

# RIDING PRECAUTIONS

## BREAK-IN

### Description

The first 500 miles (800 km) is the most important in the life of your motorcycle. Proper operation during this break-in period will help assure maximum life and performance from your new motorcycle.

During the break-in period, avoid needless idling, sudden acceleration or deceleration, abrupt steering changes, or sudden braking.

The following guidelines explain proper break-in procedures.

### Maximum Engine Speed Recommendation

The table below shows the maximum engine speed recommendation during the break-in period.

Initial	500 miles (800 km)	Below 4500 r/min
Up to	1000 miles (1600 km)	Below 7000 r/min
Over	1000 miles (1600 km)	Below Red zone

### Vary the engine speed

Vary the engine speed during the break-in period. This allows the parts to “load” (aiding the mating process) and then “unload” (allowing the parts to cool). Although it is essential to place some stress on the engine components during break-in, you must be careful not to load the engine too much.

## **Breaking in the new tires**

New tires need proper break-in to assure maximum performance, just as the engine does. Wear-in the tread surface by gradually increasing your cornering lean angles over the first 100 miles (160 km) before attempting maximum performance. Avoid hard acceleration, hard cornering, and hard braking for the first 100 miles (160 km).

## **⚠ WARNING**

**Failure to perform break-in of the tires could cause tire slip and loss of control.**

**Use extra care when riding on new tires. Perform proper break-in of the tires as described in this section and avoid hard acceleration, hard cornering, and hard braking for the first 100 miles (160 km).**

## **Observe Your Initial and Most Critical Service**

The initial service (break-in maintenance) is the most important service your motorcycle will receive. During break-in operation, all of the engine components will have mated together and seated. Maintenance required as part of the initial service includes correction of all adjustments, tightening of all fasteners and replacement of dirty oil. Timely performance of this service will help make sure you get the best service life and performance from the engine.

*NOTE: The 600 miles (1000 km) service should be performed as outlined in the INSPECTION AND MAINTENANCE section of this Owner's Manual. Pay particular attention to the CAUTION and WARNING messages in that section.*

## **ON HILLS**

### **Riding on a slope**

- When climbing steep hills, the motorcycle may begin to slow down and show lack of power. At this point you should shift to a lower gear so that the engine will again be operating in its normal power range. Shift rapidly to prevent the motorcycle from losing momentum.
- When descending a long, steep slope, use the engine compression to assist the brakes by shifting to a lower gear. Continuous brake application can overheat the brakes and reduce their effectiveness.
- Be careful not to allow the engine to overrev when descending a slope.

## FUEL GUIDELINES

Your motorcycle requires premium unleaded gasoline with a minimum pump octane rating of 90 ((R+M)/2 method). In some areas, the only fuels that are available are oxygenated fuels. Using unleaded premium gasoline extends the lifespan of spark plugs and exhaust system parts.

**Fuel used: Unleaded premium gasoline**  
**Fuel tank capacity: 5.3 US gal (20.0 L)**

### *NOTE:*

- *The engine of this model is designed to use premium unleaded gasoline.*
- *If the engine develops some trouble such as lack of acceleration or insufficient power, the cause may be the fuel. In such case, try changing to a different gas station. If the situation is not improved by changing, consult your dealer.*

## Oxygenated fuel recommendation

Oxygenated fuels which meet the minimum octane requirement and the requirements described below may be used in your motorcycle without jeopardizing the New Vehicle Limited Warranty or the Emission Control System Warranty.

*NOTE: Oxygenated fuels are fuels which contain oxygen-carrying additives such as alcohol.*

## Gasoline/Ethanol blends

Blends of unleaded gasoline and ethanol (grain alcohol), also known as "GASOHOL", are commercially available in some areas. Blends of this type may be used in your motorcycle if they are no more than 10% ethanol. Make sure this gasoline-ethanol blend has octane ratings no lower than those recommended for gasoline.

## Fuel Pump Labeling

In some states, pumps that dispense oxygenated fuels are required to be labeled for the type and percentage of oxygenate, and whether important additives are present. Such labels may provide enough information for you to determine if a particular blend of fuel meets the requirements listed above. In other states, pumps may not be clearly labeled as to the content or type of oxygenate and additives. If you are not sure that the fuel you intend to use meets these requirements, check with the service station operator or the fuel supplier.

### *NOTE:*

- *To help minimize air pollution, Suzuki recommends that you use oxygenated fuels.*
- *Be sure that any oxygenated fuel you use has octane ratings of at least 90 pump octane ((R+M)/2 method).*
- *If you are not satisfied with the drivability of your motorcycle when you are using an oxygenated fuel, or if engine pinging is experienced, substitute another brand as there are differences between brands.*

## INSPECTION AND MAINTENANCE

**MAINTENANCE, REPLACEMENT OR REPAIR OF THE EMISSION CONTROL DEVICES AND SYSTEMS MAY BE PERFORMED BY ANY MOTORCYCLE REPAIR ESTABLISHMENT OR INDIVIDUAL USING ANY MOTORCYCLE PART WHICH HAS BEEN CERTIFIED UNDER THE PROVISIONS IN THE CLEAN AIR ACT Sec. 207 (a)(2).**

## DESCRIPTION

Regular inspection and maintenance are essential to riding your motorcycle safely, and to ensuring that it lasts a long time.

Carry out periodic inspections even when you do not use the motorcycle for an extended period. Inspect your motorcycle carefully when you begin using it again after an extended period of non-use.

Follow the guidelines in the chart. The intervals between periodic services in kilometers, miles and months are shown. At the end of each interval, be sure to perform the maintenance listed.

## MAINTENANCE CHART

Interval: This interval should be judged by number of months or odometer reading, whichever comes first.

Item		Interval	2	12	24	36	48	
		months						
		km	1000	6000	12000	18000	24000	
		miles	600	3750	7500	11250	15000	
Air cleaner element (☞ 3-20)	polyester foam element	Clean every 6000 km (3750 miles)						
	non woven element	–	I	I	R	I		
* Exhaust pipe bolts and muffler bolts		T	–	T	–	T		
* Valve clearance		–	–	–	–	I		
* Spark plugs		–	I	R	I	R		
* Fuel hose		–	I	I	I	I		
* Evaporative emission control system (if equipped)		–	–	I	–	I		
Engine oil (☞ 3-28)		R	R	R	R	R		
Engine oil filter (☞ 3-28)		R	–	–	R	–		
* PAIR (air supply) system		–	–	I	–	I		
* Throttle valve synchronization		I	–	I	–	I		
* Engine coolant (☞ 3-41)	“SUZUKI SUPER LONG LIFE COOLANT” (Blue)	Replace every 4 years or 48000 km (30000 miles)						
	“SUZUKI LONG LIFE COOLANT” (Green) or an engine coolant other than “SUZUKI SUPER LONG LIFE COOLANT” (Blue)	–	–	R	–	R		
Radiator hose (☞ 3-47)		–	I	I	I	I		
Clutch cable play (☞ 3-47)		–	I	I	I	I		

Item	Interval	months	2	12	24	36	48
		km	1000	6000	12000	18000	24000
		miles	600	3750	7500	11250	15000
Drive chain (👉 3-48)		I	I	I	I	I	
		Clean and lubricate every 1000 km (600 miles)					
* Brakes (👉 3-56)		I	I	I	I	I	
Brake fluid (👉 3-57)		–	I	I	I	I	
		*Replace every 2 years					
Brake hose (👉 3-56)		–	I	I	I	I	
		*Replace every 4 years					
Tires (👉 3-67)		–	I	I	I	I	
* Steering		I	–	I	–	I	
* Front forks		–	–	I	–	I	
* Rear suspension		–	–	I	–	I	
* Chassis bolts and nuts		T	T	T	T	T	
Lubrication (👉 3-13)		Lubricate every 1000 km (600 miles)					
* Spoke wheel		I	I	I	I	I	

*NOTE: I= Inspect and clean, adjust, replace or lubricate as necessary;  
R= Replace; T= Tighten*



## **INSPECTION BEFORE RIDING**

Check the condition of the motorcycle to help make sure that you do not have mechanical problems or get stranded somewhere when you ride. Be sure your motorcycle is in good condition for the personal safety of the rider, passenger, and protection of the motorcycle.

### **⚠ WARNING**

**If you operate this motorcycle with improper tires or improper or uneven tire pressure, you may lose control of the motorcycle. This will increase your risk of a crash.**

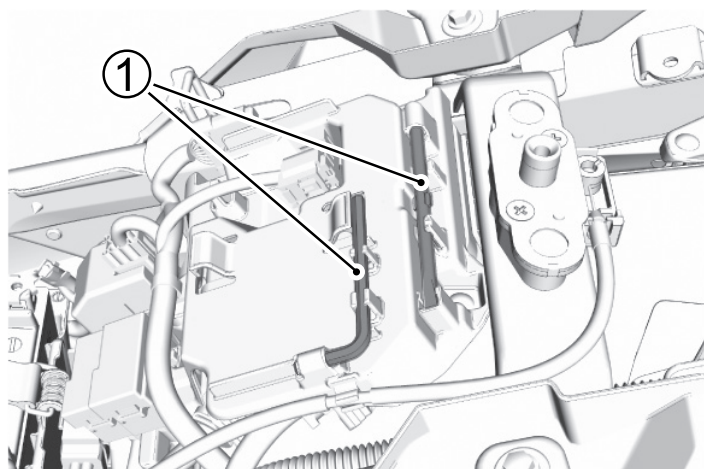
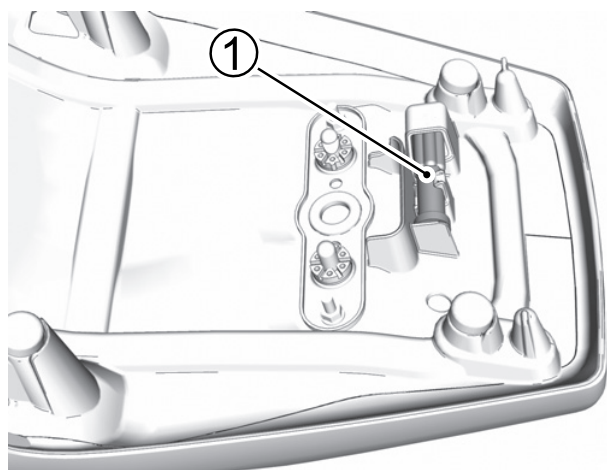
**Always use tires of the size and type specified in this owner's manual. Always maintain proper tire pressure as described in the INSPECTION AND MAINTENANCE section.**

WHAT TO CHECK	CHECK FOR:
Steering	<ul style="list-style-type: none"> <li>• Smoothness</li> <li>• No restriction of movement</li> <li>• No play or looseness</li> </ul>
Throttle	Smooth operation and positive return of the throttle grip to the closed position
Clutch (☞ 3-55)	<ul style="list-style-type: none"> <li>• Correct lever play</li> <li>• Smooth and progressive action</li> </ul>
Brakes (☞ 3-56, 3-57, 3-60, 3-62)	<ul style="list-style-type: none"> <li>• Proper pedal and lever operation</li> <li>• Fluid level in the reservoir to be above "LOWER" line</li> <li>• Correct pedal and lever play</li> <li>• No "sponginess"</li> <li>• No fluid leakage</li> <li>• Brake pads not worn down to the limit line</li> </ul>
Suspension (☞ 2-116, 2-120)	Smooth movement
Fuel (☞ 2-100)	Enough fuel for the planned distance of operation
Drive chain (☞ 3-52)	<ul style="list-style-type: none"> <li>• Correct tension or slack</li> <li>• Adequate lubrication</li> <li>• No excessive wear or damage</li> </ul>

Tires (☞ 3-67)	<ul style="list-style-type: none"> <li>• Correct pressure</li> <li>• Adequate tread depth</li> <li>• No cracks or cuts</li> </ul>
Engine oil (☞ 3-28)	Correct level
Cooling system (☞ 3-41)	<ul style="list-style-type: none"> <li>• Proper coolant level</li> <li>• No coolant leakage</li> </ul>
Lighting (☞ 2-21, 2-87)	Operation of all lights and indicators
Horn (☞ 2-88)	Correct function
Engine stop switch (☞ 2-89)	Correct function
Side stand/Ignition interlock system (☞ 2-98)	Proper operation
Windshield (☞ 2-124)	Good visibility
Spoke wheels (☞ 3-74, 3-75)	<ul style="list-style-type: none"> <li>• Spoke tension</li> <li>• Check for damage</li> </ul>

## TOOLS

A tool kit ① is supplied and located under the seat.



## LUBRICATION

### LUBRICATION POINTS

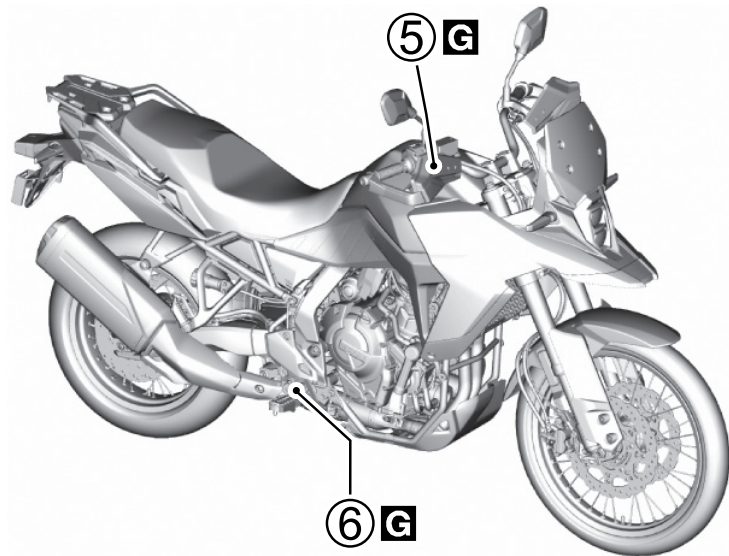
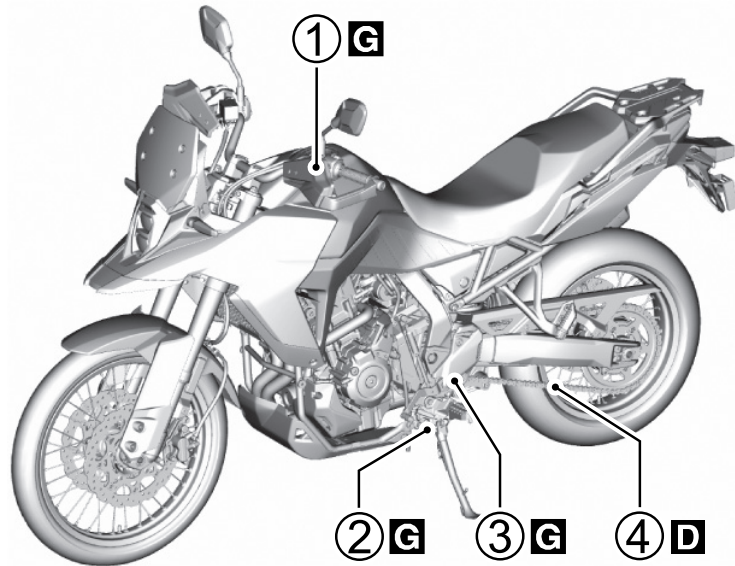
Proper lubrication is important for the smooth operation and extended life of each working part of your motorcycle. For safe riding, it is good practice to lubricate the motorcycle after a long rough ride and after getting it wet in the rain or after washing it.

### ***NOTICE***

**Lubricating electrical switches can damage the switches.**

**Do not apply grease or oil to electrical switches.**

Major lubrication points are indicated below.



**G** .... Grease

**D** .... Drive chain lubricant

① Clutch lever pivot

② Gearshift lever pivot and footrest pivot

③ Side stand pivot and spring hook

④ Drive chain

⑤ Brake lever pivot

⑥ Brake pedal pivot and footrest pivot

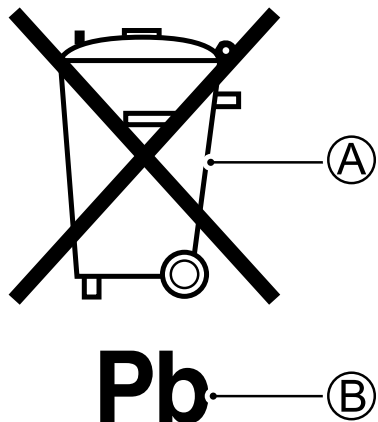
# BATTERY

## DESCRIPTION

The battery is a sealed-type battery and requires no maintenance. Have your dealer check the battery's state of charge periodically.

The crossed-out wheeled bin symbol (A) located on the battery label indicates that a used battery should be collected separately from ordinary household waste.

The chemical symbol of "Pb" (B) indicates the battery contains more than 0.004% lead.



By ensuring the used battery is disposed of or recycled correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of the battery. The recycling of materials will help to conserve natural resources. For more detailed information about disposing or recycling of the used battery, consult your dealer.

## NOTE:

- *For charging a sealed-type battery, use a battery charger applicable to a sealed-type battery.*
- *If you cannot charge the battery, consult your dealer.*
- *Select the same type MF battery when replacing the battery.*
- *Recharge the battery once a month if the motorcycle is not used for a long time.*

## **⚠ WARNING**

Battery posts, terminals, and related accessories contain lead and lead compounds. Lead is harmful to your health if it gets into your blood stream.

Wash hands after handling any parts containing lead.

## **⚠ WARNING**

Batteries produce flammable hydrogen gas which can explode if exposed to flames or sparks.

Keep flames and sparks away from the battery. Never smoke when working near the battery.

## **⚠ WARNING**

The battery contains dilute sulfuric acid, which may cause blindness or severe burns.

Do not tip the battery when removing it. When working close to the battery, wear gloves and appropriate protective equipment to protect the eyes. If sulfuric acid enters your eyes, wash them immediately in copious amounts of water for at least 15 minutes and then consult a doctor.

If you ingest sulfuric acid, drink copious amounts of water immediately and then consult a doctor. If sulfuric acid comes into contact with your skin or clothes, remove your clothes and wash them immediately in copious amounts of water. Store in a location out of the reach of children.

**⚠ WARNING**

Wiping the battery with a dry cloth can cause a static electricity spark, which can start a fire.

Wipe the battery with a damp cloth to avoid static electricity build up.

***NOTICE***

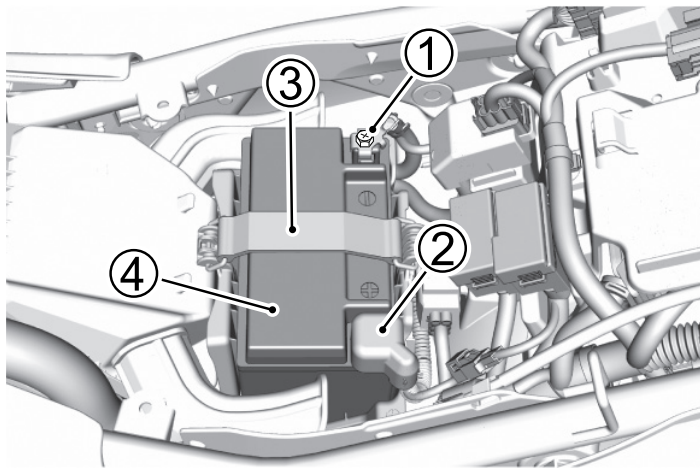
Exceeding the maximum charging rate for the battery can shorten its life.

Never exceed the maximum charging rate for the battery. Consult your dealer if anything is unclear.

## REMOVING

To remove the battery, follow the procedure below:

1. Set the ignition switch to OFF.
2. Remove the seat. (☞ 2-114)
3. Disconnect the negative (-) terminal ①.
4. Disconnect the positive (+) terminal ②.
5. Remove the band ③.
6. Remove the battery ④.



7. Wipe any white powder adhering to the terminal section away with warm water. If there is severe corrosion, buff it off with sandpaper.

## NOTE:

- When removing battery cables, be sure to set the ignition switch to OFF and remove the negative (-) side first. When attaching battery cables, attach the positive (+) side first.
- Tighten so that there is no slackness in the terminal section, and attach the positive (+) terminal cover firmly.
- When replacing the battery, consult your dealer.



## INSTALLATION

To install the battery:

1. After cleaning, apply a thin layer of grease to the terminal section, install the battery in the reverse order of removal.
2. Connect the battery terminals securely and reinstall the cap.

*NOTE: Be sure to reset the engine rpm indicator in the instrument panel when the battery terminals are reconnected.*

## ***NOTICE***

**Reversing the battery lead wires can damage the charging system and the battery.**

**Always attach the red lead to the (+) positive terminal and the black (or black with white tracer) lead to the (-) negative terminal.**

## **SPARK PLUG**

### **DESCRIPTION**

For the spark plug check or replacement procedure, consult with your dealer.

## **AIR CLEANER**

### **DESCRIPTION**

The air cleaner element must be kept clean to provide good engine power and gas mileage. If you use your motorcycle under normal low-stress conditions, you should service the air cleaner at the intervals specified. If you ride in dusty, wet or muddy conditions, you will need to inspect the air cleaner element much more frequently.

Use the following procedure to remove the element and inspect it.

## **WARNING**

Operating the engine without the air cleaner element in place can be hazardous. A flame can spit back from the engine to the air intake box without the air cleaner element to stop it. Severe engine damage can also occur if dirt enters the engine due to running the engine without the air cleaner element.

Never run the engine without the air cleaner element in place.

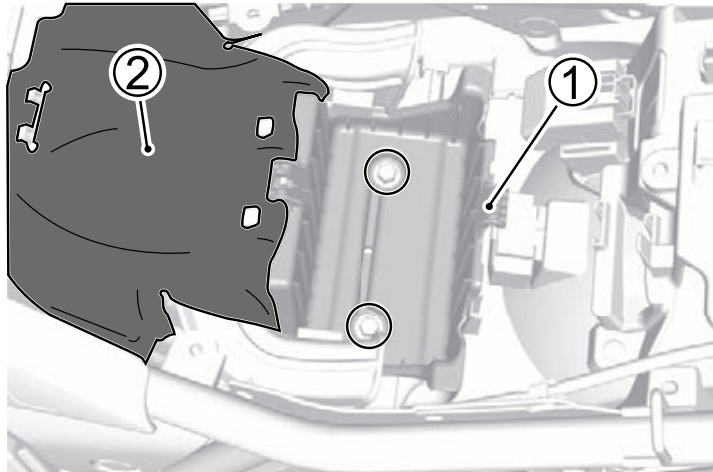
## ***NOTICE***

Failure to inspect the air cleaner element frequently if the vehicle is used in dusty, wet, or muddy conditions can damage your motorcycle. The air cleaner element can become clogged under these conditions, and engine damage may result.

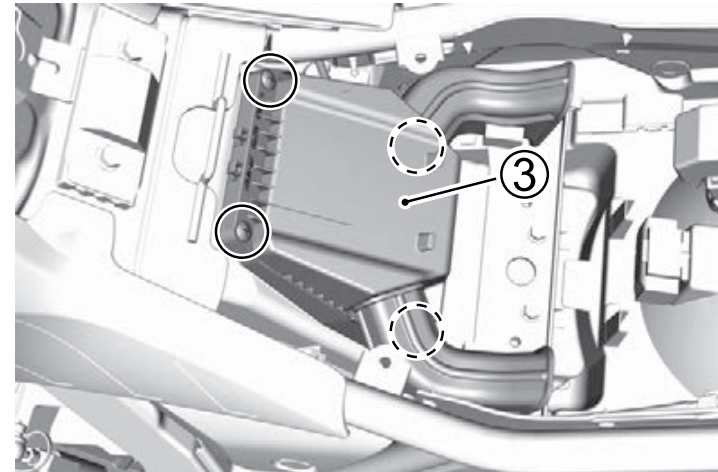
Always inspect the air cleaner element after riding in severe conditions. Replace the element as necessary. If water gets in the air cleaner case, immediately clean the element and the inside of the case.

## REMOVING

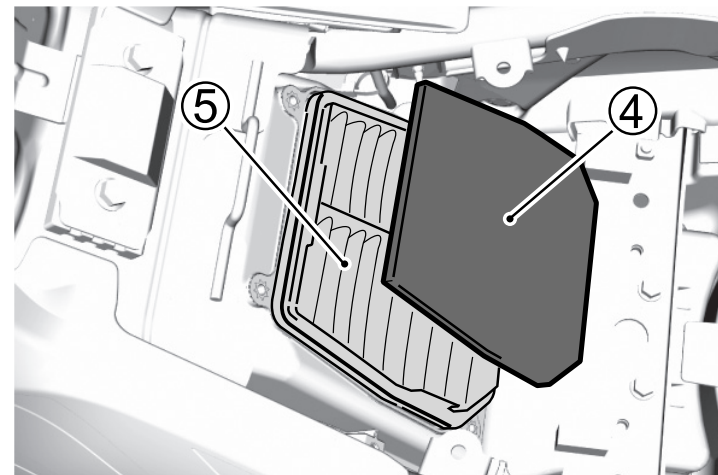
1. Remove the seat. (👉 2-114)
2. Remove the battery. (👉 3-18)
3. Remove the bolts and battery holder ①.
4. Remove the sheet ②.



5. Remove the screws and pull up the air cleaner cap ③.



6. Remove the pre-filter ④ and air cleaner element ⑤.

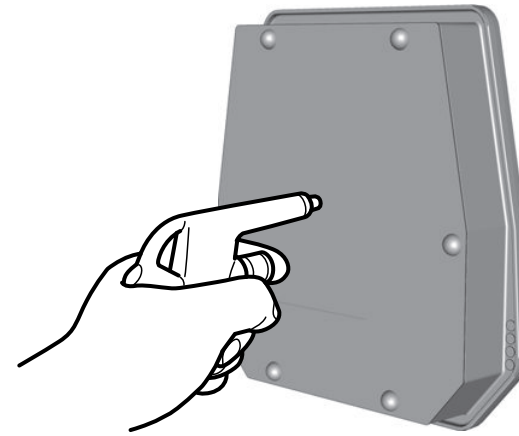


## **INSPECTION and CLEANING**

### **Air cleaner element (non woven)**

1. Face the air cleaner element fabric side down and tap it lightly to remove dust and debris.
2. Carefully blow air from the mesh side to blow dust off. Replace the air cleaner element if it is damaged.

*NOTE: Always apply air pressure to the mesh side of the air cleaner element only. If you apply air pressure to the fabric side, dirt will be forced into the pores of the element, restricting the air flow through the element.*



### **Pre-filter (polyester foam)**

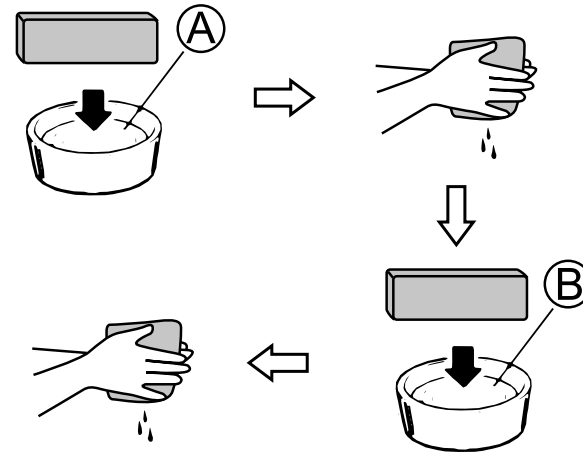
Wash the polyester foam element as follows:

1. Clean the pre-filter by soaking it in clean kerosene (A).
2. Squeeze the pre-filter with the palm of your hand and let it dry. Do not twist or wring the pre-filter at this time.
3. Soak the pre-filter with clean oil (B).

### **Recommended oil:**

**SAE 10W-30 equivalent engine oil**

4. Squeeze out excess oil.



## **WARNING**

New and used oil and solvent can be hazardous. Children and pets may be harmed by swallowing new or used oil or solvent. Repeated, prolonged contact with used engine oil may cause skin cancer. Brief contact with used oil or solvent may irritate skin.

- Keep new and used oil and solvent away from children and pets.
- Wear a long-sleeve shirt and waterproof gloves.
- Wash with soap if oil or solvent contacts your skin.

*NOTE: Recycle or properly dispose of used oil and solvent.*

## INSTALLATION

### ***NOTICE***

A torn air cleaner element will allow dirt to enter the engine and can damage the engine.

Replace the air cleaner element with a new one if it is torn. Carefully examine the air cleaner element for tears during cleaning.

### ***NOTICE***

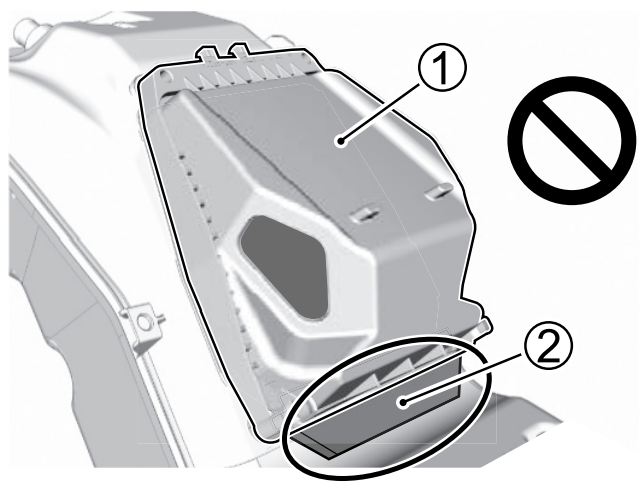
Failure to position the air cleaner element properly can allow dirt to bypass the air cleaner element. This will cause engine damage.

Be sure to properly install the air cleaner element.

## ***NOTICE***

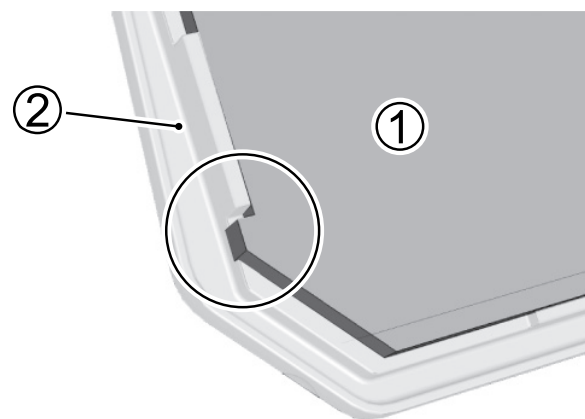
If the pre-filter ② is not properly installed when installing the air cleaner cap ①, foreign matter may enter the engine and cause damage.

Install the pre-filter so that it is not caught between the air cleaner cap.



Install by performing the removal procedure in reverse, paying attention to the following points.

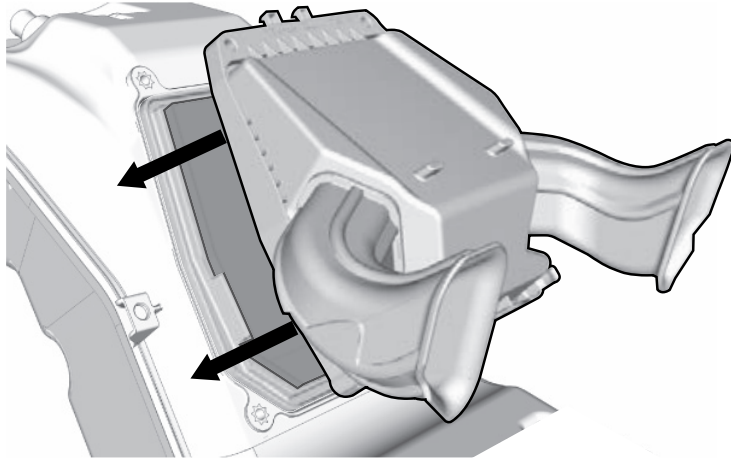
- Position pre-filter ① as shown in the figure.



② Air cleaner element



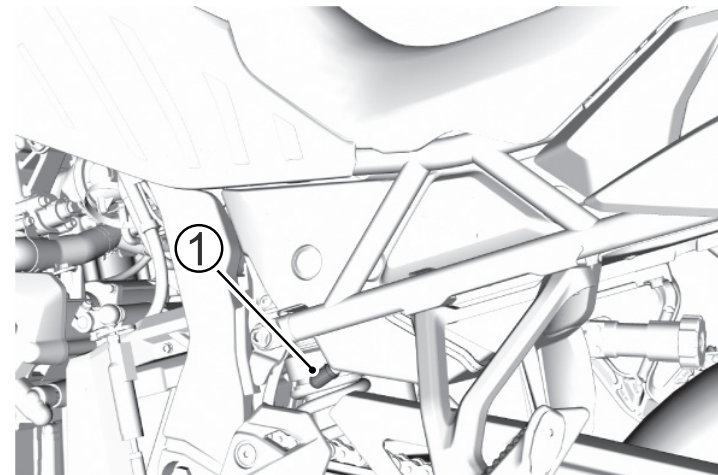
- Attach the air cleaner cap perpendicular to the filter surface, so that the pre-filter does not shift position.



## AIR CLEANER DRAIN PLUG CLEANING

### Removing

Every year, check to see if water or oil has accumulated in the air cleaner drain tube attached to the bottom of the air cleaner box. If dirt or water has accumulated, remove the air cleaner drain tube ① and then remove any accumulated dirt and water.



### Installation

Attach the air cleaner drain tube firmly.

## ENGINE OIL

### DESCRIPTION

Engine life depends on oil amount and quality. Daily oil level checks and periodic changes are two of the most important maintenance items to be performed.

*NOTE: Before adding, draining, or replacing engine oil, read cautions on the engine oil container and instructions in this section.*

## SELECTING THE ENGINE OIL

Suzuki recommends the use of SUZUKI Genuine Oil or Equivalent Engine Oil.

### < SUZUKI Genuine Oil >

Oil \ Standard	SAE	JASO
ECSTAR R9000	10W-40	MA
ECSTAR R7000	10W-40	MA
ECSTAR R5000	10W-40	MA

### < Equivalent Engine Oil >

Equivalent Engine Oil means engine oil that meets the following standards.

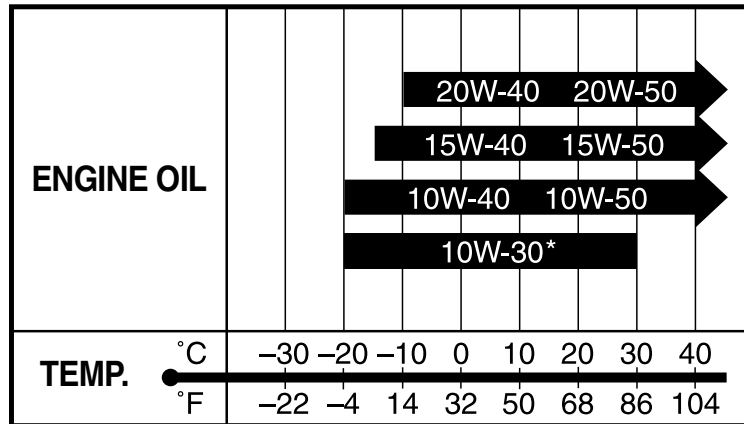
SAE	API	JASO
10W-40	SJ, SL, SM or SN	MA (MA1, MA2)

API: American Petroleum Institute

JASO: Japanese Automobile Standards Organization

## SAE engine oil viscosity

If SAE 10W-40 engine oil is not available, select an alternative according to the following chart.



\*USE ONLY SJ or SL.

## ***NOTICE***

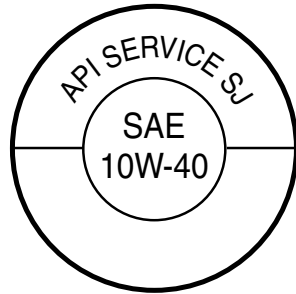
**Mixing oils of different makes and grades may alter the quality of the oil and cause a breakdown.**

**Do not mix oils or use low-quality oil.**

## Energy conserving

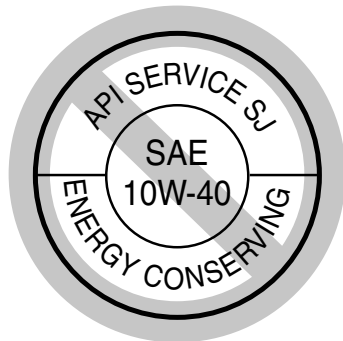
Suzuki does not recommend the use of “ENERGY CONSERVING” or “RESOURCE CONSERVING” oils. Some engine oils which have an API classification of SJ, SL, SM or SN have an “ENERGY CONSERVING” or “RESOURCE CONSERVING” indication in the API classification donut mark. These oils can negatively affect engine life and clutch performance.

API SJ, SL, SM or SN



Recommended

API SJ, SL or SM



API SN

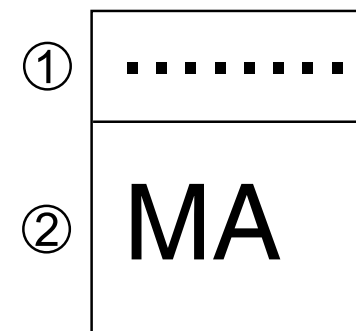


Not recommended

## JASO T903

The JASO T903 standard is an index to select engine oils for 4-stroke motorcycle and ATV engines. Motorcycle and ATV engines lubricate clutch and transmission gears with engine oil. JASO T903 specifies performance requirements for motorcycle and ATV clutches and transmissions.

There are two classes, MA(MA1, MA2) and MB. For example, the oil container shows the MA classification as follows.



- ① Code number of oil sales company
- ② Oil classification

## CHECKING THE ENGINE OIL LEVEL

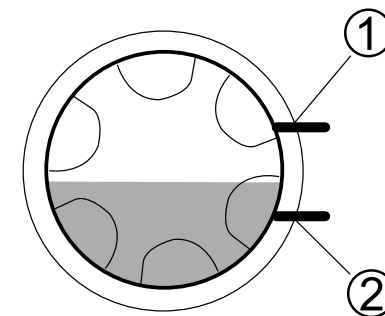
Check the engine oil level as follows:

1. Place the motorcycle on level ground on the side stand.
2. Start the engine and allow it to idle for three minutes.
3. Stop the engine and wait three minutes on the side stand.

4. Stand the motorcycle upright, and check whether the surface of the engine oil in the sight glass on the right side of the engine is between F (upper level) ① and L (lower level) ②.

If the oil is above the F (upper level) ① or below the L (lower level) ②, adjust the oil level to be between F and L.

- If the oil is below the L (lower level) ②, add additional oil.
- If the oil is above the F (upper level) ①, drain oil to adjust the level. Consult your dealer for information on how to drain oil.



## **▲ CAUTION**

The exhaust pipe, muffler and the engine become hot when the engine is running and after it has stopped. Touching them before they cool may cause burns.

When performing maintenance on nearby parts, wait until the exhaust pipe, muffler and engine have cooled down sufficiently to touch before starting maintenance.

## ***NOTICE***

Operating the motorcycle with too little or too much oil can damage the engine.

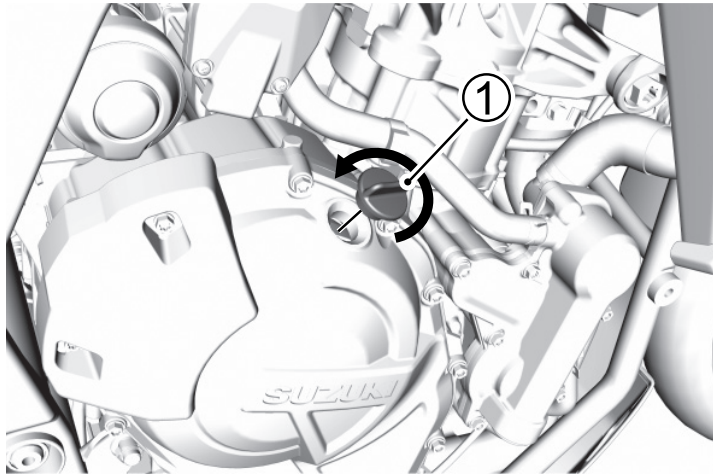
Place the motorcycle on level ground. Check the oil level in the engine oil inspection window before each use of the vehicle. Be sure the engine oil level is always above the “L” (low) line and not higher than the “F” (full) line.

*NOTE: If you shake the motorcycle before checking the oil level, you may not be able to check the correct amount.*

## ADD THE ENGINE OIL

Follow the following procedure to add additional engine oil.

1. Idle the engine for three minutes in a flat area, and then stop the engine.
2. Wait three minutes, then remove the oil filler cap ①.



3. Hold the motorcycle upright, and add oil so that the surface of the engine oil is between F (upper level) and L (lower level).
4. Attach the cap ① firmly.

## WARNING

**Children and pets may be harmed by swallowing new or used oil.**

**Keep new and used oil and used oil filters away from children and pets.**

## **WARNING**

Repeated, prolonged contact with used engine oil has caused skin cancer in animal tests. Brief contact with oil may irritate skin.

To minimize your exposure to used oil, wear a long-sleeve shirt and moisture-proof gloves (such as dish-washing gloves) when changing oil. If oil contacts your skin, wash thoroughly with soap and water. Launder any clothing or rags if wet with oil. Recycle or properly dispose of used oil and filters.

## **NOTICE**

If any dirt enters from the oil filler opening, it may damage the engine.

Check that there is no dust, mud, or foreign matter adhering to the oil container, and ensure that foreign material does not enter via the oil filler opening.

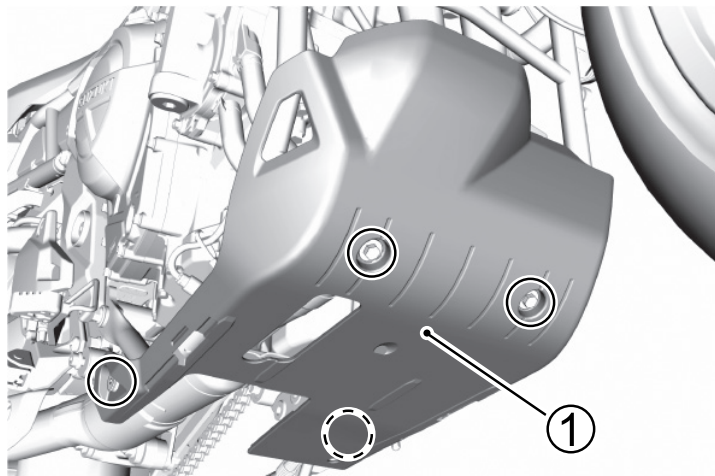
*NOTE: Wipe up any spilled oil completely.*



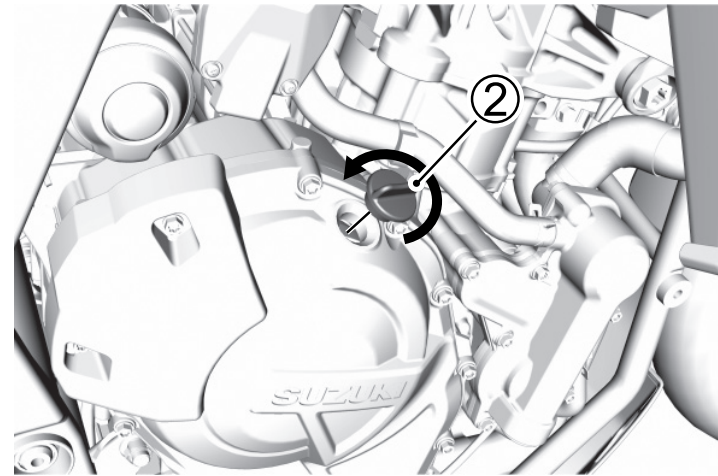
## CHANGING THE ENGINE OIL AND FILTER

Change the engine oil and oil filter at the scheduled times. The engine should always be warm when the oil is changed so the oil will drain easily. The procedure is as follows:

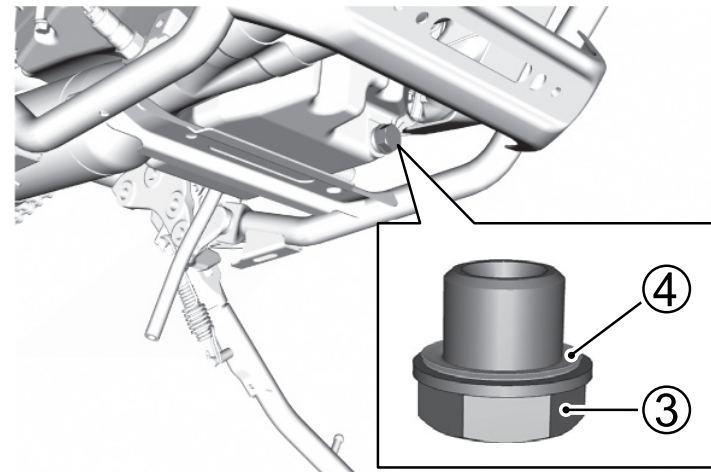
1. Place the motorcycle.
2. Remove the bolts and under cover ①.



3. Remove the oil filler cap ②.



4. Remove the drain plug ③ with gasket ④ from the bottom of the engine and drain the engine oil into a drain pan.



**▲ CAUTION**

**Hot engine oil and exhaust pipes can burn you.**

**Wait until the oil drain plug and exhaust pipes are cool enough to touch with bare hands before draining oil.**

***NOTICE***

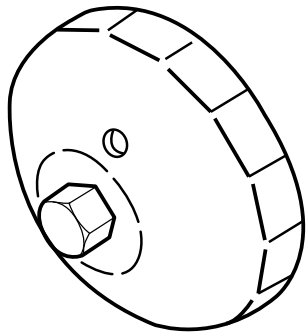
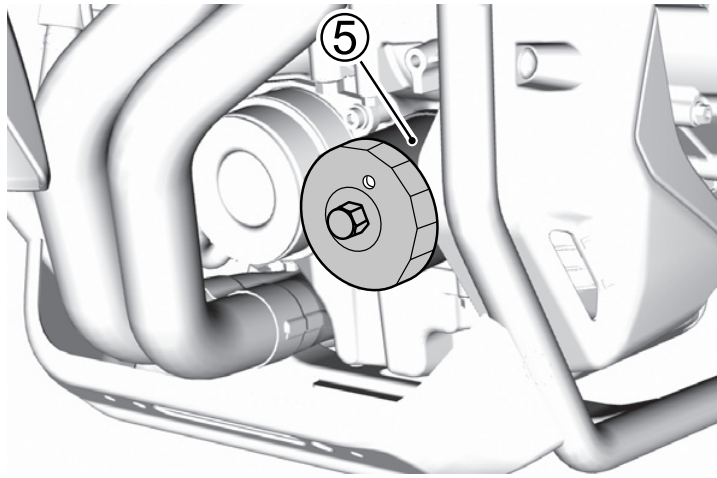
**Turning the engine while draining the engine oil will cause a reduced coating of parts and damage the engine.**

**Do not use the electric starter switch during engine oil replacement.**

***NOTE:***

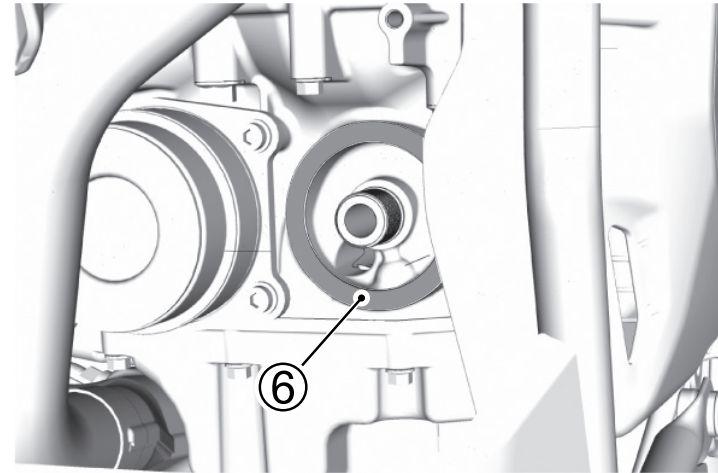
- *Recycle or properly dispose of used oil.*
- *Before starting the work, check that there is not any dust, mud, or foreign object inside the oil container or on the oil filter mounting surface.*

5. Turn the oil filter ⑤ counterclockwise and remove it with a Suzuki “cap type” oil filter wrench or a “strap type” filter wrench of the proper size.

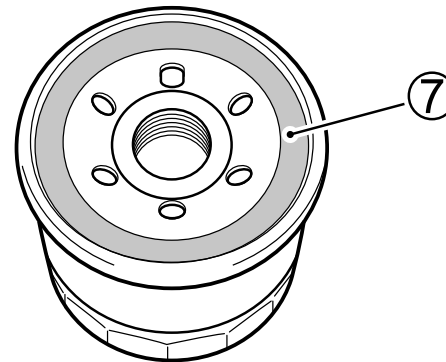


Available from Suzuki dealer  
Oil filter wrench (Part No. 09915-40620)

6. Wipe off the mounting surface ⑥ on the engine where the new filter will be seated with a clean rag.



7. Smear a little engine oil around the rubber gasket ⑦ of the new oil filter.



8. Screw the new filter on by hand until the filter gasket contacts the mounting surface (small resistance will be felt).

## ***NOTICE***

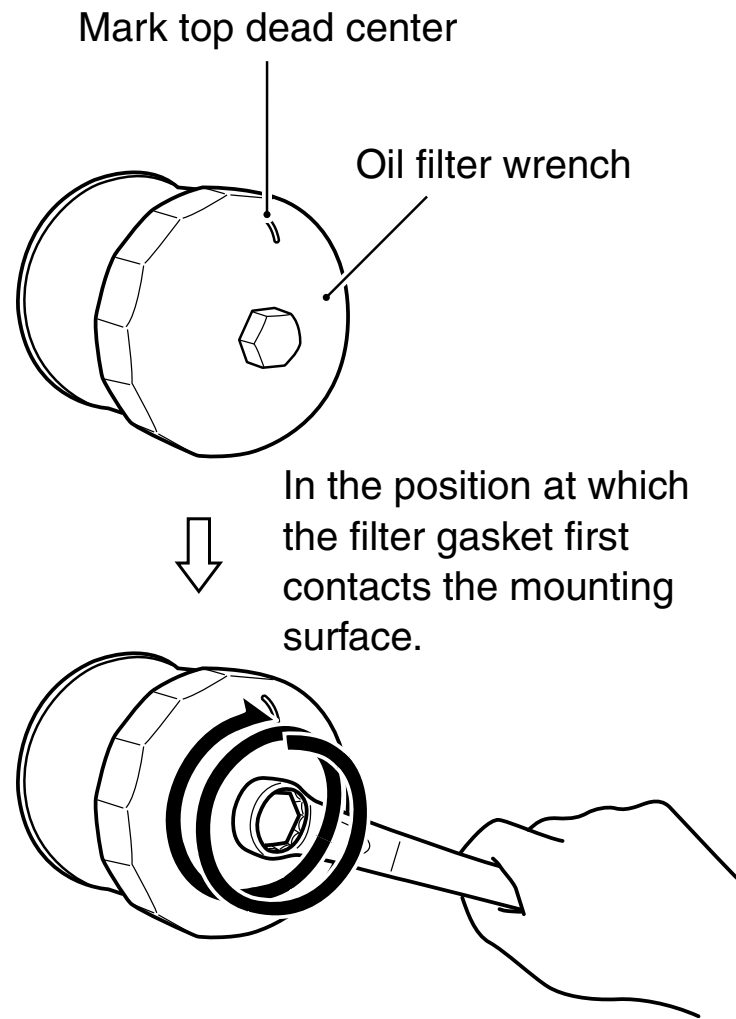
**Failure to use an oil filter with the correct design and thread specifications can damage your motorcycle's engine.**

**Be sure to use a genuine Suzuki oil filter or an equivalent one designed for your motorcycle.**

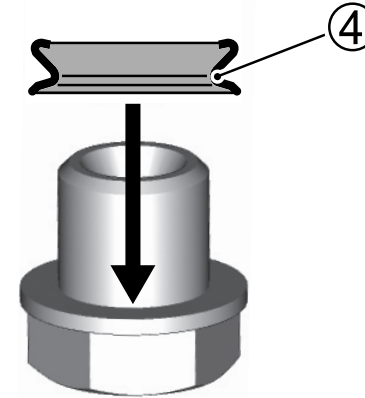
*NOTE: To tighten the oil filter properly, it is important to accurately identify the position at which the filter gasket first contacts the mounting surface.*

9. Mark the top dead center position on the "cap type" filter wrench or on the oil filter. Use an oil filter wrench to tighten the filter 2 turns or to specified torque.

**Oil filter tightening torque:  
15.0 lbf-ft (20 N·m, 2.0 kgf-m)**

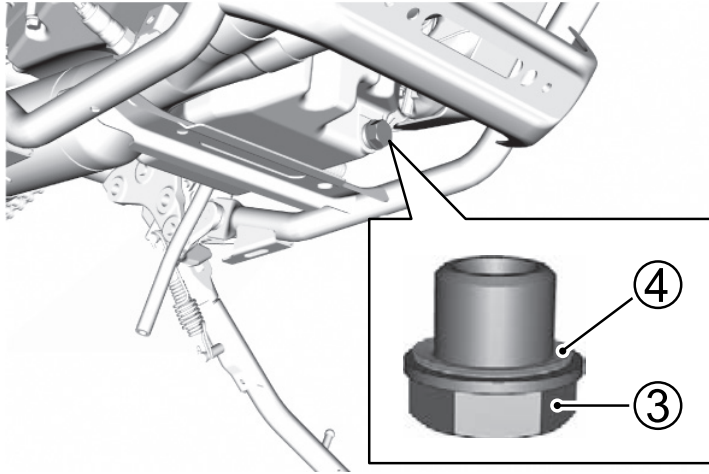


10. Replace the drain plug gasket ④ with a new one.



11. Reinstall the drain plug ③ and gasket ④. Tighten the plug securely with a torque wrench.

**Drain plug tightening torque:  
17.0 lbf-ft (23 N·m, 2.3 kgf-m)**



12. Pour 3.7 US qt (3500 ml) of new engine oil through the filler hole and install the filler cap. Be sure to always use the specified engine oil described in the “SELECTING THE ENGINE OIL” section on page 3-29.

*NOTE: About 3.2 US qt (3000 ml) of oil will be required when changing oil only.*

## ***NOTICE***

**Engine damage may occur if you use oil that does not meet Suzuki’s specifications.**

**Be sure to use the oil specified in the SELECTING THE ENGINE OIL section.**

13. Start the engine (while the motorcycle is outside on level ground) and allow it to idle for three minutes.
14. Turn the engine off and wait approximately three minutes. Recheck the oil level in the engine oil inspection window while holding the motorcycle upright. If it is lower than the “L” line, add oil until the oil level is between the “L” line and the “F” line. Inspect the area around the drain plug and oil filter for leaks.

*NOTE: If you do not have a proper oil filter wrench, have your dealer perform this service.*

15. Reinstall the under cover and bolts.

## **ENGINE COOLANT**

### **DESCRIPTION**

Coolant must be changed regularly. Replace it at appropriate intervals according to the maintenance schedule. Consult your dealer regarding coolant replacement.

## ABOUT THE ENGINE COOLANT

Engine coolant performs as a rust inhibitor and water pump lubricant as well as an anti-freeze solution. Therefore engine coolant should always be used even though the atmospheric temperature in your area does not go down to the freezing point.

Use “SUZUKI SUPER LONG LIFE COOLANT” or “SUZUKI LONG LIFE COOLANT”. If “SUZUKI SUPER LONG LIFE COOLANT” and “SUZUKI LONG LIFE COOLANT” are not available, use a glycol-based antifreeze compatible with an aluminum radiator mixed with distilled water only at the ratio of 50:50.

Solution capacity (total): 2.0 US qt (1870 ml)

50%	Water	1.0 US qt (935 ml)
	Coolant	1.0 US qt (935 ml)

*NOTE: SUZUKI highly recommends the use of ECSTAR brand coolant. ECSTAR has been specially formulated for your SUZUKI product and contributes to the desired motorcycle performance and ideal riding experience.*



**Suzuki super long life coolant (Blue)**  
“SUZUKI SUPER LONG LIFE COOLANT” is pre-mixed to the proper ratio. Add only “SUZUKI SUPER LONG LIFE COOLANT” if the coolant level drops. It is not necessary to dilute “SUZUKI SUPER LONG LIFE COOLANT” when replacing coolant.

**⚠ WARNING**

**Making a mistake when handling coolant may negatively affect both your body and the motorcycle.**

**Before beginning, read the cautions written on the container carefully. Consult your dealer if anything is unclear.**

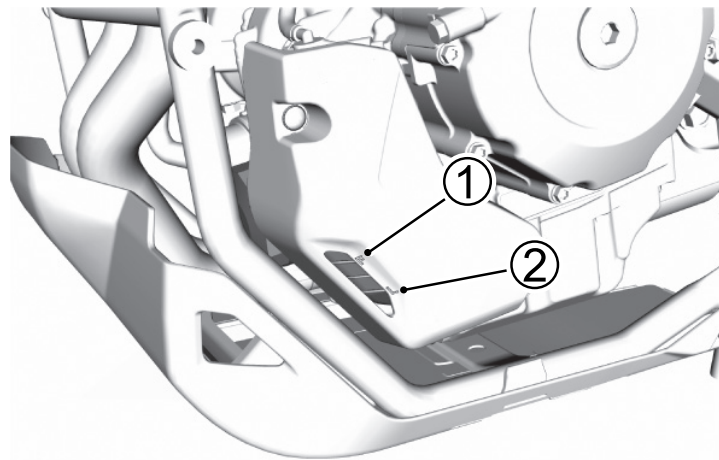
**NOTE:**

- *Before working with coolant, read cautions on the coolant container and instructions in this section.*
- *A 50% mixture will protect the cooling system from freezing at temperatures above  $-24^{\circ}\text{F}$  ( $-31^{\circ}\text{C}$ ). If the motorcycle is to be exposed to temperature below  $-24^{\circ}\text{F}$  ( $-31^{\circ}\text{C}$ ), this mixing ratio should be increased up to 55% ( $-40^{\circ}\text{F}/-40^{\circ}\text{C}$ ) or 60% ( $-67^{\circ}\text{F}/-55^{\circ}\text{C}$ ) coolant. The mixing ratio should not exceed 60% coolant.*

## CHECKING THE COOLANT LEVEL

When the engine is cold, carry out an inspection according to the following procedure.

1. Park on a level surface.
2. Hold the motorcycle upright, and check that the coolant level is between F (upper level) ① and L (lower level) ②.



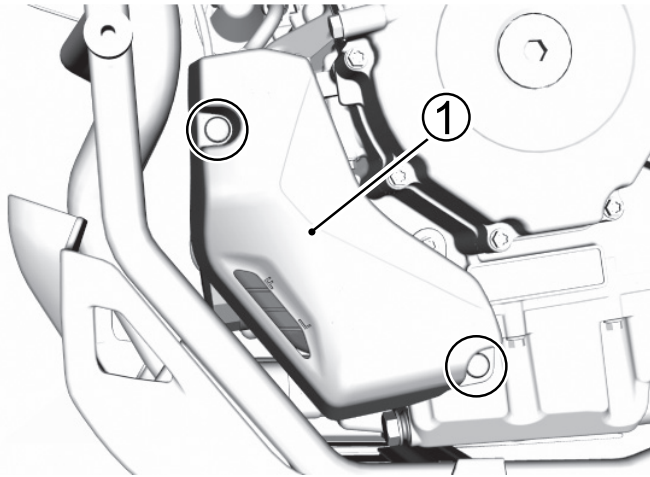
## NOTE:

- *A marked decrease in coolant may indicate leaks in the radiator body or hoses. Have your motorcycle inspected by your dealer.*
- If the engine coolant reservoir is empty, check the radiator coolant level.
- Replenish with coolant. Do not use well water or natural water.
- Consult your dealer regarding coolant replacement.

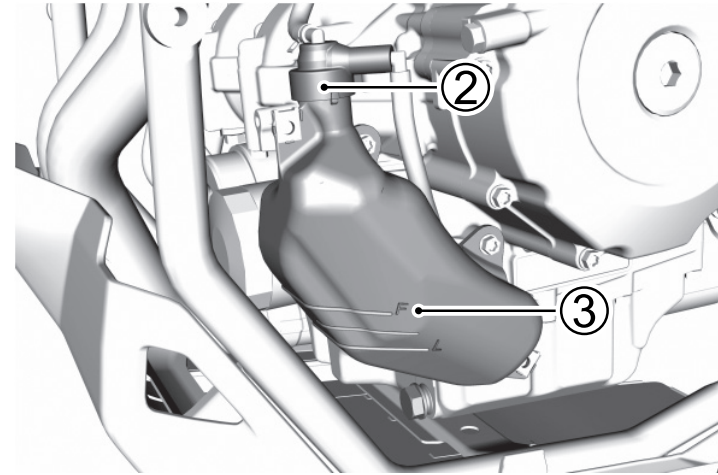
## TO ADD SPECIFIED ENGINE COOLANT

To add specified engine coolant:

1. Park on a level surface.
2. Remove the screws and cover ①.



3. Remove the filler cap ②.
4. Add specified engine coolant through the filler hole until it reaches the “F” line ③ with the motorcycle held upright. Refer to the ENGINE COOLANT section. (👉 3-41)



*NOTE: Adding only water will dilute the engine coolant and reduce its effectiveness. Add specified engine coolant.*

## **WARNING**

Engine coolant is harmful or fatal if swallowed or inhaled. The solution can be poisonous to animals.

Do not drink antifreeze or coolant solution. If swallowed, do not induce vomiting. Immediately contact a poison control center or a physician. Avoid inhaling mist or hot vapors; if inhaled, go to fresh air. If coolant gets in the eyes, flush eyes with water and seek medical attention. Wash thoroughly after handling. Keep out of the reach of children and animals.

## **WARNING**

Removing the radiator cap when the engine is hot may cause the coolant to spray out, causing burns.

Replenish coolant by removing the reservoir tank cap. Do not remove the radiator cap.

## **CAUTION**

If the engine coolant exceeds the “F” line when adding engine coolant, it may overflow from the reservoir tank when the engine becomes hot.

When adding engine coolant, make sure that the engine coolant level is not higher than the “F” line.

## ***NOTICE***

**Spilled engine coolant can damage the painted surfaces of your motorcycle.**

**Be careful not to spill any fluid when filling the radiator. Wipe spilled engine coolant up immediately.**

## **RADIATOR HOSE INSPECTION**

Inspect the radiator hoses for cracks, damage, or engine coolant leakage. If any issues are found, ask your dealer to replace the radiator hose with a new one.

## ENGINE IDLE SPEED

### INSPECTION

Inspect the engine idle speed. The engine idle speed should be 1200 – 1400 r/min when the engine is warm.

*NOTE: If the engine idle speed is not within the specified range, ask your dealer to inspect and repair the motorcycle.*

## DRIVE CHAIN

### DESCRIPTION

This motorcycle has an endless drive chain constructed from special materials. It does not use a master link. We recommend that you take your motorcycle to your dealer if the drive chain needs to be replaced.

The condition and adjustment of the drive chain should be checked each day before you ride. Always follow the guidelines for inspecting and servicing the chain.

## **WARNING**

**Too much chain slack can cause the chain to come off the sprockets, resulting in a crash or serious damage to the motorcycle.**

**Inspect and adjust the drive chain slack before each use.**

## **INSPECTING THE DRIVE CHAIN**

When inspecting the chain, look for the following:

- Loose pins
- Damaged rollers
- Dry or rusted links
- Kinked or binding links
- Excessive wear
- Improper chain adjustment

If you find anything wrong with the drive chain condition or adjustment, correct the problem if you know how.

If necessary, consult your dealer.

Damage to the drive chain means that the sprockets may also be damaged. Inspect the sprockets for the following:

- Excessively worn teeth
- Broken or damaged teeth
- Loose sprocket mounting nuts

If you find any of these issues with your sprocket, consult your dealer.

## **WARNING**

**Improperly installing a replacement chain, or using a joint-clip type chain, can be hazardous. An incompletely riveted master link, or a joint-clip type master link, may come apart and cause a crash or severe engine damage.**

**Do not use a joint-clip type chain. Chain replacement requires a special riveting tool and a high-quality, non-joint-clip type chain. Ask your dealer to perform this work.**



## **DRIVE CHAIN CLEANING AND OILING**

Clean and oil the drive chain using the following procedure.

1. Remove dirt and dust from the drive chain. Be careful not to damage the seal rings.
2. For cleaning, use a dedicated sealed chain cleaner or water or neutral detergent and a soft brush. Even a soft brush may harm the seals, so be careful not to damage the seal rings.

### ***NOTICE***

**Cleaning the drive chain improperly can damage seal rings and ruin the drive chain.**

- **Do not use a volatile solvent such as paint thinner, kerosene, or gasoline.**
- **Do not use a high pressure cleaner to clean the drive chain.**
- **Do not use a wire brush to clean the drive chain.**

3. Wipe off water and neutral detergent.
4. Lubricate with a motorcycle sealed drive chain lubricant or high viscosity oil (#80 – 90).

## ***NOTICE***

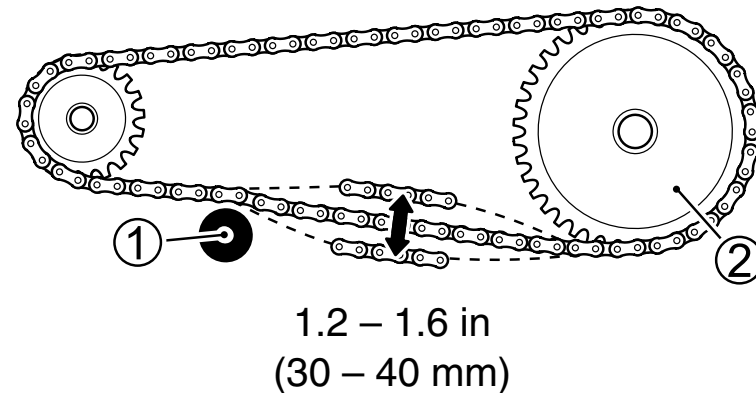
**Some drive chain lubricant contains solvents and additives which could damage the seal rings in the drive chain.**

**Use sealed drive chain lubricant, which is specifically intended for use with sealed drive chains.**

5. Lubricate both front and back plates of the drive chain.
6. Wipe off excess lubricant after lubricating all around the drive chain.

## **DRIVE CHAIN ADJUSTMENT**

Inspect the drive chain slack before each use of the motorcycle. Place the motorcycle on the side stand. The drive chain should be adjusted for 1.2 – 1.6 in (30 – 40 mm) of slack halfway between the chain roller ① and rear sprocket ② as shown.



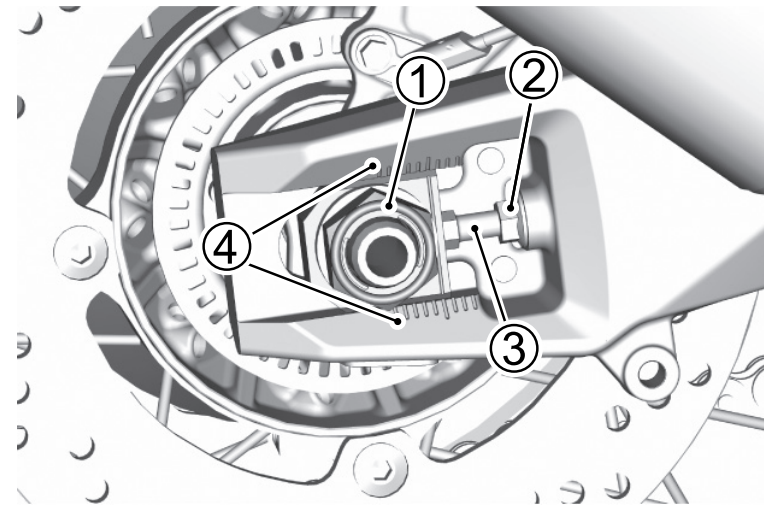
## **▲ CAUTION**

**A hot exhaust pipe or muffler can burn you. The exhaust pipe or muffler will be hot enough to burn you for some time after stopping the engine.**

**Wait until the exhaust pipe or muffler cools before adjusting the drive chain.**

To adjust the drive chain, follow the procedure below:

1. Place the motorcycle on the side stand.
2. Loosen the axle nut ①.



3. Loosen the right and left lock nuts ②.
4. Turn the right and left adjuster bolts ③ until the chain has 1.2 – 1.6 in (30 – 40 mm) of slack halfway between the engine sprocket and rear sprocket.

5. At the same time that the chain is being adjusted, the rear sprocket must be kept in perfect alignment with the front sprocket. To assist you in performing this procedure, there are reference marks ④ on the swing-arm and each chain adjuster which are to be aligned with each other and to be used as a reference from one side to the other.
6. Tighten the axle nut ① securely.
7. Recheck the chain slack after tightening and readjust if necessary.
8. Tighten the right and left lock nuts ②.

**Rear axle nut tightening torque:  
74.0 lbf-ft (100 N·m, 10.2 kgf-m)**

**Chain adjuster lock nut tightening torque:  
16.5 lbf-ft (22 N·m, 2.2 kgf-m)**

*NOTE: Do not adjust the drive chain beyond the adjustable range ④. Replace the drive chain before the drive chain exceeds the limit.*

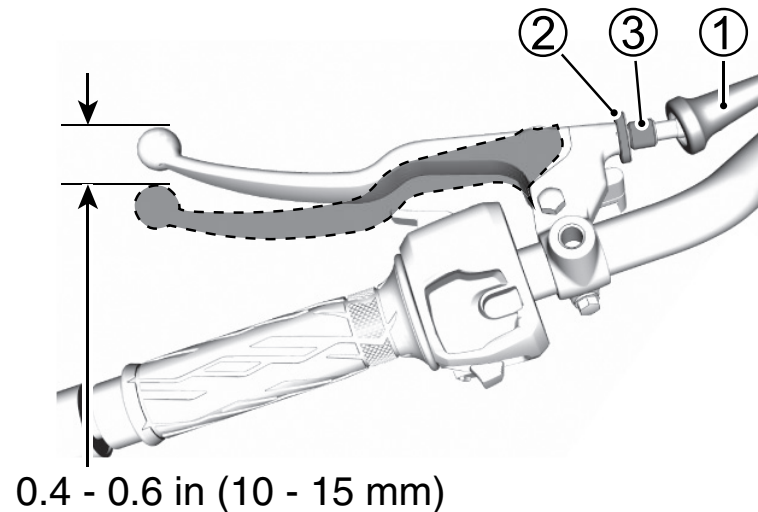
## CLUTCH LEVER

### DESCRIPTION

The play of the clutch lever should be 0.4 – 0.6 in (10 – 15 mm) as measured at the clutch lever end. If you find the play of the clutch incorrect, adjust it in the following way.

### CLUTCH LEVER ADJUSTMENT

1. Slide the boot ①.
2. Loosen the clutch cable adjuster lock nut ②.
3. Turn the clutch cable adjuster ③ to provide the specified play.
4. Tighten the lock nut ②.
5. Reinstall the boot ①.



## **BRAKES**

### **DESCRIPTION**

This motorcycle has front and rear disc brakes.

### **⚠ WARNING**

**Failure to properly inspect and maintain your motorcycle's brake systems can increase your chance of a crash.**

**Be sure to inspect the brakes before each use according to the INSPECTION BEFORE RIDING section. Always maintain your brakes according to the MAINTENANCE SCHEDULE.**

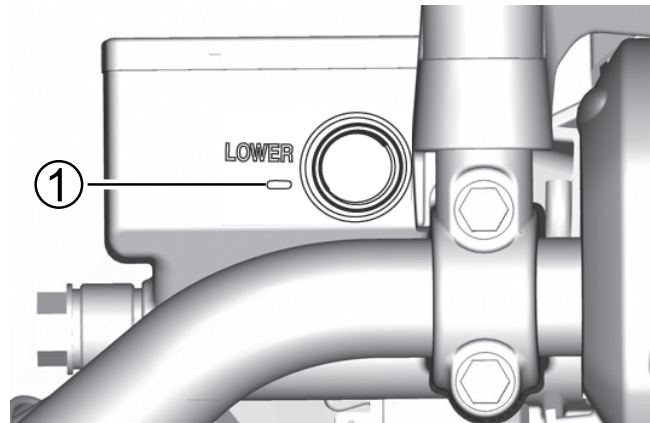
*NOTE: Operating in mud, water, sand, or other extreme conditions can cause accelerated brake wear. If you operate your motorcycle under these conditions, the brakes must be inspected more often than recommended in the MAINTENANCE SCHEDULE.*

### **BRAKE HOSE INSPECTION**

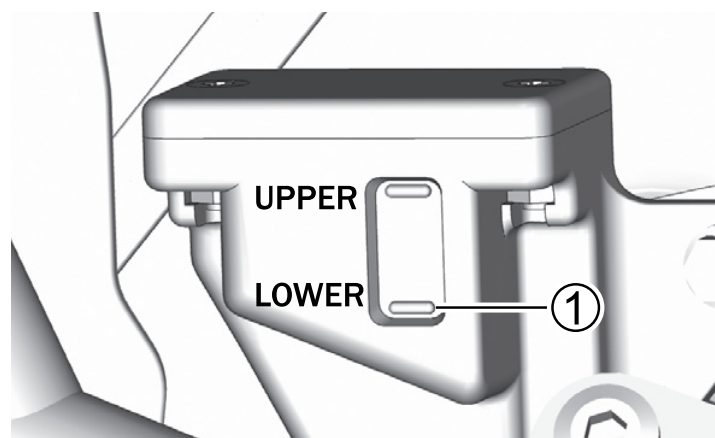
Inspect the brake hoses and hose joints for cracks, damage, or brake fluid leakage. If any issues are found, ask your dealer to replace the brake hose with a new one.

## BRAKE FLUID

Check the brake fluid level in both the front and rear brake fluid reservoirs. If the level in either reservoir is below the lower mark ①, inspect for brake pad wear and leaks.



FRONT



REAR

## ⚠ WARNING

Brake fluid will gradually absorb moisture through the brake hoses. Brake fluid with high water content lowers the boiling point and can cause brake system (including ABS) malfunction due to corrosion of brake components. Boiling brake fluid or brake system (including ABS) malfunction could result in a crash.

Replace the brake fluid every two years to maintain braking performance.

## **⚠ WARNING**

A marked decrease in brake fluid may indicate leaks in the brake system. If there is insufficient brake fluid the brakes may not function fully, which may result in a crash.

Have your motorcycle inspected by your dealer.

## **⚠ WARNING**

The use of any fluid except DOT4 brake fluid from a sealed container can damage the brake system and lead to a crash.

Clean filler cap before removing. Use only DOT4 brake fluid from a sealed container. Never use or mix with different types of brake fluid.

## **⚠ WARNING**

If dirt enters the reservoir tank it may cause the brake system to malfunction.

When adding brake fluid, clean around the filler cap before you open it.



## **⚠ WARNING**

**Brake fluid is harmful or fatal if swallowed, and harmful if it comes in contact with skin or eyes. The solution can be poisonous to animals.**

**If brake fluid is swallowed, do not induce vomiting. Immediately contact a poison control center or a physician. If brake fluid gets in the eyes, flush them with water and seek medical attention. Wash thoroughly after handling. Keep out of the reach of children and animals.**

## ***NOTICE***

**Spilled brake fluid can damage painted surfaces and plastic parts.**

**Be careful not to spill any fluid when filling the brake fluid reservoir. Wipe spilled fluid up immediately.**

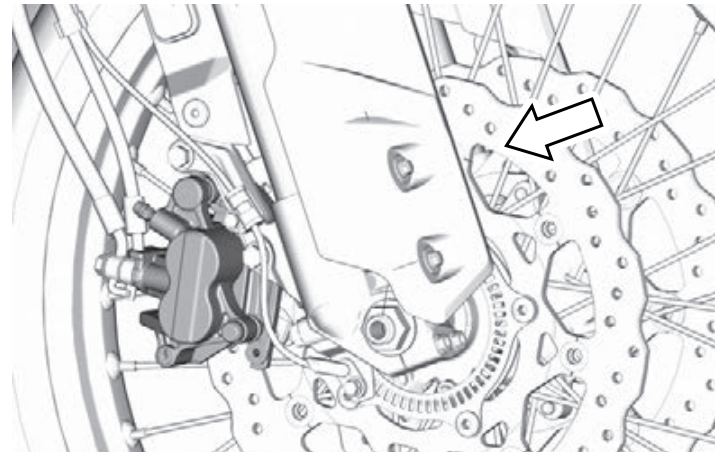
*NOTE: SUZUKI highly recommends the use of ECSTAR brand brake fluid. ECSTAR has been specially formulated for your SUZUKI product and contributes to the desired motorcycle performance and ideal riding experience.*

## BRAKE PADS

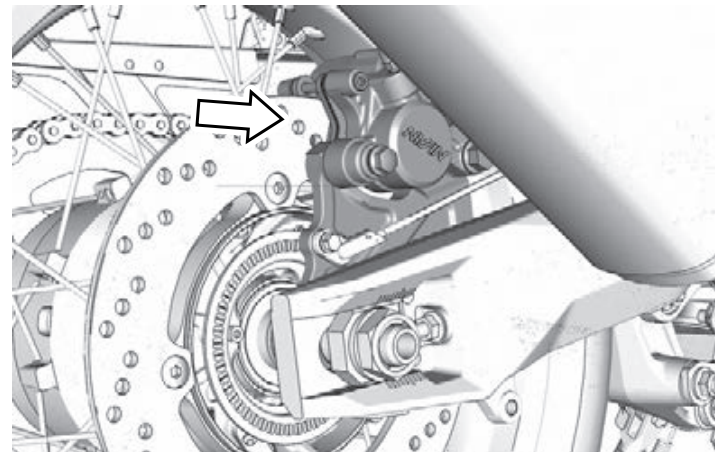
Inspect the front and rear brake pads to see if they are worn down to the grooved wear limit line ①. If a front or rear pad is worn to the grooved wear limit line, both front or both rear pads must be replaced with new ones.

After replacing either the front or rear brake pads, the brake lever or pedal must be pumped several times. This will extend the pads to their proper position. New brake pads work with different strength when applied, so ride carefully.

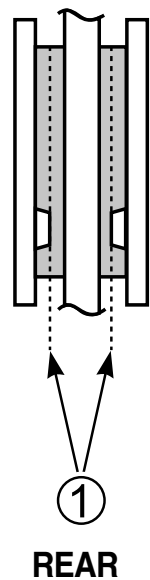
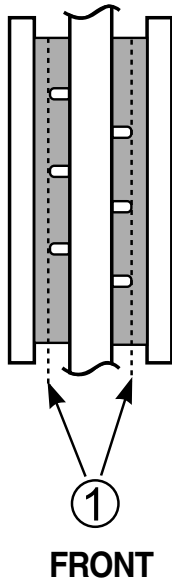
*NOTE: Do not squeeze/depress the brake lever/pedal when the pads are not in their positions. It is difficult to push the pistons back and brake fluid leakage may result.*



FRONT



REAR



## **! WARNING**

Failure to inspect and maintain the brake pads and replace them when recommended can increase your chance of having a crash.

If you need to replace brake pads, have your dealer do this work. Inspect and maintain the brake pads as recommended.

## **! WARNING**

Replacing only one of the two brake pads can result in uneven braking action and can increase your chance of having a crash.

Always replace both pads together.

## **⚠ WARNING**

If you ride this motorcycle after brake system repair or brake pad replacement without pumping the brake lever/pedal, you may get poor braking performance, which could result in a crash.

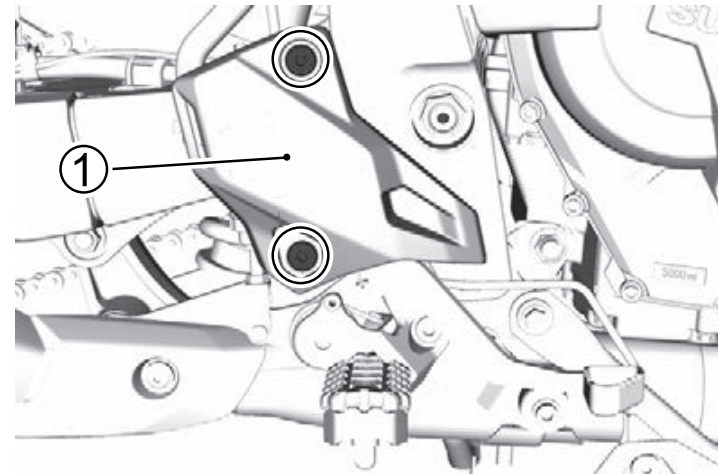
After brake system repair or brake pad replacement, pump the brake lever/pedal several times until brake pads are pressed against the brake discs and proper lever/pedal stroke and firm feel are restored.

## **REAR BRAKE PEDAL ADJUSTMENT**

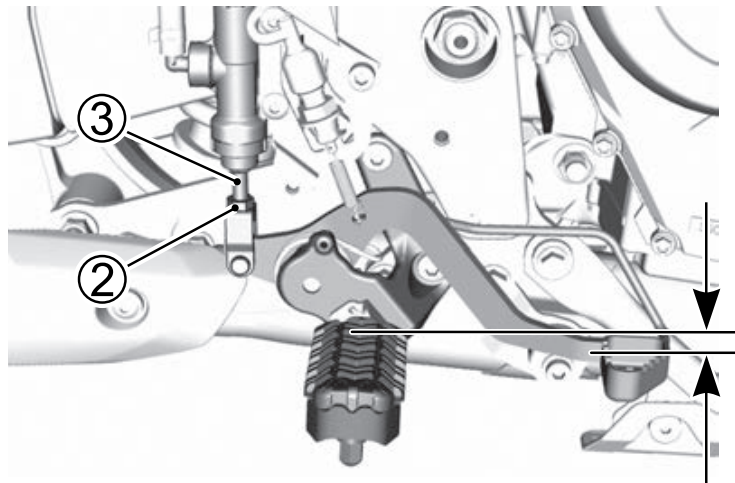
The rear brake pedal position must be properly adjusted at all times or the disc brake pads will rub against the disc causing damage to the pads and to the disc surface.

Adjust the brake pedal height in the following manner:

1. Remove the bolts and footrest guard



2. Loosen the lock nut ②, and turn the push rod ③ to locate the pedal 0.4 - 0.8 in (10 - 20 mm) below the top face of the footrest.



0.4 - 0.8 in (10 - 20 mm)

3. Re-tighten the lock nut ② to secure the push rod ③ in the proper position.
4. Reinstall the footrest guard and bolts.

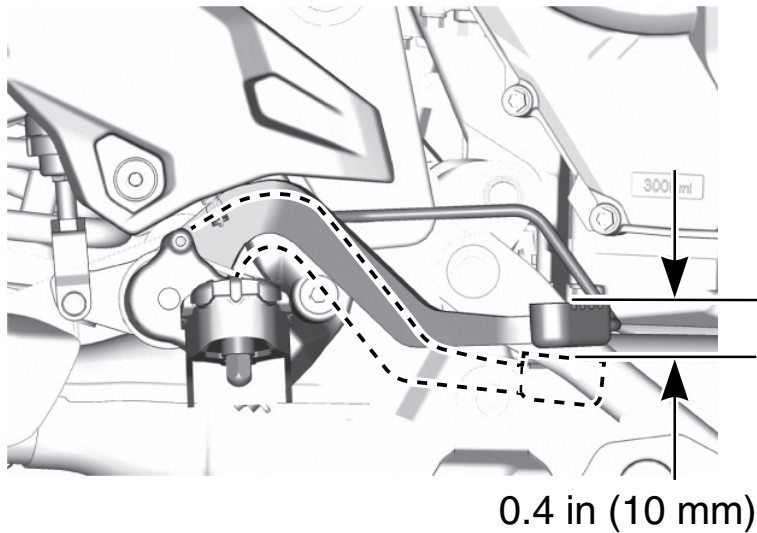
## ***NOTICE***

**An incorrectly adjusted brake pedal may force brake pads to continuously rub against the disc, causing damage to the pads and disc.**

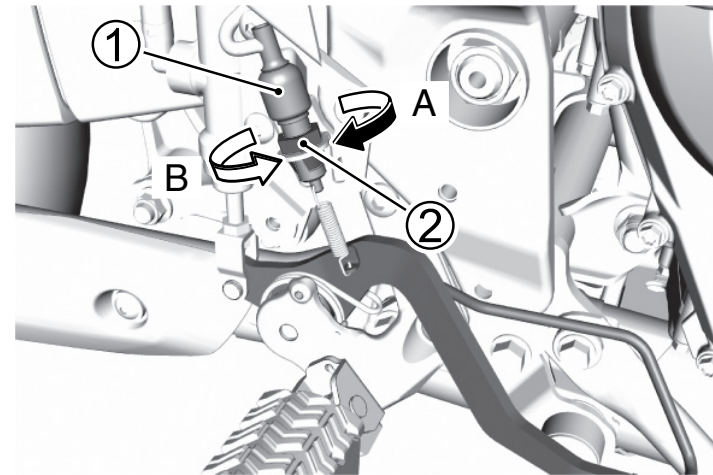
**Follow the steps in this section to adjust the brake pedal properly.**

## REAR BRAKE LIGHT SWITCH

Check that the brake light lights when the rear brake pedal is depressed approximately 0.4 in (10 mm). Adjust the rear brake light switch if the light lights too early or late.



Fix the rear brake light switch body ① with your finger so that it does not rotate, and then rotate the nut ② to adjust it. Rotating the nut as shown in A makes the brake light lights earlier. Rotating as shown in B makes the light lights later.



## ***NOTICE***

**Rotating the rear brake light switch body when making adjustments may cause the wiring to disconnect.**

**Rotate the nut so that the rear brake light switch body does not rotate.**

## **GEARSHIFT LEVER**

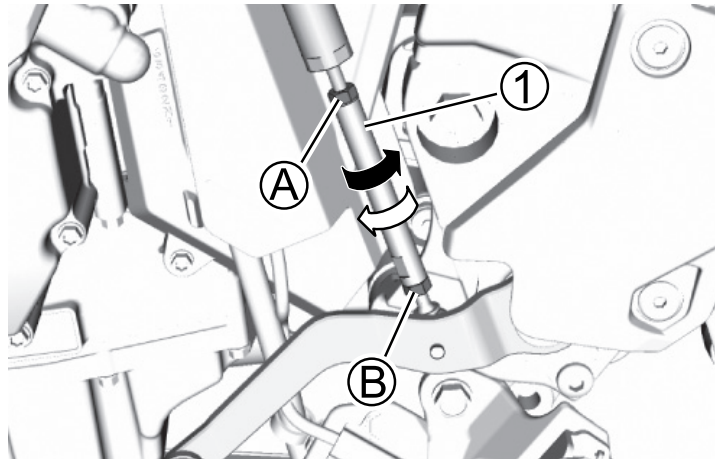
### **DESCRIPTION**

If it is difficult to change gears when riding, the gearshift lever height may not be right for your body. We recommend adjusting the height to suit your body.

## GEARSHIFT LEVER ADJUSTMENT

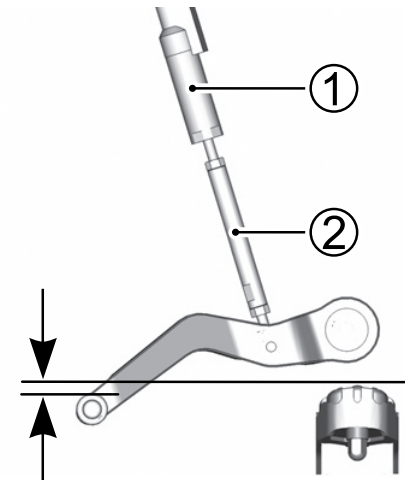
The height of the gearshift lever can be adjusted using the following procedure.

1. Rotate lock nut ① and ② to the right (➡) to loosen them.



2. Rotate the rod ① to the right (➡) to raise the pedal position, and in the opposite direction (⇐) to lower it.
3. Locate the gearshift lever 0.4 - 0.8 in (10 - 20 mm) below the top face of the footrest.

*NOTE: If you rotate the gear shift sensor ①, functions such as Quick Shift may not function properly. Use the rod ② to adjust the shift pedal height. Do not turn the gear shift sensor ①.*



0.4 - 0.8 in (10 - 20 mm)

4. After adjusting, rotate lock nut ① and ② in the opposite direction of step 1 (⇐) to tighten them.

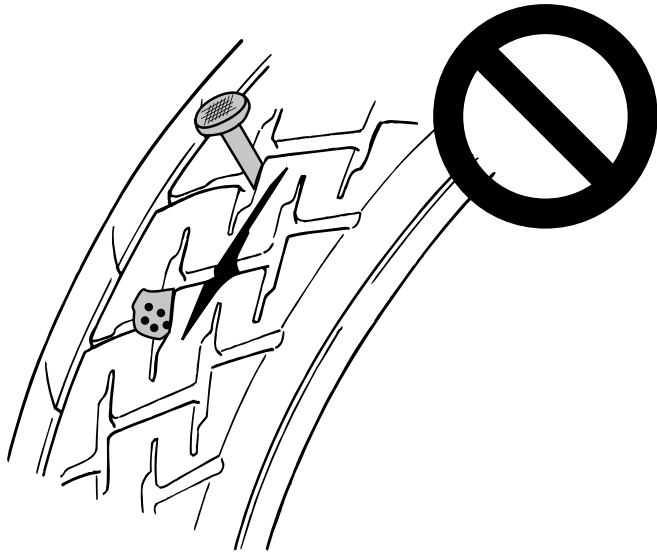
*NOTE: After adjusting, tighten the lock nuts firmly.*



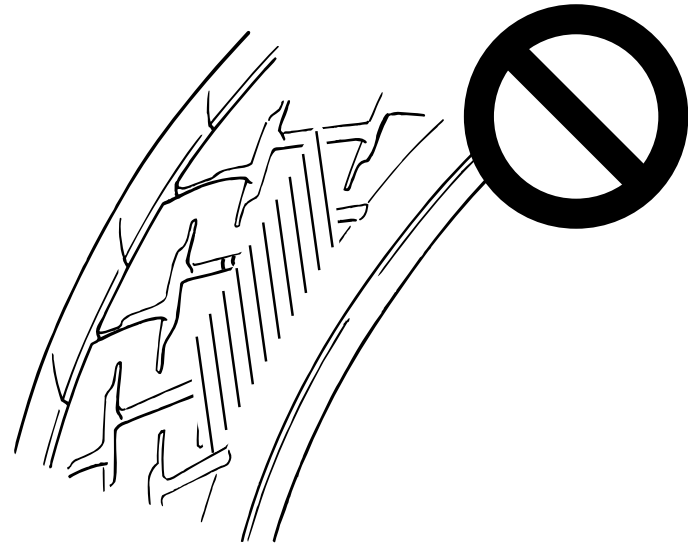
# TIRES

## DESCRIPTION

Check that there are no cracks or damage in the contact surface or sides of the tires. Additionally, check that there are no nails, stones, or other foreign bodies piercing or embedded in the tires.



Also, check that there is no unusual wear on the contact surface of the tires. Consult your dealer regarding any unusual wear.



When changing tires, be sure to use the designated tires below.

	FRONT	REAR
SIZE	90/90-21M/C 54H	150/70R17M/C 69H
TYPE	DUNLOP MIXTOUR B	DUNLOP MIXTOUR B

## **WARNING**

Using non-designated tires may negatively affect the safe operation of your motorcycle.

**Be sure to use the designated tires.**

## **WARNING**

An improperly repaired, installed, or balanced tire can cause loss of control and a crash, or can wear out sooner.

- Ask your dealer to perform tire repair, replacement, and balancing because proper tools and experience are required.
- Install tires according to the rotation direction shown by arrows on the sidewall of each tire.

## **WARNING**

The tires on your motorcycle form the crucial link between your motorcycle and the road. Failure to take the precautions below may result in a crash due to tire failure.

- Check tire condition and pressure before each ride, and adjust pressure if necessary.
- Avoid overloading your motorcycle.
- Replace a tire when worn to the specified limit, or if you find damage such as cuts or cracks.
- Always use the size and type of tires specified in this owner's manual.
- Balance the wheel after tire installation.
- Read this section of the owner's manual carefully.

## **WARNING**

Failure to perform break-in of the tires could cause tire slip and loss of control, which could result in a crash.

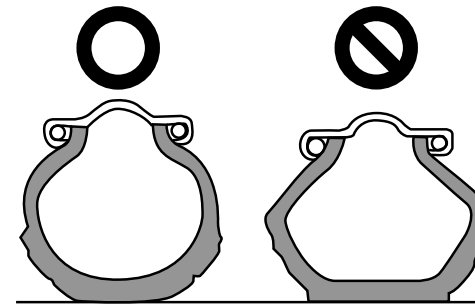
Use extra care when riding on new tires. Perform proper break-in of the tires referring to the **BREAK-IN** section of this manual and avoid hard acceleration, hard cornering, and hard braking for the first 100 miles (160 km).

*NOTE: As new tires slip easily, do not lean the motorcycle too far. Keep the angle of lean gentle while breaking in the tires.*

## TIRE PRESSURE AND LOADING

For safe riding, read the owner's manual for information on tire pressures and selecting tires to use.

Tires heat up when the motorcycle is traveling, increasing the air pressure. Accordingly, use the tire gauge when the tires are cool, before riding, and check to see if the tires are at the specified pressure. Adjust to the appropriate pressure if the value is outside the specified range. Overloading your tires can lead to tire failure and loss of vehicle control.



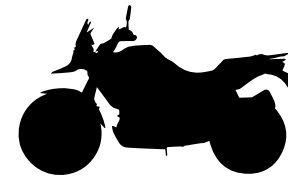
Check tire pressure each day before you ride, and be sure the pressure is correct for the vehicle load according to the chart below.

### Cold tire inflation pressure

LOAD \ TIRE	SOLO RIDING	DUAL RIDING
FRONT	33 psi 225 kPa 2.25 kgf/cm <sup>2</sup>	33 psi 225 kPa 2.25 kgf/cm <sup>2</sup>
REAR	36 psi 250 kPa 2.50 kgf/cm <sup>2</sup>	41 psi 280 kPa 2.80 kgf/cm <sup>2</sup>

Under-inflated tires make smooth cornering difficult, and can result in rapid tire wear. Over-inflated tires cause a smaller amount of tire to be in contact with the road, which can contribute to skidding and loss of control.

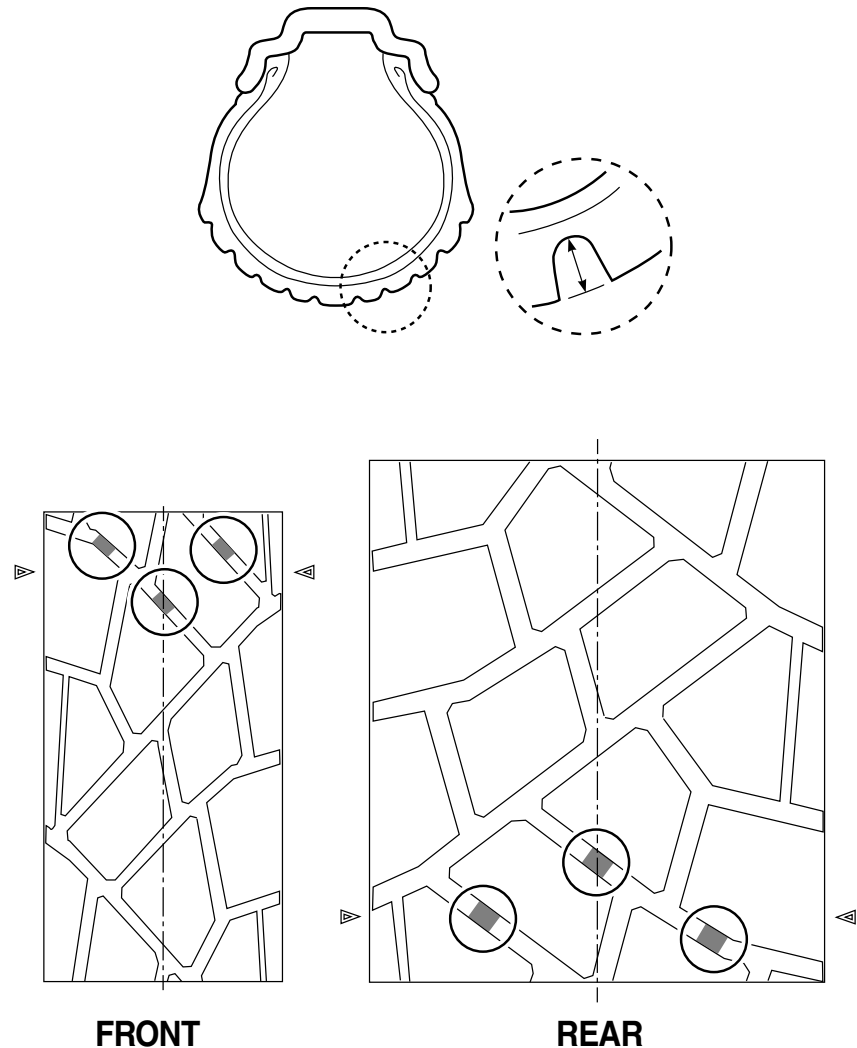
*NOTE: When you detect drops in tire pressure, check the tire for nails or other punctures, or a damaged wheel rim.*



## TIRE CONDITION AND TYPE

Tire condition and tire type affect motorcycle performance. Cuts or cracks in the tires can lead to tire failure and loss of motorcycle control. Worn tires are susceptible to puncture failures and subsequent loss of motorcycle control. Tire wear also affects the tire profile, changing motorcycle handling characteristics.

Check the condition of your tires each day before you ride. Replace tires if tires show visual evidence of damage, such as cracks or cuts, or if tread depth is less than 0.06 in (1.6 mm) front, 0.08 in (2.0 mm) rear. The “ $\Delta$ ” mark indicates the place where the wear bars are molded into the tire. When the wear bars contact the road, it indicates that the tire wear limit has been reached.





## SPOKE WHEELS

### WHEEL RIM INSPECTION

Check to see if there is any damage like a crack, distortion or bend in the wheel rim.



## **⚠ WARNING**

**Damaged rims can allow air to leak, resulting in reduced running stability, which can lead to a crash.**

**If any damage is found, replace the rim. Do not reuse the damaged rim by repairing or correcting it.**



## SPOKE INSPECTION

Check the tension of spokes to verify the tightness of the spoke nipples. The tension can be checked by hitting the spokes with a small metal bar. If the spoke nipple is loose, its sound will be dull.



To tighten the spoke nipples properly, tighten them equally to the specified torque. Loosened and overtightened spoke nipples may cause unequal tension of spokes and may result in distortion of the wheel rim. Contact your dealer to perform this service.

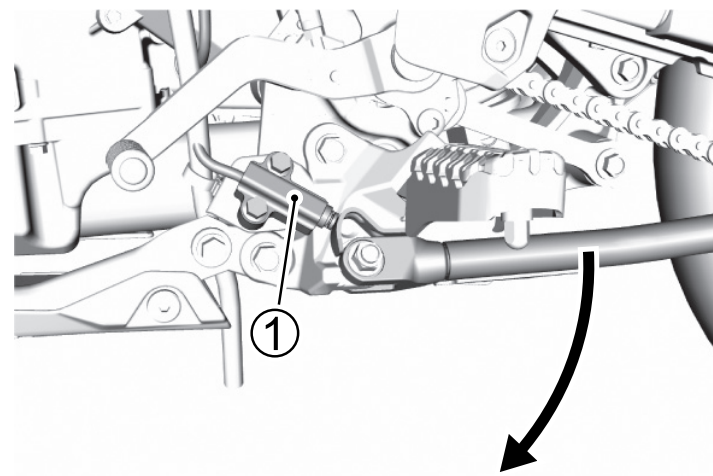
## SIDE STAND/IGNITION INTERLOCK SYSTEM

### INSPECTION

Check the side stand/ignition interlock system for proper operation as follows:

1. Sit on the motorcycle in the normal riding position, with the side stand up.
2. Shift into first gear, hold the clutch in, and start the engine.

3. While continuing to hold the clutch in, move the side stand to the down position.



①: Side stand/ignition interlock switch

If the engine stops running when the side stand is moved to the down position, then the side stand/ignition interlock system is working properly. If the engine continues to run with the side stand down and the transmission in gear, then the side stand/ignition interlock system is not working properly. Have your motorcycle inspected by your dealer.

## **WARNING**

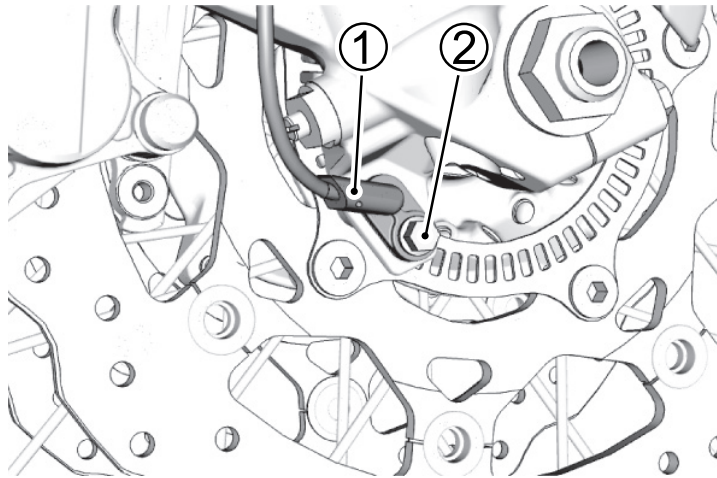
**If the side stand/ignition interlock system is not working properly, it is possible to ride the motorcycle with the side stand in the down position. This may interfere with rider control during a left turn and could cause a crash.**

**Check the side stand/ignition interlock system for proper operation before riding. Check that the side stand is returned to its full up position before starting off.**

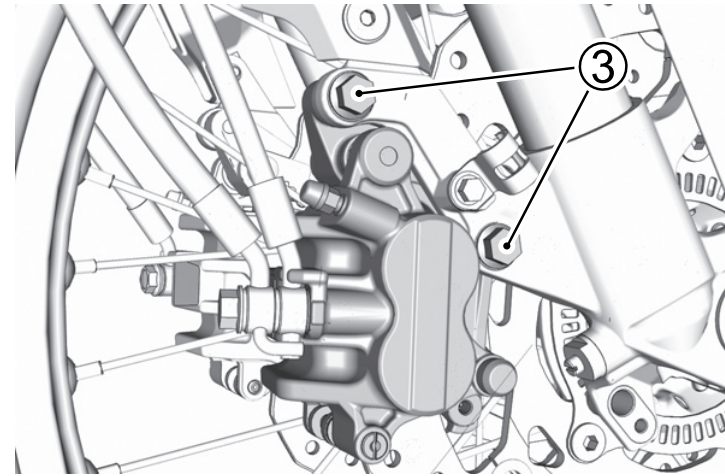
## FRONT WHEEL

### REMOVING

1. Place the motorcycle.
2. Remove the front wheel speed sensor ① by removing the mounting bolt ②.

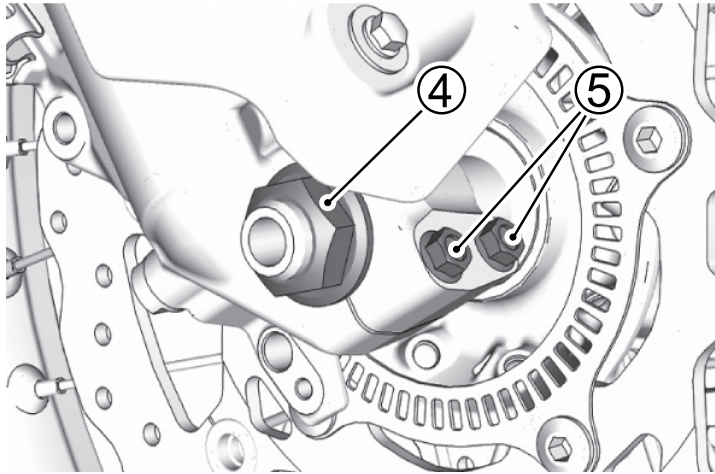


3. Remove both brake calipers from the front forks by removing the mounting bolts ③ on each of the calipers.

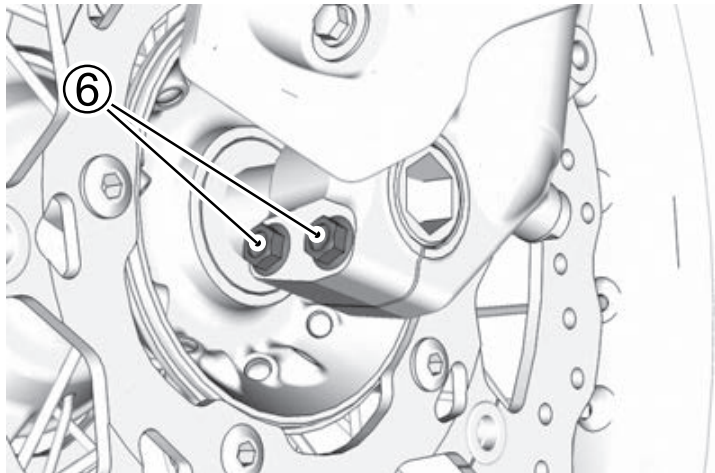


*NOTE: Never squeeze the brake lever with the caliper removed. It is very difficult to force the pads back into the caliper assembly and brake fluid leakage may result.*

4. Remove the axle nut ④.
5. Loosen the axle holder bolts ⑤.



6. Loosen the axle holder bolts ⑥.



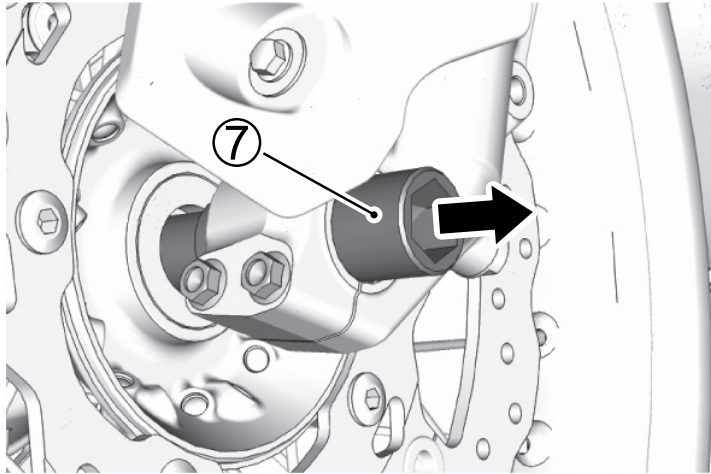
7. Place an accessory service stand or equivalent under the swingarm to help stabilize the rear end.
8. Carefully position a jack under the exhaust pipe and raise it until the front wheel is slightly off the ground.

## ***NOTICE***

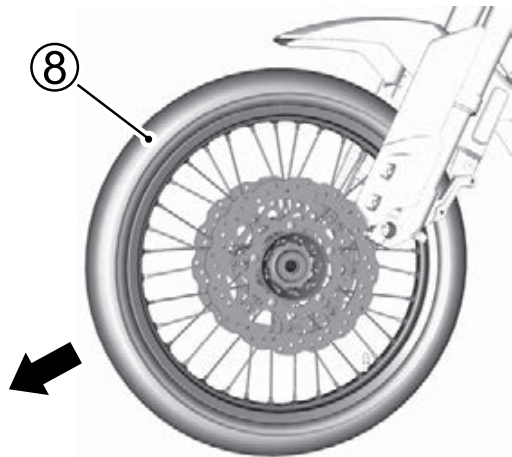
**Improper jacking may cause damage to the fairing or oil filter.**

**Do not place the jack under the lower part of the fairing or the oil filter when jacking up the motorcycle.**

9. Draw out the axle shaft ⑦.



10. Slide the front wheel forward ⑧.

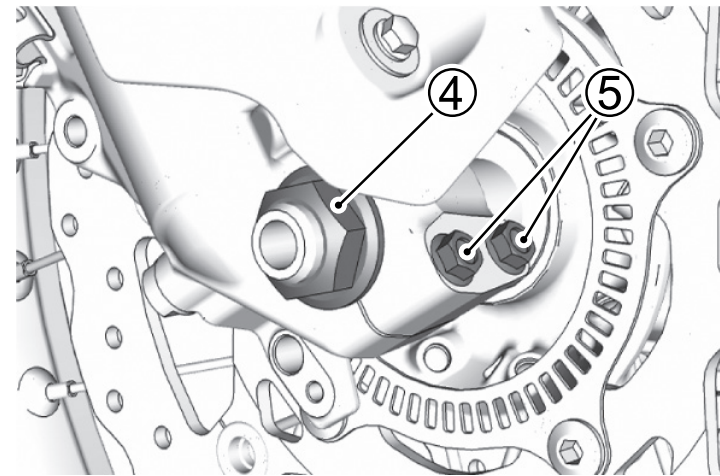


11. Put the new wheel in place and insert the axle shaft.

12. Remove the jack and service stand.

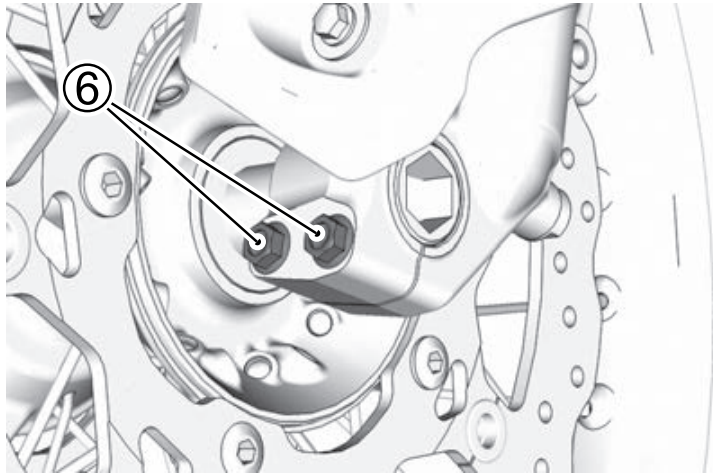
13. Hold the shaft and tighten the axle nut ④ to the specified torque.

14. Tighten the axle holder bolts ⑤ to the specified torque.



15. Move the steering up and down several times to seat the axle shaft.

16. Tighten the axle holder bolts ⑥ to the specified torque.



17. Reinstall the brake calipers and speed sensor.

18. After installing the wheel, apply the brake several times to restore the proper lever stroke.

**Front axle nut tightening torque:  
74.0 lbf-ft (100 N·m, 10.2 kgf-m)**

**Front axle holder bolt  
tightening torque:  
17.0 lbf-ft (23 N·m, 2.3 kgf-m)**

**Front brake caliper mounting bolt  
tightening torque:  
19.5 lbf-ft (26 N·m, 2.7 kgf-m)**

**Front wheel speed sensor mounting  
bolt  
tightening torque:  
7.5 lbf-ft (10 N·m, 1.0 kgf-m)**

## **⚠ WARNING**

Failure to extend brake pads after installing the wheel can cause poor braking performance and may result in a crash.

Before riding, “pump” the brake lever repeatedly until brake pads are pressed against the brake discs and proper lever stroke and firm feel are restored. Also check that the wheel rotates freely.

## **⚠ WARNING**

If the bolts and nuts are not properly tightened, the wheel can come off, causing a crash.

Be sure to tighten the bolts and nuts to the specified torque. If you do not have a torque wrench or do not know how to use one, ask your dealer to check the bolts and nuts.



## **WARNING**

Installing the front wheel in the reverse direction can be hazardous. The tire for this motorcycle is directional. Therefore, the motorcycle may have unusual handling if the wheel is installed incorrectly.

Install the front wheel so that the tire rotates in the specified direction, as indicated by the arrow on the sidewall of the tire.

## **REAR WHEEL**

### **REMOVING**

## **CAUTION**

A hot exhaust pipe or muffler can burn you.

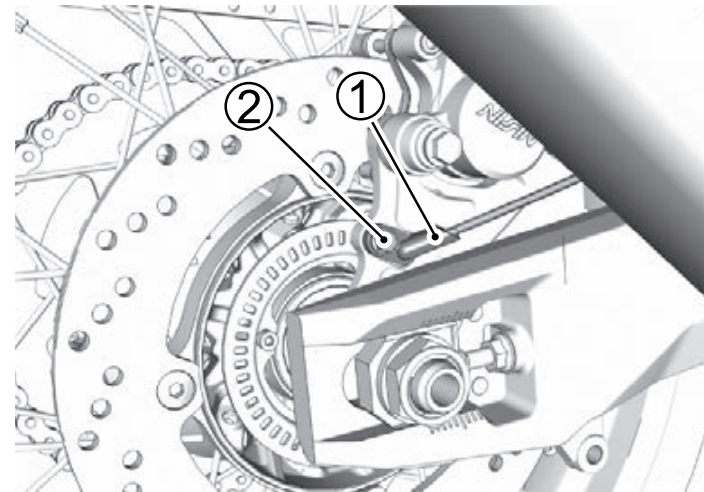
Wait until the exhaust pipe or muffler cools before removing the axle nut.

## ***NOTICE***

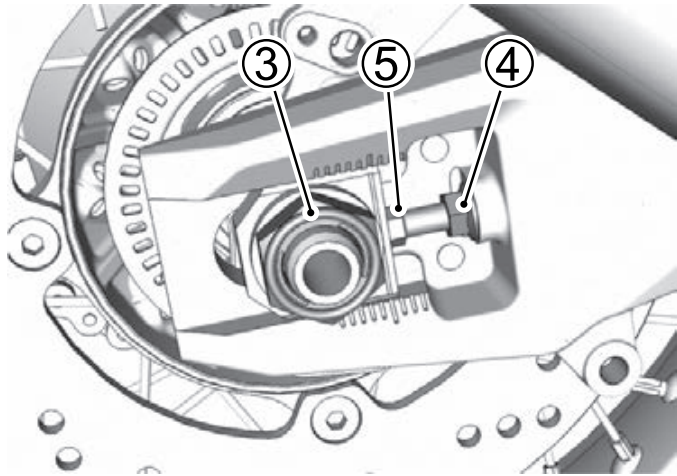
**Removing the rear wheel without use of an accessory stand can result in your motorcycle falling over and being damaged.**

**Do not attempt roadside removal of the rear wheel. Only remove the rear wheel at a properly equipped servicing facility using an accessory service stand.**

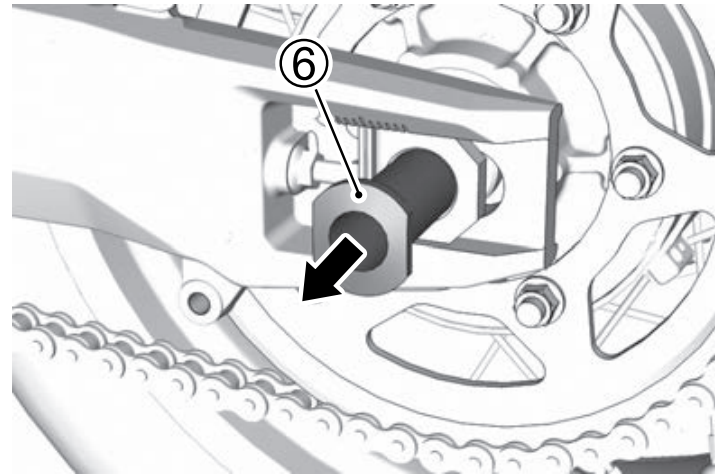
1. Place an accessory service stand or an equivalent stand under the swing-arm to lift the rear wheel slightly off the ground.
2. Remove the rear wheel speed sensor ① by removing the mounting bolt ②.



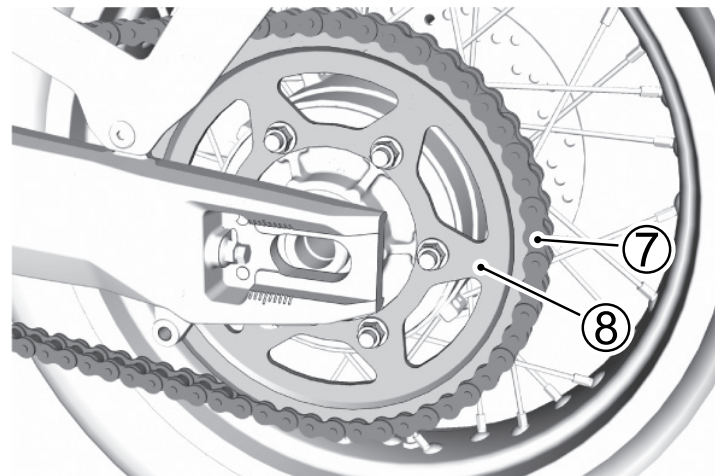
3. Remove the axle nut ③.
4. Loosen the right and left lock nuts ④. Turn the right and left chain adjuster bolts ⑤ clockwise.



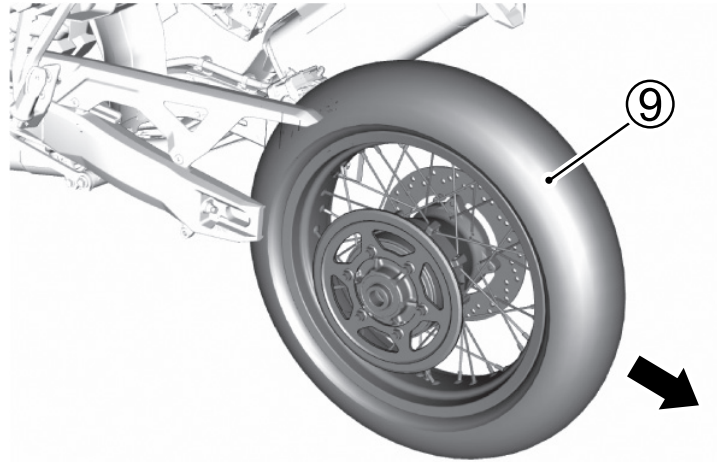
5. Draw out the axle shaft ⑥.



6. With the wheel moved forward, remove the chain ⑦ from the sprocket ⑧.



7. Pull the rear wheel assembly ⑨ rearward.



*NOTE: Never depress the rear brake pedal with the rear wheel removed. It is very difficult to force the pads back into the caliper assembly.*

8. To replace the wheel, reverse the complete sequence listed.
9. Adjust the drive chain slack.

10. After installing the wheel, apply the brake several times and then check that the wheel rotates freely.

**Rear axle nut tightening torque:  
74.0 lbf-ft (100 N·m, 10.2 kgf-m)**

**Chain adjuster lock nut tightening torque:  
16.5 lbf-ft (22 N·m, 2.2 kgf-m)**

**Rear wheel speed sensor mounting bolt tightening torque:  
7.5 lbf-ft (10 N·m, 1.0 kgf-m)**

## **⚠ WARNING**

Failure to adjust the drive chain and failure to torque bolts and nuts properly could lead to a crash.

- After installing the rear wheel, adjust the drive chain as described in the **DRIVE CHAIN ADJUSTMENT** section (👉 3-52).
- Torque bolts and nuts to the proper specifications. If you are not sure of the proper procedure, have your dealer do this.

## **⚠ WARNING**

Failure to extend brake pads after installing the wheel can cause poor braking performance and may result in a crash.

Before riding, “pump” the brake pedal repeatedly until brake pads are pressed against the brake discs and proper pedal stroke and firm feel are restored. Also check that the wheel rotates freely.

## LIGHT BULB

### REPLACEMENT

The wattage rating of each bulb is shown in the following chart. When replacing a burned-out bulb, always use the same wattage rating according to the following chart.

Headlight	LED
Position light	LED
Front turn signal light	LED
Rear turn signal light	LED
Brake light/Taillight	LED
License plate light	12V 5W

*NOTE: This motorcycle is equipped with LED lighting. Because LED lights have been integrated into light assemblies, replacement of only the LED lights is not available. If any of the LED lights cannot be turned on, consult with your dealer.*

## ***NOTICE***

**Failure to use a light bulb with the correct wattage rating can overload the electrical system of your motorcycle or cause the bulb to burn out sooner.**

**Use only the light bulbs shown in the chart as replacement bulbs.**

### **License plate light**

For the license plate light replacement procedure, consult with your dealer.

## HEADLIGHT BEAM

### TO ADJUST THE BEAM

The headlight beam can be adjusted both up and down or right and left if necessary.

Low-beam up and down:

Turn the adjuster ① clockwise or counterclockwise.

Low-beam right and left:

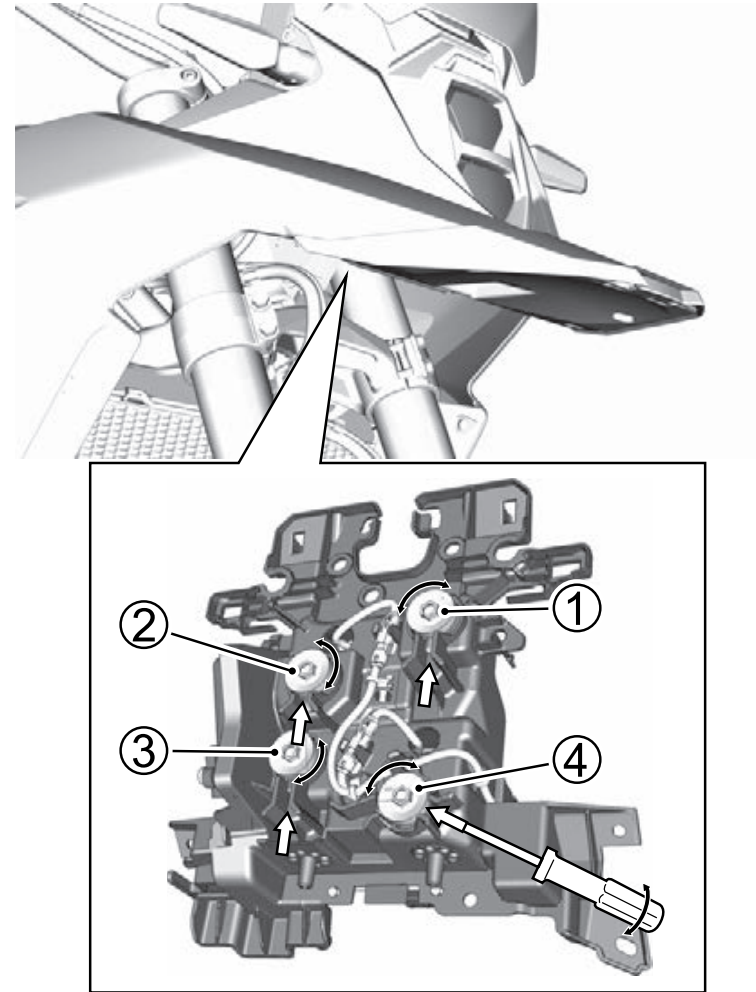
Turn the adjuster ② clockwise or counterclockwise.

High-beam up and down:

Turn the adjuster ③ clockwise or counterclockwise.

High-beam right and left:

Turn the adjuster ④ clockwise or counterclockwise.



# FUSES

## DESCRIPTION

If something electrical on your motorcycle stops working, the first thing you should check for is a blown fuse. The electrical circuits on the motorcycle are protected from overload by fuses in the circuits.

## **WARNING**

**Replacing a fuse with a fuse that has an incorrect amperage rating or substitute, e.g. aluminum foil or wire, may cause serious damage to the electrical system and possibly fire.**

**Always replace a blown fuse with a fuse of the same amperage rating. If the new fuse blows in a short time, the electrical problem may not be fixed. Have your motorcycle inspected immediately by your dealer.**



## ***NOTICE***

Installing electrical items such as lights, gauges, etc., that are not suitable for the motorcycle may cause fuses to blow or may run down the battery.

Use genuine Suzuki parts when attaching electrical items.

## ***NOTICE***

Spraying water or wiping forcefully around fuses when washing the motorcycle may cause water to enter the wiring, causing corrosion or short circuiting.

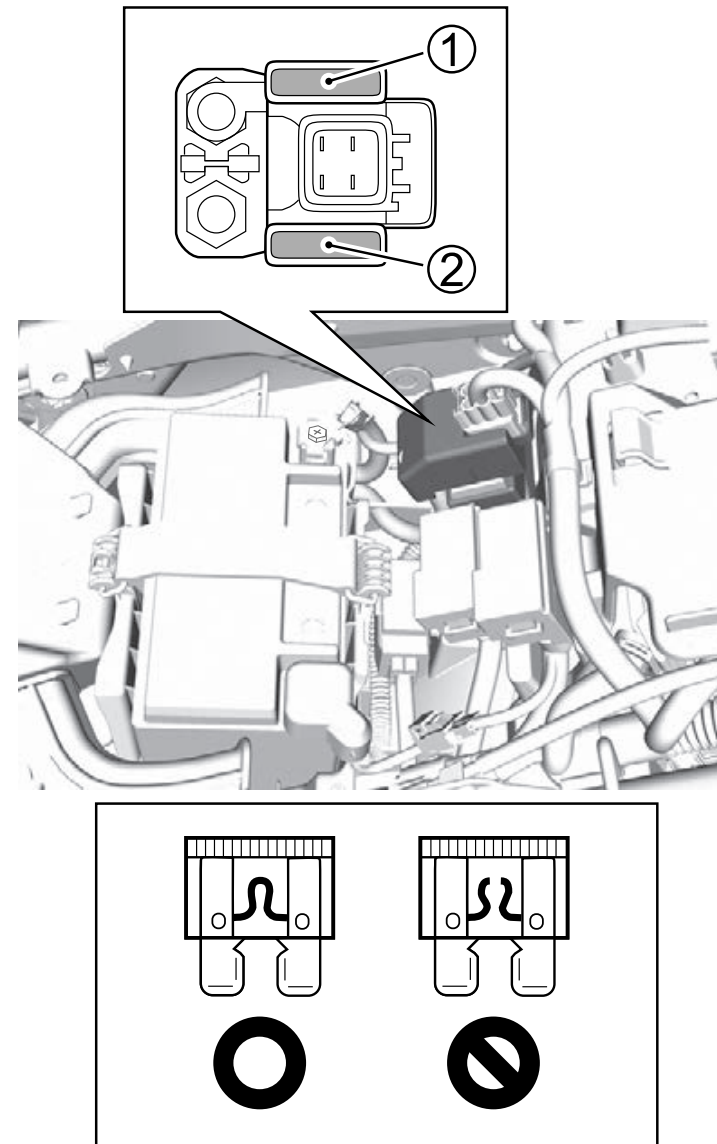
Do not spray water or wipe forcefully in the area around fuses.

## MAIN FUSE

The main fuse is located under the seat.

Inspect the main fuses using the following procedure.

1. Set the ignition switch to OFF.
2. Remove the seat. See “SEAT AND SEAT LOCK” on page 2-114.
3. Remove the starter relay box cover, pull out the fuse ①, and inspect it.
4. If a fuse is blown, check the reason, and when you have remedied it, replace with a spare fuse ② of the specified amperage. If you are unable to ascertain the reason, have your motorcycle inspected by your dealer.

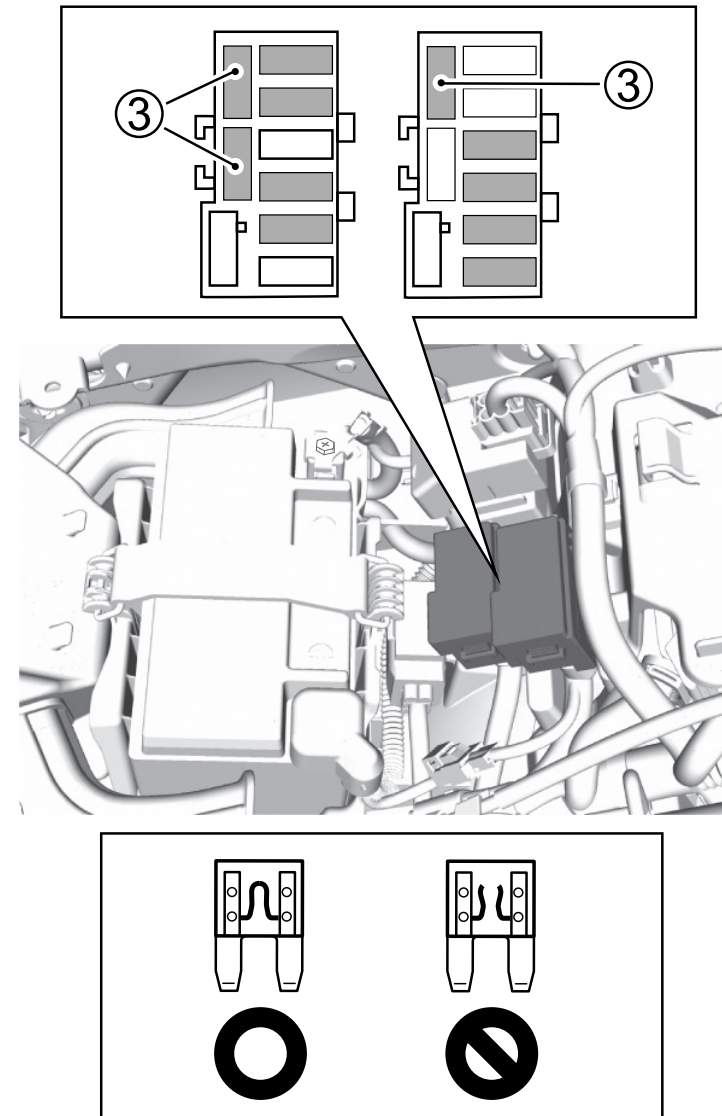


## FUSES

The fuses are located under the seat.

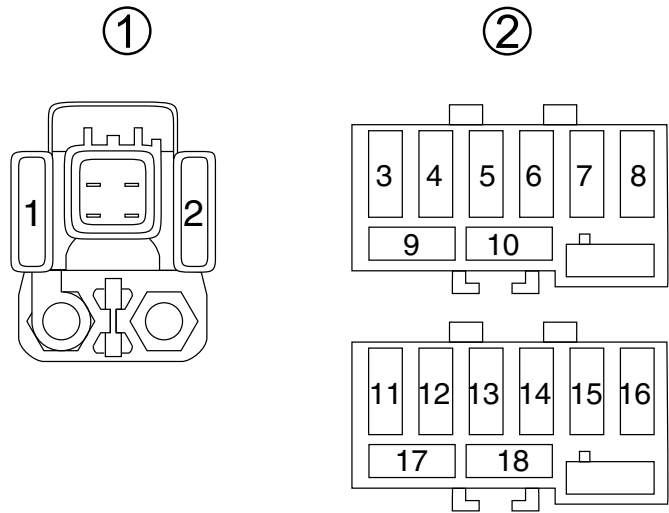
Inspect fuses using the following procedure.

1. Set the ignition switch to OFF.
2. Remove the seat. See “SEAT AND SEAT LOCK” on page 2-114.
3. Open the fuse box cover, pull out the fuses, and inspect them.
4. If a fuse is blown, check the reason, and when you have remedied it, replace with a spare fuse ③ of the specified amperage. If you are unable to ascertain the reason that the fuse has blown, have your motorcycle inspected by your dealer.



# LIST

The following chart shows the main equipment that each fuse protects.



①: starter relay box

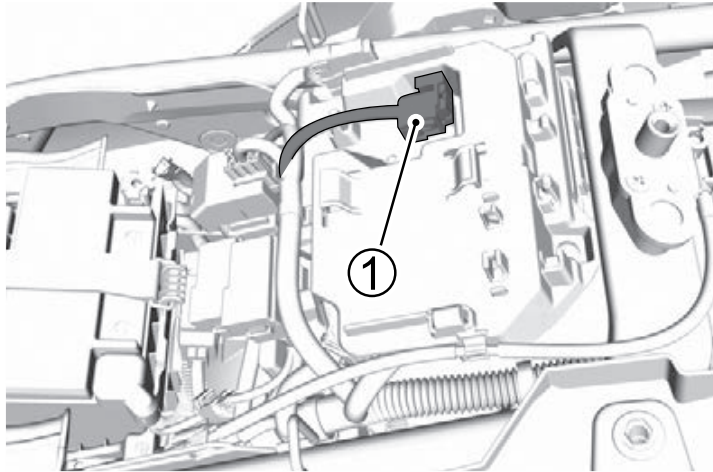
②: fuse box

<b>Position</b>	<b>Label</b>	<b>Capacity</b>	<b>Protection parts</b>
1	MAIN	30A	All electric circuits
2	SPARE	30A	-
3	-	-	-
4	-	-	-
5	P-SOURCE	10A	Power source
6	PARKING	10A	<ul style="list-style-type: none"> <li>• Position light</li> <li>• Taillight</li> <li>• License plate light</li> </ul>
7	ABS-VALVE	15A	ABS
8	ABS-MOTOR	20A	ABS
9	SPARE	20A	-
10	-	-	-
11	HEAD-HI	10A	<ul style="list-style-type: none"> <li>• Head light (high-beam)</li> <li>• High-beam relay</li> <li>• Speedometer</li> </ul>
12	HEAD-LO	10A	Head light (low-beam)

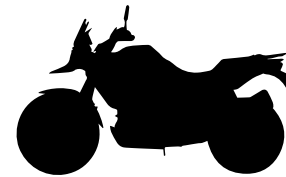
<b>Position</b>	<b>Label</b>	<b>Capacity</b>	<b>Protection parts</b>
13	IGNITION	10A	<ul style="list-style-type: none"> <li>• Starter relay</li> <li>• Starter sub relay</li> <li>• Cooling fan relay</li> <li>• Fuel pump relay</li> <li>• Solenoid</li> <li>• ECM</li> <li>• Oxygen sensor</li> <li>• ABS</li> </ul>
14	SIGNAL	15A	<ul style="list-style-type: none"> <li>• Position light</li> <li>• Brake light/Taillight</li> <li>• License plate light</li> <li>• Turn signal light</li> <li>• Speedometer</li> <li>• Horn</li> <li>• USB socket</li> </ul>
15	FUEL	10A	<ul style="list-style-type: none"> <li>• Speedometer</li> <li>• Fuel injector</li> <li>• Fuel pump</li> <li>• ECM</li> </ul>
16	FAN	15A	Cooling fan motor
17	SPARE	10A	-
18	SPARE	15A	-

## DIAGNOSTIC CONNECTOR

The diagnostic connector ① is located under the seat.



*NOTE: The diagnostic connector is used by your dealer.*



# TROUBLESHOOTING

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# TROUBLESHOOTING

## DESCRIPTION

This troubleshooting guide is provided to help you find the cause of some common complaints.

Consult your dealer if your motorcycle is experiencing any issues or you notice something seems wrong.

### ***NOTICE***

**Making unsuitable repairs or adjustments may damage your motorcycle. In some cases damage may not be covered by the warranty.**

**Consult your dealer if anything is unclear.**

## ENGINE DOES NOT START

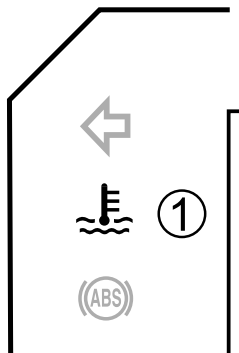
Perform the following checks.

- Make sure you are using the correct starting procedure.  
See “STARTING PROCEDURE” on page 2-91.
- Make sure the fuel tank has fuel.  
See “REFUELING PROCEDURE” on page 2-100.
- Check if the malfunction indicator light comes on.  
See “MALFUNCTION INDICATOR LIGHT” on page 2-22.
- Check for loose battery terminals.  
See “BATTERY” on page 3-15.
- Are any fuses blown?  
See “FUSES” on page 3-90.

Consult your dealer if you notice any failures/issues.

## IN CASE OF OVERHEATING (ENGINE COOLANT TEMPERATURE WARNING INDICATOR LIGHT COME ON)

If the engine coolant temperature warning indicator light ① come on, stop the motorcycle in a safe place, perform the following checks, and take any necessary action.



1. Turn the ignition switch to the “OFF” position to stop the engine.
2. Turn the ignition switch to the “ON” position to start the radiator fan and cool the engine.  
If the radiator fan does not operate, do not start the engine. Consult your dealer.
3. Once the engine has sufficiently cooled, check the coolant level and check hoses and such for leaks.
  - a. If you find any leaks, do not start the engine. Consult your dealer.
  - b. Replenish the coolant if the coolant level is low and there are no leaks. If you have to use water instead of coolant, consult your dealer as soon as possible to have the coolant checked and replaced.

4. If no issues are found, the motorcycle can be ridden once the engine coolant temperature warning indicator light goes off. Consult your dealer for inspection as soon as possible.

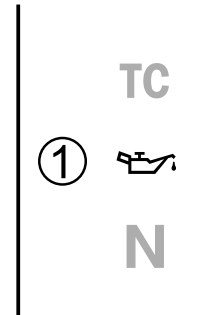
## ***NOTICE***

**Riding while the motorcycle is overheating can cause serious damage to the engine.**

**Do not ride the motorcycle if the engine coolant temperature warning indicator light comes on.**

## **WHEN THE OIL PRESSURE WARNING INDICATOR LIGHT COMES ON WHILE RIDING**

If the oil pressure warning indicator light ① comes on, stop the motorcycle in a safe place, perform the following checks, and take any necessary action.



1. Turn the ignition switch to the “OFF” position to stop the engine.
2. Check the engine oil level. See “CHECKING THE ENGINE OIL LEVEL” on page 3-31.  
Replenish engine oil if the level is insufficient.
3. Start the engine.
  - a. You can ride the motorcycle once the oil pressure warning indicator light go off.
  - b. If the oil pressure warning indicator light do not go off, stop the engine and consult your dealer.
4. The engine may be damaged if the oil level has decreased. Consult your dealer for inspection.

## ***NOTICE***

**Riding with low engine oil pressure may cause serious damage to the engine.**

**Do not ride the motorcycle if the oil pressure warning indicator light come on.**

## INDICATOR DISPLAYS

Consult your dealer for any of the following indicator display states.

- The malfunction indicator light (on page 2-22) comes on or blinks
- The FI warning displays appear (on page 2-24)
- The check displays (on page 2-24) do not go out
- The ABS indicator light (on page 2-27) does not reset or come on again after resetting to its default state
- The neutral indicator light does not come on when the gear position indicator is in the N position (on page 2-22)
- The neutral indicator light comes on while the gear position indicator is displaying 1, 2, 3, 4, 5, or 6
- The TC indicator (on page 2-29) comes on

- The service reminder indicator (on page 2-44) comes on
- The engine coolant temperature warning indicator light is lit and does not turn off when the engine is cold (on page 2-31)
- The oil pressure warning indicator light comes on when the amount of engine oil is appropriate (on page 2-30)

## MOTORCYCLE CONDITION

Consult your dealer for any of the following indicator display states.

- The engine does not start
- If the motorcycle has fallen over or been involved in an accident
- The motorcycle makes an unusual noise or leaks fluid
- Engine performance drops off or is poor
- There is a marked decrease in brake fluid or you need to replace the brake fluid or pads
- Brake performance is poor
- There is a marked decrease in coolant or you need to replace the coolant
- You cannot ascertain why a fuse has blown
- The tires are extremely worn or you need to replace them

