safety information

2 ble on both sides of the motorcycle to minimize imbalance or instability.

- Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the motorcycle before riding. Check accessory mounts and cargo restraints frequently.
- Properly adjust the suspension for your load (suspension-adjustable models only), and check the condition and pressure of your tires.
- 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.

- **This vehicle is not designed to pull a trailer or to be attached to a sidecar.**

Genuine Yamaha Accessories

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

Many companies with no connection to Yamaha manufacture parts and accessories or offer other modifications for Yamaha vehicles. Yamaha is not in a position to test the products that these aftermarket companies produce.

Therefore, Yamaha can neither endorse nor recommend the use of accessories not sold by Yamaha or modifications not specifically recommended by Yamaha, even if sold and installed by a Yamaha dealer.

Aftermarket Parts, Accessories, and Modifications

While you may find aftermarket products similar in design and quality to genuine Yamaha accessories, recognize that some aftermarket accessories or modifications are not suitable because of potential safety hazards to you or others. Installing aftermarket products or having other modifications performed to your vehicle that change any of the vehicle's design or operation characteristics can put you and others

at greater risk of serious injury or death. You are responsible for injuries related to changes in the vehicle.

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

- Never install accessories 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 aerody-

Safety information

2

dynamic changes. If accessories are added to the handlebar or front fork area, they must be as lightweight as possible and should be kept to a minimum.

- Bulky or large accessories may seriously affect the stability of the motorcycle due to aerodynamic effects. Wind may attempt to lift the motorcycle, or the motorcycle may become unstable in cross winds. These accessories may also cause instability when passing or being passed by large vehicles.
- Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the opera-

tor and may limit control ability, therefore, such accessories are not recommended.

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

Aftermarket Tires and Rims

The tires and rims that came with your motorcycle were designed to match the performance capabilities and to provide the best combination of handling, braking, and comfort. Other tires, rims, sizes, and combinations may not

be appropriate. See page 8-28 for tire specifications and for information on servicing and replacing your tires.

Transporting the Motorcycle

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

- Remove all loose items from the motorcycle.
- Check that the fuel cock (if equipped) is in the off position and that there are no fuel leaks.
- Shift the transmission into gear (for models with a manual transmission).
- Secure the motorcycle with tie-downs or suitable straps that are attached to solid parts of the motorcycle, such as the frame or up-

per front fork triple clamp (and not, for example, to rubber-mounted handlebars or turn signals, or parts that could break). Choose the location for the straps carefully so the straps will not rub against painted surfaces during transport.

- The suspension should be compressed somewhat by the tie-downs, if possible, so that the motorcycle will not bounce excessively during transport.

EAU0033

Helmets

Operating this vehicle without an approved motorcycle helmet increases your chances of a severe head injury or death in the event of an accident. The majority of fatalities from motorcycle or scooter accidents are the result of head

Safety information

injuries. The use of a safety helmet is the single most critical factor in the prevention or reduction of head injuries.

2

Always select an approved motorcycle helmet

Pay attention to the following when choosing a motorcycle helmet.

- The helmet must meet the safety standard “TIS”.
- The helmet size must match the size of the rider’s head.
- Never subject a helmet to heavy shocks.

Wearing the helmet correctly

Always connect the chin strap. In the case of an accident, the helmet has a much less chance of coming off if the chin strap is connected.

Correct usage



ZAUU0003

Wrong usage



ZAUU0007

Types of helmets and their usage

- Half-type: use only for riding at low speeds



ZAUU0004

- Full-type: use only for riding at low to mid-range speeds



ZAUU0005

- Full-face-type: use for riding at mid-range to high speeds

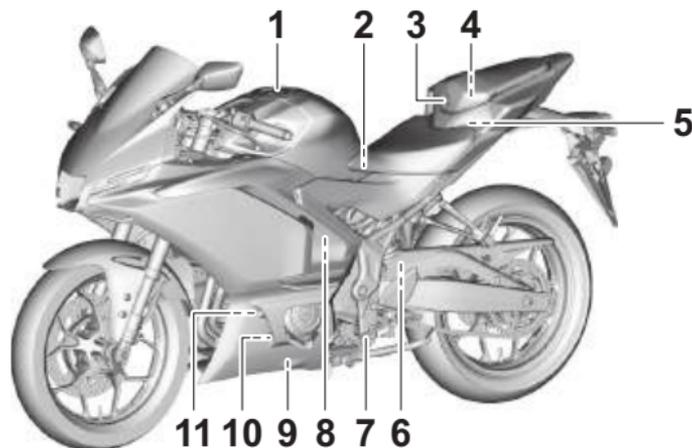
Safety information

2



ZAUU0006

Left view



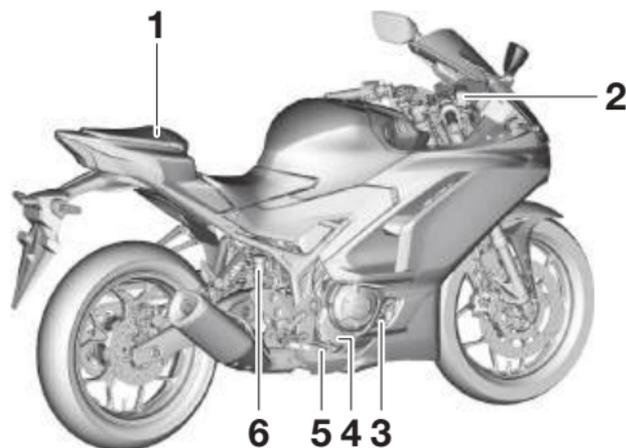
1. Fuel tank cap (page 5-27)
2. Battery (page 8-50)
3. Seat lock (page 5-32)
4. Storage compartment (page 5-36)
5. Fuses (page 8-52)
6. Spring preload adjuster (page 5-38)
7. Shift pedal (page 5-23)
8. Coolant reservoir (page 8-24)
9. Engine oil drain bolt (page 8-19)
10. Engine oil filter cartridge (page 8-19)
11. Canister (page 8-19)

Description

EAU89920

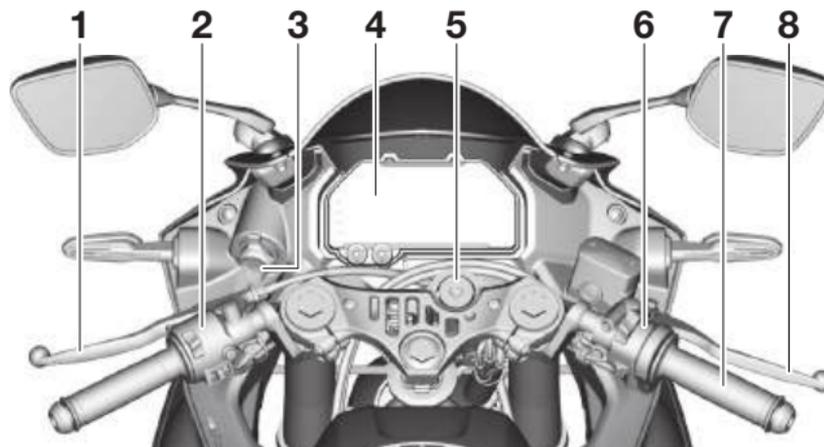
Right view

3



1. Tool kit (page 8-3)
2. Front brake fluid reservoir (page 8-36)
3. Engine oil filler cap (page 8-19)
4. Engine oil level check window (page 8-19)
5. Brake pedal (page 5-24)
6. Rear brake fluid reservoir (page 8-36)

Controls and instruments



1. Clutch lever (page 5-22)
2. Left handlebar switches (page 5-20)
3. USB Type-A jack (page 5-40)
4. Multi-function meter unit (page 5-6)
5. Main switch/steering lock (page 5-1)
6. Right handlebar switches (page 5-20)
7. Throttle grip (page 8-26)
8. Brake lever (page 5-23)

Special features

CCU (Communication Control Unit)

EAU0370

This model is equipped with a CCU that allows your vehicle and smartphone to connect using Bluetooth wireless technology and the Yamaha Motorcycle Connect App.

With this connection, notifications from apps, incoming phone calls and missed calls are signaled to you, and the battery level of your smartphone is displayed.

EWAN0070



WARNING

- **Always stop the vehicle before operating your smartphone.**
- **Never take your hands off the handlebars while riding.**

- **Always concentrate on riding by keeping your eyes and mind on the road.**
-

ECAN0150

NOTICE

The Bluetooth connection may not work in the following situations.

- **In a location exposed to strong radio waves or other electromagnetic noise.**
 - **At facilities nearby that are emitting strong radio waves (TV or radio towers, power plants, broadcasting stations, airports, etc.).**
-

Pairing the CCU and your smartphone

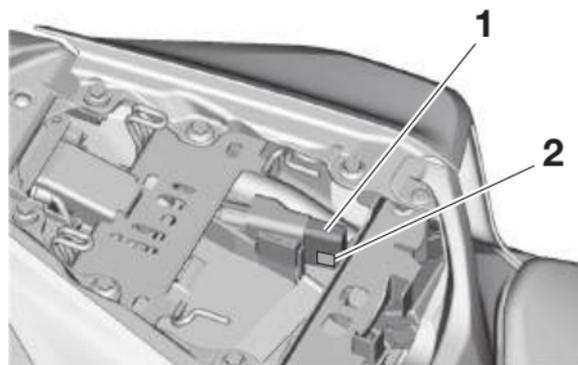
1. Install the Yamaha Motorcycle Connect App on your smartphone and activate it.



TIP

The Yamaha Motorcycle Connect App can be downloaded from an App store.

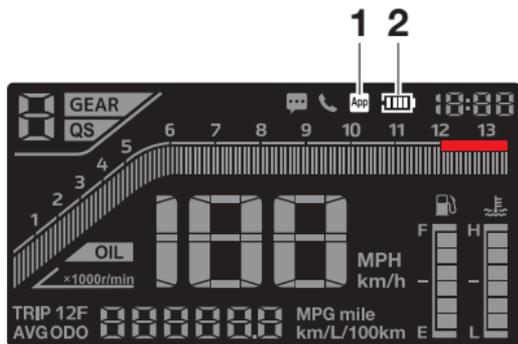
2. Remove the passenger seat (See page 5-32.).
3. Pull out the CCU and scan its QR code with the Yamaha Motorcycle Connect App.



1. CCU (Communication Control Unit)
2. CCU QR Code

4. When pairing is complete, the App connect icon and smartphone battery level meter will come on.

Special features



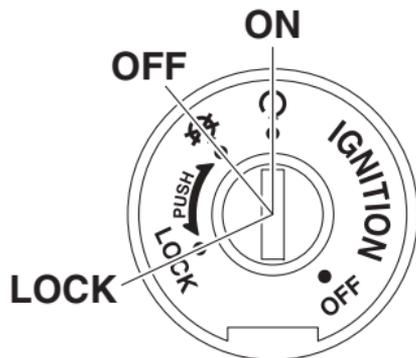
1. Yamaha Motorcycle Connect icon
2. Smartphone battery level meter

TIP

- Once paired, the smartphone is registered in the CCU. The next time the vehicle is turned on and the Yamaha Motorcycle Connect App is active, the connection will be automatically executed.

- Only one smartphone can be connected to the CCU at a time.
- If more than one phone has been registered in the CCU, then the first phone within reach will be connected.

Main switch/steering lock



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

○ (ON)

All electrical circuits are supplied with power and the vehicle lights are turned on. The engine can be started. The key cannot be removed.

TIP

- The headlight(s) will turn on when the engine is started.
- To prevent battery drain, do not leave the key in the “ON” position without the engine running.

⊗ (OFF)

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

Instrument and control functions

EWA16371

⚠ WARNING

Never turn the key to “” 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.

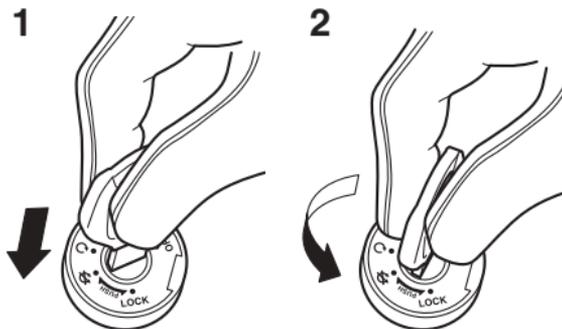
5

EAU73830

LOCK

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

To lock the steering



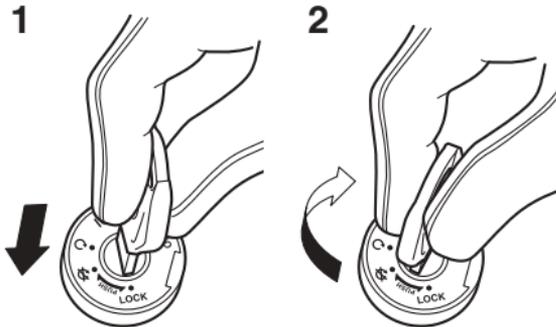
1. Push.
2. Turn.

1. Turn the handlebars all the way to the left.
2. With the key in the “” position, push the key in and turn it to “LOCK”.
3. Remove the key.

TIP

If the steering will not lock, try turning the handlebars back to the right slightly.

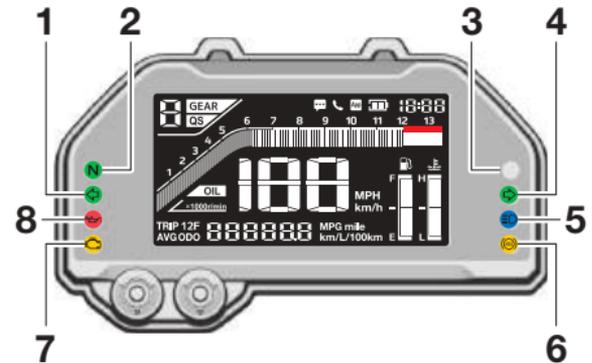
To unlock the steering



1. Push.
2. Turn.

Push the key in and turn it to “”.

Indicator lights and warning lights



1. Left turn signal indicator light “”
2. Neutral indicator light “”
3. Shift indicator light “”
4. Right turn signal indicator light “”
5. High beam indicator light “”
6. ABS warning light “”
7. Engine trouble warning light “”
8. Oil pressure warning light “”

Instrument and control functions

Turn signal indicator lights “” and “”

EAU88280

Each indicator light will flash when its corresponding turn signal lights are flashing.

Neutral indicator light “”

EAU88300

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

High beam indicator light “”

EAU88310

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

Oil pressure warning light “”

EAU94230

This warning light comes on if the engine oil pressure is low.

TIP

When the vehicle is turned on, the light should come on, go off briefly, and then remain on until the engine is started. Otherwise, have a Yamaha dealer check the vehicle.

ECA21211

NOTICE

If the warning light comes on when the engine is running, stop the engine and check the oil level. If the oil level is low, add sufficient oil of the recommended type. If the warning light remains on after adding oil, stop the engine and have a Yamaha dealer check the vehicle.

Engine trouble warning light “”

EAUN4840

This warning light comes on or flashes if a problem is detected in the engine. If this occurs, have a Yamaha dealer check the self-diagnosis system.

TIP

- When the vehicle is turned on, this light should come on for a few seconds and then go off. Otherwise, have a Yamaha dealer check the electrical circuit.
- The engine trouble warning light will come on while the start switch is pushed, but this does not indicate a malfunction.

ABS warning light “”

EAU99440

This warning light comes on when the vehicle is first turned on, and goes off after starting riding. If the warning light comes on while riding, the anti-lock brake system may not work correctly.

EWA16043



WARNING

If the ABS warning light does not turn off after reaching 10 km/h (6 mi/h), or if the warning light comes on while riding:

- **Use extra caution to avoid possible wheel lock during emergency braking.**
- **Have a Yamaha dealer check the vehicle as soon as possible.**

Instrument and control functions

TIP

The ABS warning light may come on while revving the engine with the vehicle on its centerstand, but this does not indicate a malfunction.

5

Shift indicator light “○”

EAU74094

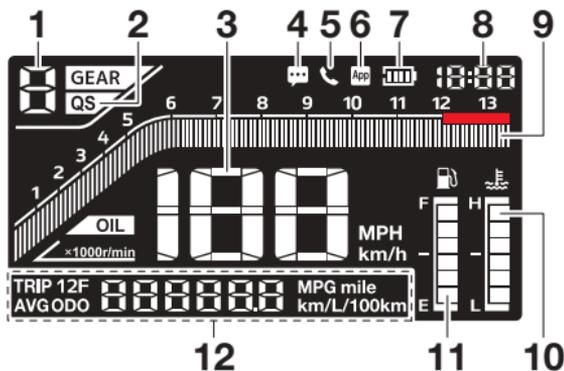
This indicator light can be set to come on and go off at select engine speeds. (See page 5-17.)

TIP

When the vehicle is turned on, the light should come on for a few seconds and then go off. If the light does not come on, or if the light remains on, have a Yamaha dealer check the vehicle.

EAU3212

Multi-function meter unit



1. Transmission gear display
2. Quick shifter indicator “QS” (if equipped)
3. Speedometer
4. Incoming notification icon “☰”
5. Incoming call icon “☎”
6. Yamaha Motorcycle Connect icon
7. Smartphone battery level meter
8. Clock
9. Tachometer
10. Coolant temperature meter

- 11. Fuel meter
- 12. Multi-function display

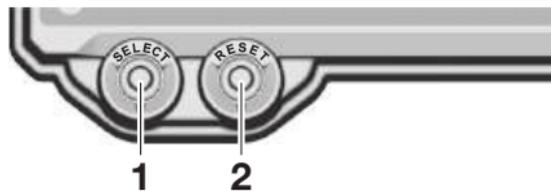
The multi-function meter unit is also equipped with a shift indicator light control mode.

EWA12423

WARNING

Be sure to stop the vehicle before making any setting changes to the multi-function meter unit. Changing settings while riding can distract the operator and increase the risk of an accident.

The “SELECT” button and “RESET” button allows you to control or change the settings of multi-function meter unit.



1. “SELECT” button
2. “RESET” button

TIP

Be sure to turn the main switch on before using the “SELECT” button and “RESET” button.

EAU87140

Switching the display units

The display units can be switched between kilometers and miles. To switch the display units, push the “SELECT” button until the display units change.

Instrument and control functions

Incoming call icon “”

EAU3220

This icon flashes when there is an incoming call to the connected smartphone, and stays on for the duration of the call. If you do not answer the call, the icon stays on until you turn the vehicle off.

TIP

This function works only when the smartphone is connected to the vehicle.

Incoming notification icon “”

EAU1002

This icon flashes for 10 seconds when the connected smartphone receives an SNS, E-mail or other notification. After that, the icon stays on until you turn the vehicle off.

TIP

- This function works only when the smartphone is connected to the vehicle.
 - Notifications must be setup for each application on the connected smartphone in advance.
-

Yamaha Motorcycle Connect icon

EAUN2863

This icon comes on when CCU and smartphone are connected via the Yamaha Motorcycle Connect app.

TIP

Even if the smartphone is not connected, when the vehicle is turned on, this icon should come on for a few sec-

onds. Otherwise have a Yamaha dealer check the CCU and the electrical circuit.

EAU3240

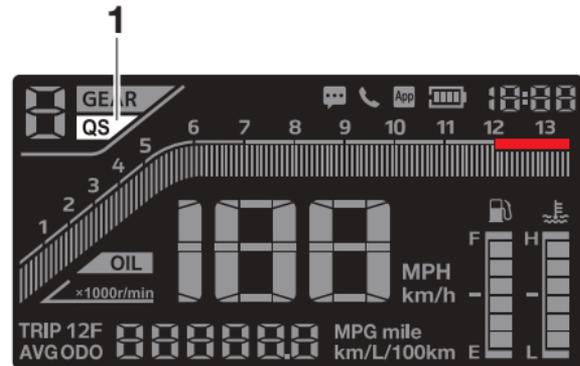
Smartphone battery level meter

This meter indicates the current battery level of the connected smartphone. The display segments of the meter disappear from full to blank as the battery level decreases. When approximately 10% or less of the battery remains, the last segment and frame starts flashing.

TIP

Even if the smartphone is not connected, when the vehicle is turned on, this icon should come on for a few seconds. Otherwise have a Yamaha dealer check the CCU and the electrical circuit.

Quick shifter indicator “QS” (if equipped)



1. Quick shifter indicator “QS”

This indicator comes on when the quick shifter is turned on.

EAU86831

Speedometer

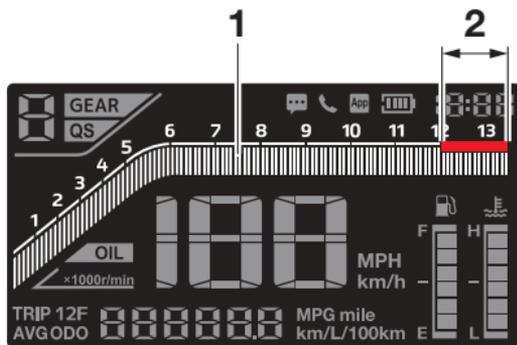
The speedometer shows the vehicle’s traveling speed.

Instrument and control functions

EAU87170

ECA10032

Tachometer



1. Tachometer
2. Tachometer red zone

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

NOTICE

Do not operate the engine in the tachometer red zone.

Red zone: 12000 r/min and above

Fuel meter

EAU86842

The fuel meter indicates the amount of fuel in the fuel tank. The display segments of the fuel meter disappear from “F” (full) towards “E” (empty) as the fuel level decreases. When approximately 3.0 L (0.79 US gal, 0.66 Imp.gal) of fuel remains, the last segment starts flashing. Refuel as soon as possible.

TIP

If a problem is detected in the electrical circuit, the fuel level segments will flash repeatedly. If this occurs, have a Yamaha dealer check the vehicle.

ECAE0121

NOTICE

Do not let the vehicle run completely out of fuel. This may cause damage to the catalytic converter.

EAUJ3250

Clock

The clock uses a 12-hour time system.

To set the clock

1. Push both the “SELECT” button and “RESET” button until the hour digits start flashing.

2. Use the “RESET” button to set the hours.
3. Push the “SELECT” button and the minute digits start flashing.
4. Use the “RESET” button to set the minutes.
5. Push the “SELECT” button to confirm the settings.

TIP

When the CCU and a smartphone connect with the vehicle power on, the clock automatically syncs with the phone.

EAU87350

Coolant temperature meter

This meter shows the temperature of the coolant, and thereby the condition of the engine. The segments come on from “C” (cold) to “H” (hot) as the en-

Instrument and control functions

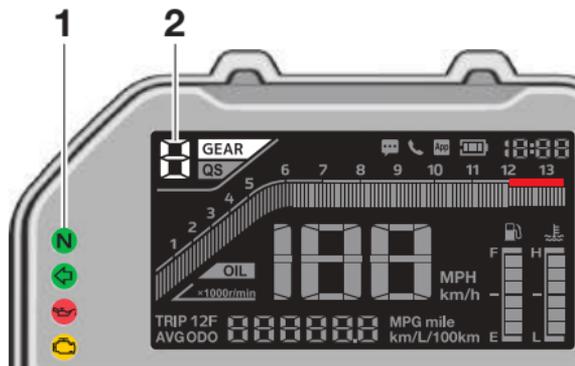
gine temperature increases. If the hot segment flashes, stop the engine as soon as possible, and let the engine cool. (See page 8-61.)

This display shows the selected gear. The neutral position is indicated by “-” and by the neutral indicator light “**N**”.

EUAU3650

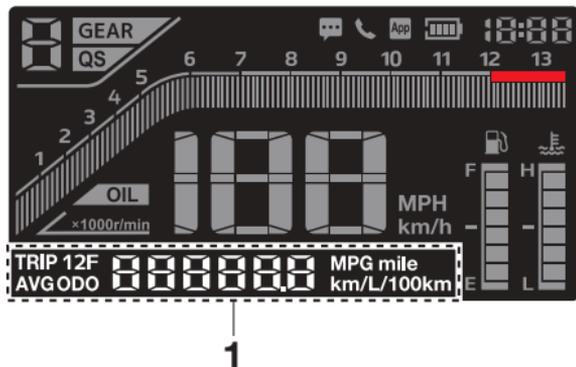
5 Transmission gear display

EUAU3260



1. Neutral indicator light “**N**”
2. Transmission gear display

Multi-function display



1. Multi-function display

The multi-function display is equipped with the following:

- an odometer (ODO)
- two tripmeters (TRIP 1 and TRIP 2)

- a fuel reserve tripmeter (TRIP F)
- an oil change tripmeter (OIL TRIP)
- an instantaneous fuel consumption display (km/L, L/100 km, or MPG)
- an average fuel consumption display (AVG_ _._ km/L, AVG_ _._ L/100 km, or AVG_ _._ MPG)

Push the “SELECT” button to change the display in the following order:

ODO → TRIP 1 → TRIP 2 → TRIP F → km/L, L/100 km or MPG → AVG_ _._ km/L, AVG_ _._ L/100 km or AVG_ _._ MPG → OIL TRIP → ODO

TIP

The fuel reserve tripmeter appears only when you are low on fuel.

Odometer

The odometer shows the total distance traveled by the vehicle.

TIP

The odometer will lock at “999999” and cannot be reset.

Tripmeters

The tripmeters show the distance traveled since they were last reset.

To reset a tripmeter, change the display to the tripmeter you want to reset, and then push the “RESET” button until it is reset.

TIP

The tripmeters will reset and continue counting after 9999.9 is reached.

Instrument and control functions

EAU87600

EAU87680

Fuel reserve tripmeter

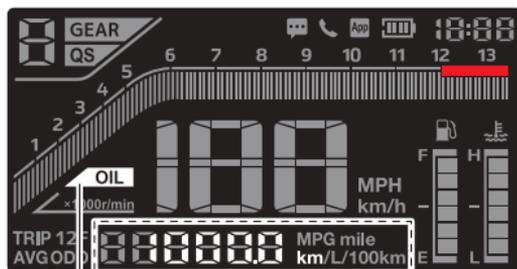
If the last segment of the fuel meter starts flashing, the display automatically changes to the fuel reserve tripmeter “TRIP F” and starts counting the distance traveled from that point.

To reset the fuel reserve tripmeter, push the “RESET” button until it is reset.

TIP

If you do not reset the fuel reserve tripmeter manually, it will reset automatically and disappear from the display after refueling and traveling 5 km (3 mi).

Oil change tripmeter



1

2

1. Oil change indicator “OIL”
2. Oil change tripmeter

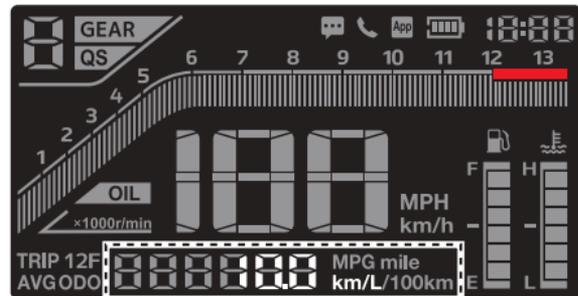
This tripmeter shows the distance traveled since the last engine oil change. The oil change indicator “OIL” will flash at the initial 1000 km (600 mi), the next 4000 km (2500 mi), and then every 5000 km (3000 mi) thereafter.

To reset the oil change tripmeter and oil change indicator, select the oil change tripmeter, and then push the “RESET” button until “OIL” and the tripmeter start flashing. While “OIL” and the tripmeter are flashing, push the “RESET” button until the tripmeter is reset.

TIP

When the engine oil has been changed, the oil change tripmeter and the oil change indicator must be reset. Otherwise, the oil change indicator will not come on at the correct time.

Instantaneous fuel consumption display



1

1. Instantaneous fuel consumption display

This display shows the fuel consumption under the current riding conditions. It can be set to either “km/L” or “L/100 km”, or “MPG” when using miles. To switch the fuel consumption measurement units, push the “SELECT” button until the measurement units change.

Instrument and control functions

- “km/L”: the distance that can be traveled on 1.0 L of fuel.
- “L/100 km”: the amount of fuel necessary to travel 100 km.
- “MPG”: the distance that can be traveled on 1.0 Imp.gal of fuel.

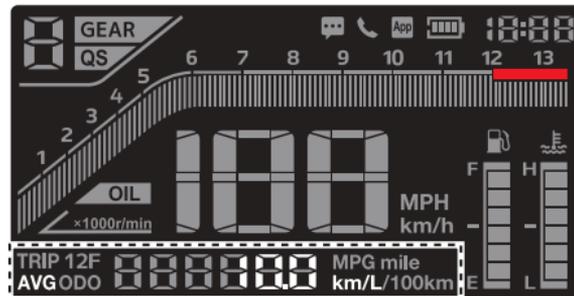
5

TIP

When traveling under 10 km/h (6 mi/h), “_ _ . _” is displayed.

EAUA3630

Average fuel consumption display



1

1. Average fuel consumption display

This display shows the average fuel consumption since it was last reset. The average fuel consumption display can be set to either “AVG_ _ . _ km/L” or “AVG_ _ . _ L/100 km”, or “AVG_ _ . _ MPG” when using miles. To switch the

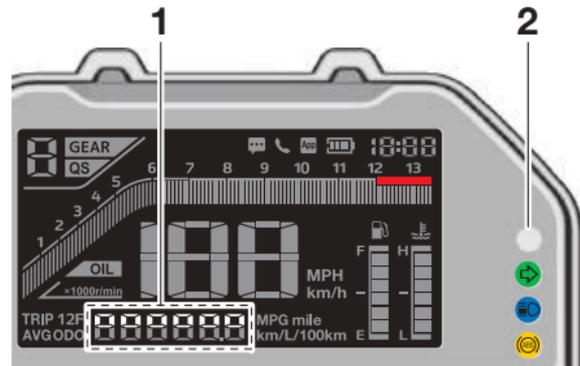
fuel consumption measurement units, push the “SELECT” button until the measurement units change.

- “AVG_ _ _ km/L”: the average distance that can be traveled on 1.0 L of fuel.
- “AVG_ _ _ L/100 km”: the average amount of fuel necessary to travel 100 km.
- “AVG_ _ _ MPG”: the average distance that can be traveled on 1.0 Imp.gal of fuel.

TIP

- To reset the display, push the “RESET” button until it resets.
- After resetting, “_ _ _” is shown until the vehicle has traveled some distance.

Shift indicator light control mode



1. Shift indicator light brightness level
2. Shift indicator light “○”

This mode cycles through 4 control functions in the order listed below.

- Shift indicator light on / flash / off
- Shift indicator light on r/min
- Shift indicator light off r/min
- Shift indicator light brightness

Instrument and control functions

To set the shift indicator light on / flash / off

1. Turn the vehicle off.
2. Push and hold the “SELECT” button.
3. Turn the vehicle on, and then release the “SELECT” button after 5 seconds.
4. Push the “RESET” button to select one of the following flashing pattern settings:
 - On setting: the shift indicator light will come on when the set engine speed is reached. This setting is selected when the shift indicator light stays on.
 - Flash setting: the shift indicator light will flash when the set engine speed is reached. This

setting is selected when the shift indicator light flashes 4 times per second.

- Off setting: the shift indicator light is deactivated. This setting is selected when the shift indicator light flashes once every 2 seconds.
5. Push the “SELECT” button to confirm the setting. The control mode changes to the shift indicator light on r/min setting function.

To set the shift indicator light on r/min

The shift indicator light can be set between 7000 r/min and 13500 r/min. From 7000 r/min to 12000 r/min, the indicator light can be set in increments of

500 r/min. From 12000 r/min to 13500 r/min, the indicator light can be set in increments of 200 r/min.

1. Push the “RESET” button to select the desired engine speed for activating the shift indicator light.
2. Push the “SELECT” button to confirm the selected engine speed. The control mode changes to the shift indicator light off r/min setting function.

To set the shift indicator light off r/min

The shift indicator light can be set between 7000 r/min and 13500 r/min. From 7000 r/min to 12000 r/min, the indicator light can be set in increments of 500 r/min. From 12000 r/min to 13500 r/min, the indicator light can be set in increments of 200 r/min.

Be sure to set the off r/min to a higher engine speed than the on r/min setting, otherwise the shift indicator light will not come on.

1. Push the “RESET” button to select the desired engine speed for deactivating the shift indicator light.
2. Push the “SELECT” button to confirm the selected engine speed. The control mode changes to the shift indicator light brightness setting function.

To adjust the shift indicator light brightness

1. Push the “RESET” button to select the desired shift indicator light brightness level.

Instrument and control functions

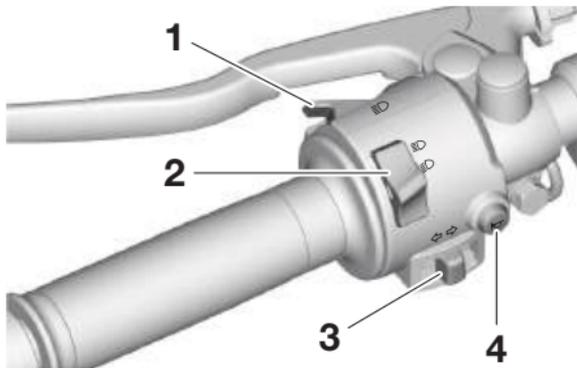
2. Push the “SELECT” button to confirm the selected brightness level and exit the control mode.

Handlebar switches

EAU1234U

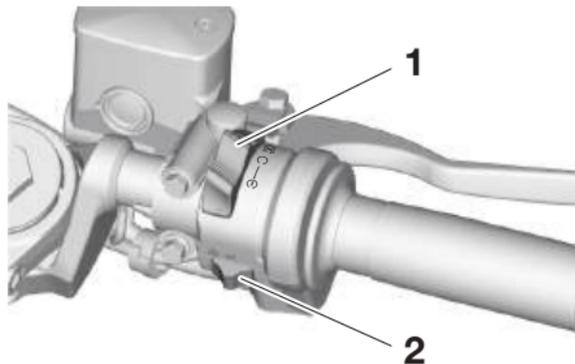
5

Left



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

Right



1. Start/Engine stop switch “ /  /  ”
2. Hazard lights switch “ / OFF”

EAU12352

Pass switch “ ”

Press this switch to flash the headlight.

TIP

When the dimmer switch is set to “ ”, the passing switch has no effect.

Dimmer switch “/”

EAU12402

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

Turn signal switch “/”

EAU12461

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 “”

EAU12501

Press this switch to sound the horn.

Start/Engine stop switch “//”

EAU68271

To crank the engine with the starter, set this switch to “”, and then slide the switch toward “”. See page 7-2 for starting instructions prior to 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.

Hazard switch “OFF/”

EAU0400

Use this switch to turn on the hazard lights (simultaneous flashing of all turn signal lights). The hazard lights are used in case of an emergency or to warn other drivers when your vehicle is stopped where it might be a traffic hazard.

Instrument and control functions

EAU12823

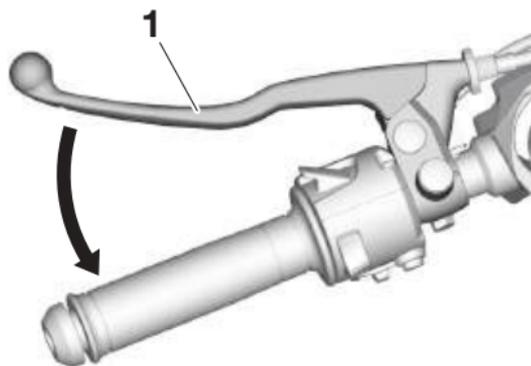
The hazard lights can be turned on or off only when the main switch is in the “ON” position. You can turn the main switch to the “OFF” or “LOCK” position, and the hazard lights will continue to flash. To turn off the hazard lights, turn the main switch to the “ON” position and operate the hazard switch again.

ECA10062

NOTICE

Do not use the hazard lights for an extended length of time with the engine not running, otherwise the battery may discharge.

Clutch lever



1. Clutch lever

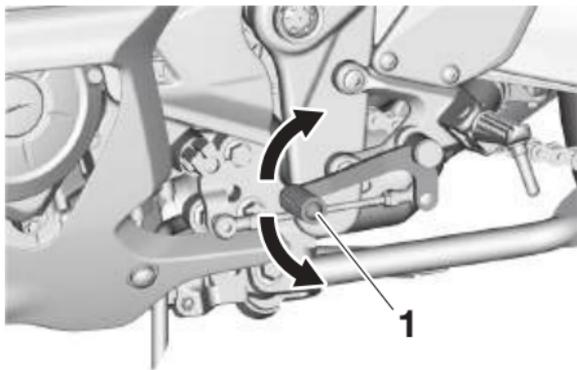
To disengage the drivetrain from the engine, such as when shifting gears, pull the clutch lever toward to the handlebar. Release the lever to engage the clutch and transmit power to the rear wheel.

TIP

The lever should be pulled rapidly and released slowly for smooth shifting. (See page 7-4.)

EAU12876

Shift pedal



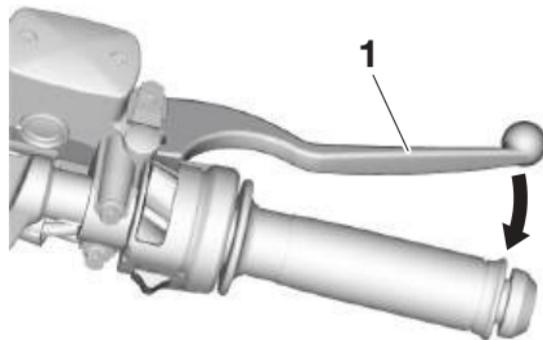
1. Shift pedal

The shift pedal is located on the left side of the motorcycle. To shift the transmission to a higher gear, move the shift pedal up. To shift the transmission to a lower gear, move the shift pedal down. (See page 7-4.)

5

EAU12892

Brake lever



1. Brake lever

Instrument and control functions

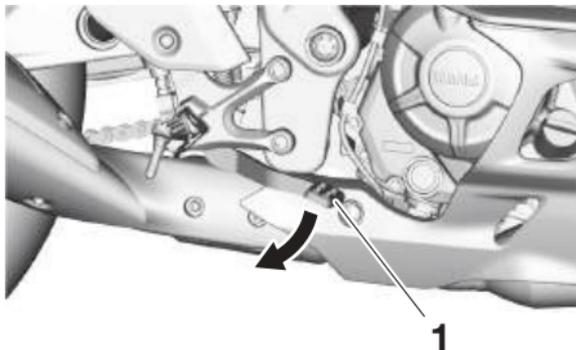
The brake lever is located on the right side of the handlebar. To apply the front brake, pull the lever toward the throttle grip.

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

EAU12944

EAU63041

5 Brake pedal



1. Brake pedal

ABS

The Yamaha ABS (Anti-lock Brake System) features a dual electronic control system, which acts on the front and rear brakes independently.

Operate the brakes with ABS as you would conventional brakes. If the ABS is activated, a pulsating sensation may be felt at the brake lever or brake pedal. In this situation, continue to apply the brakes and let the ABS work; do not “pump” the brakes as this will reduce braking effectiveness.

EWA16051

WARNING

Always keep a sufficient distance from the vehicle ahead to match the riding speed even with ABS.

- **The ABS performs best with long braking distances.**
- **On certain surfaces, such as rough or gravel roads, the braking distance may be longer with the ABS than without.**

The ABS is monitored by an ECU, which will revert the system to conventional braking if a malfunction occurs.

TIP

- The ABS performs a self-diagnostic test each time the vehicle first starts off after the key is turned to “ON” and the vehicle has traveled

at a speed of 10 km/h (6 mi/h) or higher. During this test, a “clicking” noise can be heard from the hydraulic control unit, and if the brake lever or brake pedal is even slightly applied, a vibration can be felt at the lever and pedal, but these do not indicate a malfunction.

- This ABS has a test mode which allows the owner to experience the pulsation at the brake lever or brake pedal when the ABS is operating. However, special tools are required, so please consult your Yamaha dealer.

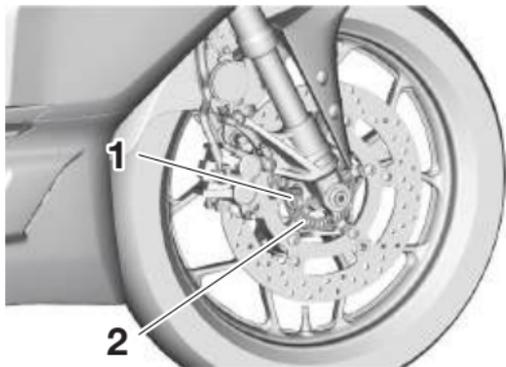
Instrument and control functions

ECA20100

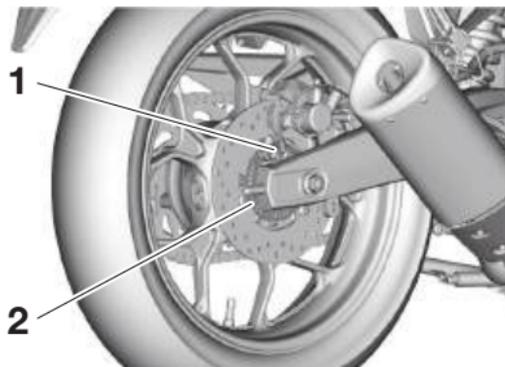
NOTICE

Be careful not to damage the wheel sensor or wheel sensor rotor; otherwise, improper performance of the ABS will result.

5



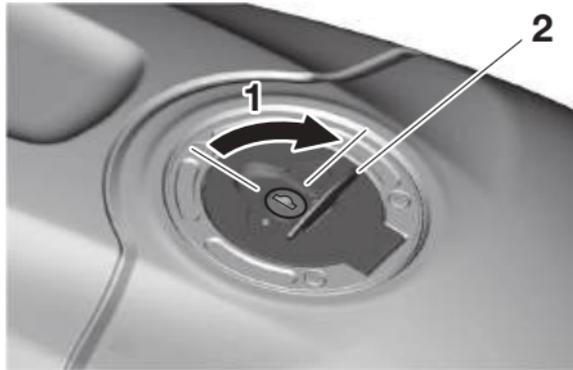
1. Front wheel sensor
2. Front wheel sensor rotor



1. Rear wheel sensor
2. Rear wheel sensor rotor

EAU13078

Fuel tank cap



1. Unlock.
2. Fuel tank cap lock cover

To open the fuel tank cap

Open the fuel tank cap lock cover, insert the key, and then turn it 1/4 turn clockwise. The lock will be released and the fuel tank cap can be opened.

To close the fuel tank cap

With the key still inserted, push down the fuel tank cap. Turn the key 1/4 turn counterclockwise, remove it, and then close the lock cover.

TIP

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

EWA11092

WARNING

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

Instrument and control functions

Fuel

Make sure there is sufficient gasoline in the tank.

EAU13222

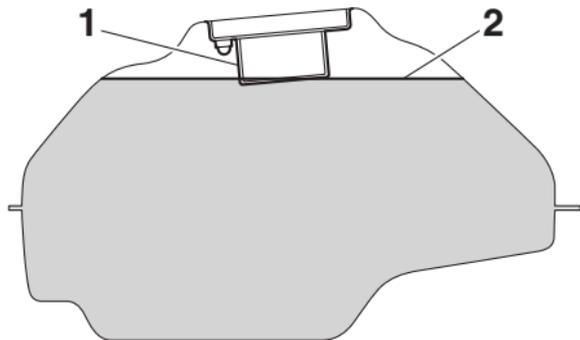
EWA10882

WARNING

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

1. Before refueling, turn off the engine and be sure that no one is sitting on the vehicle. Never refuel while smoking, or while in the vicinity of sparks, open flames, or other sources of ignition such as the pilot lights of water heaters and clothes dryers.

2. Do not overfill the fuel tank. When refueling, be sure to insert the pump nozzle into the fuel tank filler hole. Stop filling when the fuel reaches the bottom of the filler tube. Because fuel expands when it heats up, heat from the engine or the sun can cause fuel to spill out of the fuel tank.



1. Fuel tank filler tube
2. Maximum fuel level

Instrument and control functions

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

EWA15152



WARNING

Gasoline is poisonous and can cause injury or death. Handle gasoline with care. Never siphon gasoline by mouth. If you should swallow some gasoline or inhale a lot of gasoline vapor, or get some gasoline in your eyes, see your doctor immediately. If gasoline spills on your skin, wash

with soap and water. If gasoline spills on your clothing, change your clothes.

EAAU0045

Recommended fuel:

Regular unleaded gasoline (E10 acceptable)

Fuel tank capacity:

14 L (3.7 US gal, 3.1 Imp.gal)

ECA11401

NOTICE

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

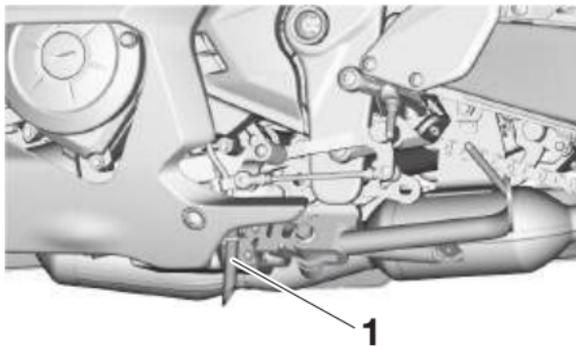
Instrument and control functions

Gasohol

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

EAU86161

Fuel tank overflow hose



1. Fuel tank overflow hose

The overflow hose drains excess gasoline and directs it safely away from the vehicle.

Before operating the vehicle:

- Check the fuel tank overflow hose connection.

- Check the fuel tank overflow hose for cracks or damage, and replace it if necessary.
- Make sure that the fuel tank overflow hose is not blocked, and clean it if necessary.
- Make sure that the fuel tank overflow hose is positioned as shown.

TIP

See page 8-19 for canister information.

EAU13435

Catalytic converter

The exhaust system contains catalytic converter(s) to reduce harmful exhaust emissions.



WARNING

The exhaust system is hot after operation. To prevent a fire hazard or burns:

- **Do not park the vehicle near possible fire hazards such as grass or other materials that easily burn.**
- **Park the vehicle in a place where pedestrians or children are not likely to touch the hot exhaust system.**
- **Make sure that the exhaust system has cooled down before doing any maintenance work.**
- **Do not allow the engine to idle more than a few minutes. Long idling can cause a build-up of heat.**

Instrument and control functions

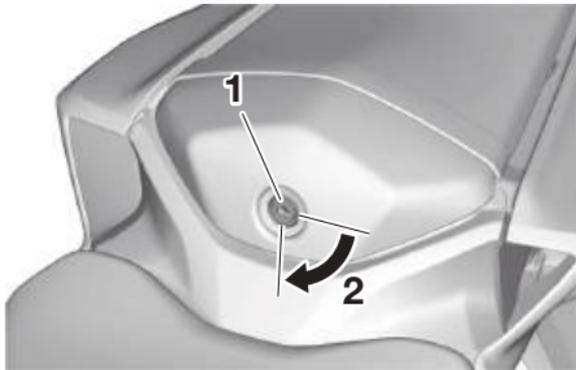
EAUA3281

Seats

Passenger seat

To remove the passenger seat

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

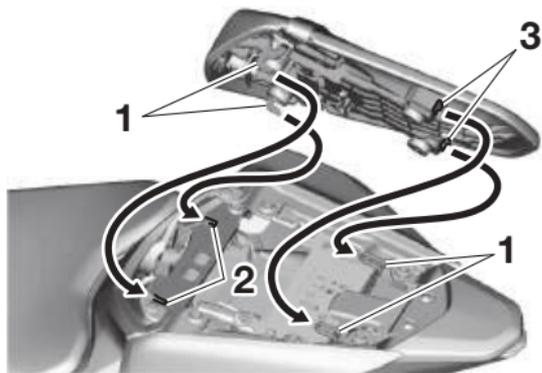


1. Seat lock
2. Unlock.

2. Lift the front of the passenger seat and slide it forward.

To install the passenger seat

1. Insert the key into the seat lock, and then turn it clockwise.
2. Insert the projections on the frame into the holes on the passenger seat and insert the projections on the front of the passenger seat into the seat holders as shown.



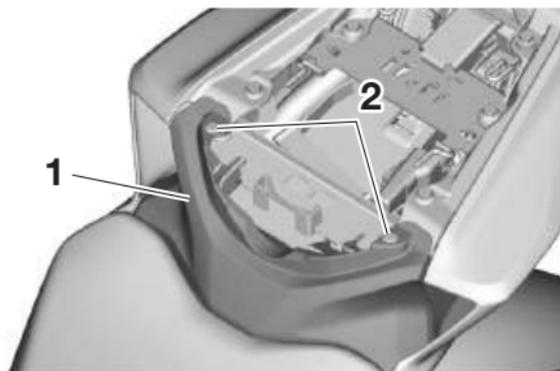
1. Projection
2. Seat holder
3. Hole

3. While holding the key turned in the clockwise position, push the seat downward and rearward to its original position.
4. Rotate the key counterclockwise to its inserted position and remove the key.

Rider seat

To remove the rider seat

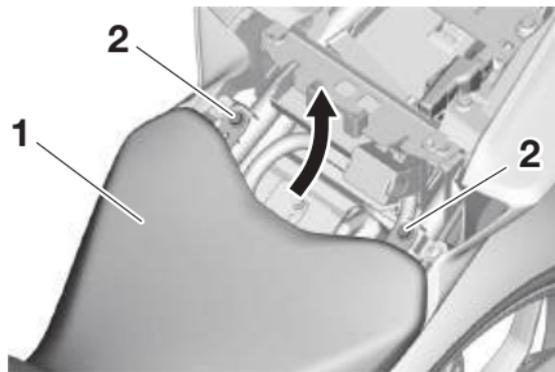
1. Remove the passenger seat.
2. Remove the center cover by removing the quick fasteners.



1. Center cover
2. Quick fastener

Instrument and control functions

3. Remove the rider seat by removing the bolts. Lift the rear of the rider seat and pull it backward.



1. Rider seat
2. Bolt

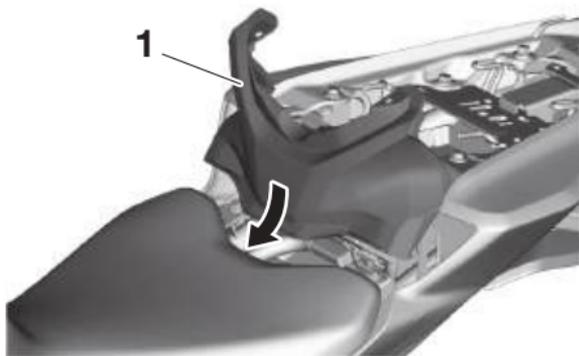


1. Projection
2. Seat holder

2. Install the rider seat bolts.
3. Install the center cover as shown, and then install the quick fasteners.

To install the rider seat

1. Insert the projection on the front of the rider seat into the seat holder as shown, and then place the seat in the original position.



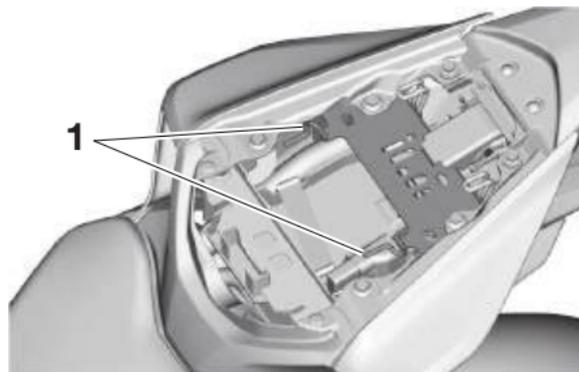
1. Center cover

4. Install the passenger seat.

TIP

Make sure that the seats are properly secured before riding.

Helmet holders



1. Helmet holder

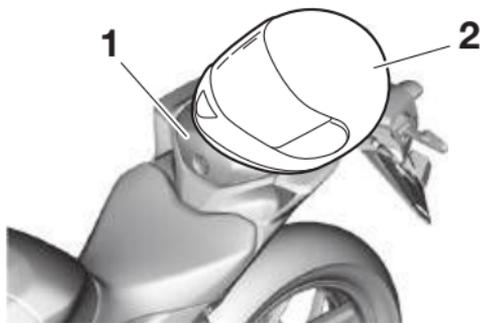
The helmet holders are located under the passenger seat.

To secure a helmet to a helmet holder

1. Remove the passenger seat. (See page 5-32.)

Instrument and control functions

2. Attach a helmet to a helmet holder, and then securely install the passenger seat. **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.** [EWA10162]



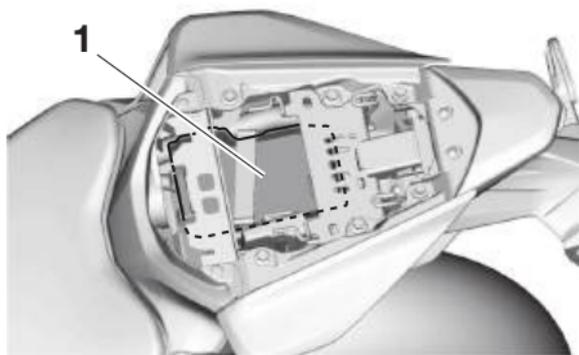
1. Passenger seat
2. Helmet

To release a helmet from a helmet holder

Remove the passenger seat, remove the helmet from the helmet holder, and then install the seat.

EAU62550

Storage compartment



1. Storage compartment

The storage compartment is located under the passenger seat. (See page 5-32.)

When storing documents or other items in the storage compartment, be sure to wrap them in a plastic bag so that they will not get wet. When washing the vehicle, be careful not to let any water enter the storage compartment.

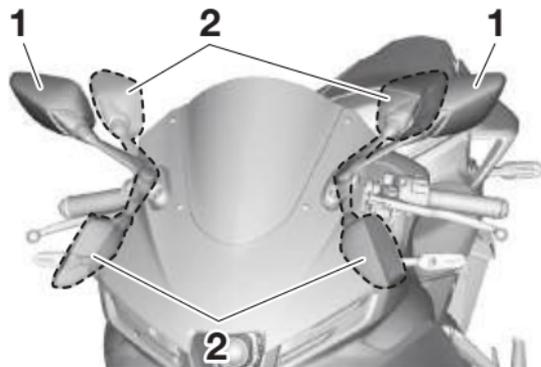
EWA15401

WARNING

Do not exceed the maximum load of 160 kg (353 lb) for the vehicle.

Rear view mirrors

The rear view mirrors of this vehicle can be folded forward or backward for parking in narrow spaces. Fold the mirrors back to their original position before riding.



1. Riding position
2. Parking position

Instrument and control functions

EWA14372

⚠ WARNING

Be sure to fold the rear view mirrors back to their original position before riding.

5

EAU3470

Adjusting the shock absorber assembly

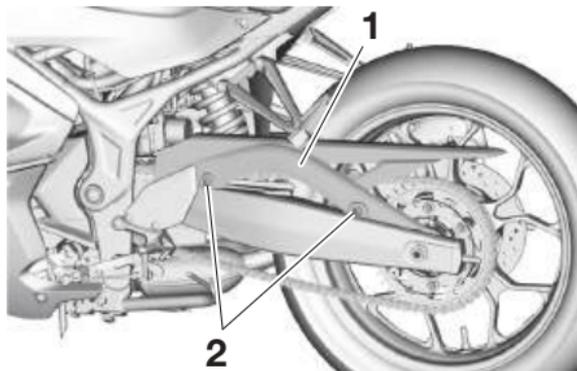
This shock absorber assembly is equipped with a spring preload adjusting ring.

ECA10102

NOTICE

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

Adjust the spring preload as follows.



1. Drive chain guard
2. Bolt and collar

1. Remove the drive chain guard by removing the bolts and collars.
2. Turn the adjusting ring in direction (a) to increase the spring preload. Turn the adjusting ring in direction (b) to decrease the spring preload.

- Align the appropriate notch in the adjusting ring with the position indicator on the shock absorber.
- Use the special wrench and the extension bar included in the tool kit to make the adjustment.

3. Spring preload adjusting ring
4. Position indicator

Spring preload setting:

Minimum (soft):

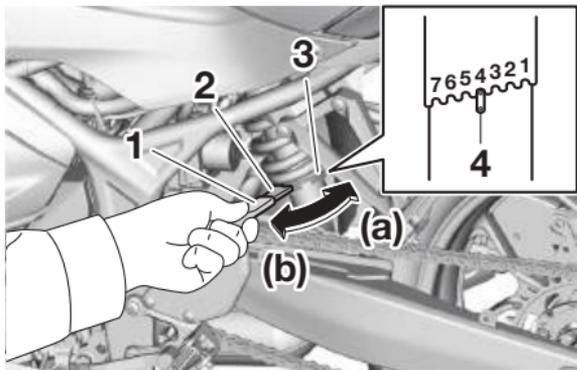
1

Standard:

4

Maximum (hard):

7



1. Extension bar
2. Special wrench

3. Be sure to install the drive chain guard by installing the collars and bolts, and then tighten the bolts to the specified torque.

Tightening torque:

Drive chain guard bolt:

10 N·m (1.0 kgf·m, 7.4 lb·ft)

Instrument and control functions

EAU70642

DC connectors

This vehicle is equipped with additional wiring and DC connector(s) for the installation of optional electric accessories.

5

Consult a Yamaha dealer for more information regarding the location and capacity of the DC connector(s) and about what accessories are capable of being installed.

EAUN3290

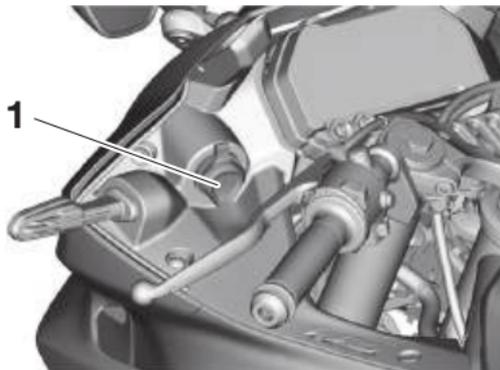
Quick shifter connector

This vehicle is equipped with a quick shifter connector. Consult your Yamaha dealer before installing any accessories.

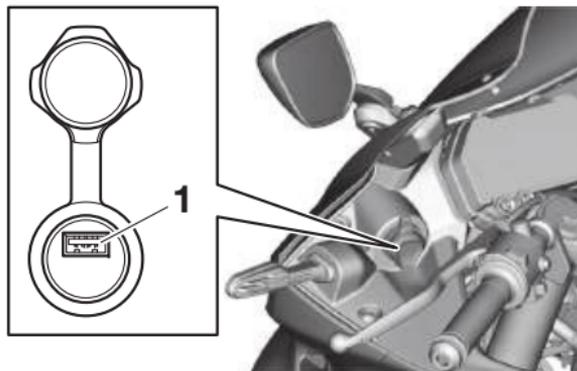
EAUA3640

USB Type-A jack

This model is equipped with a 5V 2A USB Type-A jack. The USB Type-A jack can be used when the main switch is on.



1. USB jack cap



1. USB Type-A jack

TIP

Under some conditions, the device battery level may drop even while the USB is plugged in.

NOTICE

- To protect the USB Type-A jack from water and collisions, install the cap when the jack is not being used.
- To prevent damage, avoid applying excessive force when opening and closing the USB jack cap.
- Ensure the USB jack cap is properly installed and do not use the USB Type-A jack when it rains or when washing the vehicle. If the USB Type-A jack gets wet, please dry it with the vehicle turned off before using it.

Instrument and control functions

EWA10242

- **Do not put tension or apply force to cables attached to the USB Type-A jack as it may cause damage.**
-

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 and have a Yamaha dealer repair it if it does not function properly.

EAU15306

5 Sidestand

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

TIP

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

EAUA3290

Ignition circuit cut-off system

This system prevents in-gear engine starts unless the clutch lever is pulled and the sidestand is up. Also, it will stop the running engine should the sidestand be lowered while the transmission is in gear.

Periodically check the system via the following procedure.

TIP

- This check is most reliable if performed with a warmed-up engine.
 - See pages 5-1 and 5-20 for switch operation information.
-

Instrument and control functions

With the engine turned off:

1. Move the sidestand down.
2. Set engine stop switch to run position.
3. Turn main switch to on position.
4. Shift transmission into neutral.
5. Push the start switch.

Does the engine start?

↓ YES NO

With the engine still running:

6. Move the sidestand up.
7. Pull the clutch lever.
8. Shift transmission into gear.
9. Move the sidestand down.

Does the engine stall?

↓ YES NO

After the engine has stalled:

10. Move the sidestand up.
11. Pull the clutch lever.
12. Push the start switch.

Does the engine start?

↓ YES NO

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



WARNING

If a malfunction is found, have the vehicle inspected before riding.

The neutral switch may not be working.

The motorcycle should not be ridden until checked by a Yamaha dealer.

The sidestand switch may not be working.

The motorcycle should not be ridden until checked by a Yamaha dealer.

The clutch switch may not be working.

The motorcycle should not be ridden until checked by a Yamaha dealer.

For your safety – pre-operation checks

EAU89960

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

EWA11152

WARNING

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

6

Before using this vehicle, check the following points:

ITEM	CHECKS	PAGE
Fuel	<ul style="list-style-type: none">• Check fuel level in fuel tank.• Refuel if necessary.• Check fuel line for leakage.• Check fuel tank breather hose and overflow hose for obstructions, cracks or damage, and check hose connections.	5-28, 5-30
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.	8-19

For your safety – pre-operation checks

ITEM	CHECKS	PAGE
Coolant	<ul style="list-style-type: none">• Check coolant level in reservoir.• If necessary, add recommended coolant to specified level.• Check cooling system for leakage.	8-24
Front 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 specified brake fluid to specified level.• Check hydraulic system for leakage.	8-34, 8-36
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 specified brake fluid to specified level.• Check hydraulic system for leakage.	8-34, 8-36
Clutch	<ul style="list-style-type: none">• Check operation.• Lubricate cable if necessary.• Check lever free play.• Adjust if necessary.	8-32

For your safety – pre-operation checks

ITEM	CHECKS	PAGE
Throttle grip	<ul style="list-style-type: none">• Make sure that operation is smooth.• Check throttle grip free play.• If necessary, have Yamaha dealer adjust throttle grip free play and lubricate cable and grip housing.	8-26, 8-43
Control cables	<ul style="list-style-type: none">• Make sure that operation is smooth.• Lubricate if necessary.	8-43
Drive chain	<ul style="list-style-type: none">• Check chain slack.• Adjust if necessary.• Check chain condition.• Lubricate if necessary.	8-38, 8-42
Wheels and tires	<ul style="list-style-type: none">• Check for damage.• Check tire condition and tread depth.• Check air pressure.• Correct if necessary.	8-28, 8-31
Brake and shift pedals	<ul style="list-style-type: none">• Make sure that operation is smooth.• Lubricate pedal pivoting points if necessary.	8-43
Brake and clutch levers	<ul style="list-style-type: none">• Make sure that operation is smooth.• Lubricate lever pivoting points if necessary.	8-44
Sidestand	<ul style="list-style-type: none">• Make sure that operation is smooth.• Lubricate pivot if necessary.	8-46

For your safety – pre-operation checks

ITEM	CHECKS	PAGE
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 not working correctly, have Yamaha dealer check vehicle.	5-42

6

Operation and important riding points

EAU15952

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

EWA10272



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

EAU16842

Engine break-in

There is never a more important period in the life of your engine than the period between 0 and 1600 km (1000 mi). For this reason, you should read the following material carefully.

Since the engine is brand new, do not put an excessive load on it for the first 1600 km (1000 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full-throttle operation or any condition that might result in engine overheating must be avoided.

EAU17094

0–1000 km (0–600 mi)

Avoid prolonged operation above 6000 r/min. **NOTICE: After 1000 km (600 mi) of operation, the engine oil must be changed and the oil filter cartridge or element replaced.** [ECA10303]

Operation and important riding points

1000–1600 km (600–1000 mi)

Avoid prolonged operation above 7200 r/min.

1600 km (1000 mi) and beyond

The vehicle can now be operated normally.

ECA10311

NOTICE

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

EAU91880

Starting the engine

The ignition circuit cut-off system will enable starting when:

- the transmission is in the neutral position or
- the transmission is in gear, the sidestand is up, and the clutch lever is pulled.

To start the engine

1. Turn the main switch on and set the engine stop switch to the run position.
2. Confirm the indicator and warning light(s) come on for a few seconds, and then go off. (See page 5-3.)

TIP

- Do not start the engine if the malfunction indicator light remains on.

Operation and important riding points

- The oil pressure warning light should come on and stay on until the engine is started.
- The ABS warning light should come on and stay on until the vehicle reaches a speed of 10 km/h (6 mi/h).

ECA24110

NOTICE

If a warning or indicator light does not work as described above, have a Yamaha dealer check the vehicle.

3. Shift the transmission into the neutral position.
4. Start the engine by pushing the start switch.

5. Release the start switch when the engine starts, or after 5 seconds. Wait 10 seconds before pressing the switch again to allow battery voltage to restore.

ECA11043

NOTICE

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

EAU73452

TIP

This model is equipped with:

- a lean angle sensor. This sensor stops the engine in case of a turnover. In this case, turn the main switch off and then on. Failing to do so will prevent the engine from

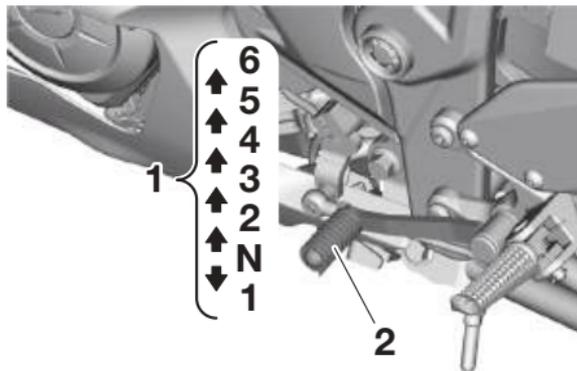
Operation and important riding points

EAU16675

starting even though the engine will crank when pushing the start switch.

- an engine auto-stop system. The engine stops automatically if left idling for 20 minutes. If the engine stops, simply push the start switch to restart the engine.

Shifting



1. Gear positions
2. Shift pedal

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

The gear positions are shown in the illustration.

TIP

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

ECA10262

NOTICE

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

bricated 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.**
-

EAU16811

Tips for reducing fuel consumption

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

- Shift up swiftly, and avoid high engine speeds during acceleration.

Operation and important riding points

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

EAU17214

7

Parking

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

EWA10312



WARNING

- **Since the engine and exhaust system can become very hot, park in a place where pedestrians or children are not likely to touch them and be burned.**

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

The intervals given in the periodic maintenance charts should be simply considered as a general guide under normal riding conditions. However, depending on the weather, terrain, geographical location, and individual use, the maintenance intervals may need to be shortened.



WARNING

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



WARNING

Turn off the engine when performing maintenance unless otherwise specified.

- **A running engine has moving parts that can catch on body parts or clothing and electrical parts that can cause shocks or fires.**

Periodic maintenance and adjustment

- **Running the engine while servicing can lead to eye injury, burns, fire, or carbon monoxide poisoning – possibly leading to death. See page 2-5 for more information about carbon monoxide.**

EWA15461



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

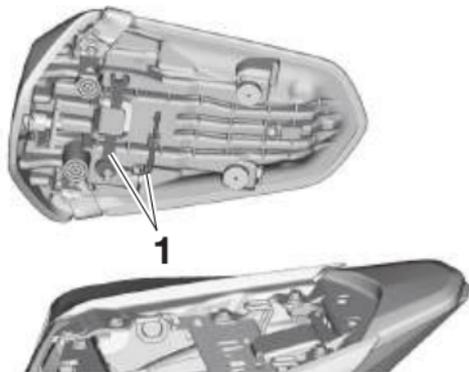
EAU17303

Emission controls not only function to ensure cleaner air, but are also vital to proper engine operation and maximum

performance. In the following periodic maintenance charts, the services related to emissions control are grouped separately. These services require specialized data, knowledge, and equipment. Maintenance, replacement, or repair of the emission control devices and systems may be performed by any repair establishment or individual that is certified (if applicable). Yamaha dealers are trained and equipped to perform these particular services.

EAU85240

Tool kits



1. Tool kit

The on-board tool kit is in the location shown. Also, an additional tool kit was handed out separately at the time of vehicle purchase.

The information included in this manual and the tools provided in the tool kits are intended to assist you in the performance of preventive maintenance and

minor repairs. However, a torque wrench and other tools are necessary to perform certain maintenance work correctly.

TIP

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

Periodic maintenance and adjustment

EAU62940

TIP

- **The annual checks must be performed every year, except if a kilometer-based maintenance is performed instead.**
- From 25000 km or 25 months, repeat the maintenance intervals starting from 5000 km or 5 months.
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

8

EAUN0411

Periodic maintenance chart for the emission control system

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months	
1	* Fuel line	• Check fuel hoses for cracks or damage.		√	√	√	√	√

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK	
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months		
2	*	Spark plugs	<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 if necessary. 			√		√	
4	*	Fuel injection	<ul style="list-style-type: none"> • Adjust synchronization. 	√		√	√	√	√
5	*	Exhaust system	<ul style="list-style-type: none"> • Check for leakage. • Tighten if necessary. • Replace gasket(s) if necessary. 		√	√	√	√	√

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months	
6	* Evaporative emission control system	<ul style="list-style-type: none"> • Check control system for damage. • Replace if necessary. 			√		√	
7	* Air induction system	<ul style="list-style-type: none"> • Check the air cut-off valve, reed valve, and hose for damage. • Replace the entire air induction system if necessary. 		√	√	√	√	√

Periodic maintenance and adjustment

EAUN0423

General maintenance and lubrication chart

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months	
1	* Diagnostic system check	<ul style="list-style-type: none"> Perform dynamic inspection using Yamaha diagnostic tool. Check the error codes. 	√	√	√	√	√	√
2	Air filter element	<ul style="list-style-type: none"> Replace. 	Every 15000 km (9000 mi)					
3	Air filter check hose	<ul style="list-style-type: none"> Clean. 	√	√	√	√	√	

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK	
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months		
4	*	Battery	<ul style="list-style-type: none"> • Check voltage. • Charge if necessary. 	√	√	√	√	√	√
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					

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months	
8	*	Brake hoses <ul style="list-style-type: none"> • Check for cracks or damage. • Check for correct routing and clamping. 		√	√	√	√	√
			<ul style="list-style-type: none"> • Replace. 	Every 4 years				
9	*	Brake fluid <ul style="list-style-type: none"> • Change. 	Every 2 years					
10	*	Wheels <ul style="list-style-type: none"> • Check runout and for damage. 		√	√	√	√	
11	*	Tires <ul style="list-style-type: none"> • Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary. 		√	√	√	√	√

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months	
12	*	Wheel bearings		√	√	√	√	
13	*	Swing-arm		√	√	√	√	
		<ul style="list-style-type: none"> • Check operation and for excessive play. • Lubricate with lithium-soap-based grease. 	Every 20000 km (12000 mi)					
14		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 800 km (500 mi) and after washing the motorcycle, riding in the rain or riding in wet areas

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months	
15	* Steering bearings	<ul style="list-style-type: none"> Check bearing play and steering for roughness. 	√	√	√	√	√	
		<ul style="list-style-type: none"> Lubricate with lithium-soap-based grease. 	Every 20000 km (12000 mi)					
16	* Chassis fasteners	<ul style="list-style-type: none"> Make sure that all nuts, bolts and screws are properly tightened. 		√	√	√	√	√
17	Brake lever pivot shaft	<ul style="list-style-type: none"> Lubricate with silicone grease. 		√	√	√	√	√

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months	
18	Brake pedal pivot shaft	<ul style="list-style-type: none"> Lubricate with lithium-soap-based grease. 		√	√	√	√	√
19	Clutch lever pivot shaft	<ul style="list-style-type: none"> Lubricate with lithium-soap-based grease. 		√	√	√	√	√
20	Shift pedal pivot shaft	<ul style="list-style-type: none"> Lubricate with lithium-soap-based grease. 		√	√	√	√	√
21	Side-stand	<ul style="list-style-type: none"> Check operation. Lubricate with lithium-soap-based grease. 		√	√	√	√	√

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK	
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months		
22	*	Side-stand switch	• Check operation and replace if necessary.	√	√	√	√	√	√
23	*	Front fork	• Check operation and for oil leakage.		√	√	√	√	
24	*	Shock absorber assembly	• Check operation and shock absorber for oil leakage.		√	√	√	√	
25		Engine oil	• Change. • Check oil level and vehicle for oil leakage.	√	√	√	√	√	

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months	
26	Engine oil filter cartridge	<ul style="list-style-type: none"> Replace. 	√				√	
27	* Cooling system	<ul style="list-style-type: none"> Check coolant level and vehicle for coolant leakage. 		√	√	√	√	√
		<ul style="list-style-type: none"> Change coolant. 	Every 3 years					
28	* Front and rear brake switches	<ul style="list-style-type: none"> Check operation. 	√	√	√	√	√	√

Periodic maintenance and adjustment

NO.	ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (whichever comes first)					ANNUAL CHECK
			1000 km or 1 month	5000 km or 5 months	10000 km or 10 months	15000 km or 15 months	20000 km or 20 months	
29	Moving parts and cables	<ul style="list-style-type: none"> Lubricate. 		√	√	√	√	√
30	* Throttle grip	<ul style="list-style-type: none"> Check operation. Check throttle grip free play, and adjust if necessary. Lubricate cable and grip housing. 		√	√	√	√	√
31	* Lights, signals and switches	<ul style="list-style-type: none"> Check operation. Adjust headlight beam. 	√	√	√	√	√	√

TIP

- 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.
-

EAU19653

Checking the spark plugs

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

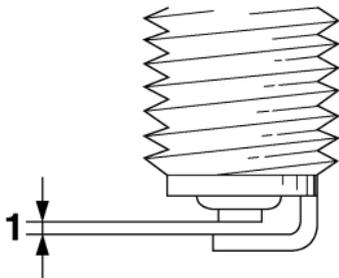
The porcelain insulator around the center electrode of each spark plug should be a medium-to-light tan (the ideal color when the vehicle is ridden normally), and all spark plugs installed in the engine should have the same color. If any spark plug shows a distinctly different color, the engine could be operating

improperly. Do not attempt to diagnose such problems yourself. Instead, have a Yamaha dealer check the vehicle. If a spark plug shows signs of electrode erosion and excessive carbon or other deposits, it should be replaced.

Specified spark plug:
NGK/LMAR8A-9

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

Periodic maintenance and adjustment



1. Spark plug gap

Spark plug gap:

0.8–0.9 mm (0.031–0.035 in)

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

Tightening torque:

Spark plug:

13 N·m (1.3 kgf·m, 9.6 lb·ft)

TIP

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

ECA10841

NOTICE

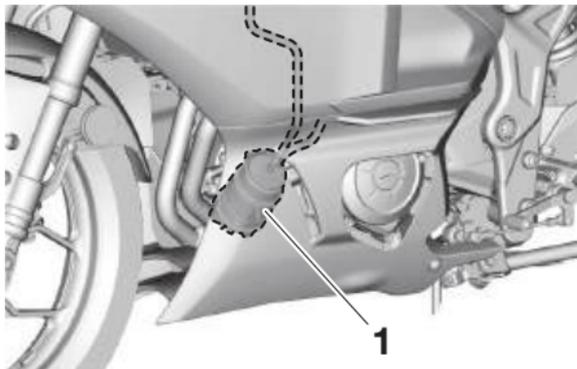
Do not use any tools to remove or install the spark plug cap, otherwise the ignition coil coupler may get damaged. The spark plug cap may be difficult to remove because the rubber seal on the end of the cap fits

Periodic maintenance and adjustment

tightly. To remove the spark plug cap, simply twist it back and forth while pulling it out; to install it, twist it back and forth while pushing it in.

Canister

EAU36114



1. Canister

This model is equipped with a canister to prevent the discharging of fuel vapor into the atmosphere. Before operating this vehicle, make sure to check the following:

- Check each hose connection.
- Check each hose and canister for cracks or damage. Replace if damaged.
- Make sure that the canister breather is not blocked, and if necessary, clean it.

8

Engine oil

EAUN4570

The engine oil level should be checked regularly. In addition, the oil must be changed and the oil filter cartridge replaced at the intervals specified in the periodic maintenance chart.

Periodic maintenance and adjustment

Recommended engine oil:

See page 10-1.

Oil quantity:

Oil change:

2.00 L (2.11 US qt, 1.76 Imp.qt)

With oil filter removal:

2.30 L (2.43 US qt, 2.02 Imp.qt)

ECA11621

NOTICE

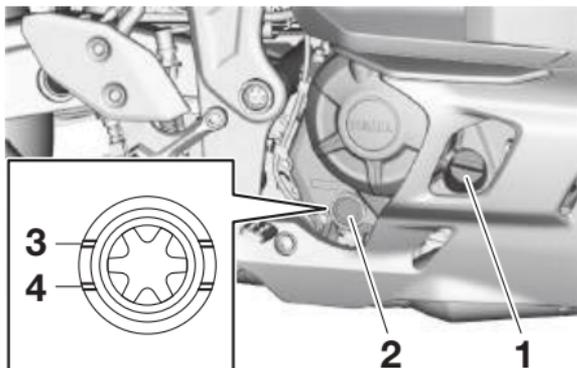
- **In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of “CD” or oils of a higher quality than specified. In addition, do not use oils labeled “ENERGY CONSERVING II” or higher.**

- **Make sure that no foreign material enters the crankcase.**
-

To check the engine oil level

1. Start the engine, warm it up for several minutes, and then turn it off.
2. Wait a few minutes until the oil level settles and with the vehicle on a level surface, hold it upright for an accurate reading.
3. Look at the check window located at the bottom-right side of the crankcase.

Periodic maintenance and adjustment



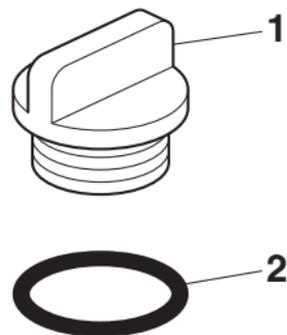
1. Engine oil filler cap
2. Engine oil level check window
3. Maximum level mark
4. Minimum level mark

TIP

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

4. If the engine oil is at or below the minimum level mark, remove the oil filler cap and add oil.

5. Check the engine oil filler cap O-ring. Replace if damaged.



1. Engine oil filler cap
2. O-ring

6. Install the engine oil filler cap.

To change the engine oil

1. Place the vehicle on a level surface.

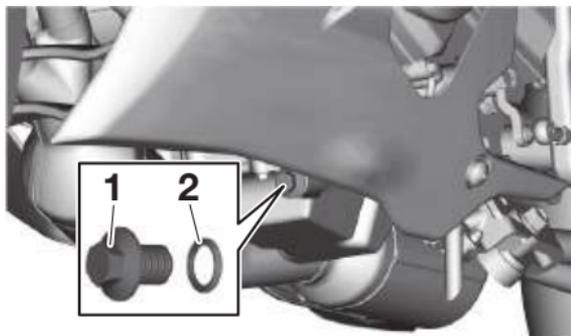
Periodic maintenance and adjustment

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

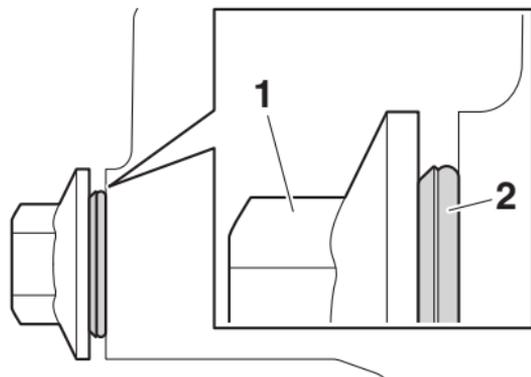
5. Install the engine oil drain bolt and its new gasket, and then tighten the bolt to the specified torque.

TIP

Install the new gasket as shown.



1. Engine oil drain bolt
2. Gasket



1. Engine oil drain bolt
2. Gasket

Periodic maintenance and adjustment

Tightening torque:

Engine oil drain bolt:
20 N·m (2.0 kgf·m, 15 lb·ft)

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

TIP

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

7. 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.

TIP

After the engine is started, the engine oil pressure warning light should go off.

ECA20860

NOTICE

If the oil pressure warning light flickers or remains on even if the oil level is correct, immediately turn the engine off and have a Yamaha dealer check the vehicle.

8. Turn the engine off, wait a few minutes until the oil settles, and then check the oil level and correct it if necessary.

To change the oil filter cartridge

Have a Yamaha dealer change the oil filter cartridge.

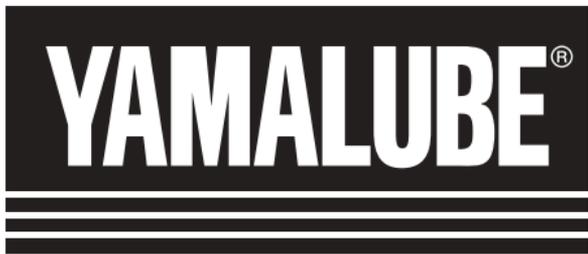
Periodic maintenance and adjustment

EAU85450

Why Yamalube

YAMALUBE oil is a Genuine YAMAHA Part born of the engineers' passion and belief that engine oil is an important liquid engine component. We form teams of specialists in the fields of mechanical engineering, chemistry, electronics and track testing, and have them develop the engine together with the oil it will use. Yamalube oils take full advantage of the base oil's qualities and blend in the ideal balance of additives to make sure the final oil clears our performance standards. Thus, Yamalube mineral, semisynthetic and synthetic oils have their own distinct characters and value. Yamaha's experience gained over many years of research and develop-

ment into oil since the 1960's helps make Yamalube the best choice for your Yamaha engine.



EAU1203

Coolant

The coolant level should be checked regularly. In addition, the coolant must be changed at the intervals specified in the periodic maintenance chart.

Periodic maintenance and adjustment

Recommended coolant:

YAMALUBE coolant

Coolant quantity:

Coolant reservoir (max level mark):
0.25 L (0.26 US qt, 0.22 Imp.qt)

Radiator (including all routes):
0.81 L (0.86 US qt, 0.72 Imp.qt)

TIP

If genuine Yamaha coolant is not available, use an ethylene glycol antifreeze containing corrosion inhibitors for aluminum engines and mix with distilled water at a 1:1 ratio.

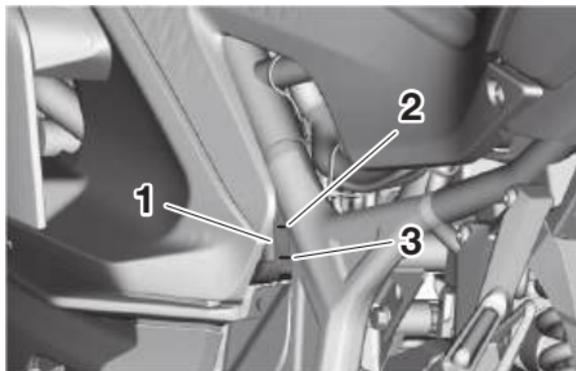
EAU3331

To check the coolant level

Since the coolant level varies with engine temperature, check when the engine is cold.

1. Park the vehicle on a level surface.

2. With the vehicle in an upright position, look at the coolant level in the reservoir.



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

3. Check the coolant level in the coolant reservoir.

Periodic maintenance and adjustment

TIP

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

4. If the coolant is at or below the minimum level mark, have a Yamaha dealer add coolant to the reservoir.

EAU33032

Changing the coolant

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

WARNING! Never attempt to remove the radiator cap when the engine is hot. [EWA10382]

EAU1992

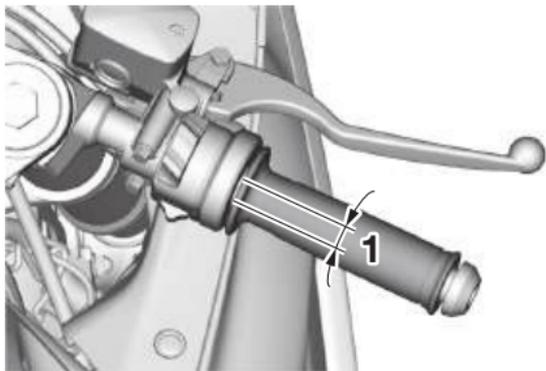
Replacing the air filter element

The air filter element must be replaced and the check hoses must be cleaned 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. Have a Yamaha dealer replace the air filter element.

EAU21386

Checking the throttle grip free play

Measure the throttle grip free play as shown.



1. Throttle grip free play

Throttle grip free play:

3.0–5.0 mm (0.12–0.20 in)

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

Valve clearance

The valves are an important engine component, and since valve clearance changes with use, they must be checked and adjusted at the intervals specified in the periodic maintenance chart. Unadjusted valves can result in improper air-fuel mixture, engine noise, and eventually engine damage. To prevent this from occurring, have your Yamaha dealer check and adjust the valve clearance at regular intervals.

TIP

This service must be performed when the engine is cold.

Periodic maintenance and adjustment

EAU82721

Tires

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

- 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.
-

8

Tire air pressure

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

EWA10504



WARNING

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

Cold tire air pressure:**1 person:**

Front:

200 kPa (2.00 kgf/cm², 29 psi)

Rear:

250 kPa (2.50 kgf/cm², 36 psi)**2 persons:**

Front:

200 kPa (2.00 kgf/cm², 29 psi)

Rear:

250 kPa (2.50 kgf/cm², 36 psi)**Maximum load:**

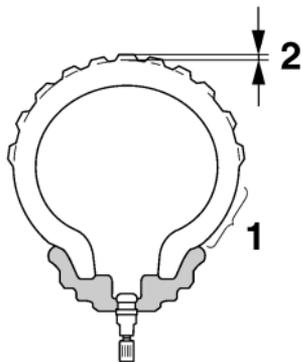
Vehicle:

160 kg (353 lb)

The vehicle's maximum load is the combined weight of the rider, passenger, cargo, and any accessories.

⚠ WARNING

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

Tire inspection

1. Tire sidewall
2. Tire tread depth

Periodic maintenance and adjustment

The tires must be checked before each ride. If a tire tread shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the sidewall is cracked, contact a Yamaha dealer immediately and have the tire replaced.

Minimum tire tread depth (front and rear):

1.0 mm (0.04 in)

8

EWA10583



WARNING

- **It is dangerous to ride with a worn-out tire. When a tire tread begins to show crosswise lines, have a Yamaha dealer replace the tire immediately.**

- **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 to do so.**
- **Ride at moderate speeds after changing a tire since the tire surface must first be “broken in” for it to develop its optimal characteristics.**

Tire information

This model is equipped with tubeless tires and tire air valves.

Tires age, even if they have not been used or have only been used occasionally. Cracking of the tread and sidewall rubber, sometimes accompanied by carcass deformation, is an evidence of

Periodic maintenance and adjustment

ageing. Old and aged tires shall be checked by tire specialists to ascertain their suitability for further use.

EWA10462



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

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

Front tire:

Size:

110/70R17M/C 54H

Manufacturer/model:

DUNLOP/GPR-300F

Rear tire:

Size:

140/70R17M/C 66H

Manufacturer/model:

DUNLOP/GPR-300

EAU21963

Cast wheels

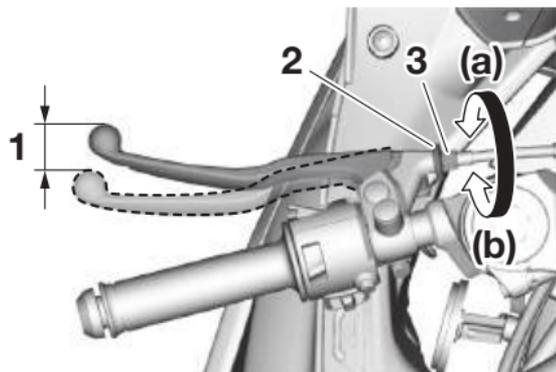
To maximize the performance, durability, and safe operation of your vehicle, note the following points regarding the specified wheels.

- The wheel rims should be checked for cracks, bends, warpage or other damage before each ride. If any damage is found, have a Yamaha

Periodic maintenance and adjustment

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.



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

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

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

1. Loosen the locknut at the clutch lever.

EAU22022

Adjusting the clutch lever free play

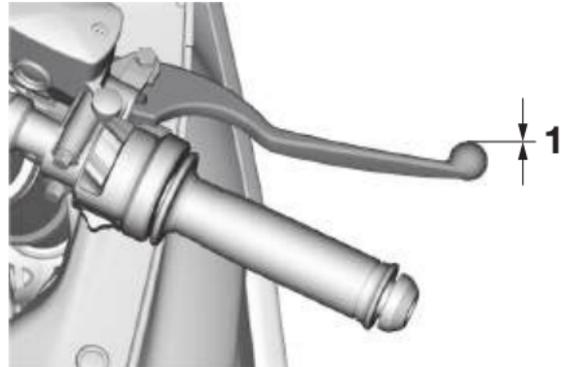
Measure the clutch lever free play as shown.

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

TIP

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

Checking the brake lever free play



1. No brake lever free play

There should be no free play at the brake lever end. If there is free play, have a Yamaha dealer inspect the brake system.

Periodic maintenance and adjustment

WARNING

EWA14212

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 vehicle. Air in the hydraulic system will diminish the braking performance, which may result in loss of control and an accident.

ponents of the anti-lock brake system, they should only be serviced by a Yamaha dealer.

EAU22393

Checking the front and rear brake pads

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

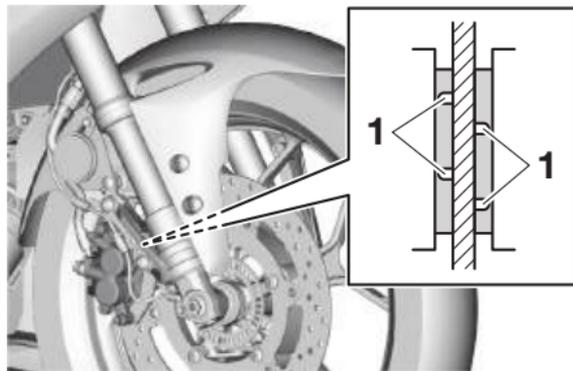
Brake light switches

EAU36505

The brake light should come on just before braking takes effect. The brake light is activated by switches connected to the brake lever and brake pedal. Since the brake light switches are com-

Front brake pads

EAU22434



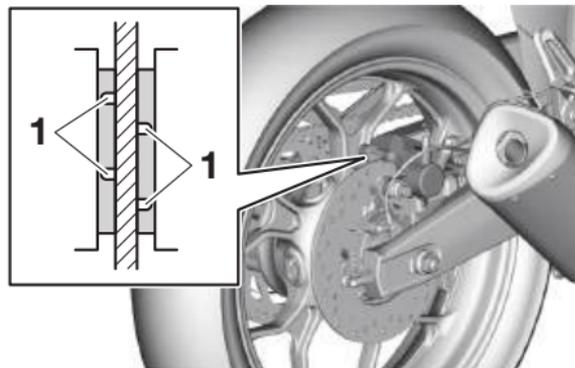
1. Brake pad wear indicator groove

Each front 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.

Rear brake pads

EAU36721



1. Brake pad 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.

Periodic maintenance and adjustment

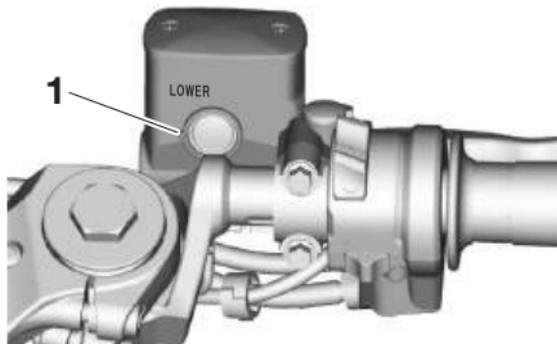
To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to the point that the wear indicator grooves have almost disappeared, have a Yamaha dealer replace the brake pads as a set.

EAU66670

Checking the brake fluid level

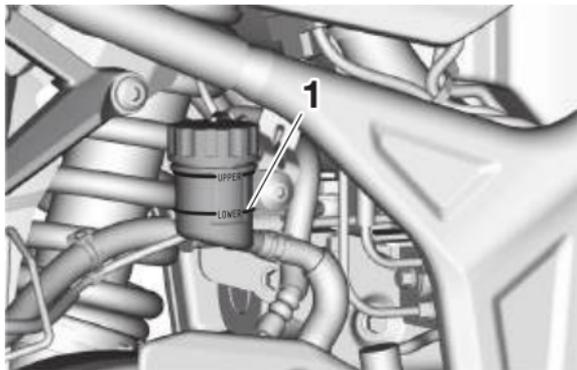
Before riding, check that the brake fluid is above the minimum level mark. Check the brake fluid level with the top of the reservoir level. Replenish the brake fluid if necessary.

Front brake



1. Minimum level mark

Rear brake



1. Minimum level mark

Specified brake fluid:
YAMAHA GENUINE BRAKE FLUID
(DOT 4)

EWA16011



WARNING

Improper maintenance can result in loss of braking ability. Observe these precautions:

- Insufficient brake fluid may allow air to enter the brake system, reducing braking performance.
- Clean the filler cap before removing. Use only DOT 4 brake fluid from a sealed container.
- Use only the specified brake fluid; otherwise, the rubber seals may deteriorate, causing leakage.
- Refill with the same type of brake fluid. Adding a brake fluid other than DOT 4 may result in a harmful chemical reaction.
- Be careful that water or dust does not enter the brake fluid reservoir when refilling. Water will significantly lower the boiling point of the fluid and may re-

Periodic maintenance and adjustment

sult in vapor lock, and dirt may clog the ABS hydraulic unit valves.

ECA17641

NOTICE

Brake fluid may damage painted surfaces or plastic parts. Always clean up spilled fluid immediately.

8 As the brake pads wear, it is normal for the brake fluid level to gradually go down. A low brake fluid level may indicate worn brake pads and/or brake system leakage; therefore, be sure to check the brake pads for wear and the brake system for leakage. If the brake fluid level goes down suddenly, have a Yamaha dealer check the cause before further riding.

EAU22734

Changing the brake fluid

Have a Yamaha dealer change the brake fluid every 2 years. In addition, have the seals of the master cylinders and brake calipers, as well as the brake hoses replaced at the intervals listed below or sooner if they are damaged or leaking.

- Brake seals: every 2 years
- Brake hoses: every 4 years

EAU22762

Drive chain slack

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

EAU74253

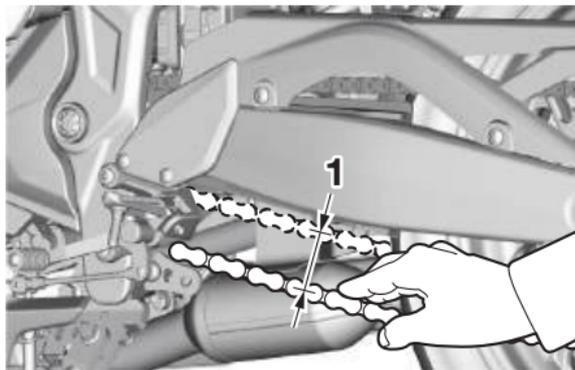
To check the drive chain slack

1. Place the motorcycle on the side-stand.

TIP

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

2. Shift the transmission into the neutral position.
3. Measure the drive chain slack as shown.



1. Drive chain slack

Drive chain slack:

35.0–45.0 mm (1.38–1.77 in)

4. If the drive chain slack is incorrect, adjust it as follows. **NOTICE: Improper drive chain slack will overload the engine as well as other vital parts of the motorcycle and can lead to chain slip-**

Periodic maintenance and adjustment

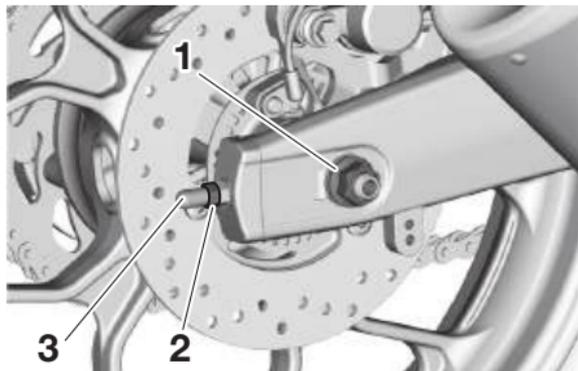
page or breakage. To prevent this from occurring, keep the drive chain slack within the specified limits. [ECA10572]

EAU62983

To adjust the drive chain slack

Consult a Yamaha dealer before adjusting the drive chain slack.

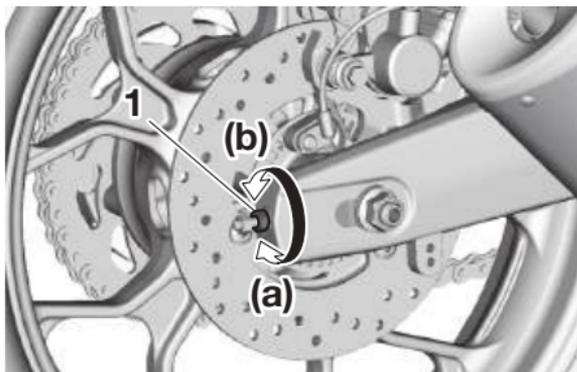
1. Remove the drive chain puller cap, and then loosen the axle nut and the locknut on each side of the swingarm.



1. Axle nut
2. Locknut
3. Drive chain puller cap

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

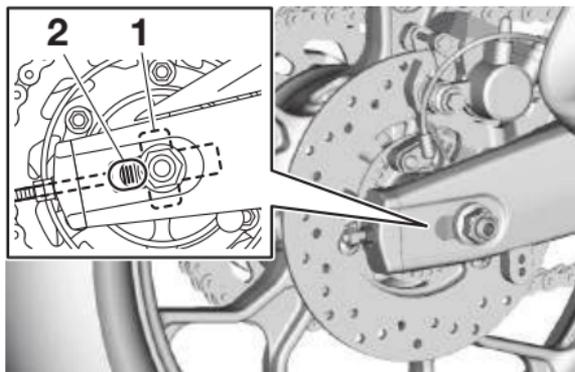
Periodic maintenance and adjustment



1. Drive chain slack adjusting nut

TIP

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



1. Drive chain puller
2. Alignment marks

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

Tightening torques:

Axle nut:

57 N·m (5.7 kgf·m, 42 lb·ft)

Locknut:

16 N·m (1.6 kgf·m, 12 lb·ft)

Periodic maintenance and adjustment

ECA10584

4. Make sure that the drive chain pullers are in the same position, the drive chain slack is correct, and the drive chain moves smoothly.
5. Install the drive chain puller caps.

EAU23027

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.

NOTICE

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

1. Clean the drive chain with a drive chain cleaner and a small soft brush. **NOTICE: 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. **NOTICE: Do not use engine oil or any other lubricants**

[ECA11122]

for the drive chain, as they may contain substances that could damage the O-rings. [ECA11112]

Recommended lubricant:

Yamaha cable lubricant or other suitable cable lubricant

EAU23098

Checking and lubricating the cables

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

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

EAU49921

Checking and lubricating the throttle grip and cable

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

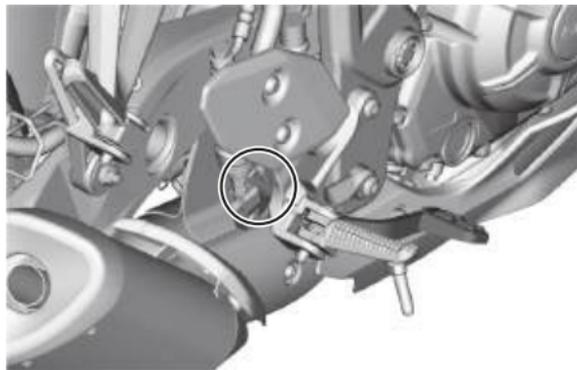
EAU44276

Checking and lubricating the brake and shift pedals

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

Periodic maintenance and adjustment

Brake pedal



Recommended lubricant:
Lithium-soap-based grease

EAU23145

Checking and lubricating the brake and clutch levers

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

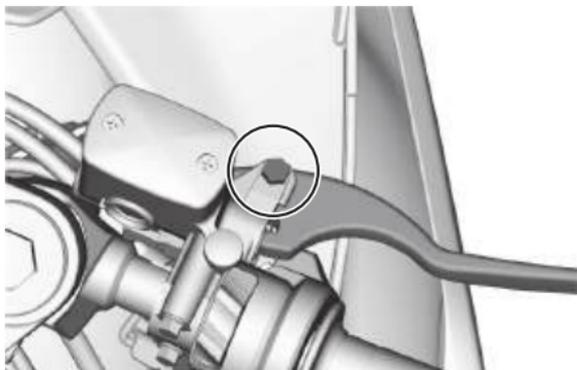
8

Shift pedal

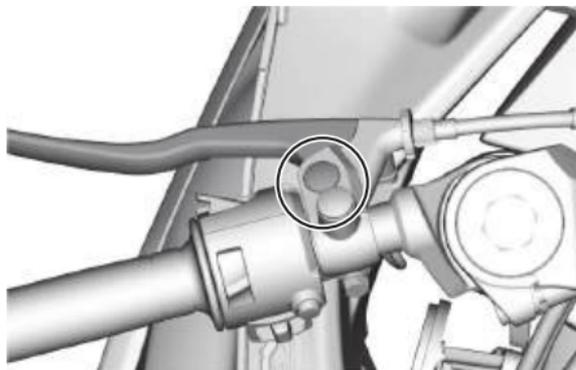


Periodic maintenance and adjustment

Brake lever



Clutch lever



Recommended lubricants:

Brake lever:

Silicone grease

Clutch lever:

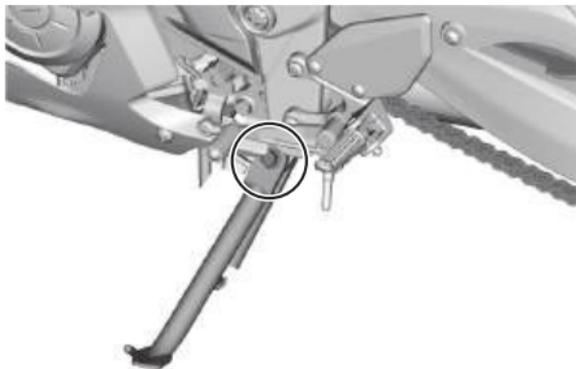
Lithium-soap-based grease

Periodic maintenance and adjustment

EAU23203

EWA10732

Checking and lubricating the sidestand



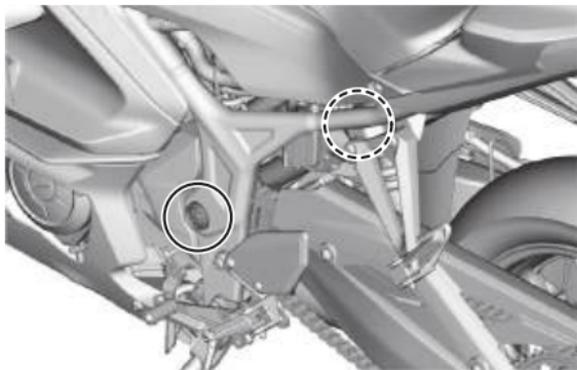
! WARNING

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

Recommended lubricant:
Lithium-soap-based grease

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.

Lubricating the swingarm pivots



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

Recommended lubricant:
Lithium-soap-based grease

Checking the front fork

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

To check the condition

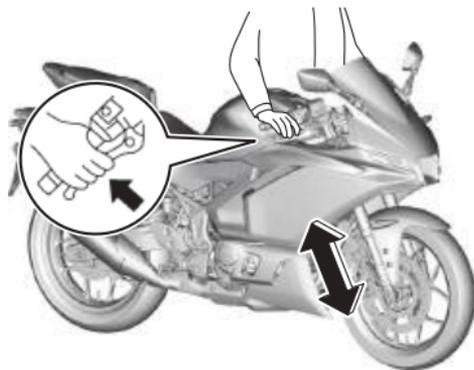
Check the inner tubes for scratches, damage and excessive oil leakage.

To check the operation

1. Place the vehicle on a level surface and hold it in an upright position.
WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over. [EWA10752]

Periodic maintenance and adjustment

2. While applying the front brake, push down hard on the handlebars several times to check if the front fork compresses and rebounds smoothly.



ECA10591

NOTICE

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

EAU23285

Checking the steering

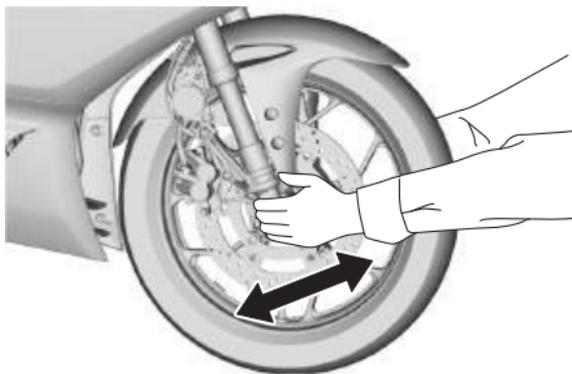
Worn or loose steering bearings may cause danger. Therefore, the operation of the steering must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

1. Raise the front wheel off the ground. (See page 8-58.)

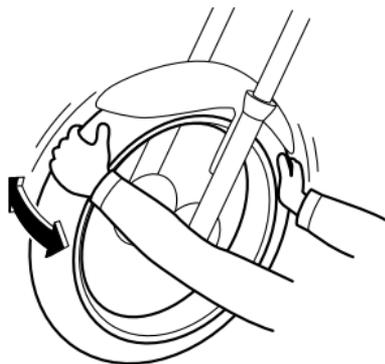
WARNING! To avoid injury, se-

curely support the vehicle so there is no danger of it falling over. [EWA10752]

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



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.

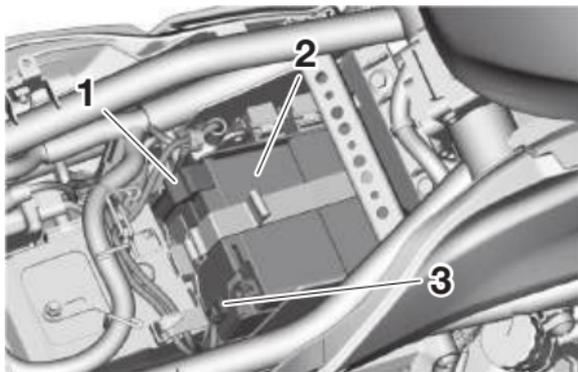
Periodic maintenance and adjustment

Battery

EAU50584

However, the battery lead connections need to be checked, and tightened if necessary.

EWA10761



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

The battery is located under the rider seat. (See page 5-33.)

It is a VRLA (valve-regulated lead-acid) battery. There is no need to check the electrolyte or to add distilled water.

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.

Periodic maintenance and adjustment

- **EYES:** Flush with water for 15 minutes and seek prompt medical attention.
- **Batteries produce explosive hydrogen gas. Therefore, keep sparks, flames, cigarettes, etc., away from the battery and provide sufficient ventilation when charging it in an enclosed space.**
- **KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.**

ECA10621

NOTICE

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

To charge the battery

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

ECA16522

NOTICE

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

To store the battery

1. If the vehicle will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place.

Periodic maintenance and adjustment

ECA16531

NOTICE: When removing the battery, be sure to turn the main switch off, then disconnect the negative lead before disconnecting the positive lead. [ECA16304]

2. If the battery will be stored for more than two months, check it at least once a month and fully charge it if necessary.
3. Fully charge the battery before installation. **NOTICE:** When installing the battery, be sure to turn the main switch off, then connect the positive lead before connecting the negative lead.

[ECA16842]

4. After installation, make sure that the battery leads are properly connected to the battery terminals.

NOTICE

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

EAUA3361

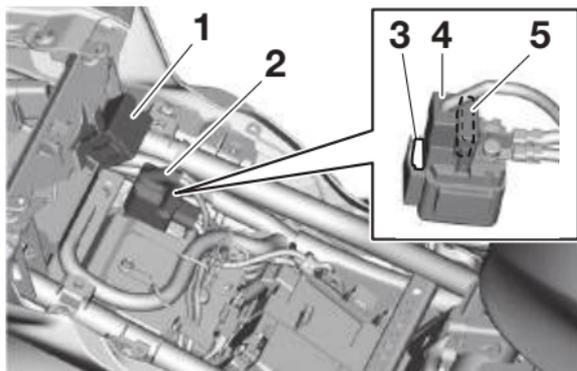
Replacing the fuses

The main fuse and fuse box, which contains the fuses for the individual circuits, are located under the center cover forward passenger seat. (See page 5-32.)

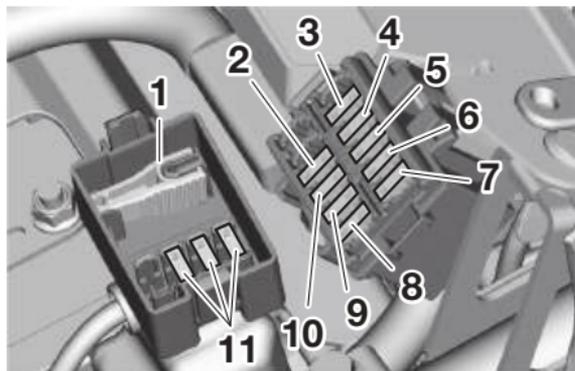
TIP

To access the main fuse, remove the starter relay cover and disconnect the starter relay coupler by pressing from both sides.

Periodic maintenance and adjustment



1. Fuse box
2. Starter relay cover
3. Spare main fuse
4. Starter relay coupler
5. Main fuse



1. Fuse puller
2. ABS motor fuse
3. Terminal fuse 1
4. Headlight fuse
5. ABS control unit fuse
6. Signaling system fuse
7. Ignition fuse
8. Backup fuse (for clock)
9. Radiator fan motor fuse
10. ABS solenoid fuse
11. Spare fuse

Periodic maintenance and adjustment

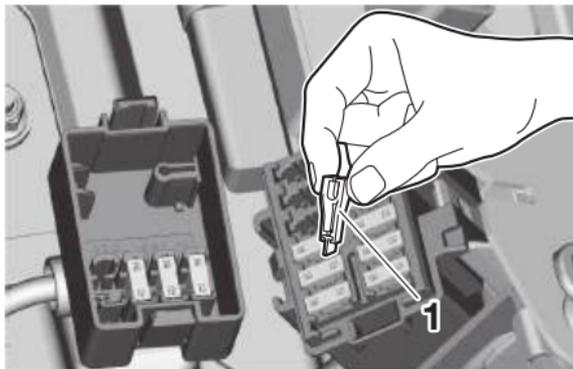
If a fuse is blown, replace it as follows.

TIP

Use a fuse puller to remove the fuse.

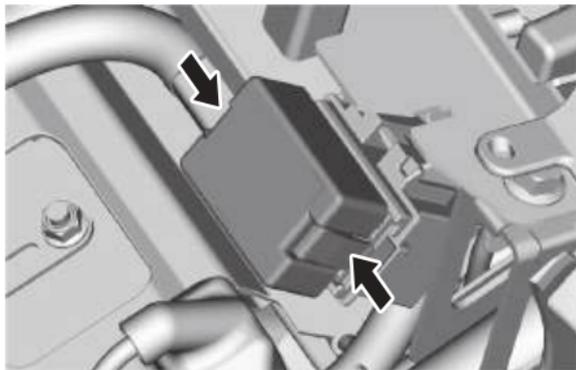
1. Turn the main switch off and turn off the electrical circuit in question.
2. Remove the fuse box cover by pressing inwards at the two points indicated on the cover and pulling upwards.

3. Remove the blown fuse using the fuse puller.



1. Fuse puller

4. Install a new fuse of the specified amperage. **WARNING! Do not use a fuse of a higher amperage rating than recommended to avoid causing extensive damage to the electrical system and possibly a fire.** [EWA15132]



Periodic maintenance and adjustment

Specified fuses:

Main fuse:

30.0 A

Terminal fuse 1:

7.5 A

Headlight fuse:

7.5 A

Signaling system fuse:

7.5 A

Ignition fuse:

15.0 A

Radiator fan motor fuse:

7.5 A

ABS motor fuse:

30.0 A

ABS solenoid fuse:

15.0 A

ABS control unit fuse:

7.5 A

Backup fuse:

7.5 A

5. Insert the fuse puller, and then install the fuse box cover.
6. Turn the main switch on and turn on the electrical circuit in question to check if the device operates.
7. If the fuse immediately blows again, have a Yamaha dealer check the electrical system.

ECA27210

NOTICE

Do not drive while the fuse box cover is removed.

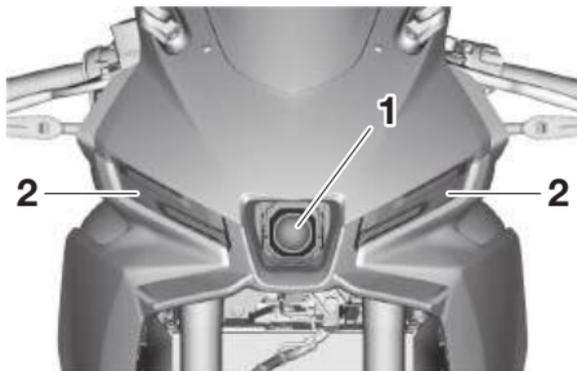
8

Periodic maintenance and adjustment

EAU80380

ECA16581

Vehicle lights



- 8
1. Headlight
 2. Auxiliary light

Except for the license plate light bulb, this model's lights are all LED.

If an LED light does not come on, check the fuses and then have a Yamaha dealer check the vehicle. If the license plate light does not come on, check and replace the bulb. (See page 8-56.)

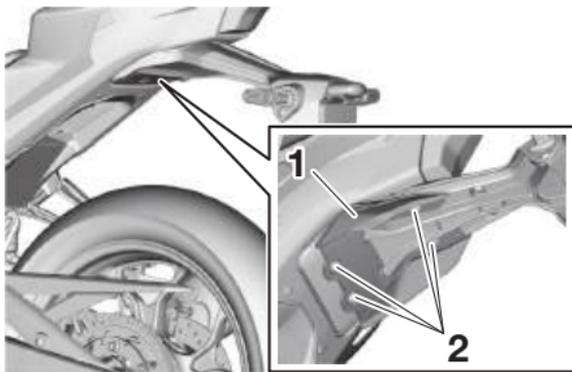
NOTICE

Do not affix any type of tinted film or stickers to the headlight lens.

EAU62670

Replacing the license plate light bulb

1. Remove the mudguard by removing the quick fasteners.

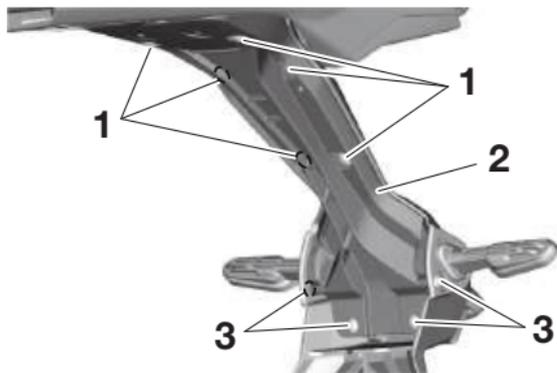


1. Mudguard

Periodic maintenance and adjustment

2. Quick fastener

2. Remove the rear fender lower panel by removing the bolts and screws.



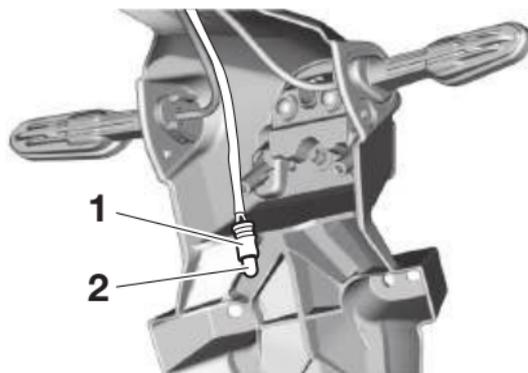
1. Bolt

2. Rear fender lower panel

3. Screw

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

4. Remove the burnt-out bulb by pulling it out.



1. License plate light bulb socket

2. License plate light bulb

5. Insert a new bulb into the socket.
6. Install the socket (together with the bulb) by pushing it in.
7. Install the rear fender lower panel by installing the bolts and screws.

Periodic maintenance and adjustment

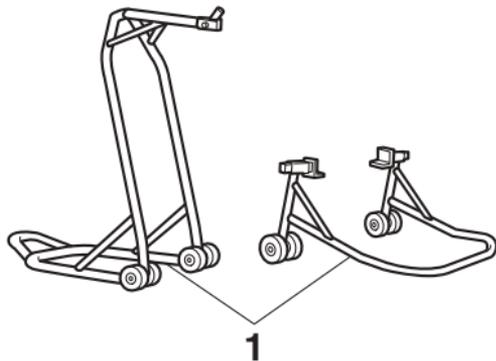
8. Install the mudguard by installing the quick fasteners.

or when performing other maintenance that requires the motorcycle to stand up right.

Check that the motorcycle is in a stable and level position before starting any maintenance.

Supporting the motorcycle

EAU67131



1. Maintenance stand (example)

Since this model is not equipped with a centerstand, use maintenance stands when removing the front or rear wheel

Troubleshooting

EAU25873

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

The following troubleshooting charts represent quick and easy procedures for checking these vital systems yourself. However, should your motorcycle require any repair, take it to a Yamaha

dealer, whose skilled technicians have the necessary tools, experience, and know-how to service the motorcycle properly.

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

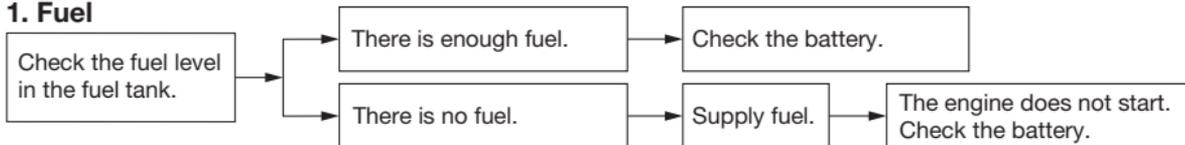
EWA15142



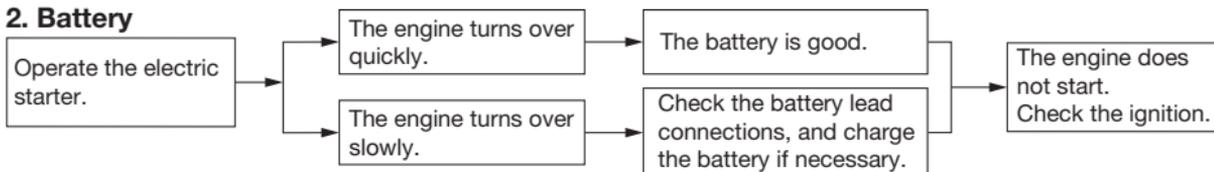
When checking the fuel system, do not smoke, and make sure there are no open flames or sparks in the area, including pilot lights from water heaters or furnaces. Gasoline or gasoline vapors can ignite or explode, causing severe injury or property damage.

Troubleshooting chart

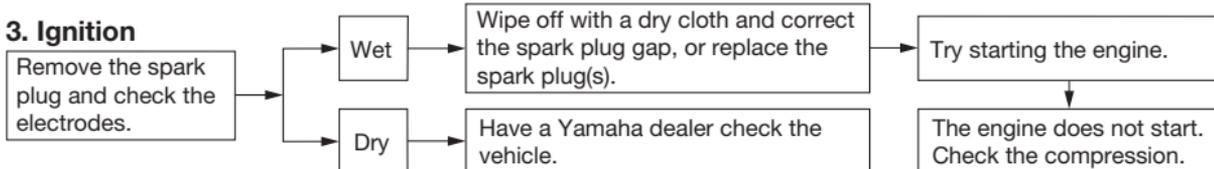
1. Fuel



2. Battery



3. Ignition



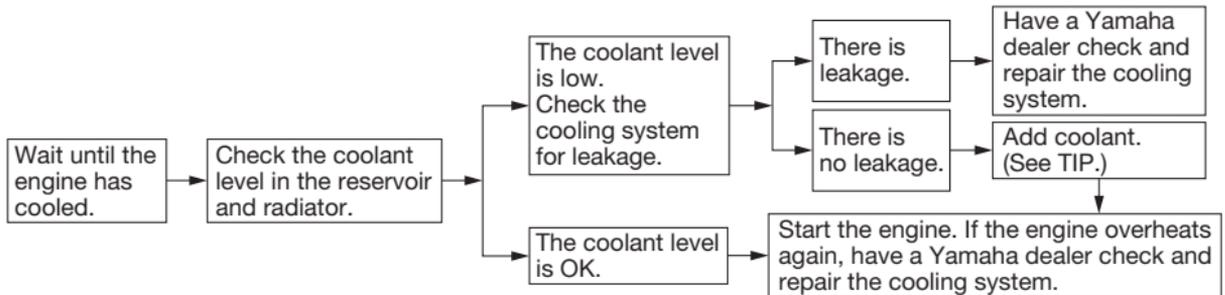
4. Compression



Engine overheating

WARNING

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



Periodic maintenance and adjustment

TIP

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

Matte color caution

EAUJ37834

ECA15193

NOTICE

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

EAUA0990

Care

Frequent, thorough cleaning of the vehicle will not only enhance its appearance but also will improve its general

performance and extend the useful life of many components. Washing, cleaning, and polishing will also give you a chance to inspect the condition of the vehicle more frequently. Be sure to wash the vehicle after riding in the rain or near the sea, because salt is corrosive to metals.

TIP

- Genuine Yamaha care and maintenance products are sold under the YAMALUBE brand in many markets worldwide.
 - See your Yamaha dealer for additional cleaning tips.
-

Motorcycle care and storage

ECA26280

NOTICE

Improper cleaning can cause cosmetic and mechanical damage. Do not use:

- high-pressure washers or steam-jet cleaners. Excessive water pressure may cause water seepage and deterioration of wheel bearings, brakes, transmission seals and electrical devices. Avoid high-pressure detergent applications such as those available in coin-operated car washers.
- harsh chemicals, including strong acidic wheel cleaners, especially on spoke or magnesium wheels.

- harsh chemicals, abrasive cleaning compounds, or wax on matte-finished parts. Brushes can scratch and damage the matte-finish, use soft sponge or towel only.
 - towels, sponges, or brushes contaminated with abrasive cleaning products or strong chemicals such as, solvents, gasoline, rust removers, brake fluid, or antifreeze, etc.
-

Before washing

1. Park the vehicle out of direct sunlight and allow it to cool. This will help avoid water spots.
2. Make sure all caps, covers, electrical couplers and connectors are tightly installed.

3. Cover the muffler end with a plastic bag and a strong rubber band.
4. Pre-soak stubborn stains like insects or bird droppings with a wet towel for a few minutes.
5. Remove road grime and oil stains with a quality degreasing agent and a plastic-bristle brush or sponge. **NOTICE: Do not use degreasing agent on areas requiring lubrication such as seals, gaskets, and wheel axles. Follow product instructions.**

[ECA26290]

Washing

1. Rinse off any degreaser and spray down the vehicle with a garden hose. Use only enough pressure to do the job. Avoid spraying water

directly into the muffler, instrument panel, air inlet, or other inner areas such as underseat storage compartments.

2. Wash the vehicle with a quality automotive-type detergent mixed with cool water and a soft, clean towel or sponge. Use an old toothbrush or plastic-bristle brush for hard-to-reach places. **NOTICE: Use cold water if the vehicle has been exposed to salt. Warm water will increase salt's corrosive properties.** [ECA26301]
3. For windshield-equipped vehicles: Clean the windshield with a soft towel or sponge dampened with water and a pH neutral detergent. If necessary, use a high-quality windshield cleaner or polish for

Motorcycle care and storage

motorcycles. **NOTICE: Never use any strong chemicals to clean the windshield. Additionally, some cleaning compounds for plastic may scratch the windshield, so be sure to test all cleaning products before general application.** [ECA26310]

4. Rinse off thoroughly with clean water. Be sure to remove all detergent residues, as they can be harmful to plastic parts.

After washing

1. Dry the vehicle with a chamois or absorbent towel, preferably micro-fiber terrycloth.
2. For drive chain-equipped models: Dry and then lubricate the drive chain to prevent rust.

3. Use a chrome polish to shine chrome, aluminum, and stainless steel parts. Often the thermally induced discoloring of stainless steel exhaust systems can be removed through polishing.
4. Apply a corrosion protection spray on all metal parts including chrome or nickel-plated surfaces. **WARNING! Do not apply silicone or oil spray to seats, hand grips, rubber foot pegs or tire treads. Otherwise these parts will become slippery, which could cause loss of control. Thoroughly clean the surfaces of these parts before operating the vehicle.** [EWA20651]

5. Treat rubber, vinyl, and unpainted plastic parts with a suitable care product.
6. Touch up minor paint damage caused by stones, etc.
7. Wax all painted surfaces using a non-abrasive wax or use a detail spray for motorcycles.
8. When finished cleaning, start the engine and let it idle for several minutes to help dry any remaining moisture.
9. If the headlight lens has fogged up, start the engine and turn on the headlight to help remove the moisture.
10. Let the vehicle dry completely before storing or covering it.

NOTICE

- Do not apply wax to rubber or unpainted plastic parts.
- Do not use abrasive polishing compounds as they will wear away the paint.
- Apply sprays and wax sparingly. Wipe off excess afterwards.



WARNING

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

- Make sure there is no lubricant or wax on the brakes or tires.
- If necessary, wash the tires with warm water and a mild detergent.

Motorcycle care and storage

ECA21170

- If necessary, clean the brake discs and pads with brake cleaner or acetone.
 - Before riding at higher speeds, test the vehicle's braking performance and cornering behavior.
-

NOTICE

- Storing the vehicle 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.
-

EAU83472

Storage

Always store the vehicle in a cool, dry place. If necessary, protect it against dust with a porous cover. Be sure the engine and the exhaust system are cool before covering the vehicle. If the vehicle often sits for weeks at a time between uses, the use of a quality fuel stabilizer is recommended after each fill-up.

Long term storage

Before storing the vehicle long term (60 days or more):

1. Make all necessary repairs and perform any outstanding maintenance.

2. Follow all instructions in the Care section of this chapter.
3. Fill up the fuel tank, adding fuel stabilizer according to product instructions. Run the engine for 5 minutes to distribute treated fuel through the fuel system.
4. For vehicles equipped with a fuel cock: Turn the fuel cock lever to the off position.
5. For vehicles with a carburetor: To prevent fuel deposits from building up, drain the fuel in the carburetor float chamber into a clean container. Retighten the drain bolt and pour the fuel back into the fuel tank.
6. Use a quality engine fogging oil according to product instructions to protect internal engine components from corrosion. If engine fogging oil is not available, perform the following steps for each cylinder:
 - a. Remove the spark plug cap and spark plug.
 - b. Pour a teaspoonful of engine oil into the spark plug bore.
 - c. Install the spark plug cap onto the spark plug, and then place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
 - d. Turn the engine over several times with the starter. (This will coat the cylinder wall with oil.)

WARNING! To prevent damage or injury from sparking, make sure to ground the

Motorcycle care and storage

spark plug electrodes while turning the engine over.

[EWA10952]

- e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap.
7. Lubricate all control cables, pivots, levers and pedals, as well as the sidestand and centerstand (if equipped).
8. Check and correct the tire air pressure, and then lift the vehicle so that all wheels are off the ground. Otherwise, turn the wheels a little once a month in order to prevent the tires from becoming degraded in one spot.

9. Cover the muffler outlet with a plastic bag to prevent moisture from entering it.
10. Remove the battery and fully charge it, or attach a maintenance charger to keep the battery optimally charged. **NOTICE: Confirm that the battery and its charger are compatible. Do not charge a VRLA battery with a conventional charger.** [ECA26330]

TIP

- If the battery will be removed, charge it once a month and store it in a temperate location between 0-30 °C (32-90 °F).
 - See page 8-50 for more information on charging and storing the battery.
-

*Dimensions:

- Overall length:
2090 mm (82.3 in)
- Overall width:
735 mm (28.9 in)
- Overall height:
1140 mm (44.9 in)
- Seat height:
780 mm (30.7 in)
- Wheelbase:
1380 mm (54.3 in)
- Ground clearance:
160 mm (6.30 in)
- Minimum turning radius:
2.9 m (9.51 ft)

*Weight:

- Curb weight:
169 kg (373 lb)

*Engine:

- Combustion cycle:
4-stroke
- Cooling system:
Liquid cooled

- Valve train:
DOHC
- Cylinder arrangement:
Inline
- Number of cylinders:
2-cylinder
- Displacement:
321 cm³
- Bore × stroke:
68.0 × 44.1 mm (2.68 × 1.74 in)
- Starting system:
Electric starter

*Engine oil:

- Recommended brand:



- SAE viscosity grades:
10W-40
- Recommended engine oil grade:
API service SG type or higher, JASO
standard MA

Specifications

*Engine oil quantity:

Oil change:

2.00 L (2.11 US qt, 1.76 Imp.qt)

With oil filter removal:

2.30 L (2.43 US qt, 2.02 Imp.qt)

*Coolant quantity:

Coolant reservoir (up to the maximum level mark):

0.25 L (0.26 US qt, 0.22 Imp.qt)

Radiator (including all routes):

0.81 L (0.86 US qt, 0.72 Imp.qt)

*Fuel:

Recommended fuel:

Unleaded gasoline (E10 acceptable)

Octane number (RON):

90

Fuel tank capacity:

14 L (3.7 US gal, 3.1 Imp.gal)

Fuel reserve amount:

3.0 L (0.79 US gal, 0.66 Imp.gal)

*Fuel injection:

*Throttle body:

ID mark:

B2X1

*Drivetrain:

*Gear ratio:

1st:

2.500 (35/14)

2nd:

1.824 (31/17)

3rd:

1.348 (31/23)

4th:

1.087 (25/23)

5th:

0.920 (23/25)

6th:

0.800 (24/30)

*Front tire:

Type:

Tubeless

Size:

110/70R17M/C 54H

Manufacturer/model:

DUNLOP/GPR-300F

*Rear tire:

Type:

Tubeless

Size:

140/70R17M/C 66H

Manufacturer/model:

DUNLOP/GPR-300

*Loading:

Maximum load:

160 kg (353 lb)

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

*Front brake:

Type:

Hydraulic single disc brake

*Rear brake:

Type:

Hydraulic single disc brake

*Front suspension:

Type:

Telescopic fork

*Rear suspension:

Type:

Swingarm

*Electrical system:

System voltage:

12 V

*Battery:

Model:

GTZ8V

Voltage, capacity:

12 V, 7.0 Ah (10 HR)

*Bulb wattage:

Headlight:

LED

Brake/tail light:

LED

Front turn signal light:

LED

Rear turn signal light:

LED

Auxiliary light:

LED

License plate light:

5.0 W

Consumer information

EAU26366

EAU62971

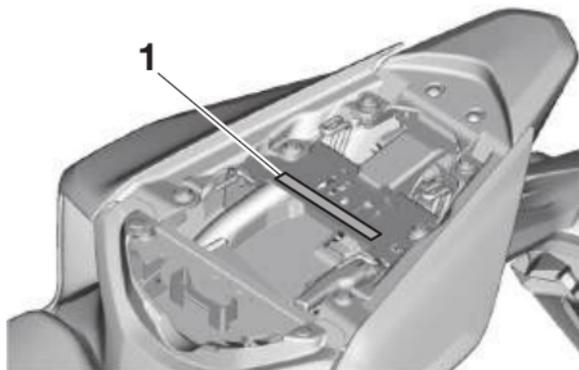
Identification numbers

Record the vehicle identification number and the engine serial number in the spaces provided below for assistance when ordering spare parts from a Yamaha dealer or for reference in case the vehicle is stolen.

VEHICLE IDENTIFICATION NUMBER:

ENGINE SERIAL NUMBER:

Vehicle identification number



1. Vehicle identification number

The vehicle identification number is stamped into the frame under the passenger seat. (See page 5-32.)

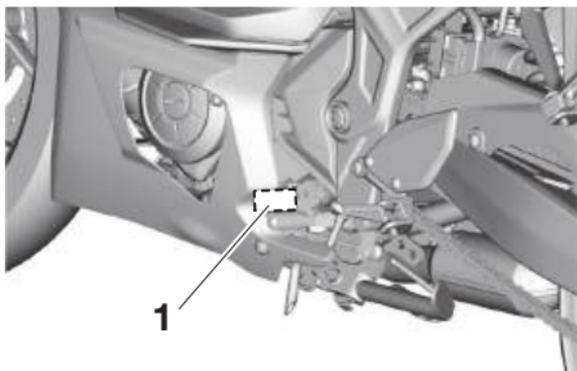
TIP

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

The engine serial number is stamped into the crankcase.

EAU26442

Engine serial number



1. Engine serial number

Use of your data

This is a brief summary of how Yamaha (Yamaha Motor Co., Ltd., and the local subsidiaries) uses your data. For more details for Yamaha's use of your data, please see our Privacy Policy.

<https://global.yamaha-motor.com/en/privacy/>

What data we collect? and How we collect your data?

This vehicle collects three types of data through integrated Engine Control Units (ECU):

(1) Vehicle Identification Number (VIN); (2) live data showing the performance of the vehicle such as engine/motor operating state, vehicle speed, mileage; and (3) other data showing the status of the vehicle such as diagnostic trouble code (DTC).

The collected data will be uploaded to server at Yamaha Motor Co., Ltd. by attaching a special Yamaha diagnostic tool to the vehicle, only when maintenance checks or service procedures are performed.

How will we use your data?

Yamaha use collected data from your vehicle, (1) to conduct adequate maintenance service including diagnostics, (2) to implement proper warranty claim judgement, (3) to conduct research and development of vehicle, (4) to provide and

improve quality of products, features, and services, (5) to ensure our business purpose, and (6) to comply with legal obligations or lawful orders, and to establish or defend legal claims.

How we share your data?

We may share your data with: (i) our subsidiaries, affiliates, and business partners; (ii) dealers and distributors in your country or region, and (iii) contractors within the scope necessary to achieve the purpose of use described above.

How to contact us

Any questions or complaints regarding the processing of your Personal Data can be submitted in writing to the local subsidiaries.

<https://global.yamaha-motor.com/link/>

The SOLE PURPOSE of above provided contact information is TO RESPOND DATA PROCESSING INQUIRY AND OTHER KINDS OF INQUIRIES WILL NOT BE RESPONDED. Please provide the following information for the proper handling of your inquiry: **(1) Your Name; (2) Your Email Address; (3) Your Country of Residence; and (4) Your VIN.** We will use your personal information provided only for the purpose of supporting your data processing inquiry.

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