



# Owner's Manual

Read this manual carefully before operating this vehicle.

**G400C**

**GENUINE MOTORCYCLES**

**G400C**

**OWNER'S MANUAL  
and  
USER GUIDE**

## Important Information

Please read the user's manual carefully before operating this vehicle. This manual contains a large amount of information of operation and cautions, which will help you to handle and control of the motorcycle. For your safety, please pay significant attention to the cautions as follows:

**⚠ Warning**

—Failure to follow this information may lead to safety problems.

**⚠ Caution**

—Failure to follow this information may cause damage to the motorcycle or it may compromise the safety of the motorcycle itself.

Please fill in the blanks with the appropriate motorcycle information,

**VIN Number :**

**Engine Number :**

**⚠ Warning**

### California Proposition 65

Operating, servicing and maintaining a passenger vehicle or off-road vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to [www.P65Warnings.ca.gov/passenger-vehicle](http://www.P65Warnings.ca.gov/passenger-vehicle)

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## I. Technical Data

	Item	Data
<b>Dimension &amp; Weight</b>	Length*Width*Height	2105mm*760mm*1130mm 82.9 in x 29.9 in x 44.5 in
	Wheelbase	1420mm 55.9 in
	Minimum ground clearance	160mm 6.3 in
	Complete vehicle weight	Dry weight: 151kg, Curb weight: 160kg, 353 lbs.
<b>Vehicle body</b>	Frame type	Cradle type
	Rake angle	28°
	Front suspension device	spring & hydraulic composite damping
	Rear suspension device	spring & hydraulic composite damping
	Front Tire size	100/90-19
	Rear Tire size	130/70-18
	Front wheel pressure	Normally loaded: 225 kPa, 32.6 psi
	Rear wheel pressure	Normally loaded: 225 kPa, 32.6 psi
Front brake	Single disc type	

	Rear brake Fuel tank volume Fuel grade	Drum brake 13±5L 87 Octane or higher
<b>Engine</b>	Mode Cylinder bore Cylinder stroke Displacement Compression ratio Max. power Max. torque Valve clearance (cold) Valve driving gear Filter Cooling method Lubrication method Engine oil grade	Single-cylinder Oil –cooling 4-stroke engine 85.0mm 70.0mm 397.2cc 8.8:1 19.5 kw (26.15 hp) @ 7000rpm 30.0 N.m (22.13 ft lb) @ 5500rpm Intake: 0.07-0.10 mm ; Exhaust: 0.08-0.12 mm Chain drive Element filter Oil-cooling 15W/40 JASO MA2 engine oil in warm weather and 10W/30- JASO MA2 in cold weather climates

	<p>Engine oil charge volume</p> <p>Engine oil filter element</p> <p>Electric motor starting</p> <p>Idle speed</p>	<p>2.2L</p> <p>Oil paper filter</p> <p>Electric / Kick start</p> <p>1600±150r/min</p>
Driving System	<p>Clutch</p> <p>Clutch operating system</p> <p>Variable speed gear</p> <p>Primary reduction ratio</p> <p>Transmission gear ratio</p> <p>Final reduction ratio</p> <p>Gear shifting mode</p>	<p>Wet clutch, coil clutch, paper friction wafer</p> <p>Manual mechanical</p> <p>5-speed constant mesh</p> <p>2.667</p> <p>I      2.916</p> <p>II     1.764</p> <p>III    1.350</p> <p>IV    1.110</p> <p>V      0.88</p> <p>2.533</p> <p>Left foot operated sequential type      Sequence: I – N – II – III – IV - V</p>

<b>Electrical System</b>	Electric generator	Permanent magnet DC magneto
	Battery	12V 9Ah Gel type
	Power supply system	DC power supply, electric generator is only used to recharge battery
	Fusible cutout	15A/10A
	Spark plug	NGK DPR8Z
	Spark plug gap	0.6-0.7mm
	Ignition coil type	Open magnetic circuit
	Fuel supply mode	Electronic fuel injection, ECU control
	Ignition mode	EMS
	Ignition advance angle	EMS
	Ignition timing	EMS
	Front lamp	12V / 55W / 60W
	Turn lamp	Front: 12V 10W      Rear: 12V 10W
Stop / Rear-position lamp	12V 21W / 5W	

## II. User Instructions

### Important safety information

Your safety is very important. Your motorcycle can provide many years of service and pleasure, if you take responsibility for your own safety and understand the challenges while riding. There is much you can do to protect yourself when you ride.

Please read through the following instructions before riding your bike the first time.

- Be sure you read this owner's manual completely and understand all operating features.
- Take sufficient time training with safe and proper riding technique.
- Practice until you are knowledgeable and comfortable with your motorcycle, and knowledgeable with all road signs.

Failure to follow any safety instructions could cause severe injury or even death to the motorcycle operator, passenger or bystander.

Before riding each time, make sure of the following:

### Wear protective gear

Wearing appropriate protective wear can prevent or reduce injuries from accidents.

- **Helmet** – The majority of serious motorcycle injuries and deaths are the direct result of a head injury. Drivers and passengers should always wear a helmet to prevent or reduce the chance of head injury.

- **Eye and Face Protection** – A plastic face shield can help prevent accidents by guarding the face and eyes from debris, allowing the rider to devote full attention to the road. Goggles or glasses can protect the eyes in the same manner.

- **Clothing** – Bright clothing should be worn by the driver so as to be seen easily by other motorists. Avoid loose clothing that could catch on the levers, chain or wheels which could result in an accident. Gloves give you a better grip and help protect your hands from the elements.

#### **Caution**

*Failure to wear a helmet will significantly increase the likelihood of injury or death if an accident occurs.*

*Make sure passengers always wear a helmet to protect eyes, and wear protective clothing.*

## Do not ride while under the influence

Before getting on your bike, make sure:

- You have not consumed alcohol or taken drugs.
- You are in good physical and mental condition.
- You have done the recommended pre-ride inspection.
- Start the engine in a well-ventilated area.

The exhaust emits toxic and poisonous carbon monoxide.

### Caution

*Operating this motorcycle after consuming alcohol or drugs could seriously affect your judgment, could cause you to react more slowly, could affect your balance and perception and could result in an accident.*

## Safe riding principles

- Keep enough distance with the other vehicles around you as this gives you time to react.
  - Always observe the rules of the road. Observe the posted speed limit, and signal your turns well in advance.
  - Know your limits. Do not travel faster than you are able to safely control the vehicle. Always travel at a speed that is proper for

the operating conditions, your ability and experience.

- Always inspect your motorcycle each time you use it to make sure it is in safe operating condition.
  - Always follow the inspection and scheduled maintenance procedures described in this manual.
    - Test your brakes after operating in wet conditions.
    - Never attempt wheelies, jumps and other stunts, as these could cause damage to the motorcycle and cause loss of control.
    - Always keep both hands on the handlebar and feet on the foot pegs during operation.
    - Never consume alcohol or drugs before or while riding your motorcycle.
    - Be aware that long travel distances can cause fatigue that can affect performance and awareness.
    - Do not touch the engine or exhaust after riding as they will be extremely hot right after the engine has been turned off.
    - Park the motorcycle away from fuel or flammable materials.

## Being seen

Many motorcycle accidents are caused by car drivers who do not see motorcycle riders on the road. To reduce the chance of an accident, follow these guidelines:

- Wear bright clothing to increase visibility. Bright orange, yellow or green jackets or vests and a brightly colored helmet can help others see you.
- Always use turn signals when you are planning to turn or merge to main roads, and turn off signal after completing turns.
- Flash brake lights whenever you are going to slow down quickly or where others may not expect you are going to slow down.
- Stay out of blind spots of other motorists.
- When you come to an intersection, move to the portion of your lane that will bring you into another driver's field of sight at the earliest possible moment.

## Know Your Motorcycle

- Get training if you are inexperienced.
- Beginners should get training from a certified instructor.
- Become familiar with the motorcycle at slow speeds first.

Even if you are an experienced rider, do not attempt to operate at maximum performance until you are very familiar with the vehicle.

- The equilibrium and stability of your motorcycle are affected by the manner in which you load it. It is very important that you do not install accessories that compromise the design and concept of the motorcycle. Doing so could alter the safety of your motorcycle.

## Loading & Carrying passengers

You should avoid carrying passengers or large loads until you have gained sufficient experience riding alone. Extra weight changes handling, stability, braking performance, turns, acceleration and deceleration. The load you carry on the motorcycle has an important effect on your safety, as well as the life of the motorcycle; therefore, apart from driver and passenger, it is advised to keep load to a minimum. If you decide to carry any load, take the following into account:

- Make sure the load is as light and as small as possible.
- Make sure the load does not interfere with any moving parts.
- Make sure the load does not interfere with your ability to move around in order to maintain proper equilibrium.
- Put the load as close as possible to the center of the motorcycle.
- Put only light load on rear rack, if installed.
- Do not attach load to handlebars, headlight or front forks.
- Properly secure all items.
- Inflate tires properly.

### Caution

*The design of the motorcycle requires even distribution of all loads. Be aware that improper loading of goods will adversely affect the performance and stability of the vehicle.*

• Keep the load low and distribute the load evenly. An uneven load can cause the motorcycle to drift to one side. Carrying excess load on your motorcycle can cause an accident or crash resulting in severe injury or even death to the motorcycle operator, passenger or bystanders. To carry passengers safely, you must instruct the passenger before you start to:

- Wear a helmet.
- Get on the motorcycle after you have started the engine.
- Sit as far forward as possible without crowding the driver.
- Hold firmly to your waist, hips, belt or passenger handles.
- Keep both feet on the pegs at all time, even when the

motorcycle is stopped.

- Keep legs away from hot and moving parts.
- Stay directly behind you, leaning as you lean.
- Avoid any unnecessary motion.

To drive with a passenger safely, you must:

- Go slower.

- Start slowing earlier as you approach a stop.
- Maintain a larger cushion of space ahead and to the sides.
- Wait for larger gaps when you want to cross, enter or merge into traffic.

## Gasoline and exhaust fumes

Gasoline is highly flammable and exhaust fumes are poisonous:

- Turn off engine before refueling.
- **Do not overfill fuel tank!!** Fill fuel level to 1/2 inch below the neck of the fuel tank fill opening.
  - Do not spill any gasoline on the engine, exhaust system or plastic parts.
    - Do not refuel while smoking or near any open flame.
    - If you swallow gasoline, inhale gasoline vapor or spill gasoline in your eyes, seek medical help immediately.
    - If you spill gasoline on your clothes, change and wash the affected area immediately with soap.
  - Do not operate your motorcycle in a closed area as the exhaust fumes may cause loss of consciousness or death within a short time.

## Caution

- *To avoid scalding by muffler, do not park the vehicle near walkways.*
- *Passenger should pay special attention to avoid exhaust burns.*
- *Hay or other flammable items will create fire if too close to the exhaust system.*

## Modifications

Any modifications to this motorcycle, removal of original equipment or use of unapproved accessories, may cause it to be unsafe for use and may trigger severe accidents. Some modifications may also make your motorcycle illegal to use on public roadways, and will void all warranty coverage.

Your Genuine dealer is familiar with all recommended accessories for your motorcycle, and should be your primary source for purchasing and installing any accessories. The owner of the motorcycle is responsible for the safety, installation and usage of any accessories not approved by Genuine.

Before installing new accessories, make sure they do not interfere with moving parts, reduce ground clearance, and do not interfere with the operating controls.

## Fuel-Saving tips

The way you drive your motorcycle will have a direct impact on your fuel consumption.

- Drive at appropriate speed and avoiding sudden acceleration or braking. Fluent motorcycle operation is not only important for your safety and fuel economy, but also extends the usable life of your motorcycle.
- Driving within allowed speed limits will yield optimum fuel economy.
- Always maintain tires at recommended pressure. Check pressure prior to each ride.
- Have your motorcycle inspected and serviced according to the periodic service and maintenance table.
- Check that brakes are not dragging and preventing the wheels from turning freely. Avoid riding with the rear brake pedal pressed.
- Turn off the engine if waiting for more than a few minutes.
- Do not fill up fuel tank above cap neck.

This instruction book illustrates the notes for the standard and safe operation method, and basic maintenance.

To ensure a comfortable and safe riding experience, please read this instruction book carefully.

The pictures and illustrations in this book may be different from the actual vehicle, due to cosmetic differences between models.

The vehicle is specifically designed for a maximum of two people (Including the rider himself)

### **Caution**

*Do not use contaminated fuel ;*

*Using contaminated fuel may possibly cause rust inside the fuel tank, which in turn can block fuel lines causing failure to the EFI system, or even cause severe damage to the engine.*

*Do not use sub-standard or polluted engine oil*

*Always use the specified grade of engine oil, so the engine's performance and longevity can be ensured.*

*Any failures as a result of the use of inappropriate fluids are not covered under warranty.*

### III. Vehicle Layout







# Instrument Gauges

## 1. Speedometer

Indicates the motorcycle speed (mph). Do not exceed the posted legal speed limit to assure safe riding.

## 2. Odometer

Indicates total vehicle riding distance (miles).

## 3. Turn indicator

▶ ( R ) right turn ,flashes when turning right.

◀ ( L ) left turn, flashes when turning left.

## 4. High beam indicator

Blue  light on indicates high beam is selected.

## 5. Neutral indicator

Green "N" light on when in the neutral position.

## 6. Tachometer

Shows the engine revolutions per minute (RPM).

## 7. Fuel Level Low

Fuel light on indicates fuel tank level is low.

## 8. Trip mileage meter

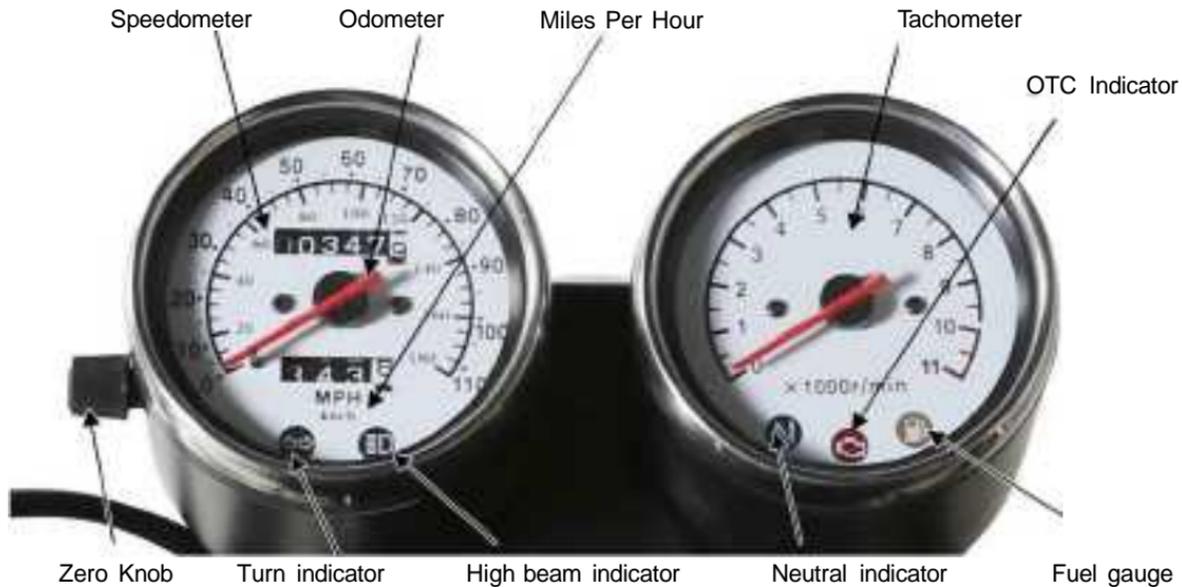
Current trip distance in miles.

## 9. Zero Knob

Rotating the zero knob in the direction of the arrow will return the trip odometer to zero.

## 10. EFI Indicator

Indicates EFI fault conditions.



## Gauge Check

### 1. Neutral Light

Using the shift lever, shift the motorcycle into neutral. The green "N" indicator light will illuminate. If light does not illuminate, check the neutral switch or indicator bulb for malfunctions.

Turn the ignition switch to the "on" position. The yellow "low fuel" indicator will illuminate for 1 second and then turn off. If the fuel light remains on, check the fuel level. If light does not illuminate, or remains illuminated when tank is full, check the fuel sender or indicator bulb for malfunctions.



### 2. Check Engine Light

When the ignition switch is in the "on" position, and all other start conditions have been satisfied (see "Start Conditions" for more information), the Diagnostic Trouble Code light (red "check engine" light) will illuminate and stay lit until the engine has been started. This is a "Lamp Test" to allow you to check the function of the indicator bulb.

Once the engine has been started, the light will turn off unless the ECU has detected a fault. If the light remains illuminated or flashes when the engine is running, a fault condition exists. Contact an authorized Genuine dealer for service.

If the indicator light does not come on at all, check the indicator bulb and replace if necessary.

### 3. Tachometer

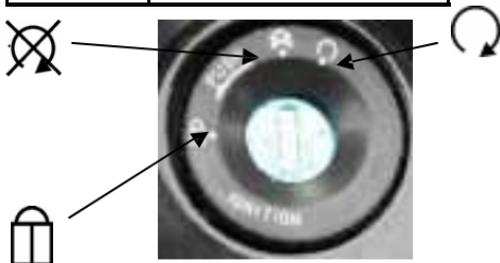
Turn the ignition switch to the "on" position. The tachometer will sweep to the redline and back indicating that the tachometer needle is functioning properly.

## IV. CONTROLS

### Ignition Switch

The ignition switch is used to start the engine and turn the engine off.

Position	Function
	For starting and driving the vehicle (turning on all the main circuits.)
	To stop the vehicle, switch off all circuits.
	To lock the handle bar.



### **Caution**

Do not change the ignition key position when riding.

If the key is moved to the  position during riding, all electrical systems will be off. While riding, do not remove the main switch key in order to avoid an accident. If necessary, stop the motorcycle prior to removing the key.

- Before removing the key, make sure the handle bar is locked.
- If the engine is not started after turning the key to the  position, the battery will discharge over time.
- Do not use sharp metal keys or key fobs to avoid scratching the upper triple clamp. Use a cloth or leather key fob.

There are two keys supplied with your motorcycle.

Either key operates the ignition switch, fuel tank and steering lock. One key should be removed and saved as a spare.



## Hi and Low beam Operation

Press the button, the switch position will determine the distance of the headlight.



## Overtaking lamp switch

Pull the yellow button inward to light both headlights indicating to the vehicle in front of you, your intent to overtake.



## Direction Indicator

Use the direction indication switch when turning left or right. If the main switch is in the run position, the direction indicator will flash when slid to the left or right. Pressing the center of the direction indicator will stop the turn signal from flashing.



- After you have successfully completed a turn, the indicator switch will not automatically return to its original position. You must switch it off manually.
- Driving with the direction indicator continuously on can confuse traffic. Ensure you turn the indicator switch off manually after each turn has been completed.

## Horn Button

When the main switch is in the "on" position, if you press the horn button, it will emit a loud sound.



Horn Button

## Electric Start Button

With key on and motorcycle in neutral, push this button to turn the engine on.



Electric Start Button

## Emergency Kill Switch

The emergency kill switch is used to turn off the motorcycle if an emergency occurs while riding or if the vehicle falls over with the engine running.

Under normal circumstances, do not use this switch to turn off the vehicle. Instead, leave the kill switch in the "on" position and use the keyed ignition switch to turn the vehicle off.



Emergency  
"Kill" Switch

## **Caution**

- The Kill switch should only be used in emergency situations.
- During riding, turning the switch from  to  can be dangerous and cause damage to the engine.
- Use the kill switch to stop the engine only if necessary. Make sure that the main switch is in the off  position; if it is in the run  position and the engine is powered off with the kill switch, the battery is discharged.
- If the switch is in the off  position, the engine cannot be started.

## **Fuel Fill**

- To fuel the motorcycle, place the motorcycle on the side-stand. Open the fuel tank lock cover and using the key, turn the fuel cap and remove the fuel cap from the fuel tank. Add fuel to 1/2" below the fuel neck through the fuel tank opening. Replace the fuel cap and remove the key.
- Fuel tank capacity is approximately 3.4 gallons.
  - 87 octane unleaded fuel (RON 87) or above is required.



## **Caution**

- **NEVER OVERFILL FUEL TANK!** Fill fuel tank to 1/2 inch below the fill neck to prevent fuel spillage.

## Mirrors

Blind spot collisions are one of the principal causes of accidents in high density traffic. Always adjust your mirrors prior to each ride and use them regularly to monitor traffic behind you and whenever you are making a turn or lane change.



## Clutch Lever

The clutch lever located on the left side is used to disengage the transmission when vehicle is not moving, and for shifting gears. Pull lever in completely before shifting. Once the gear has been engaged, slowly release the lever.

Clutch lever



## Gear Shift Lever

Gears are selected using the shift lever. This motorcycle is equipped with a sequential transmission.

When in neutral "N", pull in the clutch and press down on the lever to select 1st gear. Press up on the lever to select 2nd – 5th gears. Downshift by pressing down on the lever. Always use the clutch when upshifting or downshifting and release the clutch in a controlled manner to make sure the gears engage smoothly to prevent damage to the transmission.

5  
4  
3  
2  
N  
1



## Throttle

The throttle controls engine rpm (speed). To increase engine rpm, rotate the grip toward you. To reduce engine rpm, rotate the grip away from you. The throttle will automatically return to the closed position (engine idle) when you remove your hand.



Throttle

## Brakes

Use both the front and rear brake simultaneously for maximum braking power.

Avoid unnecessary sudden braking maneuvers.



### Caution

- *When riding in wet conditions, avoid braking suddenly as accidents are more likely to occur.*
- *Avoid repeat use or dragging of the brakes. Brakes can overheat which will cause the brake to lose effect.*

## Front brake lever

The front brake lever is located on the right hand side of the handlebar. Pull toward the grip to slow down or stop the vehicle.



Front brake lever

## Rear brake pedal

The rear brake pedal is located near the right foot-peg. Press down on the rear brake lever to slow down or stop the vehicle.



## Kick Starter

The kick starter is used in the event the battery has failed.

Using the kick starter provides a manual way to start the engine without electric start.

To operate kick starter, swing it out from the stored position, and depress it with right foot with a strong and steady motion through its entire stroke.



Kickstarter

## Side stand

The side stand is used to support your motorcycle when parked.

To operate the side stand, use your foot to lower the stand until it is fully extended. Make sure the motorcycle is parked on firm level ground. Parking on uneven, soft or sloped surfaces may cause the motorcycle to fall.

Raise the side stand before riding.



The side stand is equipped with a safety switch. If the vehicle is in any gear position other than neutral and the side stand is down, the engine will turn off automatically for safety reasons. Do not bypass the safety switch.

## V. Proper Operation

### Engine Start Conditions

The engine can only be started when **both** the ignition switch and the kill switch are in the run "🔌" position **and** **either** the following two conditions exists:

- 1) The motorcycle is in neutral.
- 2) The motorcycle is in gear with the clutch disengaged (clutch lever in), **and** the side stand is up.

### Engine Start:

- 1) Place the motorcycle into neutral. Verify the neutral condition by checking the neutral indicator light.
  - 2) Start the engine by pushing the start button. Stop pushing the starter button when the engine is running.
- If the engine is not firing after pressing the button for 3 seconds, stop pushing the start button, wait for 5 seconds before trying again.
- Slightly turn the throttle twist grip about 1/8 turn but never over 1/4 turn if the vehicle has trouble starting.

If the engine starts then stalls during idle, restart the engine and keep the engine running at a slightly higher speed by lightly applying throttle until engine warm-up is complete. Do not rev the engine during the warm up phase as this can damage the Oxygen sensor.

### Engine Stop:

Stop the engine by turning ignition key to the "🔌" position to stop the engine and all electrical power. Do not use the kill switch to turn off the engine under normal circumstances. Only use the kill switch in emergency situations.

### If the engine fails to start

- Ensure all start conditions have been met.
- Ensure there is fuel in the tank.
- Check fuses
- Check if the engine start button is working properly
- If the battery voltage is too low, the vehicle will not start with the engine start button. Use the kick start mechanism to start the engine.

## Engine break-in period

The initial break-in period of the engine is very important. Failure to follow the break-in procedure (or other improper operation) will cause vehicle malfunction or damage.

A. An engine that has been operated per the break-in procedure can result in a lifetime improvement in engine performance.

B. A properly run-in engine will result in longer lifespan of engine parts, and extend the service life of the engine.

### C. Requirements

- 1) Never operate at full throttle during the first 500 miles of operation.
- 2) Operate the motorcycle at less than 6000rpm in all gears for the first 500 miles.
- 3) Do not overload the engine with excessive weight during the first 500 miles.

## Engine Maintenance

When the engine has been run-in for 500 miles, a mandatory first service and inspection is required to be performed by an authorized Genuine Service Center to maintain the limited warranty that may apply.

- 1) Replace the engine oil
- 2) Valve gap inspection and adjustment
- 3) Inspect the spark plug, adjust the gap and clean any carbon deposits.
- 4) Tighten all fasteners
- 5) Clean the air filter or replace if necessary
- 6) Adjust chain tension
- 7) Check tire pressure. Add air if necessary.
- 8) Check free-play on vehicle controls. Adjust and lubricate levers / cables as necessary.
- 9) Complete any other routine maintenance or repair any observed trouble condition that may exist.

## Pre-ride Inspection

In order to ensure safety, the motorcycle must be checked before each ride and properly maintained.

Please make sure a thorough inspection of your motorcycle is completed each time before you ride.

1. Engine oil level check: Insufficient engine oil will cause premature engine wear and damage.
2. Fuel level check: secure the fuel tank cap and inspect the fuel hoses for cracks / leaks.
3. Drive chain inspection: a loose chain can fall off of the sprocket. A severely worn chain may break, insufficient lubrication can cause chain and sprocket wear, and if the chain is too tight, then the transmission system will incur extra burden, which can in turn wear or break the chain.
4. Tire check: Tires with abnormal cuts or deep grooves should be replaced. The tire tread's depth should be above the wear indicator marks. Tire pressure inspection is also crucial. Improper pressures can lead to tire wear / blow out.
5. Brake system check: Check the brake system for normal function. Check the condition of the brake fluid level,

pad/shoe wear and brake lines/cables prior to operating the vehicle. If the level of the brake fluid is lower than the minimum level line, inspect brake lines for leaks or cracks. If a fluid leak is found, please do not ride the vehicle and contact your authorized Genuine dealer for inspection and repair.

6. Cable check: Check if the cable for control is correctly installed and moves smoothly.
7. Throttle check: Check the throttle grip and throttle cable to see if there is proper free-play. Determine if the throttle turns smoothly both opening and closing the throttle.
8. Clutch check: Check the clutch cable free-play and ease of movement.
9. Lights and horn check: Check if the lights and the horn are working properly.
10. Rear view mirror check: Sit on the motorcycle and keep your body vertical to the ground, see if you get a clear view behind you from the rear view mirrors.
11. Handle bar adjust: Sit vertically on the seat, determine if the handle bar is at the best position for safe and comfortable operation. Make sure no cables are tangled.

## **Caution**

- *Make sure you are familiar with and follow the safety rules and comply with all laws.*
- *The exhaust contains harmful gas, like CO, so please make sure when you are performing checks with the engine running, you are in a well-ventilated location.*
- *The pre-ride checklist should be performed on a flat, hard surface with stable support.*
- *Watch for fire when you switch the engine off, because the engine and muffler are still hot.*
- *Before you perform any repairs, the engine should be switched off and the key should be removed.*
- *If problems still exist after adjustment, please immediately contact your authorized Genuine dealer.*

## **Vehicle Operation**

- Before you prepare to embark on your ride, please make sure the side stand is in the up position. If you try to shift from neutral into first gear with the side-stand down, the engine will turn off for your safety. Do not bypass or disable the side stand safety switch.
- Shift gears in accordance with the engine speed
- In order to maximize fuel consumption and to ensure engine longevity, please do not accelerate or decelerate drastically.

## Launch and Shifting Gears

While sitting on the motorcycle with the engine running at idle in neutral, raise the side-stand and place both feet firmly on the ground. Pull the clutch lever to the handlebar and push the gear shift pedal down with your left foot to change the gear from neutral to 1st gear.

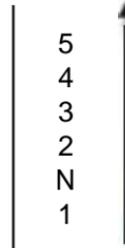
- 2 Gradually turn the throttle twist grip to increase the speed of the engine to about 3000 r/min, and **SLOWLY** release the clutch lever until the motorcycle starts to move. **DO NOT** release the clutch lever suddenly once movement begins. **CAREFULLY** modulate both throttle and clutch to ensure a smooth start as your vehicle accelerates.
- 3 When the motorcycle reaches a balanced state of operation and the engine rpm rises, close the throttle, pull in the clutch lever, and then lift up the shifting pedal to shift from 1st to 2nd gear.

- 4 Use the same up-shift procedure for 3rd-5th gear.
- 5 Engage the clutch and the shift pedal downward to down-shift the motorcycle. Release clutch slowly.

### Down shifting for more power

If you want to accelerate quickly, for example, when passing another vehicle, down-shifting can often provide more power and faster acceleration.

#### Up-shift



#### Downshift

### **Caution**

- Always start the vehicle from 1st gear, and make the starting process as slow and smooth as possible.
- Shift gears prior to reaching the engine redline RPM.
- Do not downshift gears too quickly into the redline RPM range as this may cause damage to the engine by over-revving the engine.
- Operate at speeds under the legal limit.

## **Brake Usage**

- Use the front and rear brake simultaneously for maximum braking power.
- Avoid unnecessary sudden braking.

### **Caution**

*-If you only use the front or rear brake, the motorcycle may become upset and a crash could result.*

*-When riding in rain or on wet road avoid sudden braking. Accidents can occur, slow down and brake cautiously.*

*-Avoid repeated braking / dragging the brake as this can overheat the brake system causing the brake to fade and lose braking power.*

## **Engine Brake**

The engine can work as a brake as you decelerate using the throttle. Additionally, downshifting can further slow the motorcycle. Be careful not to over- rev the engine during downshifts. Engine braking in conjunction with conventional braking will deliver the maximum braking force possible.

### **Caution**

*When the motorcycle is running near the redline RPM, do not downshift to a lower gear, this will cause damage to the engine and transmission system; and even cause shaking of the rear section of the motorcycle.*

## Park

- Shift the motorcycle to neutral and switch off the motorcycle.
- Close the throttle.
- Please use the main stand to keep the motorcycle steady, and park the motorcycle on horizontal ground or the motorcycle may fall over.

### **Caution**

- *Park the motorcycle in a safe / traffic free location.*
- *After driving, the muffler will be very hot. Park the motorcycle away from pedestrians, children, animals, flammable materials etc.*

## Park with side stand

Place the motorcycle on horizontal ground, lower the side stand, and move the handle bar to the left. If the motorcycle is placed on uneven terrain, the motorcycle may possibly fall down.

- If the handle bar is moved to the right side, or the motorcycle's side-stand is on a slope, sandy, rough or soft ground, the motorcycle is prone to fall down.
- In unavoidable situations, necessary steps must be taken to ensure vehicle stability.

## Rear view mirror

Before driving, adjust the rearview mirrors to see clearly behind either side of your motorcycle.

### **Warning**

*Do not put any large objects on the back seat that may interfere with your vision in the rear view mirror. Don't adjust the mirror while you are riding.*

### **Caution**

*Use soft paper or cloth to clean the mirror. You can use detergent, but do not spray detergent directly on the mirror.*

## VI. Inspection and adjustment

This section introduces the technical requirements for proper inspection, maintenance and adjustment of various parts of the G400C motorcycle.

Unless stated or indicated in the maintenance period table, you should check and adjust all parts of the G400C motorcycle prior to use.

Periodic maintenance is a combination of verification and service operations performed through the Genuine Motorcycles dealer network. To properly maintain your motorcycle, it is normal during these operations that some parts may be replaced; components are inspected for adjustment variations from their original settings as a result of normal wear and tear of the parts and usage of the motorcycle. These interventions do not constitute flaws in the motorcycle; on the contrary, their purpose is to prevent any problems for your motorcycle to continue operating properly.

*It is mandatory to replace parts and lubricants according to the maintenance table.*

To maintain your warranty, you are required to have your vehicle inspected by a Genuine dealer after the initial 500 miles of use. Your dealer will inspect your vehicle and perform any maintenance and adjustments that may be necessary after the initial break-in period.

## Maintenance Period Table

Maintenance period Items	Odometer in Miles (see note 2 on next page)						
	500	3000	5500	8000	10,500	13,000	User Inspect Daily
* Engine Oil	R	R	R	R	R	R	I
* Spark Plug		I	R	I	R	I	
** Valve Gap		A	A	A	A	A	
* Idle Speed		I	I	I	I	I	
* Engine Bolts		I	I	I	I	I	
* Oil Filter	R	R	R	R	R	R	
* Air Filter		I	R	I	R	I	
* Fuel Filter		I	I	I	I	I	
* Air Cleaner Body	C	C	C	C	C	C	
* Drive Chain / Chain Tension	\N	\N	\N	\N	\N	\N	I

***Maintenance Period Table Continued on next page***

For optimum performance, the motorcycle should be checked and maintained at periodic intervals. The meanings of capitalized letters in the table below are as follows:

I: Inspection - inspect, then clean, lubricate, adjust, refill, repair or replace if necessary.

A: Inspect, then adjust if necessary

C: Clean

R: Mandatory Replacement

L: Lubricate

## Maintenance Period Table continued

Maintenance period Items	Odometer in Miles (see note 2 below)						
	500	3000	5500	8000	10,500	13,000	User Inspect Daily
Throttle Operation							
Brake Shoes / Pad Wear							
* Brake System							
Brake Light Switch							
* Brake Fluid							
** Clutch							
Suspension							
Nuts, Bolts, Fasteners							
Wheel / Tire / Tire Pressure							

\* Inspection by user is expected. Maintenance is suggested to be performed by authorized Genuine dealer.

\*\* Inspection by user is expected. Maintenance is required to be performed by authorized Genuine Service personnel.

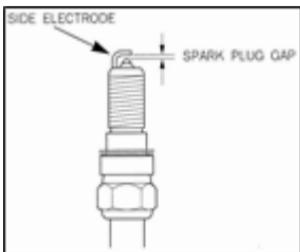
① *While operating the vehicle in a dusty area, the service interval will need to be more frequent*

② *When the odometer reads more than the given maximum value, repeat the maintenance period as per the mile interval stipulated in the table*

③ *To ensure safety, the adjustment of these items should only be carried out by an authorized Genuine dealer.*

## Spark Plug

Remove the spark plug cap, then remove the spark plug with a socket wrench. Visually check whether there is damage to the spark plug insulator or electrodes. If damage has occurred, replace the spark plug. Check the spark plug electrode gap with a plug gauge. Spark plug electrode gap 0.6 -0.7mm. Carefully adjust the electrode gap.



Carefully remove any accumulated carbon and contaminants with a spark plug cleaner or soft wire brush. Ensure the spark plug washer is in good condition.

Insert the spark plug, hand-tighten the spark plug first, and then tighten it with a socket wrench. Replace the spark plug cap.

## Timing phase

The timing should be verified when the vehicle is new or there is any question about the timing phase.

Remove the eyehole cover on the left and the upper eyehole cover.

Turn the crankshaft pulley Counterclockwise to align the scale line "1" with the indication mark "▼" on the front-left cover.

### ⚠ Caution

*At this point, the piston must be at top dead center on the compression stroke rather than the exhaust stroke.*

Remove the cam phase sensor on the right of the cylinder head, and check whether the boss of the driven sprocket is in the center of the cam phase sensor hole. Use a small reflective mirror if necessary to help observation.

Upon completion of inspection, mount the cam phase sensor, eyehole cover and upper eyehole cover.

## Engine Oil

Use JASO MA2 15W40 in order to ensure maximum engine performance. Using a high-quality engine oil designed and tested for use in your vehicle will also extend the life of the engine. Using lighter weight engine oil in cooler climates is acceptable.



### Caution

*Insufficient quantity or poor quality engine oil will lead to premature engine wear, damage or engine failure.*

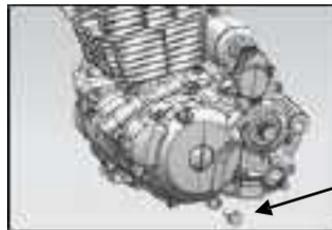
*Engine oil plays a very important role in the normal operation of the engine. Your motorcycle relies upon the oil to aid in cooling. As such, it is extremely important to use quality oil and it is necessary to check the motorcycle engine oil level regularly and replace the oil at 500 miles, at 1250 miles, then every 2500 miles thereafter.*

## Engine oil replacement

Drain the oil while the engine is warm. A warm engine will ensure quick and complete discharge of the engine oil inside the crankcase.

To replace the oil:

- 1) Unscrew the oil drain plug and completely discharge the waste engine oil.
- 2) Clean the oil drain plug, engine oil strainer / filter, etc.
- 3) Re-insert the oil drain plug. Unscrew the oil fill plug and slowly refill engine with 1.8L oil per specification into the crankcase. Re- insert the oil fill plug.



Oil drain plug

## **Caution:**

*When the engine is at an operating temperature, the engine oil may be very hot, so be careful not to burn yourself.*

*Place the motorcycle on a flat surface. Remove the drain plug, then drain engine oil. Once all oil has been removed, clean the gasket and drain plug thoroughly, tighten plug to 20 ft\*lb*

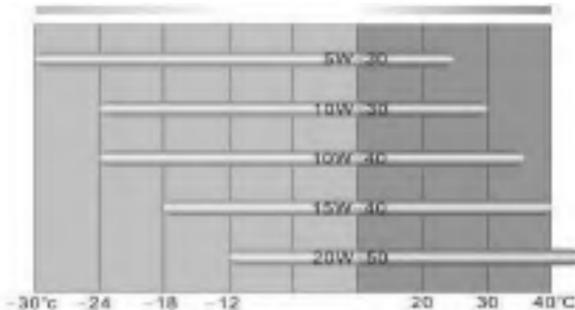
*Oil dipstick must be reinstalled properly, or the oil dipstick will provide false readings level can cause damage to the engine.*

## **Oil level check**

Run the engine for 2-3 minutes. Check whether or not the engine oil level is in the middle of the range on the engine oil dipstick. Add oil if necessary.



## **Oil specification per ambient temperature**

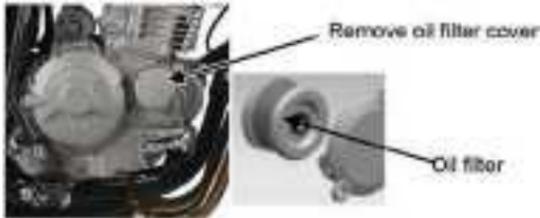


## **Cleaning the oil sump**

- Drain the engine oil thoroughly.
- Disassemble each part.
- Clean each part.
- Refill with the proper engine oil.
- Clean the sump.
- Work should be performed by an Authorized Genuine Motorcycle dealer.

## Cleaning the Oil Filter

- Remove the engine oil filter cover and remove the engine oil filter element.
- Clean the filter cover and filter element with cleaning agent, and then re-install the clean engine oil filter.
- Replace oil filter as required.
- Inspect for damage of the engine oil filter cover and its O-ring seal; replace O-ring as required.
- Re-install the engine oil filter cover and tighten bolts to the specified torque.



### & Notice

*Before the crankcase is refilled with fresh engine oil, the engine oil filter **must** be cleaned.*

## Compression Check

If the engine fails to start or is difficult to start, after all other possible faults have been excluded, a qualified technician should check the cylinder pressure.

Compression: **160 psi at 300r/min.**

To test,

- Remove the spark plug and install a compression tester gauge into the spark plug port.
- Fully open the throttle and using the electric start, turn over the engine.
- Check all connecting points of the pressure gauge for leaks.

Zero the pressure gauge and turn over the engine again until the pressure gauge reading stops rising.

The maximum reading on the gauge is the cylinder pressure.

- Upon completion of testing, re-install the spark plug and reattach spark plug wire.

## Primary Causes of Low Compression

- Incorrect valve clearance
- Valve leakage
- Cylinder head gasket leak
- Worn out piston ring or cylinder
- Worn out piston

Excessive compression is primarily caused by accumulated carbon deposits inside the combustion chamber or on the piston top.



## Valve Clearance

Valve noise will often stem from too large valve clearance. However if there is too little or even no valve gap at all, closing of the valves will be hindered. This will cause many problems such as engine stall, power loss, etc. The valve clearance must be checked periodically.

The valve clearance should be inspected and adjusted by an authorized Genuine dealer.

Specified valve clearance:

Intake: 0.07-0.10mm Exhaust: 0.08-0.12mm

## Valve Clearance Measurement

The valve clearance should be inspected and adjusted on a cold engine by the following procedures:

- 1) Remove the caps of the central port and the ignition timing observation port on the left crankcase cover.
- 2) Remove the caps of the valves on the cylinder head.
- 3) Turn the nut of the flywheel clockwise until the engraved "T" mark on the flywheel aligns with the engraved line on the top of the crankcase cover, and both intake and exhaust rocker arms do not move but stop at their loosest position. This indicates that the piston is in its top dead center position of the compressing stroke. If the "T" mark is near the proper position but the rocker arms will move when the flywheel rotates within a small angle, the flywheel is not on the compression stroke but exhaust/intake stroke. In this case, continue to turn the flywheel clockwise 360 degrees to reach top dead center position of the compressing stroke, where the valve clearance can be adjusted.
- 4) Check the valve clearance by inserting a clearance gage into the gap between adjusting screw and the end of the valve.

## Valve Adjustment

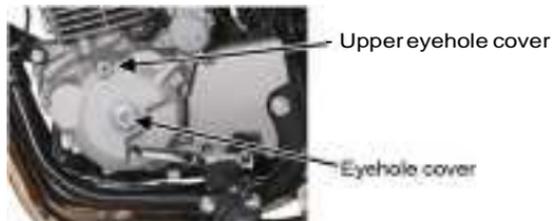
**Specified valve clearance:**

**Intake: 0.07-0.10mm    Exhaust: 0.08-0.12mm**

If valve clearance adjustment is needed, loosen the locking nut on the rocker arm, insert the proper clearance gauge and turn the adjusting nut until a slight resistance is felt on the inserted clearance gage.

After adjustment, tighten the locking nut to prevent loosening and re-insert the valve gauge to re-check the valve clearance.

Reinstall the valve covers once final adjustment has been made.



## Air Filter

Remove the air filter and check for contamination.

### Removal

Open the right side cover. Remove the 4 right side filter cover screws and, open the right cover and remove the air filter.



### Cleaning

Clean the filter element by gently applying compressed air to dislodge dust and other debris.

Replace the filter if there are perforations or an excess build-up of debris that cannot be easily removed.



### Caution:

- *The air filter must be installed or the engine will ingest dust and dirt, and an unbalanced air / fuel ratio resulting in a shorter engine life.*
- *Water should never enter into the filter area if possible. Take special care when washing the motorcycle.*
- *Never clean the air filter with gasoline or any other solvents with a low flash point.*

## Idle Speed



### Caution:

*Do not adjust idle speed without consulting your Genuine dealer.*

The G400C idle speed is controlled by the ECU. The idle speed has been properly adjusted upon delivery. Do not adjust the idle speed. In the event the idle speed is unsteady, zero or too high, bring the vehicle to a qualified Genuine dealer to determine the possible causes via troubleshooting the EMS system. Your dealer will check whether the ignition advance angle is between 0°-15°. If the ignition advance angle is more than 15°, it indicates the throttle valve's intake flow at idle speed is insufficient, and at this point, the idle speed is unstable or null; if the ignition advance angle is less than 0°, it indicates the intake flow at idle speed is too high, and at this point, the idle speed is often as high as 1800 r/min or more. Only under the above two cases will the technician adjust the idle speed adjusting screw to let the intake flow reach the specified flow.

**Idle speed 1600 r/min  $\pm$  150 r/min.**



Adjusting screw



Diagnostic controller

## Throttle

Inspect the throttle cable for deformed, twisted or damaged locations along the cable length.

Measure the throttle free-play. Turn the throttle against one side of the free stroke, and draw a straight line between the bar and the balance weight. Then turn the bar to lean it against the other side of the free stroke; measure the distance of the straight line, i.e. the throttle bar free stroke.

**Free-play: 2-6mm.**



If the throttle free-play is insufficient or too large, make adjustments as necessary.



### Fine Adjustment

Move the rubber lagging to expose the adjuster. Unscrew the retaining nut A, and turn the adjuster until free-play is within specification. Tighten the retaining nut A and re-install the protective rubber lagging.

**Coarse Adjustment:** If the fine adjustment is not sufficient, remove the throttle cable from the throttle body and unscrew the retaining nut B to increase the free-play. Tighten the retaining nut B after the adjustment.

After all adjustments, verify the throttle can turn smoothly from full open to full close at any handlebar position. If there is any impediment to turning the throttle smoothly, adjust or replace the throttle or cable.



**Warning:** *Too much or too little throttle free-play or operating the motorcycle with throttle impediments is very dangerous and can result in sudden acceleration and/or loss of control of the vehicle.*

## Brake System

The front brake is hydraulic disk type, and the rear brake is cable-actuated drum type. Inspect the brake system prior to each ride. Properly functioning brake systems are vitally important to your personal safety. Check for fluid leaks, fluid level, brake shoe wear, and rotor and drum condition. Also check lever free play frequently.

## Front Brake

Pull the brake lever lightly until you feel tension, then check the lever free-play. If the brake lever has no free-play or is too loose, there is a potential brake system fault. Inspect brake system thoroughly.

**Brake lever free-play : 10 – 20mm**



## Brake Fluid Level

Be sure the motorcycle is on flat ground, turn the bar and check the brake fluid when the brake master cylinder cover is in a level position.

Check the brake fluid level through the master cylinder view port. The fluid level will drop over time as the brake pads wear. If the brake fluid level is too low, thoroughly inspect the brake system for leaks. If there are no leaks, add fluid as necessary. If leaks are found, do not operate the vehicle until the brake system has been repaired.

### **Warning**

*-Brake fluid is flammable. Avoid contact with skin and eyes. If you come in contact with brake fluid, immediately run under water and contact a doctor. If brake fluid comes in contact with your eyes, immediately seek medical attention.*



### **Caution**

- Brake fluid cannot exceed the upper limit.
- When adding brake fluid, use special care. Do not allow dust, water or other foreign material to contaminate the master cylinder. If brake fluid is low, this may be a sign of failure in the brake system. Do not ride the vehicle until the brake system has been inspected and repaired by a qualified technician.

## Adding Brake Fluid

Turn the handle bar so that the brake master cylinder is horizontal with the ground.

Remove dust and foreign material from the exterior of the brake master cylinder. Loosen screws on the brake master cylinder cover, then remove the rubber diaphragm.

Add DOT4 brake fluid into the master cylinder, then re-insert the diaphragm and cover. Tighten the cover screws. Make sure that no foreign materials enter into the brake system.

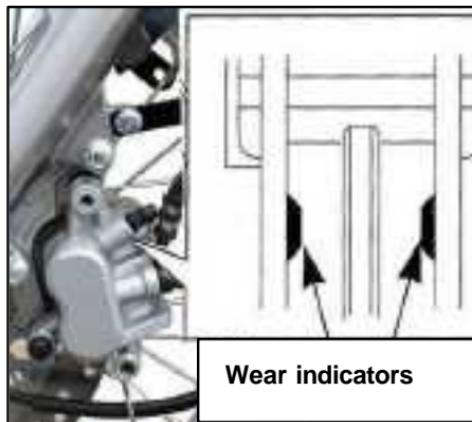
If the brake system is not firm, there may be brake contamination or the brakes might need to be bled of air. Contact your Genuine Motorcycles dealer for service.



- *Do not mix brake fluid with other liquids; If brake fluid spills onto plastic or painted surfaces, wipe off immediately. In the event brake fluid splashes into the eyes or on the skin, immediately flush with large amounts of fresh water and immediately see a doctor.*

## Brake Pads

If the brake pad wear indicator gaps touch the side of the brake disc, the brake pads need replacement.



## Rear Brake

Push the brake pedal downward by hand, check the brake pedal free-play. The rear brake pedal free-play should be at least 18mm but no more than 25 mm.

If the free-play is outside this range, the pedal can be adjusted by adjusting the rear brake adjustment nut near the rear wheel.

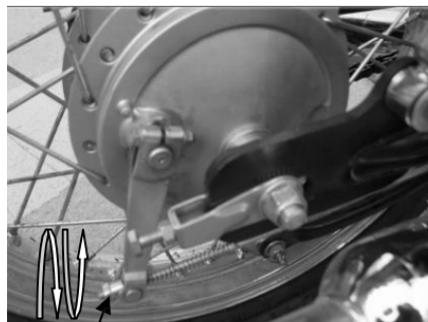
Twirl the adjustment nut to change the pedal stroke. Validate that the pedal free stroke meets specification.

## Brake pedal free-play : 18-25mm



### **Caution**

*Brake pedal free-play is important. If the brake pedal free-play is too little or zero, the brakes may drag leading to brake failure. If the free-play is too large, the brakes may not actuate when the lever is pressed. These are dangerous conditions that can lead to loss of control of the vehicle. Do not ride the vehicle if the brake free-play is out of range.*



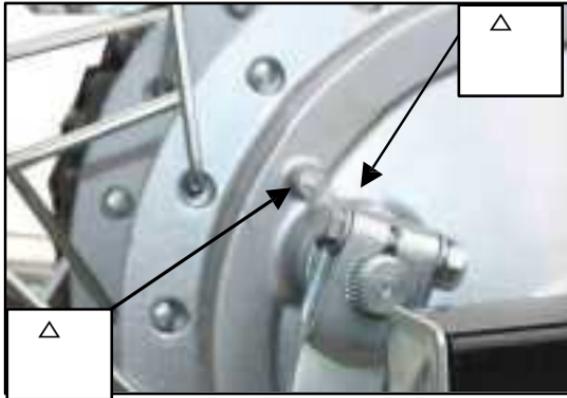
49

Adjusting nut.

## Rear Brake Shoes

Rear brake check: Check the wear of the brake shoes. If the "△" mark on the drum brake cover and on the brake cam are aligned, the brake shoes have reached the wear limit and must be replaced.

- (1) Go to an authorized Genuine dealer to replace the brake shoes. Use only Genuine authorized parts.



## Caution

·Change the brake shoes if the wear limit has been reached.  
Accidents can occur due to a lack of braking power from worn brake shoes.

## Tire specifications and tire pressure

Check the tire pressure with a tire pressure gauge to determine if the pressure is at the standard value.

Tire		
	110/90-19	130/70-18

Measure Cold	Standard Air Pressure	
	Front tire	Rear tire
	32.6 psi	32.6 psi

When inflating the tire, if the tire pressure fails to reach the standard air pressure, inspect the tire for cuts, embedded nails or other sharp objects.



Front wheel tire pressure

Rear wheel tire pressure



## **Caution**

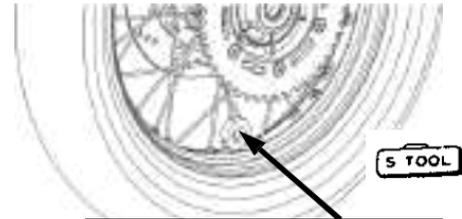
*Tire pressure should be measured when the tire is at ambient temperature.*

## **Wheel Spokes**

Check the wheel for loose or broken spokes. Tighten any loose spokes to the specified torque with a spoke nut fastening tool.

The spoke nut torque: 2 - 3.5 ft-lbs

If any spokes are broken or damaged, replace immediately.



Spoke adjusting tool

## Clutch

Check the clutch lever free-play.  
Clutch lever free- play: **10-20mm.**

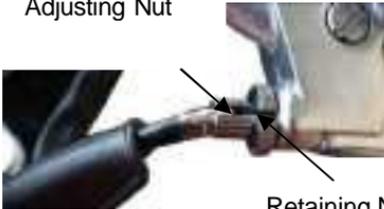
**10-20mm**



### Adjusting methods:

Fine adjustment: Remove the rubber lagging, loosen the retaining nut, and turn the adjusting nut until a satisfactory free-play is achieved. Tighten the retaining nut and replace the protective rubber lagging.

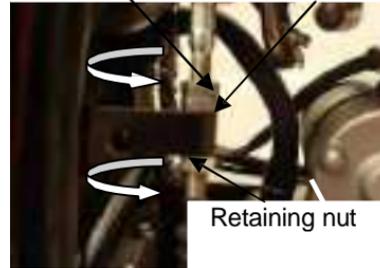
Adjusting Nut



Retaining Nut

If proper free-play can't be achieved by fine adjustment, remove the clutch cable from the clutch lever and adjust the cable with the adjuster located on the engine end of the clutch cable.

Adjusting Nut      Retaining nut



Remove the clutch cable from the clutch lever, and then remove the clutch operating arm on the engine end; turn the clutch operating arm to the proper angle and remount the operating arm. Re-connect the clutch cable, and adjust the cable to achieve the proper free- play by using the fine adjustment screw near the clutch lever.



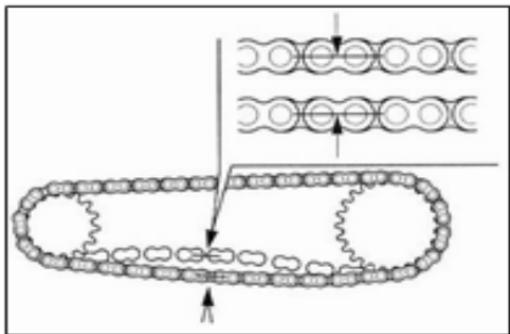
### Caution:

*Always ensure the clutch operating handle has the proper free-play! A loose clutch cable will prevent the clutch from disengaging. A tight clutch cable will cause poor clutch engagement and damage the clutch.*

## Drive Chain Tension

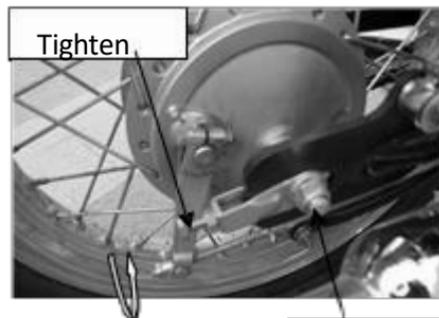
Park the motorcycle on level ground with the main stand and shift the transmission to the neutral position. Check the driving chain tension. Press the chain by hand both up and down to check the range of movement of the lower chain.

**Drive chain tension: 20-30mm range of movement**



## Chain Adjustment

Loosen the rear wheel axle nut. Turn the adjusting bolts at the rear of the swingarm until the specified tension is achieved. Use the scale lines on the swingarm to ensure the wheel is straight. Retighten the rear wheel axle nut and check the rear wheel for free rotation and proper alignment between the front and rear wheels.



Loosen axle nut

**Caution:**

*The chain adjuster has scale lines on both sides of the swingarm. Ensure the wheel is straight.*

**Warning:**

*The rear wheel axle nut must be firmly secured to the tightening torque of 50 ft-lbs*

## Cleaning and Inspecting Chain

This model uses a sealed O-ring chain. When there is an accumulation of dirt on the chain, loosen the build-up with a soft bristle (non-metallic) brush. Use compressed air at a safe distance to remove loosened particles from the chain. Check the chain for abrasion or cracking and replace the chain if you find damage. Lubricate the chain with SAE80-90 mineral oil or a motorcycle chain-specific lubricant safe for o-ring chains. Coat the entire chain with lubricant including the inner rollers and outer plates, then wipe away any excess lubricant with a clean cloth

Inspect the front and rear sprockets for wear. In the event of serious tooth abrasion, teeth missing or broken teeth, replace the sprockets.



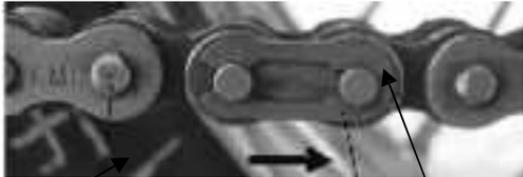
Cleaning and coating with oil

**Caution**

*Because the chain utilizes rubber O-rings to protect the grease sealed within, do not use steam, gasoline or other solvents to clean the chain. When using brushes to remove debris, make sure the brush is soft enough to prevent damage to the rubber O-rings.*

## Chain Removal

If the chain needs to be removed, locate the master link. Slide the spring clip to remove, then disassemble the connecting plate and link. The chain can now be removed. Reinstall using the reverse method.



Movement direction

Spring clip



### Warning:

*When mounting the chain, the open end of the spring locking piece needs to be in the opposite direction of the normal movement of the drive chain.*

## Battery Check

Open the left side cover.

Clean away any dust and corrosion from the surface of the battery.

Remove the negative, then the positive pole of the battery terminals; unscrew and remove the battery strap. Remove the battery from the vehicle.



Measure the voltage of the battery with a voltmeter; if the battery voltage is less than 12V, recharge the battery with a slow charge power supply.

Battery installation is in the reverse order of removal. When reconnecting the battery terminals, connect the positive pole first, then the negative.

## Battery Charging

The battery will slowly lose power every day. If you plan to not ride your motorcycle for an extended period of time, disconnect the battery cables, and place your battery on a battery maintenance charger.

The charging amperage should not exceed the required standards. Charging your battery at high amperage will negatively impact the life of the battery.

If you find the battery is low when starting the motorcycle, you can use the kick start to start your vehicle. Charge the battery as soon as possible. Your battery will be damaged if it remains unchanged for a long period of time.

### **Caution**

*Both the engine electric start and EMS systems are powered by the battery. It is important to ensure sufficient battery voltage is maintained otherwise the electric start system and/or the EMS system may not function properly.*

*When washing the vehicle, take care not to soak the battery area with water.*

## Fuse Replacement

Turn the ignition switch to the “OFF” position. The main fuse is a 15A tube type fuse, and the fuel injection nozzle is a 10A tube type fuse.

Open the left side cover, remove the fuse holder to the left of the battery and replace the broken fuse.



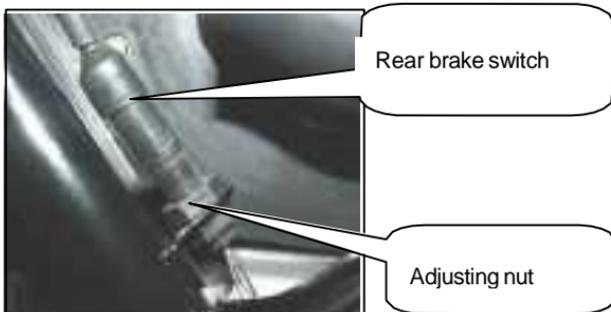
If the new fuse breaks again immediately, there is an unexpected short in the electrical system. Inspect all wiring and components.

### **Caution**

*Never use any fuse larger than 15A.*

## Brake lamp adjustment

If the rear brake lamp lights up intermittently, check the rear brake light switch near the right footpeg. Adjust the switch by turning the adjusting nut. If the rear brake lamp switch is broken, replace it immediately.



The brake light should light up as soon as the rear brake is applied. If not, adjustment should be made by turning the adjusting nut.

When the brake light switch is in the “ON” position, the brake light should be lit up. If not, a check should be carried out to see whether the brake lamp, circuit and switch are working properly. Replace if needed.



### Caution

*When adjusting the brake light switch, first check the brake to make sure that the brake free-play is within the specified range.*

## Headlight Directional Adjustment

Before driving, check the brightness, and direction of the headlamp.

The headlamp is adjustable in both the horizontal and vertical directions.

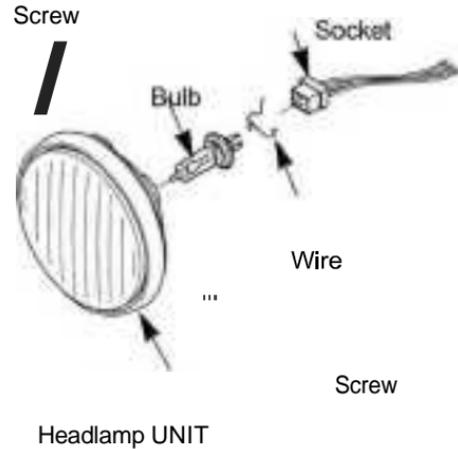


## Headlight Bulb Replacement

Loosen the screw to disassemble the headlight.

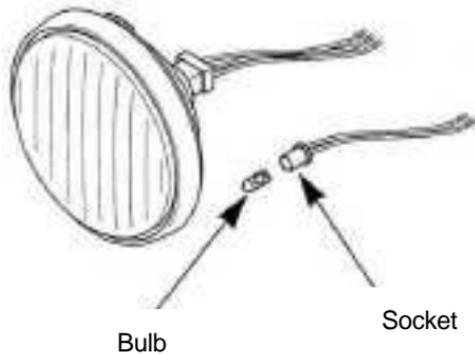
1. Rotate and directly unplug
2. Rotate and remove the bulb.
3. Install the new bulb in reverse order

Headlight bulb 12V55W



## Running Light

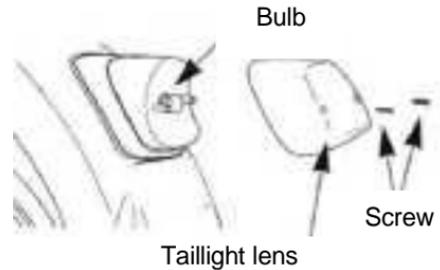
1. Remove the running light socket from the back of the headlight housing.
2. Unplug the running light from the socket and replace the broken bulb with a new one



## Taillight Bulb Replacement

1. Loosen the screws in the taillight lens
2. Remove the taillight lens
3. Lightly press bulb, rotate counter-clockwise.
4. Remove broken tail light bulb
5. Install new bulb in opposite order as removal

**Taillight bulb : 12V 21/5W**

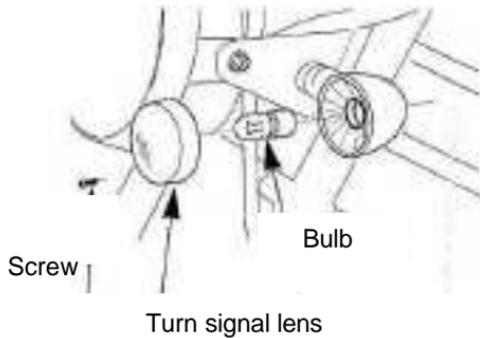


## Turn Signals

Replacing front or rear lamp bulb

1. Loosen screws and remove signal lens.
2. Lightly press the bulb inward and rotate counter-clockwise.
3. Install new bulb in opposite order as below.

**Front and rear signal bulb: 12V 10W**



## Side Stand

Secure the motorcycle in an upright position that allows the vehicle to stand without using the side stand. Inspect the side stand by moving it through its range. Determine whether the spring is sufficient to secure the side-stand upright, lubricate the pivot if necessary.



## Bolts, Nuts and Fasteners

Bolts, nuts and fasteners should be checked periodically and tightened to torque specifications outlined later in this manual. Check all cotter pins, straps, ties, locks, etc.

## Cleaning the Motorcycle

To keep the body and paint in good condition, wash your motorcycle often.

The best way to clean your motorcycle is to use warm water combined with detergent to remove the dirt.

**Attention:** Do not use high-pressure water to wash the motorcycle. Do not point water spray directly at electrical parts, plugs, cables, bearings, ECU, etc. High pressure water sources will cause water to enter into secure parts leading to functional failure and premature aging.

-Use ordinary detergent brands to clean your motorcycle. For the most difficult areas use a brush to clean.

-Plug the muffler before cleaning, to prevent water from getting inside the muffler.

-After washing, dry off the motorcycle. Ride for a distance until the engine has reached a working temperature; meanwhile apply the brake to evaporate the water left inside.

-Since the motorcycle cools down, please grease all the sliding parts, bearings and oil plug with lubricating oil.

-Protect your electric system to avoid any foreign materials entering.

When washing the motorcycle, please remove the air cleaner cover and filter and use foam or cotton to protect the intake channel.

When washing, block the muffler to avoid water getting into the muffler and engine.

## Maintenance Prior to Storage

If the motorcycle will be stored for a long period of time, pay attention to the prevention of moisture, sunshine and rain in order to protect it from unnecessary damage. Special check-ups should be carried out on those important parts and sub-assemblies before storage.

- ① Change the oil
- ② Grease the chain.
  
- ③ Remove the battery and place in a cool and well-ventilated area. The battery should be charged at least once a month to prevent it from becoming discharged and malfunction.
- ④ Clean the motorcycle and apply anti-corrosion to parts vulnerable to rust.
  
- ⑤ Drain the fuel if possible, use fuel stabilizer if draining fuel tank is not possible.
- ⑥ Remove the ignition key.
  
- ⑦ Cover the motorcycle.

## Return to Service

- ① Remove the cover and clean the motorcycle. Change the oil if the vehicle has not been used for over 4 months.
- ② Charge the battery and re-install.
- ③ Fill the tank with fresh fuel.
  
- ④ Prior to driving, test the motorcycle at a low speed and in a safe place.

## Special Torque Values

Item	Quantity	Thread diameter (mm)	Torque value (ft-lb)
Cylinder head nut	4	M10×1.25	21-24
Magneto flywheel fastening nut	1	M10×1.25	27-33
Spark Plug	1	M12×1.25	13-15
Front wheel axle	1	14	30-37
Rear wheel axle nut	1	16	44-66
Swingarm shaft nut	1	14	44-52
Engine hanging bolt	3	10	29-36
Engine cover bolt	6	8	18-26
Steering handlebar clamp bolt	4	8	15-22
Front fork tube cap nut	1	21	44-52
Brake disc bolt	6	M8×25	15-22

## Standard Torque Values

Name and dimensions	Torque value (ft-lb)
5mm bolt & nut	3.5 - 4.5
6mm bolt & nut	6 - 9
8mm bolt & nut	13 - 18
10mm bolt & nut	22 - 30
12mm bolt & nut	37 - 44
5mm Screw	2.5 - 3.5
6mm Screw	5 - 8
6mm spool bolt & nut	7 - 10
8mm spool bolt & nut	15 - 22
10mm spool bolt & nut	22 - 30

## VII. Engine Management System

The Engine Management System (EMS) is comprised of the following components: Electronic control unit (ECU), throttle body, Idle speed control valve, fuel pump, fuel injector, ignition coil, O<sub>2</sub> sensor, throttle position sensor, T-MAP sensor, cylinder head temperature sensor, etc.

The EMS uses sensors to collect parameters such as air flow, temperature of inlet air, cylinder head temperature, atmospheric pressure and the operational state of engine (rpm, load, acceleration and deceleration). All parameters are transferred to the ECU via electronic signal. The ECU outputs control signals after the input signals have been processed. Based on the air flow and engine speed, the fuel injector and ignition coil are controlled by ECU to get the optimal combustible mixture of fuel and air and Ignition timing which meet all engine operating conditions.

Through the engine and actuator components on the vehicle (ignition coil, fuel injector, idle speed control valve and so on), the fuel and spark are precisely controlled and corrected with closed loop.

### System composition:

1. Sensors:
  - Intake air pressure sensor (load information) intake air temperature and pressure sensors
  - Throttle position sensor (load information, load range information, acceleration / deceleration information)
  - Engine speed sensor (speed information, crankshaft position)
  - Intake air temperature sensor (air density information)
  - Oxygen sensor (information of the excess air coefficient is more than 1 or less than 1)

2. Actuators:

- Fuel pump relay,
- Fuel pump
- Fuel injector (fuel supply)
- Ignition coil
- High-tension cord
- Spark plug (ignition)
- Throttle, Idle speed control valve (air intake)

3. Electronic control unit

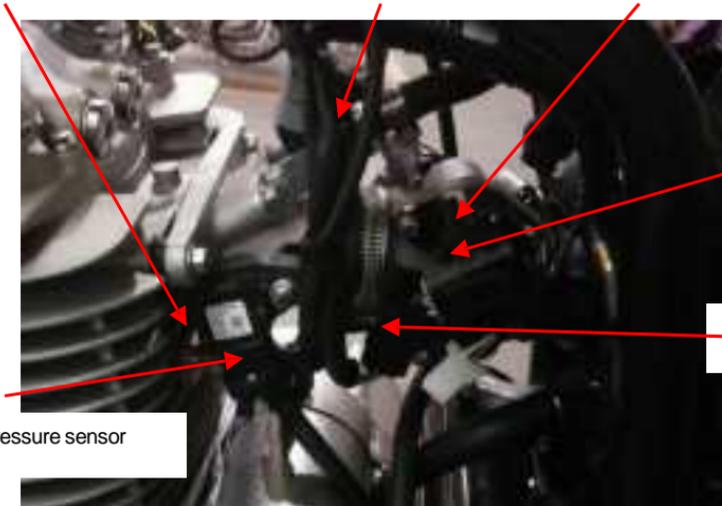
- ECU

# Major Components of EFI system

Cylinder Head Temperature Sensor

Fuel Injector

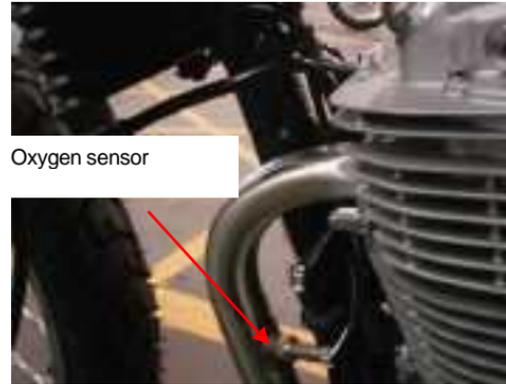
Throttle body



Idle Speed Control valve

Throttle Position Sensor

Intake air pressure sensor



## Engine Management System Troubleshooting

EFI systems are complex. As such, there are many possible causes when a running issue is encountered. At times it can be confusing if an issue is caused by a mechanical problem or the EFI components.

**Always contact your Genuine dealer if you are having trouble with your vehicle's Engine Management System.**

### EFI System Maintenance Procedures

- 1) Do not disassemble components arbitrarily. It may damage the components.
- 2) Turn the ignition off prior to connecting or disconnecting any connector including diagnostic controller.
- 3) Make sure the temperature of the ECU is below 175° F
- 4) The fuel pressure is very high (about 36 psi), so please do not disassemble the fuel line arbitrarily. If the fuel line needs to be removed, please release the pressure first, and make service is completed in a ventilated area by Genuine technicians.
- 5) When disassembling the fuel pump, make sure the power is off or it may cause fire.
- 6) The fuel pump cannot be contaminated with air or water, as it will shorten the useful life. The positive and negative poles of the fuel pump cannot be reversed.
- 7) The ignition system check should only be completed when it is necessary. When checking the spark plug out of the engine, make sure the throttle is closed. Excess unburned fuel coming into the catalyst may damage the catalyst.
- 8) The idle speed is adjusted by the ECU. The idle screw is not to be adjusted.
- 9) The Positive and Negative poles of the battery cannot be reversed. It may damage the EFI components.
- 10) Do not remove the battery when the engine is running.
- 11) Do not attempt to measure electrical signals by piercing the wire harness.

## VIII. Consumer Information

### Reporting Safety Defects

If you believe this vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Genuine Motorcycles. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Genuine Motorcycles. To contact NHTSA, you may either call the Vehicle Safety Hotline toll-free at 1-888-327-4236 / Hearing Impaired (TTY): 1-800-424-9153; go to <http://www.safercar.gov>; download the SaferCar mobile application; or write to Administrator, NHTSA, 1200 New Jersey Avenue, SE, Washington, DC 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>

### Motorcycle Noise Regulation

#### TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED

Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

"AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW".

These acts include tampering with the following systems; i.e., modification, removal, etc.

**Exhaust System** - Muffler, Exhaust pipe, Silencer

**Intake System** - Air cleaner case, Air filter, Intake duct

## **Warranty Information**

Your vehicle is covered by a Manufacturer's Limited Warranty and an EPA Emissions Related Components Warranty. If you purchased your vehicle in the state of California, you are also covered by a California Emission Control System Warranty. Detailed warranty information can be found in your warranty booklet provided separately from this manual.

## **Maintenance Record**

You must maintain records of work orders and all receipts for parts purchased and installed on your vehicle to document maintenance has been completed in accordance with the emissions or standard warranty.

For maximum enjoyment from your Genuine Motorcycle, use only Genuine approved parts, accessories, and lubricants.

## **Genuine Approved Lubricants**

**GENUINE MOTOR OIL** is the official lubricant of Genuine Motorcycles. GENUINE MOTOR OILS have been designed for and tested in Genuine motorcycles. Be aware that the use of lubricants not approved by Genuine for use in your vehicle can lead to damage to your motorcycle and may void any warranty.

**Genuine OEM Parts**- Genuine brand replacement parts are the exact parts that were originally installed on your vehicle. Genuine Motorcycle parts will provide you the maximum performance and longevity giving you confidence and satisfaction that your vehicle is operating as it was designed.

**Genuine Approved Accessories**- The addition of unsuitable accessories can result in unsafe operating conditions. Genuine approved accessories have been designed for and approved by Genuine for use on your motorcycle. Genuine only offers the highest quality accessories that will fit and perform properly on your vehicle.

Always install Genuine approved accessories on your motorcycle. Your dealer can assist you in selecting and correctly installing accessories for your motorcycle.



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