

INTRODUCTION

Thank you for your selection of this QLINK scooter. It represents high technology and reliability, the emission of this vehicle has reached the latest national emission standard, therefore it is a really environment-friendly motorcycle that may satisfy the demands of modern society. It has been manufactured technically in accordance with a lot of experience that our company obtained in manufacturing sports, race and tourist etc. vehicles. And it is just these experiences that have made this motorcycle take a large percent in the like products. This User's Manual will help you get to know the operating method of this model of motorcycle, and obtain the knowledge relating to operation, basic check-up, service and maintenance etc. Please contact your dealer or appointed maintenance station when you have problems in using and maintenance.

All configurations and parameters are for reference only, not contracted ones. Please refer to the actual configuration of the manufacturer.

THE FOLLOWING INFORMATION APPEARS AS SIGNS IN THIS USER'S MANUAL



This sign indicates procedures must be followed to avoid injury of yourself, other people or the motorcycle.



This sign indicates procedures must be followed to avoid damage to the motorcycle and yourself.



This sign indicates procedures with further information.



This User's Manual should be considered as part of the scooter and should be kept with the scooter for use in case of emergency. Even if this motorcycle is resold, it should also be kept with it. Our company is endeavoring to improve product design and quality all the time. Therefore, when this User's Manual was being printed, it had already included the latest product information. As a result, it may not be exactly the same as the motorcycle you purchased. For any questions, please contact the dealer from whom the motorcycle was originally purchased or contact the appointed maintenance station.

Be sure that you have read this User's Manual prior to riding the motorcycle

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MAIN POINTS FOR SAFE RIDING

- Please give clear signals in case of the situations listed below :
Turning left turning right
- It's very dangerous to brake on a damp road. Please avoid any emergency brake to prevent slip of the motorcycle.
- When parking on a damp road, put on the brake slowly.
- Slow down your motorcycle when approaching street corners or crossroads and accelerate only when having passed the turn .
- Take cautions in riding while passing by side of a parked vehicle. Because the vehicle driver may not notice your passing and open the door suddenly.
- Rails, iron plates paved at a construction site or manhole covers are especially slippery when they are wet, please take care and lower your driving speed while passing these installations. And in the meantime, keep the motorcycle vertical, or otherwise it may slip.
- Cleaning the motorcycle will wet the brake shoe and lower the brake performance, check if the brake is in good state before riding.
- While driving the motorcycle, you must wear safety helmet, gloves, preventive trousers (please fasten any ruffle part and part around the ankle of the trousers so that the trousers will not flap) as well as clothes with bright color.
- Do not load too many things on the motorcycle, or it will affect the stability of the motorcycle. Please refer to section " Tire ". Things should be fixed at the luggage carrier with rope. Loose load will also affect the stability of the motorcycle, as well as distract your attention on road situation.
- Each time before riding your motorcycle, you need to check the performance related items, including: brake, steering, tire pressure, fuel, engine lubricating oil and rearview mirror, etc.

NAMES OF PARTS OF THE MOTORCYCLE

1. Taillight / rear stop lamp
2. Muffler
3. Main stand
4. Battery (fuse included)
5. Main switch (seat lock included)
6. Headlamp
7. Side stand
8. Front wheel
9. Front fender
10. Rearview mirror
11. Trunk
12. Seat
13. Fuel tank cap
14. Starting lever
15. Rear wheel
16. Gasoline pump



1



2



3



4



5



6



7



8



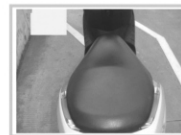
9



10



11



12



13



14



15



16

For vehicle color, style and equipment, refer to the real motorcycle.

MOTORCYCLE IDENTIFICATION

VIN number

VIN number is stenciled on the main beam tube at its right lower position and in the middle part of the frame.



Engine number

Engine number is stamped on the left lower part of the left crankcase.



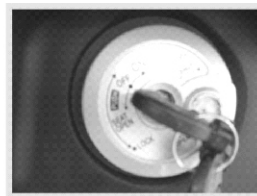
Note

Please learn by heart your engine number so when you are purchasing parts from a dealer, you can get the components for this type of motorcycle quickly.

FUNCTIONS OF THE CONTROLLERS

Main switch

The main switch controls the ignition and steering lock system. The operation method is the following .



- : The power is turned on and you can start the engine. When the switch is turned to this position, the key can not be pulled out.
- ⊗ : All the power supply is cut off. When the switch is turned to this position, the key can be pulled out.
- 🔒 : This position can lock the steering stem and cut off all power supply. When the switch is turned to this position, the key can be pulled out. For operation details, please refer to section "Steering lock" (Page 6).





Note

When not riding the motorcycle, turn the key to "⌂" or "⏏" position and pull out the key.

Indicator

1. Turn signal indicator

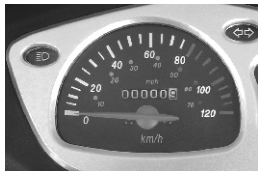
When the turn signal lamp switch functions, 2 this indicator flashes.

2. High beam indicator

When the motorcycle uses high beam lamp, this indicator is on.



Speedometer



Speedometer can display the riding speed of the motorcycle (in km/h or mile/h). It is equipped with a milemeter that may add up your riding mileage.

Oil capacity meter



Oil capacity meter can display the gasoline capacity inside the fuel tank. When gasoline capacity decreases, oil gauge pointer will move from "F" (FULL) position to "E" (EMPTY) position. Please timely refill the

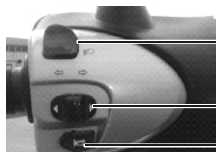
gasoline when the pointer moves to the red zone or "E" position.



Note

Refill the oil timely before the gasoline inside the fuel tank is used up. The pointer of gasoline capacity meter can give right indication "Q".

Handlebar switch



1. High and low beam switch ⇐ ⇨

2. Turn signal lamp switch ⇐ ⇨

3. Horn switch 📢

High and low beam switch

When using high beam, turn the switch to "⇨" position. When using low beam, turn the switch to "⇨" position.

Turn signal lamp switch

To send out right turn signal, push the switch to "⇒".
To send out left turn signal, push the switch to "⇐".
The button will automatically return to the central position when it is released. To turn off the turn signal light, push down the reset button in the middle after the switch returns to the central position, .

Horn switch:

Press this button and the horn will promptly send out sounds.

Lighting switch



When the lighting switch is on "●" position, all the illuminating lamps will be off. Shift the lighting switch to "☀" position, you can light up the headlamp, taillight, position lamp, and instrument light.

Electric starting switch

While switching on the main lock and holding the front brake or rear brake lever (the side stand is in back state), push the starting button and you can

start the engine only when the main switch is on "○" position.



Before starting the engine, please read the relevant instructions on start-up.

Rear brake lever



The rear brake lever is located at the left grip and when grasping the lever toward the grip, the braking is applied.



Try to lift up the end of the seat to confirm whether it is locked in. Before locking, confirm the seat key is not inside the trunk.

Front brake lever



The front brake lever is located at the right grip and when grasping the lever toward the grip, the braking is applied.

Steering lock



To lock the steering handle, make left rotation of motorcycle steering handle through to the end, and when the key is in "⌘" position, press the main switch and then turn counter clockwise directly to "⌘" position to lock the steering handle, and pull out the key. Turn the counter clockwise to "⌘" position and you can unlock the steering lock.

position to lock the steering handle, and pull out the key. Turn the counter clockwise to "⌘" position and you can unlock the steering lock.



Warning

When riding the motorcycle, never turn the key to "⌘" position.

Fuel tank cap

Open: Open the fuel tank protection cover and just turn the fuel tank cap counter clockwise.

Close: Join the bulge on the fuel tank cap with the groove on the fuel tank and just turn the cap clockwise.



Warning

Before riding motorcycle, make sure the fuel tank cap has

been properly installed and locked to its original place.

Starting lever



Screw out the starting lever towards the outer side of the engine. Tread the starting lever slightly with foot till the gear gets engaged and then start the engine by fast and forceful treading of the starting lever.



Notice

When using starting lever, use throttle grip to refuel slightly and this will help motorcycle starting.

Trunk

The trunk is located under the seat



When loading, never exceed the max. Load of 10.0 kg (22lbs).

Notice

- The trunk, when exposed under the sunshine, will easily get hot Do not place any flammable articles inside the trunk.
- Do not put any valuables or breakables things inside the trunk.
- The trunk will easily get wet in rainy days or during motorcycle cleaning.
- Articles liable to get damp should be well wrapped before placing into the trunk.
- Be sure to store an appropriate size of safety helmet into the trunk.
- When you leave your motorcycle, make sure not to leave the seat in open position.

Rearview mirror



Regulate the reflective glass of the mirror directly with hand, and adjust the viewing mirror angle .

Side stand

This motorcycle has equipped with a shutting off system for ignition return circuit. When the side stand is laid

down, you will not be able to start the motorcycle. And only when the side stand is retracted, can the engine be started. The side stand is at the left pedal position of the frame.

Warning

For taking into account of your safety, please timely spring up the side stand before riding, our company has set up a safety protection system for this motorcycle and the engine will not get started with the side stand in laid down state.

Please check carefully each of the following operating instruction steps. In case of any failures, you should send your motorcycle to the dealer from whom you purchased the motorcycle or to the appointed maintenance station for repair.

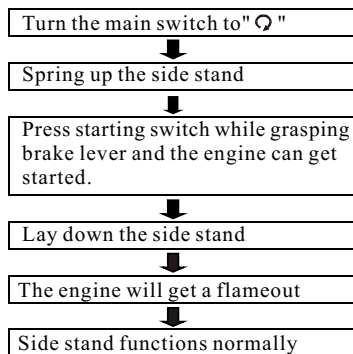
Check side stand switch holding function

Check the side stand switch for its motion state in accordance with the following methods.

Warning

For your safety, should any abnormal side stand motion is found, go to the dealer from whom you originally bought your motorcycle or the appointed maintenance station

for checkout. During this check out, use the main stand to support the vehicle body.



CHECK BEFORE RIDING

Before using your motorcycle, the following items should be checked:

Item	Checking contents
Front and rear brakes	Check the operation, status and free stroke. And adjust when necessary
Throttle grip	Check of motion. Adjust the free gap when necessary. Check of the operation state. Lubricate and adjust if necessary.
Engine oil	Check of oil level. Fill engine oil if necessary.

Wheels and tires	Tire pressure, wear and deflection status
Various wire cables	Check of the motion state. And lubricate when necessary
Brake handlebar pivot	Check of the motion state. And lubricate when necessary
Main stand and side stand shafts	Check of the motion state. And lubricate when necessary
Lock tightness	Check the tightness of linkages between various components of the frame. When necessary, make adjustment to the lock tightness
Fuel tank	Gasoline capacity. And refill when necessary
Lamps and signal lamps	Check of the working state. Make corrections when necessary
Storage battery	Check the voltage of the battery when necessary.



Checking before use should be carried out before you ride the motorcycle each time. You can complete all the above checks within a very short time, but the safety and value that will result from the checks are far worthy of the time you spend, therefore make sure to carry out all these checks before using of your motorcycle.



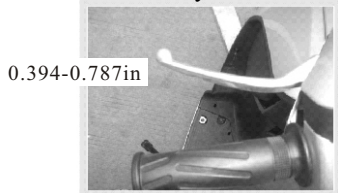
Should any of the above items is found nonconforming or can not work normally, make sure to have it repaired and corrected to normal conditions before you can ride

the motorcycle. Go to the original dealer from whom you purchased your motorcycle or the appointed maintenance station for assistance when necessary.

Front and rear brakes

1. Front and rear brake lever

Check whether the front and rear brake lever have proper free stroke and make adjustment when necessary. Before riding, carry out a checking and confirmation for brake performance while the motorcycle is running at low speed.



2. Check of brakes

When you feel that the front brake lever is unable to or can not stop the vehicle in operation, it indicates that there is a risk of insufficient braking force for your brake system and the brake system has got a failure. Be sure not to ride the motorcycle before removal of the failure. And go immediately to the dealer from whom the motorcycle was originally purchased or the appointed maintenance station for checking and repairing.

Check of brake fluid leakage

Make the front brake in motion for several minutes, and check the oil tube joint or main brake cylinder for any brake fluid leakage.



Brake fluid will damage the painting coat or the structure of the plastic parts and it also has corrosion to man's skin. In case of any splatters or sprays, clean at once with dry cloth or paper towel and wash with clean water; See a doctor at once if it is sprayed into the eyes.



If leakage of brake fluid is found, immediately go to the dealer from whom the motorcycle was originally purchased or to the appointed maintenance station for checking and repairing. Leakage of brake fluid means there is dangerous status in the brake system.

Throttle grip

Rotate the throttle grip to confirm if it is in normal operating state and check if the free stroke (0.079-0.236in) is correct. The throttle grip, if released, will return to its original position by force of spring. If the throttle grip needs any adjustment, it should be done by the dealer from whom the motorcycle was originally purchased or at the appointed maintenance station.



Warning

Be careful not to use too much force for this operation for fear of the throttle blocking and causing oversp-
eeding.

Engine oil

Engine oil volume should be kept in a standard position. You should add engine oil if the volume is below the standard position..

Recommend engine oil:
(refer to page 25)

Regular oil replacement amount: 1.0L



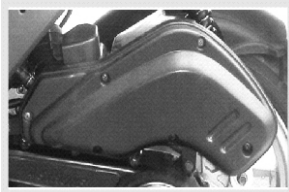
Limite superior Limite Inferior



Warning

Recommended oil grade: APISE, SF types or other same grades(suchas "SF-SE", "SF-SE-CC", "SF-SE-SD",etc.)

Air filter



Air filter can prevent dust entering into the engine. But if the air filter is not properly maintained, dust will still enter into the engine. So the air filter should be regularly cleaned For the



Notice

Regular Maintenance form, please refer to page 16.

In case you run your motorcycle in a dusty, muddy or damp environment, you should check or clean the air filter after you have rode your motorcycle each time.

Tires

The vehicle uses tubeless tires, and for ensuring optimum tire performance, lengthening used life and enabling safe operation, each of the following items should be carefully observed:

1. Tire pressure:

Make sure to check or adjust before riding.



Warning

Check and adjust the tire pressure only when the air temperature inside the tire is equal to outside air temperature. Tire pressure adjustment should be made according to the total weight of the loaded goods, rider and the components as well as the vehicle speed.

Pressure of a cold tire:

The rider only: front tire:150kPa rear tire:200kPa

The rider with one passenger, front tire: 175kPa rear tire: 225kPa



Warning

Motorcycle load has an absolute effect to various characteristics of the motorcycle itself, such as operation and control, braking, performance and even safety. Articles, if loaded, must be tightly tied and must not get loose. The heaviest objects should be packed and placed close to the motorcycle center with weight distributed evenly to the two sides of the motorcycle. Make proper adjustment to the damper in accordance with the load, and check tire state and tire pressure. In any case, never overload the motorcycle. Make sure that the total weight of the driver, passenger, fittings should not exceed the maximum load of the vehicle. Riding an overloaded motorcycle may cause tire damages, unexpected accidents, or even personal injury or death.

2. Check:

Driving a motorcycle with excessively serious tire attrition will decrease driving stability, and will cause loss of control. It is recommended to replace the tire when the front tire engraving depth has been decreased below 0.036in, and the rear tire, if its engraving depth has been decreased below 0.079in, should also be replaced with a new one.

Front wheel tire	Specifications	110/70-12 47J
Rear wheel tire	Specifications	120/70-12 56J
Limit of attrition (front and rear tires)		0.315in



Tire engravings



Tubeless tire



Tire wear mark "Δ"

Tubeless tire and cast rim

This motorcycle uses cast rim fit for both tube tire and tubeless tires, and tubeless tires are standard configuration.



Warning

Make sure not to attempt using tubeless tire onto a wheel felloe specially designed for tube tire. Otherwise tire may get damaged and cause personnel injury due to sudden air leaking of the tires.



Front rim



Warning

When using a tire with an inner tube, be sure that the

inner tube has been properly installed.

For ensuring optimum tire performance, lengthening used life and enabling safe operation, each of the following items should be carefully observed:

1. Before riding your motorcycle, check if the tire is with crackles, folding or warping. If any abnormality has been found with the tires, go to the dealer from whom the motorcycle was originally purchased or to the appointed maintenance station for checking. Do not check or repair the tires yourself. If the tires are found warped or cracked, replace them with the new ones.
2. After replacing the tire, ride your motorcycle carefully so as to allow the tire to match the wheel rim completely. The tire matching, if it is not fully done, will probably affect the tire pressure and make the driver unable to control.
3. Please have replaced your tires by professional maintenance man.

Check if each component has been tightened.

Check if the components of the motorcycle at each location have been securely tightened before riding the motorcycle. Refer to page 14 for tightening torque.

Lamps and signal lamps

Check the headlamp, turn signal lamps, taillight, position lamp, stop lamp and all other indicators for their motion operation.

Switches

Check the operation of headlamp, turn signal lamps, stop lamp, taillight, position light, horn, starting motor and master lock switch, etc..

Gasoline

Make sure that the fuel tank has adequate gasoline before riding the motorcycle.

Make sure not to make gasoline overflow from the fuel tank. Prevent gasoline from splashing and spattering onto the engine with high temperature. When filling gasoline, filling level should not exceed the bottom of the filling mouth, or otherwise the gasoline will get bloating at warm temperature and cause gasoline overflow. This model of motorcycle uses #90 or above lead-free gasoline and total capacity of the gasoline tank is 6.5 L

MAIN POINTS FOR MOTORCYCLE USING AND RIDING



Before riding this motorcycle, make sure that you are fully familiar with each of the operation controls and functions of the motorcycle. Should there be any item that you do not fully understand, contact your dealer from whom the motorcycle was originally purchased or the appointed maintenance station.

- Never start your engine at any enclosed places, as the exhaust gas of the motorcycle discharges has toxicity and will make you lose consciousness and even cause death. Therefore, make sure to operate your motorcycle at a well-ventilated place.
- Make sure that you have retracted the side stand before riding, or you will not be able to start your vehicle.

Engine starting and pre-warming

1. Turn the main switch to "Q".
2. While grasping the front brake or rear brake lever, hold the throttle grip for a little wide opening of the throttle (1/8 throttle travel or 1/4 throttle travel), press starting switch or tread the starting lever to start the engine.



- Before starting the engine, make sure that the side

stand has been back to its up position.

In case of a failure to start the engine, release the starting switch, and try again after a few seconds. The time for starting the engine should not exceed 5 seconds every time when you start the engine so as to avoid large consumption of battery power. In case of a failure to start the engine with the starting switch, start the engine by starting lever instead.

- If the engine can not be started even when the starting button has been pressed 4-5 times, turn the throttle rotate handle with a 1/8, 1/4 throttle travel and then press the starting button again.

Engine pre-warming

In order to extend the engine's used life, pre-warm the engine for 1-3 minutes before riding your motorcycle, but never try swift acceleration in a cold engine state.

Starting of the motorcycle

After the engine pre-warming:

1. Hold the rear holder of the motorcycle by right hand and push the motorcycle forward to make the main stand spring up.
2. Before starting the motorcycle, check the rearview mirror angle and make sure you can see clearly the road surface condition at your back.
3. Pay attention to the traffic status for coming and going

vehicles, and switch on the turn signal lamp before getting going.

4. Turn slowly the throttle grip and make the motorcycle start. After making the starting, turn off the turn signal lamp.



Before first operating of a new motorcycle, please read the instructions in section "Running-in of the Engine" (page 14).

Acceleration

Turn the throttle grip to adjust the running speed. When turning the throttle grip towards yourself you can increase the speed, and when turning in the reverse direction, you will lower the speed.

Braking

1. Release the throttle grip.
 2. Apply force slightly to the front and rear brake and then slowly increase the applied brake pressure.
- Avoid any urgent or sudden braking, otherwise it will make the motorcycle slide or overturn
 - Carefully apply force to the brake so as to prevent any motorcycle direction deviation, improper braking will cause motorcycle sideslip.
 - Train rails, iron plates used for road construction and manhole covers are especially slippery when they

are wet, therefore drive with special care while passing these locations.

- Braking on a wet road surface will lead to a very poor braking effect and braking distance will be lengthened, it is very danger.
- It will be also dangerous if braking is made on a road surface with a slope. Slowly apply braking force to the brake while running on a downward slope.

Engine running-in

Nothing is more important than the 0~1000 kilometers for a new motorcycle at any of its operational stages. Based on this reason, we recommend you to read carefully the information below. As the engine is new, you must be able to avoid any overload of the engine in initial 1000 kilometers driving. Each of the components inside the engine needs an interactive running-in for a certain length of running time. Therefore, in this period, try to avoid any full throttle valve operation for a long time or any occurrence of the conditions that will cause overheating of the engine.

1. 0-150 kilometers prevent the engine from continuous running with the throttle grip turned above 1/3 throttle travel. Each time when the engine has run for 1 hour, stop the engine and allow it to cool for 5 to 10 minutes and drive your motorcycle with frequent change of speed.

2. 150-500 kilometers prevent the engine from running for a long time with the throttle grip turned above 1/2 throttle travel. Run your motorcycle at various speeds but do not use full throttle valve operation at anytime.

3. 500-1000 kilometers

Prevent the engine from running for a long time with the throttle grip turned above 3/4 throttle travel .

4. Above 1000 kilometers

Avoid full throttle valve operation of the engine for a long period of time but change the speed occasionally.



Change the engine oil, air filter element and gear oil after 500 kilometers running.

In case any problems occur with the engine in running-in period, contact with the dealer from whom the motorcycle was originally purchased or with the appointed maintenance station.

PARKING



When parking your motorcycle, shut down the engine and take out the key. Park your motorcycle at the place where kids and pedestrians can not touch the muffler and the exhaust pipe as they are very hot. Do not park your motorcycle at a slope in order to avoid overturning

of the motorcycle.

REGULAR MAINTENANCE

Regular inspection, adjustment and lubrication will keep your scooter to a maximum safe and efficient state at all times. "Safety" is the idea that every user should hold and keep in mind all the times. The Regular Maintenance and lubrication Sheet should be regarded seriously as the guide to maintenance and lubrication. While conducting maintenance and lubrication to the motorcycle, consideration should be given to the geographic environment at the time of using and purpose of the user, so as to reach the final target for maintenance.



The important items relating to motorcycle check-up, adjustment and lubrication will be described in the following pages.



In case you are not familiar with the checking and repairing work of the motorcycle, take your motorcycle to the dealer from whom the motorcycle was originally purchased or the appointed maintenance station for checking and repairing.

Driver's tool

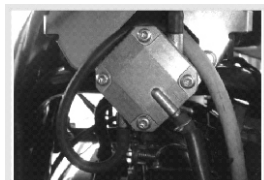
In this User's Manual, some information has been provided for you to perform maintenance and simple repairing work. And driver's tool provided with the vehicle has offered you most of the tools that are required for regular maintenance. However, other tools such as torque spanners and so forth will be required when you performing correctly some of the maintenance work.



When you perform maintenance and repair work for your motorcycle but you don't have the required tools, send your motorcycle to the dealer from whom the motorcycle was originally purchased or the appointed maintenance station for checking and repairing.

Check of gasoline pump

Remove the front central cover for check of the oil pump and confirm if any oil leakage, loose of air pipe/fuel tube at joints are found .



Gasoline pump

Regular Maintenance /Lubrication Form

Item	Checking contents	The initial 1000 km or one month	3000 km or three months	Every 3000 km or three months-later on
Valve clearance	Check and set the valve clearance to the specified value when the motorcycle is in cold state.	○		○
Spark plug	Check the state, adjust the clearance, make cleaning and replace it if necessary.		○	○
Air filter	Make cleaning. Replace it if necessary		○	○
Carburetor	Check the engine idling speed/ starting conditions. And adjust it when necessary	○	○	○
Fuel system	Check the fuel tube if it is with crackle or blocked, replace it if necessary			○
Engine oil	Change regularly	The initial 500km	○	○
Engine oil drain bolt (at side)	Draining of the waste oil	○	○	○
Engine oil filter screen (bottom side)	Clean or replace if necessary	○	○	○
Gear oil	Change regularly	The initial 500km	Every 600 km later on	
V belt	Damage and attrition check, replace it if necessary		○	○
Front brake	Check the motion and oil tube for any oil leakage. Make corrections when necessary			○
Front and rear brakes	Check of motion state, and adjust it if necessary		○	○
Rear arm pivot	Check of the tightness. Make corrections when necessary		○	○
Wheels	Check of balance, extent of damage and out of round replace it if necessary		○	○
Wheel bearings	Check of the assembly and looseness, replace it if necessary		○	○
Direction pole bearing	Check the tightness and adjust it when necessary	○	○	○
Front fork	Check the motion for oil leakage and repair it if necessary		○	○
Rear shock absorber	Check the motion state for oil leakage. Replace it if necessary		○	○
Main stand and side stand	Check the service functions, replace it if necessary	○	○	○

Tightness of components	Check if each of the components of the motorcycle is tightly secured, make adjustments if necessary	○	○	○
battery	Check if the voltage is above 12.8 V, and if the tester pointer is pointing to the green zone. Charge the battery if necessary		○	○

Some procedures must be checked by the dealer from whom the motorcycle was originally purchased or the appointed maintenance station.



Engine oil of the motorcycle should be replaced after riding of initial 500 km or after one month so as to ensure the smooth running of the engine. And this replacement should be done preferably by the dealer from whom the motorcycle was originally purchased or the appointed maintenance station.



- Replacement of brake fluid: refer to page 25.
- When disassembling the brake master cylinder or caliper, the brake fluid should be replaced at the same time. And in addition brake fluid level should be checked frequently and refilled when necessary.
- Oil seal of the master cylinder or caliper should be replaced roughly once every 2 years.
- Brake oil tube should be replaced roughly once every 4 years.
- And in this period instant replacement should be made

in case of damage.

- Please send to the dealer from whom the motorcycle was originally purchased or appointed maintenance station for replacement.

Torque specifications

Use torque spanners to lock these items tightly. And these items should be frequently checked, especially when having a long distance of riding, and when these items are getting loose due to some reasons, instant check-up should be made to these items.

A (nut)	B (bolt)	General torque specifications N·m (Lb·Ft)
10mm(0.394in)	6 mm(0.236in)	6(4.416)
12 mm(0.472in)	8 mm(0.315in)	15(11.04)
14 mm(0.551in)	10 mm(0.394in)	30(22.08)
17 mm(0.67in)	12 mm(0.472in)	55(40.48)
19 mm(0.748)	14 mm(0.551in)	82(60.35)
22 mm(0.866in)	16 mm(0.63in)	130(95.68)

Items	Torque N·m (Lb·Ft)
Spark plug	17(12.51)
Engine oil drain bolt	23(16.93)
Engine oil filter screen lid	32(23.55)
Gear oil drain bolt	23(16.93)

Engine oil

1. Check of oil amount:

a). Hold the motorcycle with the main stand.



When checking the oil amount, always keep the motorcycle at vertical direction. You will not be able to read the oil amount correctly with a leaning motorcycle body.



Before checking, wait for several minutes until the oil level is stable.

b). The engine oil amount should be at the position between the upper-limit mark and lower-limit mark. When oil amount is below the lower limit, fill engine oil until it reaches the upper limit.



1. Upper limit 2. Lower Limit



Engine oil filler cap

2. Replacement of engine oil

a). After several minutes of pre-warming, shut down the engine. Place an oil holder under the engine and

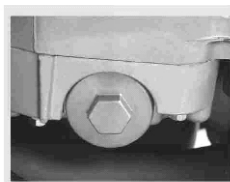
remove the engine oil filler cap.

b). Remove the engine oil drain bolt.

c). Disassemble the oil filter screen lid to clean the filter screen.



Oil drain bolt



Tapa de Filtro de Aceite de Motor



Filtro de Aceite



Resorte



O-ring

D). Clean the oil filter screen and replace it if it is damaged.



When the oil filter screen lid is disassembled, the O-ring, spring and filter screen will drop off at the same time, so please be careful not to lose these parts.

e). Check the O- ring, and replace it if it is damaged.

f). Remove the oil drain bolt and check the gasket.

g). Reassemble the oil drain bolt and engine oil filter screen lid (be sure it is firmly locked)



Torque for oil drain bolt: 23N·m(16.93Lb·Ft)

Torque for engine oil filter screen lid lock: 32N·m (23.55Lb·Ft).

H). Hold up the motorcycle horizontally. Fill in engine oil through the oil filler until oil level reaches the upper -limit position of the dipstick.

Oil amount: Change at regular intervals : 1.0L



Recommended oil grade: API SE, SF type or other same grades (such as " SF-SE ", " SF-SE-CC ", " SF -SE-SD " etc.)

Never add any chemical additives. Chemical additives will damage engine components.

Do not let any foreign substances enter into the crankcase.

i). Install the engine oil filler lid and lock it securely.

J). Start the engine and pre-warm for several minutes.

Check for any engine oil leakage in course of pre-warming.

If any leakage is found, shut down the engine immediately and check for the cause.



Do not start the engine before engine oil filler lid (oil scale) is placed and securely locked.

Replacement of gear oil

Do not let any foreign substances enter into the crankcase.

And gear oil should be protected from adhering to tires.

1. Put an oil holder under the crankcase.

2. Remove the gear oil filler lid and oil drain bolt for draining the gear oil.



Gear oil filler cap



Gear oil drain bolt

3. Replace and lock the crankcase oil drain bolt.
Torque for gear oil drain bolt: 23 N·m(16.93Lb·Ft)

4. Add gear oil

Gear oil capacity: 130mL

Recommend gear oil: SAE 85W/140 or API GL-4 gear oil



GL-4 is a quality and auxiliary parameter. "GL-5" gear oil can also be used for replacement.

5. Replace the gear oil filler lid.

6. After change of gear oil, check for any oil leakage.

Air filter

Air filter element should be cleaned regularly. If the motorcycle is used frequently in extremely damp or dusty places, cleaning work should be carried out more frequently.

1. Remove the air filter cover.

2. Take out the filter element assembly and then use compressed air to clean it, or simply replace it.



Air filter cover



Ensure that filter element has been properly installed on the air filter. Do not run the engine before the filter element is mounted for fear of suction of any silts, causing heavy wear to the piston and cylinder.



Filter element holder



Filter element

Maintenance for the air filter

1. Remove the filter element holder and filter element.
2. Clean the dust on the filter element with compressed air, or replace the filter element.



Never twist and fold the filter element, or it will get damaged.

Ensure that the filter element is properly mounted on the filter element holder

Adjustment of carburetor

Carburetor is an important part that affects engine performance, which requires extremely precise adjustment. Therefore, most of the adjusting work should be carried out

by those dealers who possess professional knowledge and experience. But the following adjustments can be carried out when you are doing routine maintenance.



The carburetor has been adjusted and set accurately by our company after several tests. Change to these settings will cause poor performance or damage to the engine.

Adjustment of idling speed

1. Start the engine and pre-warming the engine at the speed of 1000 to 2000r/min for several minutes (normally 1 or 2 minutes). Occasionally you can raise the speed to 4000 to 5000r/min . When engine speed gives a quick response to the throttle grip, it means that the engine has got the required pre-warming.
2. Adjust the idling speed regulating screw to set the idling speed. Screw in the regulating screw, the engine speed is raised, and screw out the regulating screw, the engine speed is reduced.



Idling speed regulating screw
Standard idling speed: See page 29 (specification)

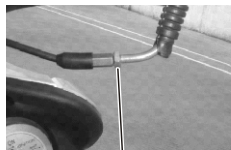


If the engine's idle speed cannot be adjusted to the value within the standard specifications, go to the dealer from whom the motorcycle was originally purchased or to the appointed maintenance station for checking.

Adjustment of the throttle rotate handle



Before adjusting the free travel for the throttle grip, adjust the engine idling speed first. Turn the regulator to adjust the filling wire cable so that the throttle grip can obtain the proper free gap. Free gap: 2-6mm(0.079-0.236in)

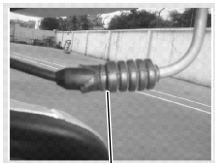


Fixing nut



Regulator

1. Pull out the gum cover of the regulator.
2. Loosen the fixing nut.
3. Screw in or screw out the regulator till the free travel meets the specification.
4. Lock the fixing nut.
5. Replace the gum cover of the regulator.



Gum cover of the regulator

Adjustment of valve clearance

After a certain period of use, the valve clearance will get larger, and this will cause the poor supply of the mixed gas and noises of the engine. Valve clearance must be adjusted regularly in order to prevent occurrence of this situation. The adjustment work should be performed by the dealer from whom the motorcycle was purchased or by the appointed maintenance station.

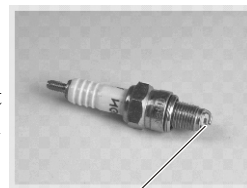
Inspection of spark plug

Spark plug is a very important part of the engine and easy for checking. You can judge the engine running state through ceramic magnet and electrode of the spark plug. Under normal service state, the white ceramic magnet portion around the central electrode of the spark plug should have the same color. Generally speaking, for a normal running motorcycle, this portion should

be of maple color. In case the color and luster of the spark plug has much difference, it means that the problem exists with the combustion state. Do not try to solve this problem by yourself but have it checked by the dealer from whom the motorcycle was purchased or at the appointed maintenance station. You must conduct periodical checks of the spark plug. Because heat and deposit will slowly lower the spark plug functions and cause corrosion. In case the spark plug has got serious corrosion or excessive carbon deposition and other deposits, it should be replaced immediately with a proper one.

Standard spark plug: P-RZ9HC(champion)/C7HSA (NGK)

Before installation of a spark plug, use a feeler gauge to measure the spark plug clearance. Adjust the clearance if it doesn't conform to the specifications. Spark plug clearance: **0.6-0.8mm(0.236-0.315in)** Before installation of the spark plug, clean off the oil stain on the screw thread of the spark plug. While locking the spark plug, tighten it with the specified torque force.



Spark plug clearance

Spark plug locking torque force: 17N·m(12.51Lb·Ft)

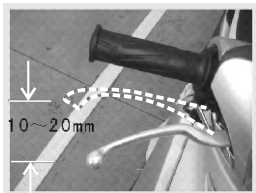


Note

You may use your hand to screw in 1/2 of the spark plug first. Then tighten the spark plug with a torque spanner to the above torque force.

Free travel of front brake

Free travel of front brake handlebar is 10-20mm (0.394-0.787in).



Adjustment of rear brake

Free travel of rear brake handlebar should be regulated to 10-20mm(0.394-0.787in). While adjusting, rotate the regulator clockwise for reducing the brake handlebar free travel; And rotate the regulator counterclockwise for increase the handlebar free travel.



Warning

If the brake cannot be adjusted, go to the dealer from whom the motorcycle was originally purchased or to the appointed maintenance station for checking and repairing.



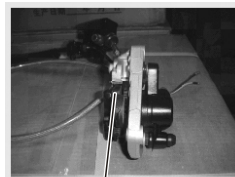
10~20mm



Regulator

Front brake

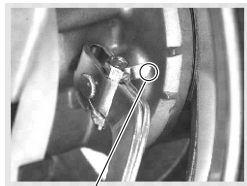
It is required to check the wear condition of the brake block for the brake. If the brake block is worn to its limit line, go to the dealer from whom the motorcycle was originally purchased or to the appointed maintenance station for replacement of the brake block.



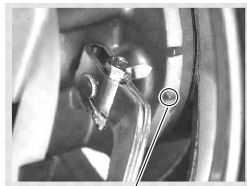
Attrition limit line

Rear brake

It is required to check the wear indicator condition of the brake shoe for the rear brake. If the wear indicator points to the attrition limit line, go to the dealer from whom the motorcycle was originally purchased or to the appointed maintenance station for replacement of the brake shoe.



Wear indicator



Attrition limit line

Inspection of brake fluid amount

When brake fluid is not enough, air will enter into the brake system, which will cause failure of the brake. Before riding the motorcycle, check the amount of brake fluid first and fill brake fluid if it is not enough. Please pay attention to the following points when checking and refilling brake fluid:

1. When checking brake fluid amount, rotate the hand-lebar to make the upper end of the main brake cylinder keep at a horizontal level.
2. Only refill the specified brake fluid, or it will damage the rubber oil seal, which will cause leakage of brake fluid and poor performance of the brake.

Recommended brake fluid: DOT3#



If no DOT#3 is available for use, DOT#4 can be used

instead.

3. Use the same type of brake fluid for refilling. Mixed brake fluid will generate chemical reaction, which will cause poor braking performance.
4. When refilling brake fluid, never let any water enter into the main brake cylinder, because water will lower the boiling point of brake fluid and thus cause air resistance of the brake system.
5. Brake fluid may corrode painted surface or plastic parts. If brake fluid is splashed or sprayed, it must be cleaned out timely and we recommend you replace it by professionals.
6. When the brake fluid amount is reduced, go to the dealer from whom the motorcycle was originally purchased or appointed maintenance station for checking of the reason.



Brake fluid amount limit line

Replacement of brake fluid

1. Replacement of brake fluid should be carried out by the original dealer who has received professional training or the appointed maintenance station.
2. At the time when the regular maintenance should be performed or damage or leakage is found with the brake fluid, please go to the dealer from whom the motorcycle was originally purchased or the appointed maintenance station for replacement of the following components:
 - a). All the rubber oil seals that should be replaced every 2 years.
 - b). All the brake oil tubes that should be replaced every 4 years.

CHECKING AND LUBRICATING OF THE CABLE



Damaged cable surface will cause rust to the cable and affect its braking performance. Replace the damaged cable as soon as possible to avoid danger occurrence. Lubricate the internal and end parts of the cable. In case the cable can not offer a smooth braking, go to the dealer from whom the motorcycle was originally purchased or the appointed maintenance station for replacement.

Recommended lubricant oil: oil dedicated for chain and cable or SAE 10W30 type engine oil

LUBRICATION OF THROTTLE VALVE CABLE AND GRIP

When lubricating cable, apply grease to throttle grip and its joint with the cable at the same time. When lubricating, disassemble the fixing screw of the fueling cable and take out the cable head. Life it up and fill in lubricant. While assembling the throttle grip, apply grease to the metal surface for rust prevention.

LUBRICATION OF BRAKE LEVER

Lubricate each pivot location.

Recommended lubricant oil: oil dedicated for chain and cable or SAE 10W30 type engine oil

LUBRICATION MAIN STAND AND SIDE STAND

Lubricate each pivot location. Check if the side stand can be freely laid down and sprung up.

Recommended lubricant oil: oil dedicated for chain and cable or SAE 10W30 type engine oil.



If side stand can not give a free motion, go to the dealer from whom the motorcycle was originally purchased or the appointed maintenance station for checking.

Check of front fork



When checking, make sure that the motorcycle is kept at a steady position so as to avoid occurrence of turnover.

1. Visual inspection:

Check if the surface of the stem of the front fork is with scratches, damages or oil leakage.

2. Motion inspection:

Place the motorcycle at a level place.

a). Hold the motorcycle handlebar with hand and make the motorcycle keep in an upright position, hold the front brake lever with the right hand to apply braking force to the front brake.

b). Make pressurization for several times to check the motion of the front fork, and observe if there is any gap that makes its turning not flexible and etc.



If there is any damage or poor motion of the front fork, go to the dealer from whom the motorcycle was originally purchased or to the appointed maintenance station for checking and repairing.

Check of steering stem

Check the status of the steering stem regularly. Worn or loose steering stem bearing will cause the occurrence of

danger. Place an appropriate support at the bottom of the engine to lift off the front wheel. If there is a loose feeling when you hold the bottom of the front fork and shake frontward and rearward, go to the dealer from whom the motorcycle was originally purchased or to the appointed maintenance station for checking and adjusting the steering stem. Disassembling the front wheel will make the checking much easier.



When checking, make sure the motorcycle is kept at a steady position so as to avoid the occurrence of turnover.

Wheel bearing

If any looseness is found with the bearing inside the front wheel hub, or the wheel tire does not rotate evenly, go to the dealer from whom the motorcycle was originally purchased or the appointed maintenance station for checking the bearing motion. The front wheel bearing should be checked periodically as per the Regular Maintenance Sheet.

Battery

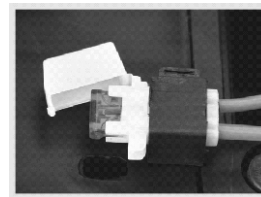
This motorcycle adopts maintenance-free battery, so it's not necessary to check battery liquid or add distilled water. If the battery has no power, please contact with the dealer from whom the motorcycle was originally purchased or with the appointed maintenance station.

⚠ Notice

Never try to disassemble each of the small caps on the battery, or it will damage the battery.

⚠ Warning

Battery liquid is a kind of noxious and hazardous substance, which contains sulphuric acid content, so please avoid its touch with skin, eyes or clothes. Extrication method: When it touches the skin, use large amount of water to wash the skin. When drinking it by mistake, drink large amount of boiled water or milk immediately, and then take milk of magnesia, broken raw egg or vegetable oil, and go to see a doctor immediately for treatment. When it touches with your eyes, wash them with large amount of clear water for 15 minutes and go to see an oculist immediately for treatment. Battery will generate explosive gas, so when using battery, keep it far away from spark, fire source or lighted cigarette etc. The charging and using of battery should be carried out in places with good ventilation. When disposing battery, wear goggles. In any case, never let a child get close to the battery.



Battery

Replacement of strip fuse

Fuse block is located on the fixed seat outside the battery box (inside the big front board).

If the fuse is blown out, turn off the ignition switch and the return circuit switch relevant to the malfunction. Install a new fuse with the same specification. Turn on the switch to check if electric appliances work normally. If the fuse is blown out again instantly, go to the dealer from whom the motorcycle was originally purchased or to the appointed maintenance station for checking. fuse specification: 12V 15A



Do not use the fuse with specifications higher than the standard. Use of the fuse that does not meet the standard specification will cause damage to the electrical system or even a fire.

Headlamp

If aiming of the headlamp beam or replacement of the headlamp bulb is required, go to the dealer from whom the motorcycle was originally purchased or to the appointed maintenance station for aiming and replacement.

Cleaning and maintenance

A. Cleaning

Frequent and thorough cleaning of your motorcycle will not only make the appearance more beautiful, but also bring the best performance to its components and lengthen the used life.

1. Before cleaning of the motorcycle:

- a). Plug up the muffler outlet for avoid water from entering. Or wrap it with a plastic bag and plastic rope.
- b). Make sure that the spark plug and all the filler caps have been locked and well secured.

2. Clean the engine with a brush if it is very dirty. But be careful not to remove the lubricating oil at the pivot location.

3. Use relatively small water pipe to clean and wash with water pressure.



Too high water pressure will wash off the lubricant on various parts of the motorcycle, and water will leak into the wheel bearing, which will cause damage to parts. Many expensive repair costs come from improper high pressure washing manner.

4. Wash off plenty of dust with water first, and then use warm water with detergent to wash the exterior. Use brush to clean those places that are not easy to clean.

5. After finishing washing with clear water, dry the motorcycle immediately.

6. Use neutral detergents to clean and wipe the seat, and etc. After wiping, use clear water for cleaning.

7. Automobile dedicated wax can be applied on those materials with coating and chrome plating. But never use compound wax, since it contains abrasive, which will damage its structure. After cleaning is finished, start up the engine and run it at idling speed for several minutes.

B. Storage

If the motorcycle is stored or not in use for more than 60 days, clean the motorcycle first, and follow the steps below to avoid any damage that may be possibly caused to the

motorcycle.

1. Drain the oil stored in gasoline tank, fuel tube and carburetor.
2. Take off the empty fuel tank and pour in a cup of SAE10W30 or SAE20W40 engine oil. Shake from left to right, and right to left to spread a layer of oil inside the fuel tank. Then pour out the engine oil from the fuel tank and reinstall the fuel tank.
3. Remove the spark plug, and pour a spoonful of SAE 10W30 or SAE 20W40 engine oil into the cylinder. Install the spark plug, tread the engine starting lever for several times (connect the high voltage wire of the spark-plug) and allow the engine lubricating oil to be uniformly distributed on the cylinder wall .



When using starting motor to start the engine, disassemble the high-voltage wires and earth them so as to avoid the generation of spark.

4. Lubricate all control cables.
5. Use proper support to prop up the front and rear wheel. Then make sure that the motorcycle is in a steady position.
6. Seal the opening of the muffler with plastic bag to prevent water from entering in.

7. Apply a coat of antirust oil on all metal surfaces if it is stored in a place with high moisture and salt content. But be careful not to allow the rubber parts or seat of the motorcycle to touch the oil.
8. Take out the battery for charging, and store it in a dry place. Charge it at least once every month, and do not store it in hot (higher than 86 °F) or cold (lower than 32 °F) place.



Do all care and maintenance work properly prior to storing the motorcycle.

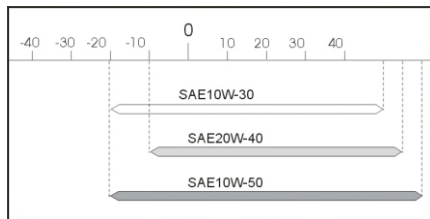
SPECIFICATIONS

Model	AC150
Overall length	72.61in
Overall width	26.22in
Overall height	44.17in
Distance between axles	50.79in
Min. ground clearance	51.12in
Max. vehicle speed	85km/h
Min. fuel consumption	≤ 2.8L/100km
Min. turning diameter	141.73in

Total weight (when the engine oil and gasoline tanks are full) 251.32Lbs	
Engine type	Single cylinder forced air-cooled four strokes
Cylinder arrangement	Single cylinder
Total working capacity of cylinder	150mL
Cylinder diameter × stroke	2.264*2.276in
Compression ratio	10.3:1
Nominal power / relevant rotation speed [kw/(r/min)]	5.6/7000
Max. Torque/relevant rotation speed [N.m(r/min)]	10.48/5500
Idle rotation speed(r/min)	1700±100
Starting mode	Electric /tread starting two way
Lubrication method	Pressure and splash lubrication
Engine oil (four-stroke engine oil)	
Lubricant number	See attached drawing 1
Capacity of periodic oil replacement	1000mL
Gear oil:	SAE85W/140
Lubricating oil	SAE10W-30
Capacity of periodic oil replacement	110mL
Total capacity	1110mL

Air filter type	Paper quality dry type filter element
Fuel:	90#and above gasoline
Fuel oil trade mark	6.5±0.5L
Fuel-tank capacity	
Carburetor:	
Type / model	PD24J
Spark plug:	P-RZ9HC
Clearance (mm)	0.6~0.8mm(0.236-0.315in)
Clutch type:	Dry type, internal expanding and weight type
Transmission:	
Primary stage transmission ratio	2.8
Final stage transmission ratio	3.08
Continuous transmission ratio	0.860-2.577
Transmission type	Automatic
Tire:	
Type	Tubdless type
Specification	Front 110/70-12 47J
Rear	120/70-12 56J
Brake:	
Front brake type	Disc brake
Operation mode	Operation by right hand
Rear brake type	Drum type brake
Operation mode	Operation by left hand

Shock absorber Front Rear	Hydraulic pressure and adjustable Hydraulic pressure spring type
Electric fitting: Ignition system Generator type Storage battery type / model Capacity of storage battery Fuse specification	CDI ACG flywheel, PM AC Drycharge type YTX7A-BS (Maintenance free) 12V 6Ah 12V 15A
Headlamp type Bulb Headlamp Front turn signal lamp Rear turn signal lamp Taillight	Semi-sealed 12V 60W/55W (H4) 12V 10W (R10W) 12V 10W 12V 21W/5W
Instrument indicator Turn signal indicator High beam indicator	12V 1.7W×3 12V 1.7W 12V 1.7W



USE OF ENGINE OIL

Use of engine oil from original factory is the essential for lengthening engine life

Is your motorcycle healthy? It is closely related to the quality of the oil used.

Engine oil from original factory

Engine oil from original factory is a product developed according to the design characteristics of engine. It plays a vital role in such performances as lubrication, power etc. for the engine. Recommended engine oil:

Engine oil recommended by original factory

Gear oil: Gear oil from original factory

Dealers for engine oil from original factory have them available for selling

Oils replacement records, oils replacement date, traveled distance recording sheet.

Change times	Exchange date	Traveled kilometers	Engine oil
1	M D Y		
2	M D Y		
3	M D Y		
4	M D Y		
5	M D Y		
6	M D Y		
7	M D Y		

8	M D Y		
9	M D Y		
10	M D Y		
Remark:			

MAINTENANCE RECORDS

After completion of the normative maintenance, record the date, odometer readings, name of maintenance man in the provided columns. The additional information "Owner check and maintenance" and "Constant maintenance" can be added to the below recording sheet.

Maintenance records			
Date	Odometer reading	Name of maintenance man	Items maintained
Remark:			

SCHEMATIC CIRCUIT DIAGRAM

