



The manual of T-Leopard 300

Please study this manual carefully before using the motorcycle at your frist time.

FOREWORD

Thank you for choosing our company T-Leopard 300 motorcycle. To ensure you a pleasure and safe riding, please be sure to read this manual carefully before formal operation.

This manual summarized the method of how to use and maintain the model correctly. If you can follow the rules and guidelines of the manual strictly, then your motorcycle could be durable and keep in good condition. The after-sales staff who received specialized training from qualified distribution unit has accumulated rich experience; they will provide you excellent after-sales service with sincere and warm attitude and complete tool equipment.

All the date、 pictures and specifications are of the latest products when this manual published. Due to the continuous improvement and other changes of products, there maybe some discrepancies with the actual condition. We reserve the right to appropriate changes at any time.

CONTENT

I 、 NOTICE OF USER	1
II 、 THE INSTALLATION OF SPARE PARTS	4
III、 CONTROL PART	7
IV、 FUEL AND ENGINE OIL RECOMMENDATION	17
V 、 MOTORCYCLE RUNNING-IN	19
VI、 INSPECTION BEFORE RIDING	21
VII、 RIDING TIPS	23
VIII、 INSPECTION AND MAINTENANCE	27
IX、 TROUBLESHOOTING	51
X 、 CLEANING AND MAINTENANCE	57
XI、 TECHNICAL SPECIFICATION	59

I 、 NOTICE OF USER

Safety instruction for driver's operation

Motorcycle riding is of great fun and an exciting sport. Motorcycle riding also requires that some extra precautions be taken to ensure a safe riding, you must obey the traffic rules and the following provisions.

Wear safety helmet

Safe riding starts from wearing a safety helmet. This is an important factor of driving motorcycle. You must wear helmet that meets safety standard when driving motorcycle.

Riding apparel

Loose, fancy clothing can be uncomfortable and unsafe when riding your motorcycle choose good quality motorcycle riding apparel when riding your motorcycle.

Inspection before riding

Please read all the instructions in INSPECTION BEFORE RIDING. In accordance with the driving provisions will assure a safety riding for you and passenger.

Be familiar with your motorcycle structure

Your riding skill and your mechanical knowledge is the foundation for safe riding practices. We suggest that you practice riding your motorcycle in a non-traffic situation until you are thoroughly familiar with your machine and its controls. Remember practice makes perfect.

Don't refitting

Without manufacturer's approve, any refit of this model(e.g. adding the third tire) can lead to unpredictable risk. To refit the model optionally or remove the original device can not guarantee the safety of driving and it is illegal. User must comply with the using rules of vehicles from the traffic administrative department.

Please write down the numbers blow for your future reference.

Frame number(VIN number)

Engine number

About information of security

Read and observe this Manual carefully. These terms such as “Warning”, “Caution” and “Notice” are used to emphasize intensity of precaution. Please study and understand their meanings thoroughly.

“Warning”

For warning information, in order to protect you and other people’s safety as well as avoid damaging your motorcycle, this precaution must be read.

“Caution”

It is notice information; In order to extend service life of your motorcycle and exert its performance well, please carry out according to notice information.

“Notice”

It can help you to use your motorcycle in best of all condition based on its useful information.

II 、 THE INSTALLATION OF SPARE PARTS



① Clutch lever

② Left handlebar switch

③ Meter

④ Ignition switch

⑤ Front brake lever

⑥ Throttle grip

⑦ Right handlebar switch

⑧ Fuel tank lock

- ⑨ Seat
- ⑩ Side cover
- ⑪ Turning lights
- ⑫ Front disc brake
- ⑬ In-take tube
- ⑭ Rear brake pedal
- ⑮ Muffler
- ⑯ Rear brake panel





- ①7 Front light
- ①8 Rearview mirror
- ①9 Fuel tank
- ②0 Seat lock
- ②1 Rear sprocket
- ②2 Side stand
- ②3 Center stand
- ②4 Gearshift lever

III、CONTROL PART

KEY

This motorcycle is equipped with two keys and please put one of them in the safe place as the spare key.



IGNITION SWITCH



The ignition switch has three positions:

“  ” (OFF) POSITION

The ignition circuit is on state of turning off and the engine can't be started now, the key can removed from the ignition switch in this position.

“  ” (ON) POSITION

The ignition circuit is connected and the engine can be started. The key can not be removed from the ignition switch in this position.

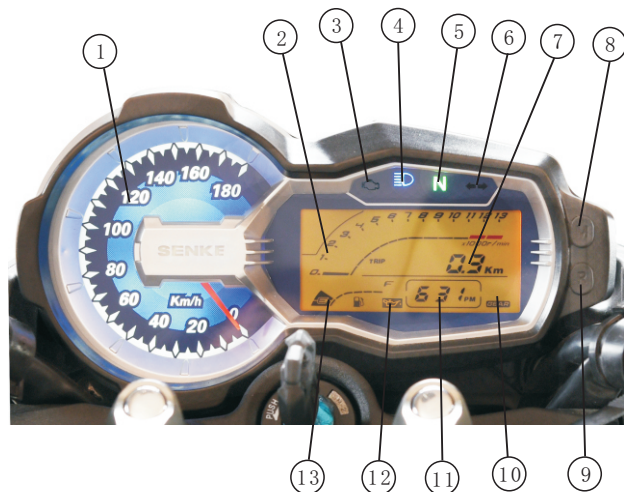
“  ” STEERING LOCK

To lock head steering, turn the steering handlebar all the way to the left, insert the ignition switch key in the steering lock and turn it clockwise.

! WARNING :

In the steering lock state, you can never push the motorcycle or it will out of balance.

INSTRUMENT PANEL



① Speedometer

The speed table indicates the current speed, the unit is the number of kilometers per hour. When the vehicle speed reaches 90km/h or more (red pointer to 90 or more), speed meter will show a red warning backlight, remind the driver to slow down the running safety.

② Tachometer

This meter can indicate the rotate speed of the engine perminute. The red zone in the tachometer is the most limit of the engine' s rotate speed, it will shorten the life of the engi ne if it is continual rotate long time in this zone, it should be avoid the finger of the tachometer point to this red zone.

③ Fault indicator light

Ignition switch is turned on and the engine has not started or rotating, fault which does not light will light; when the engine starting and running after, if there is no check to the fault, the indicator light will be extinguished, when the engine in operation process(or moving), if the fault indicator long bright or broken flicker is detected EFI system fault. At this point ,you should immediately to the dealer or the maintenance station to find qualified maintenance workers to carry out an inspection and maintenance.

④ Lrdicator light

When using the high beam and pressing theovertaking button, this lamp lights up.

⑤ Neutral indicator light

When this batton light, the motorcycle cou ld park sately.

⑥ Turn light indicator

When the turn signals are being operated either to the right or to the left, the indicator will flash at the same time.



⑦ Odometer

The main display of the car running total mileage accumulation.

⑧ Key

Metric and inch display switching and time key. Km/h metric, inch Mph.

⑨ Key

The total mileage and the taxi number switch. Long press this button for 3 seconds to switch time adjustment of ODO mode, when the time display area  flashing, press the button  for time adjustment.

TRIP mode for short-distance traffic counts, or as fuel calculations long press 3 seconds may be a few years on the meter to Zero.


⑩ Gear indicator

The numeral in this indicator shows the gear position, 1, 2, 3, 4, or 5. The numeral disappears as you shift back to neutral; NEUTRAL INDICATOR LIGHT (green) will burn instead.

⑪ Area of show time

This meter shows the current time now.

⑫ Engine lubrication indicator

When the indicator appears flashing, remind the replacement of oil kilometer number has been reached, hold  about 5 seconds to eliminate flicker.

⑬ Oil level indicator

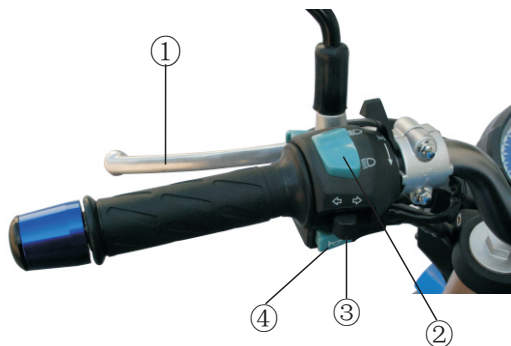
This fuel level meter can indicate the fuel in the fuel tank, it is full when the finger points to the “F” position; it is empty when the finger points to the “E” position and you need refueling now.

! WARNING :

Please be careful when accelerate between 1st and 2nd gear as the indicator would point to the red zone.

The red zone indicates the limit of engine speed. If engine rotates in this zone, the engine will be influenced.

LEFT HANDLEBAR CONTROL SYSTEM



① Clutch grip

To start the engine or make a gear shifting, press the grip to release the drive system and cut off the clutch.

② Dimmer switch

High beam/city beam operation

Moving the switch to the upper position the headlight high beam and the blue indicator light will be lit at the same time. Moving the switch to the down position the headlight lower beam and the blue indicator light will be lit at the same time.

③ Turn signal operation

Moving the switch to the “ ← ” position will flash the left turn signal. Moving the switch to the “ → ” position will flash the right turn signal. The indicator light will also flash intermittently.

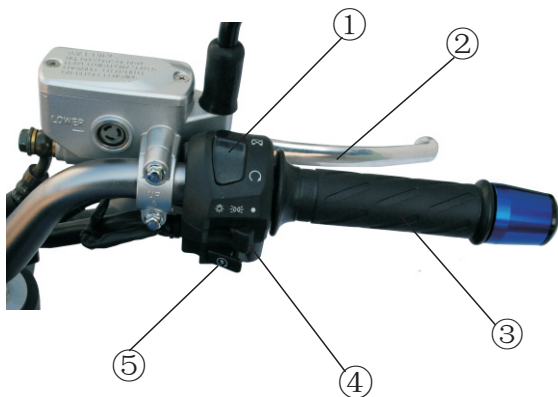
④ Horn button

Press the button to sound the horn.



! WARNING :

When you want to change lanes or make a turn, turn on the signal lights in advance. And after a lane change, turn off the signal light in time. Otherwise it may cause an accident.

RIGHT HANDLEBAR CONTROL SYSTEM



① Engine stop switch

If you press the switch at “” position, the engine can't be started. When pressing the switch at “” position, and the circuit is connected. then the engine can be started. This is the emergency switch.

② Front brake lever

Front brake grip is on the right hand, if you want to operate front brake, pull brake grip to the direction of the handgrip. As this model using hydraulic brake disc, so you can brake holding easily. When holding brake grip tightly, rear brake light will light up automatically.

③ Throttle grip

The throttle rolling handle is used to control engine speed. Turn the handle toward yourself in clockwise direction to speed up the engine(turn from motorcycle to outside). On the contrary , turn the handle toward yourself in inanti-clockwise direction to slow down the engine speed(turn from motorcycle to outside).

④ Light switch

“” Switch position

Turn on the headlight, position light, taillight at same time.

“” Position

Turn on the position light, taillight at same time.

“” Close light position

Turn off the headlight, position light, at same time.

⑤ Starting switch

After press this switch to start the engine.

! WARNING :

Continuous running motor can not exceed 5 seconds one time. The circuit and motor will be abnormal fever after a large number of electro-discharge. If it can not start after trying, you should check the oil supplying and the start circuit system (please refer to the chapter “troubleshooting”).

FUEL TANK CAP AND AUDIO CONTROL PANEL



① Fuel tank cap ② Audio control panel

Fuel tank cap

To open the fuel tank cap insert the ignition key and turn it clockwise. With the key still held in a clockwise position remove the cap. To install the fuel tank cap, simply line up the fuel tank guid pins and push down until the locking pins click into position. The key must be in the cap before installing the cap. Turn the key counterclockwise and remove the ignition key from the cap.

! WARNING :

You can not add the excessive fuel and let the fuel reach on the hot engine. Do not add fuel on the oil filler. Otherwise it will overflow if fuel temperature increase. Stop the engine when add the fuel, and turn the key to the position of "stop". Avoid the fire when add the fuel.

Audio control panel



① Power switch/Mode switch button

After electrifying, short press the key to boot, long press this button to shutdown.

Under starting up status, short press to circularly converse according to sequence of "Reception-USB flash disk-BT". When related equipment fails to connect to the host, the mode corresponding to default device does not participate in circulation.

② Pause/ Auto Lock Key

1) Under reception status, short press AMS to enter mute status; then short press AMS to recover original volume.

2) Under MP3/Bluetooth status, short press AMS to pause; then short press AMS to relieve Pause function.

3) Under reception status long press AMS to automatically search and store broadcasting station. When searching broadcasting station **⏮** or **⏭** for automatic storage can store 30 broadcasting stations at most.

③ **⏮** Cue up/Volume down key

1) Under reception status, short press **⏮** to select station toward to low frequency; long press **⏮** to reduce volume.

2) Under BT/USB flash disk /TF card play status. short press **⏮** to select the previous one ; long press **⏮** to reduce volume.

- ④ **▶▶** Down selections/Volame increase button
- 1) Under reception status, short press **▶▶** to select station toward to high frequency; long press **▶▶▶▶** to increase volume.
 - 2) Under BT/USB flash disk /TF card play status. short press **◀◀** to select nest one ; long press **◀◀◀◀** to increase volume.
- ⑤ Display screen
- Display reception frequency and current play message.
- ### USB 2.0 socket
- The USB 2.0 socket is located in the back seat of the bottom, as long as the key to open the lock when the rear seat cushion, cushion can be seen in the socket.



- 1) Insert USB flash disk with music into USB socket of host along accordingly direction to enter USB play mode immediatly(supporting music in Mp3/WMA modes).

- 2) Only connecting to charging cable under starting up status, can USB2.0 socket be used to charge for mobile phones with different brands.

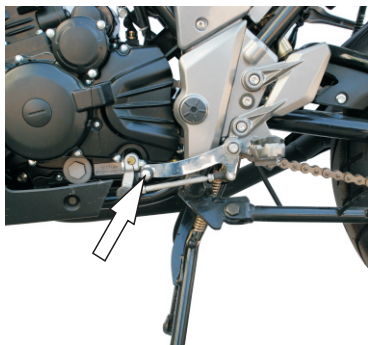
Bluetooth operation

Methods of Bluetooth matching:

- 1) Open bluetooth function of Bluetooth, search Bluetooth equipment with mobile phone(the identification name of host Bluetooth is Mt467 B-BT)and conduct matching connection between he mobile phone and searched host.
- 2) The initial password of matching is "0000"; after successful matching, the host will send warning tone of "Toot". at such time Bluetooth play is available when you open your mobile phone's music player. Note:for part mobile phones, there is no need to input matching password and the host will automatically conduct Bluetooth connection after being searched.
- 3) Under starting up status, the host can be searched and connected through mobile phone at any time; after successful connection, it will automatically switch to Bluetooth mode; when the Bluetooth equipment is disconnected, the host may send warning tone of "Toot".

GEAR LEVER

The model is equipped with 5 gear recycle transmission, shown in the picture, the gear lever is connected with the ratchet wheel. The gear lever automatically goes back to its original position ready to be changed to the next gear. The low gear is put on when the gear lever is stepped down from the neutral position. The gear increases a level every time the gear lever is stepped down. Due to the fact that it is of a ratchet wheel structure, it cannot be added more than 2 levels at one time.



! NOTICE :

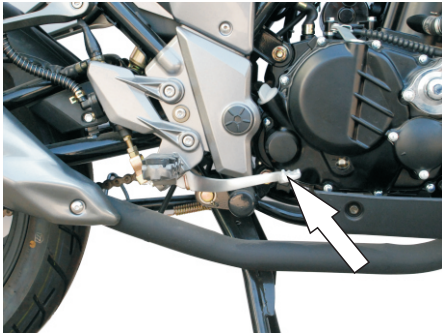
In order to avoid the damage of engine, speed variator and transmission chain which can't withstand the pounding of mandatory shift in the design of these parts, be sure to use clutch when shift gear.

! CAUTION :

When it is in the neutral gear, the indicator on the meter would show the green. Although the light is on, you also need to loosen the clutch level to make sure whether it enters into the neutral position.

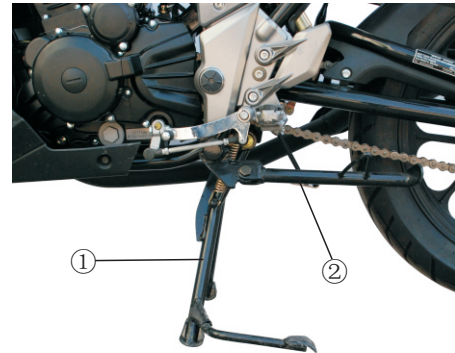
REAR BRAKING PEDAL

It will work when you push the brake pedal. The brake indicator would be lighted. You should push even. To avoid the strong pushing, you can use the snub: pay attention to combine the front brake and engine brake to reduce the brake distance.



STAND

This motor has the center stand① and side stand②. When you want to put the motorcycle on the main stand, you should step on the pedal of main stand, and hold the carrier by right hand and the by left hand. Then pull up the motorcycle fixing into the stand. When you want to park the motorcycle by side stand, then you should step onto the end of the side stand, and depress it using your strength, until the side stand turning to its end onto the floor still.



① Center stand

② Side stand

! CAUTION:

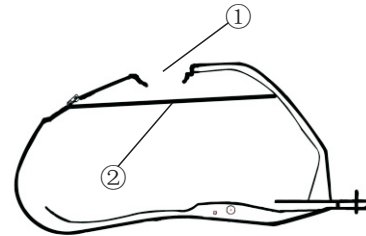
When you park the motorcycle on the slope you should make the front head as the above position of slope, to avoid the motorcycle fall off by the side cover. Or you could put into gear 1.

! WARNING:

Side stand is used only for the temporary parking, Pay attention to check whether it turn to the upper limit position. Before starting it never park in other place. Never riding the motorcycle before the side stand lift up.

IV、 FUEL AND ENGINE OIL RECOMMENDATION

Use unleaded gasoline with an octane rating or 90 oil higher (Research method). If the engine give out a slight knock, it may be because of using normal level fuel as the succedaneum that need to be replaced.



① Fuel tank port

② Fuel level

! WARNING :

Never add fuel excessively to avoid overflow that can spread on the engine under high temperature. Fuel level ② can not exceed the bottom of fuel tank port ① shown as the figure, otherwise heated fuel is expandable to overflow.

Before adding fuel, turn off the engine and turn the key to "OFF" (Close) position. Never close to any fire.

! NOTICE :

Just can use the Un-leaded Petro. If use the leaded Petro, then it will destroy the valve, piston ring and other engine inside parts and emission system seriously.

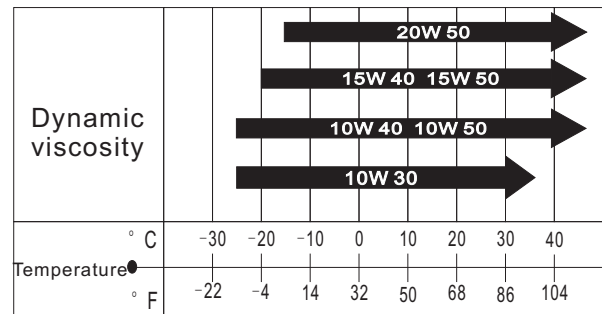
! NOTICE :

When washing motorcycle, never wash fuel tank with high-pressure water to prevent water from entering into the tank.


Engine oil

The oil in the motorcycle engine operation not only plays the cooling, lubrication rust etc, more, decontamination effect. In order to make the oil better, reach each run more smoothly, the oil channel first options with proper viscosity, in order to ensure the oil has good liquidity in a certain temperature range. Use a premium quality 4-stroke engine oil to ensure longer service life of your motorcycle, so the oil should be replaced periodically, timing keep oil insurable, the best lubrication condition. Use only oils which are rated, SE or SF under the API service classification. The recommended viscosity is SAE15W-40. If a SAE15W-40 engine oil is not available, select an alternative according to the following chart.

Consult example



API attributive classification standard

Code	SD	SE	SF	SG	...
Grade	Low  High				

!WARNING:

Fuel oil, engine oil and grease must preserved place of the children don't touch, and notice correspond to warning nameplate in container, or else have danger of harm health with people.

!NOTICE:

It is recommended to use engine oil type 20W-50, The specific use is according to the local climate or environment.

V、MOTORCYCLE RUNNING-IN

In preface, we describe such fact new motorcycle , running in correctly can extend its service life, but also bring its performance into play sufficiently. Now we will list correct running in methods.

Maximum speed

The fable below show the maximum recomme nded engine speed during the running-in.

Initial1000km	Below5000r/min
Up to1000-1600km	Below6000r/min
Over 1600km	Below10000r/min

!NOTICE:

After driving 1000km ,it is necessary to replace the engine oil and filter element of air cleaner.

Vary the engine speed

The engine speed should be varied and not held at a constant speed. This allows the parts to be “loaded” with pressure, and then unloaded , allowing the parts to cool. This aids the mating process of the parts. It is essential that some stress be placed on the engine components during running-in to ensure this mating process. Do not, though, apply excess l’ve load on the engine.

Avoid constant low speed

In the event that the engine run a long time at constant low speed, components and parts may wear out to cause improper fitting. As long as recommended Max speed isn’t exceeded, the driver can enable each shift to accelerate the engine. Initial period within 1000km, do not over loading and you must avoid throttle valve open operation for a long time or any conditions will lead engine overheating.

Allow the engine oil to circulate before biding

Allow sufficient idling time after warm or cold engine start up before applying load or revving the engine. This allows time for the lubricating oil to reach all critical engine components.

First regular maintenance and check

The 1000km service is the most important service your motorcycle will receive. During running-in all of the engine components will have worn in and all of the other parts will have seated in. All adjustments will be restored, all fasteners will be tightened, and the dirty engine oil and engine oil filter will be replaced. Timely performance of the 1000km service will ensure optimum service life and performance of the engine.

VI、INSPECTION BEFORE RIDING

Before riding the motorcycle, be sure to check the following items. Never underestimate the importance of these checks. Perform all of them before riding the machine.

Test item	Test details
Steering	<ul style="list-style-type: none">① Smoothness② No restriction of movement.③ No gap or looseness.
Clutch	<ul style="list-style-type: none">① Check the handle clearance.② Adjust when necessary.③ When necessary lubricant to the steel filament.
Fuel oil	<ul style="list-style-type: none">① Check the fuel tank oil.② Add oil when needed.③ Check the fuel pipe.

Engine oil	<ul style="list-style-type: none">① Check the engine oil.② If needed, please add engine oil.③ Check the engine oil leaking or not.
Tire	<ul style="list-style-type: none">① Check if any broken.② Check the tire pattern depth.③ Check the tire air pressure.④ Added pressure or change the tire when necessary.
Brake	<ul style="list-style-type: none">① Check the front brake rocker arm backlash.② Check if any wear in the brake disk.③ Check the oil level in the brake reservoir.④ Check if any oil leaking in the hydraulic system.⑤ Check the brake pedal backlash, and adjust when necessary.

Transmission	<ul style="list-style-type: none"> ① Appropriate tension. ② Adjust when necessary. ③ Proper lubrication.
Throttle	<ul style="list-style-type: none"> ① Throttle dragline has appropriate play ② Feed fuel smoothly and cut off fuel supply rapidly.
Side stand	<ul style="list-style-type: none"> ① Make sure the operation is smooth. ② Lubricate the side stand connection point when necessary.
Light	Operable all light, Front light, Tail light, Brake light, Panel light, turning light

Indicator light	High beam indicator light, Neutral position indicator light, Turning indicator light, Gear indicator light
Horn and Brake switch	Proper function

VII、RIDING TIPS

! WARNING :




If you are first driving this motorcycle, we suggest you'd better look for a off highway road to practice until you are fully familiar with the control and operation.

Removing your hands from the handlebars or feet from the footrests during operation can be hazardous. If you remove even one hand or foot from the motorcycle, you can reduce your ability to control the motorcycle. Always keep both hands on the handlebars and both feet on the footrests of your motorcycle during operation.

To not shift gears as turning and slow down before turning.And the brake and turning ability reduce if the roads damp and tire friction coefficient small,so you must slow down ahead.

Observe the transportation rules and limit the speed.

Start the engine

Check the fuel valve is in the “” position. and the engine stop switch is in the “” position. Put the key into the ignition switch and turn clockwise to “” position. The green neutral indicator will be lighted if it is in neutral.

! WARNING :

Shift into neutral and grasp the clutch before you start the engine.in case that it tuns on as shift in wrong gear.

Electric start

Before press the engine start button and ignition, please check if the side stand return right firstly, otherwise the engine will not be able to start. When press the start button, do not rotate the throttle control lever violently.

! NOTICE :

After the engine be started ,loosen the starter immediately to avoid to damaging the engine.

If you pressed the starter for 5 seconds but engine can't be started ,you should start after 10 seconds.

Turn the throttle grip 1/8-1/4 and then start when you failed to start engine after 2-3 times.

It would cause to start hardly if lay up for a long time or using poor fuel .Do not turn the throttle grip but start again and again.

! WARNING :

Running the engine indoors or in a garage can hazardous .Exhaust gas contains carbon monoxide, a gas that is colorless and odorless and can cause death or sever injury. Do not run it on when nobody there.

! NOTICE :

The idling time can not be too long as not driving. otherwise it would damage the inner parts for the hot engine.

Starting

After moving the side stand to the fully up position, pull the clutch lever in and pause momentarily. Engage first gear by depressing the-gearshift lever downward. Turn the throttle grip toward you and at the same time release the clutch lever gently and smoothly .As the clutch engages, the motorcycle will start moving forward.

To shift to the next higher gear,accelerate gently,then close the throttle and pull the clutch lever in simultaneously.Lift the gearshift lever upward to select the next gear and open the throttle again.Select the gears in this manner until top gear is reached.

Using the transmission

The transmission is provided to keep the engine operating smoothly in its normal operating range. The gear ratios have been carefully chosen to meet the characteristics of the engine. The rider should always select the most suitable gear for the prevailing conditions. Never slip the clutch to control road speed, but rather downshift to allow the engine to run within its normal operational range.

! WARNING :

Never allow the engine rev into the red zone in any gear.

! NOTICE :

Don't slide on and dragged the motorcycle over long distances when engine closed for a long time, even transmission in neutral position. Only when the engine is running can you add lubricant to transmission, the improper lubricating will damage transmission.

Riding on hills


When climbing steep hills, the motorcycle may begin to slow down and show lack of power. At this point you should shift to a lower gear so that the engine will again be operating in its normal power range. Shift rapidly to prevent the motorcycle from losing momentum. When riding down a hill, the engine may be used for braking by shifting to a lower gear. Be careful, not to allow the engine to overrev.

! NOTICE :

Using transmission shift correctly enables you to control the engine power when accelerating, climbing and so on.

Stopping and parking

1. Turn the throttle grip away from yourself to close the throttle completely.
2. Evenly using the front and rear brake at the same time, to be sure compensating used at the same time.

3. Using transmission device in low gear position to reduce the speed.
4. Select neutral with the clutch lever squeezed toward the grip (disengaged position) just before the motorcycle stops. Neutral position can be confirmed by observing the neutral indicator light.
5. If the motorcycle is to be parked on the side stand on a slight slope, the front end of the motorcycle should face "up" the incline to avoid rolling forward off the side stand. You may leave the Motorcycle in 1 gear to help prevent it from rolling off the side stand. Return to neutral before starting engine.
6. Turn the ignition key to the "  " (off) position.
7. Remove the ignition key from the switch. Lock the steering for security.

! WARNING :

1. As vehicle speeds stopping distance increases progressively. Be sure you have a safe stopping distance between you and the vehicle.
2. Inexperienced riders tend to use the rear brake. This can cause excessive stopping distance and lead to a collision.
3. Using only the front brake or rear brake is hazardous, it is hard to brake on wet, loose rough, or other slippery surfaces it can cause wheel skid and loss of control.

VIII、INSPECTION AND MAINTENANCE

It is the driver's obligation to make sure safety. Regular checking, adjusting, lubricating your bike, to promise the highest safety, the most efficient condition. Below we will introduce the point of checking, adjusting and lubricating. Each regular checking should set the one as the right which come first, the used months or the mileage. Each checking should follow the method asked, and check the lubricate system and other items carefully. The time of regular checking and lubricate should be the general principle of the normal driving condition. however, it may need to shorten your maintain time according to the weather, landform, location and personal uses difference.

If you motorcycle runs in harsh environment such as sand storm or a condition under which the throttle has to open widely, you should perform special maintenance to ensure its reliability. In this case, your distributor may provide you with further consultation. Because steering system, shock absorber and wheel axel are key parts, they must be serviced and maintained by specially trained technicians. For the sake of safety, we recommend this work be entrusted to your distributor.

! NOTICE :

The maintenance is the necessary process when the new motorcycle finish running in at 1000 km. It could help you using motorcycle safely and had a good specification. You must do the periodic maintenance according to the manual.

! CAUTION :

Periodic maintenance may need to change one or two parts, when changing the parts, we suggest you use the original manufactory's parts or the same quality standard parts. Whether you are professional for motorcycle or you have the experience for repairing the motorcycle, you'd better to ask the appointed dealer or the standard maintenance worker to deal with the problem which marked ★ . For the other points which didn't have any mark, you could do it yourself according to our manual.

MAINTENANCE CHART

Interval Item	km	1000	3000	6000
	Months	5	12	24
Battery		—	I	I
★ Cylinder head nuts and exhaust pipe bolts		T	T	T
★ Camshaft drive chain tensioner		I	I	I
air cleaner		I	Every 3000km C	
★ Valve clearance		I	I	I
★ Spark plug		I	Every 3000km C	
★ Fuel hose		I	I	I
		Replace every four years		
★ Engine oil		Every 1000km I or R		

Clutch	I	I	I
Fuel strainer cup	—	C	R
Drive chain	I	I	I
	Wash and lubricate it every 1000km		
★ Brake	I	I	I
★ Braking oil hose	I	I	—
	Replace every 4 years		
★ Brake oils	Replace every 2 years		
Tyre	I	I	I
★ Steering gear	—	I	I
Front fork and rear shock absorber	I	—	I
★ Bolts and nuts of body	T	T	T

NOTE: I: Inspect C: Clean R: Replace T: Tighten

LUBRICATION CHART

Item	Time interval	
	Initial 6000km or 6 months	Every 12000km or 12 months
Throttle handle (Sliding parts)	—	Lubricating grease
Throttle cable	Machine oil	Machine oil
Clutch handle (Active joints)	Lubricating grease	Lubricating grease
Clutch cable	—	Machine oil
Drive chain	Add the oil each 1000km	
Side stand (Rotating pivot point)	—	Lubricating grease
Brake pedal shaft strength	Lubricating grease or Machine oil	—

Gear shift pedal	—	Machine oil
Front and rear axle sleeve	—	Lubricating grease
★ Steering	Lubricate every 2 years or 20000km	

TOOLS

10*12mm、14*17mm open end wrench;

Inner hexagonal tool (No.four and No.six)

Spark plug turnbuckle

Combination all purpose screwdriver,(can knock down the spark plug together with spark plug turnbuckle;

Screwdrivers'handle

BATTERY

The battery is located I the left side of the cover. This motorcycle is equipped with the battery is maintenance free type of electrolyte, for the first time please allow dealers to fill the electrolyte, the future will not need to add electrolyte.



! NOTICE :

For the first time, please refer to the instruction manual of the battery.

Installation

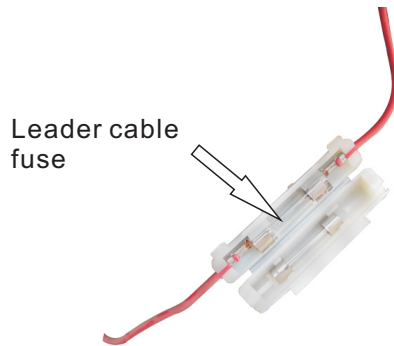
1. When connecting two poles of the battery by using battery lead, connect positive and negative poles correctly: red lead to positive(+) and black lead to negative pole(-); in the event of incorrect connection, this may cause damage to charging system and it battery itself.
2. Tighten bolts, then coat lubricating grease on bolts, nuts and terminals.

Use and maintenance

1. Each starting time cannot exceed 5s. If several starting fails in succession, check fuel supply system and starting and ignition system.
2. Frequent starting; short driving distance、 Running at low speed for long time、 Electrical appliance or bulb beyond rated power, all will may cause insufficient discharge or charge to shorten service life.
3. In the case of difficult start-up, dimmed light or horn at low sound level, charge the battery immediately.
4. If you want to leave your motorcycle in non-service tate for a long time, you'd better charge the battery full and then charge it monthly.

FUSE

The motorcycle install fuses to protect the main electrical equipment (the rated flipping off current is 15A), and the fuse is in the positive pole red line at the end of main cable. There are one reserve fuse in the box to replace when the original one is break. If the motor is suddenly flameout when running, or circuit impassibility, or oil pump stop working, please check the fuses first.



If the fuse burn-out, follow these steps to change.

1. Using the key and turn to the “OFF” Switch(closed) ,disconnect the circuit which has problem.

2. Remove the blown fuse, and then install the new fuse with specified specifications.
3. Using the key and turn to the “ON” switch(open) ,connected with problematic circuit to check whether they are in normal operation.
4. If the fuse fusing once again, please ask the dealer to check the electronic systems.

If the fuse often barn off, there must exist short circuit or an overload situation, and please find the serrice station to check.

! WARNING :

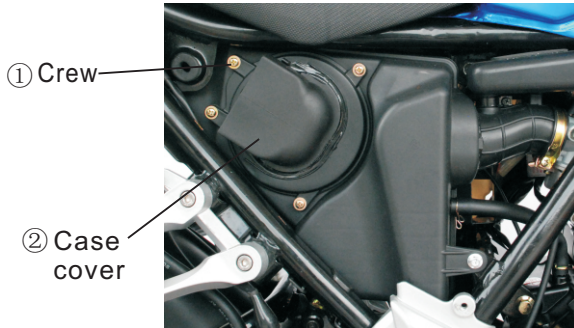
Do not use a fuse whose the rated current is higher than the recommended one ,in order to avoid significant damage to electronic systems , even a fire.

! NOTICE :

Do turn off the ignition switch when checking or replacing the fuse ,to avoid short circuit.It must conform to the provisions. When replacing the fuse, and don't replace it by other by other materials.

AIR CLEANER

Motorcycle air filter is the respiratory system, its role is to clear the air entering the engine contained is the dust and impurities to reduce abnormal wear of the cylinder, piston and piston rings, extending engine life. If the air filter is clogged with dust, intake resistance will become larger, the engine out put power will decline, increased fuel consumption, but also make the engine difficult to start, easy to turn off, severe dust into the interior of the cylinder, will aggravate the wear of engine components. So after driving 3000km per the method according to the following steps to check the air filter element and clean.



1. Take down the right side cover.
2. Open the air filter cover screws ① , removal of the outer cover ② , remove empty air filter paper filter.
3. Using the method of tapping or vibration blew the whistle on most of the dust, and the brush with a dry filter paper along the lines sequentially brushing the dust. Or blown out with compressed air from the inside of the filter cleaning method, the internal dust blowing.
4. Clear and clean, it should look at the filter is damaged ,if breakage, you can use an adhesive patch, if the filter can not be cleaned of serious damage, you should get a new piece.
5. Wipe dry with a clean cloth air filter cartridge shell and lumen.
6. Reinstall the air cleaner element in reverse order of the removal. Be absolutely sure that the element is securely in position and is sealing properly.

! WARNING :

This motorcycle air filter using a paper filter, must not use liquid cleaning.

! NOTICE :

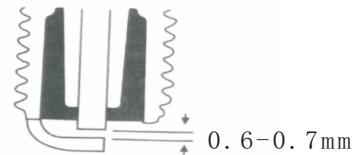
If the motorcycle often used in dusty conditions, you should clean or replace the filter element frequently. Do not wait until the maintenance time. Before cleaning and in cleaning, must pay attention to check whether there is any crack on foamed plastics, you should replace it immediately once the crack was found.

! CAUTION :

Don't start the engine when the air cleaner is not installed. To start the engine without installing the air cleaner will result in the engine wear-out frequently, Because this component has a large influence on the life of the engine.

SPARK PLUG

There spark plug is an important engine components, it is easy to check. Due to heat and sediment, spark plug will be corroded slowly, please remove the spark plug for inspection according to the regular maintenance and lubrication list. In addition, the status of the spark plug also can reflect the situation of the engine. Remove accumulated carbon attached on spark plug by using hard iron wire or steel needle, and adjust the clearance of spark plug by using feeler gauge to be between 0.6-0.7mm. Please clean the spark plug after each 3000km. Spark plug type for each of engine is different, is many the calorific value, thread size different. So be sure to use the appropriate provisions type spark plug.



When removing the carbon deposits observe the operational color of the spark plug's porcelain tip. This color tells you whether or not the standard spark plug is suitable for use. A normal operating spark plug should be light brown in color. If the spark plug becomes black, then please change the spark plug to high pressure type; if the spark plug becomes white or flaring it proved the spark plug was works under the over heat condition, so now please change the spark plug to cold type.

! WARNING :

1. The spark plug cannot twist it too tightly of threaded oriss cross to a void damage the thread of cylinder head. Don't make the inpurly go into the engine through the spake play. When dismant ling the spark piag.
2. The spark play used for this motorcycle is chosen carefully, and it can adopt to the majority of the work scope. if the color of the spark play is not same with the stardord one. Ther negotiate with the distribution unit before change the spark play which in different heat-resistant ranges.

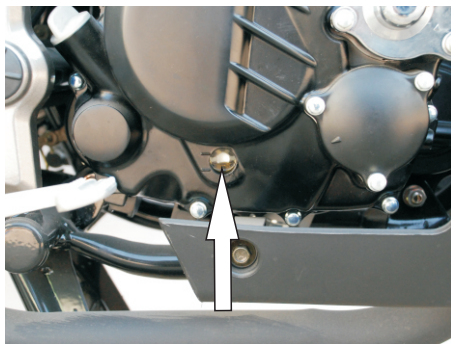
3. Choose spark play of other brands will make he operation difficult. So negotiate with the distri bution unit first. Then choose spark play of other brands.

! WARNING :

If the spark plug is obviously different in color , then the engine may be in malfunction. Don't try to self-check such problems.

ENGINE OIL LEVEL CHECK

When checking the engine oil level, please keep the motorcycle strawght. And check the oil level through ① oil inspection window. The oil should be between F and L position.



① Oil inspection window

ENGINE OIL

Loft depends on the selection of a good quality oil and the periodic changing of the engine oil. Daily engine oil level checks and periodic changes are two of the most important maintenance to be performed.

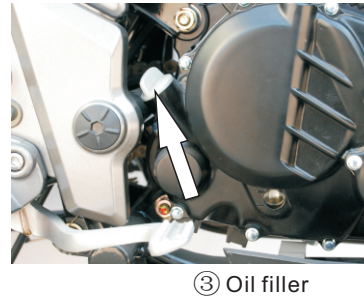
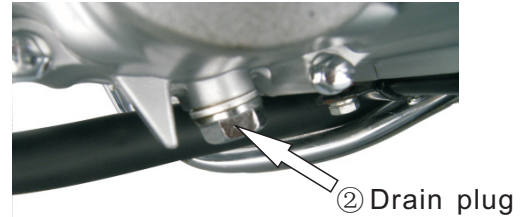
! NOTICE :

The oil inspection window shows oil level. when engine oil is not enough don't start the engine. And oil level shall not surpass the uppen limit of the window.

ENGINE OIL RENEWAL

The engine oil should be renewed when the engine is on so that the engine oil will drain thoroughly from engine. The procedure is as follows.

1. Put up the motorcycle center stand.
2. Remove the drain plug and drain plug and drain out the engine oil.
3. Screw off the drain plug, open the oil filler cap and add the new oil about 1.0-1.1L and screw on the cap.
4. Start the engine and let it to idle for a few minutes.
5. Turn off the engine and check the oil position from the oil inspection window after about one minute, The oil level should be above the "F" (FULL) If the oil lever under the "F", add oil till correct oil level reaches " F " .

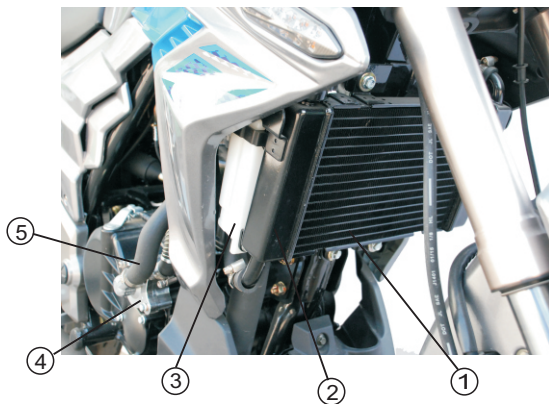


! NOTICE :

Please often use the engine oil recommend in the section fuel and oil guideline.

Cooling system

The engine of the motorcycle models(250cc ,300cc) equipped with liquid cooling system, to ensure that the engine work in the most appropriate temperature.



① Radiator

Radiator pipe should be smooth, and the radiating fin should be in perfect condition. Cleaning the dust and mud on fins regularly to ensure good heat dissipation. Please repair or change the injured parts of the pipe and fins in time.

② Water tank

Storage flow water tank radiator and cooling liquid. When the heat of the engine overheating of the coolant tank, the water tank cover of the valve spring will because of the pressure to open, let hot coolant flows into the side of the water tank pressure relief.

③ Expansion temperature

The auxiliary water tank should be kept for a long time of 1/3 of the coolant.

④ Water pump

Water pump with antifreeze. Corrosion performance of the coolant pump to the engine water jacket and cooling pipes, engine excess heat to the radiator dissipated.

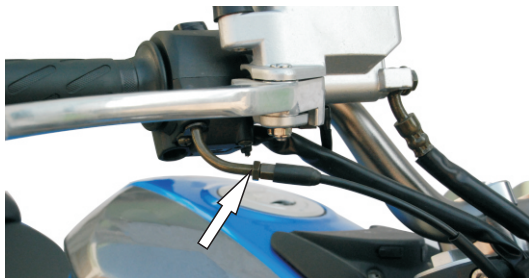
⑤ Water pipe

Should ensure that the interface of each connection pipe is sealed and reliable, if it is found that the leakage should be repaired in time.

! NOTICE :

Must not add water to the water tank when the coolant is used, should choose to have antifreeze, anti-corrosion properties of the use of coolant.

ADJUSTING THE THROTTLE CABLE



1. loosen the lock nut,
2. Move the adjuster to adjust the gap to be 0.5-1.0mm.
3. After finishing the adjusting, tighten the lock nut.
4. After the cable adjustment, throttle rolling should be rotating flexible, the reliable free travel is 2-6mm.

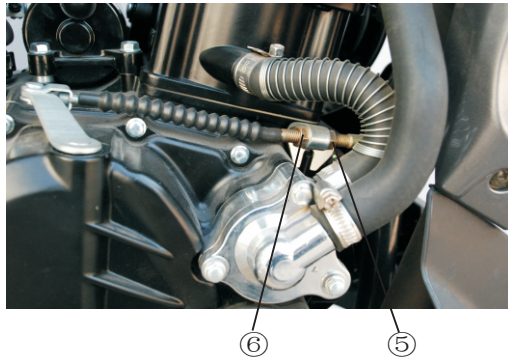
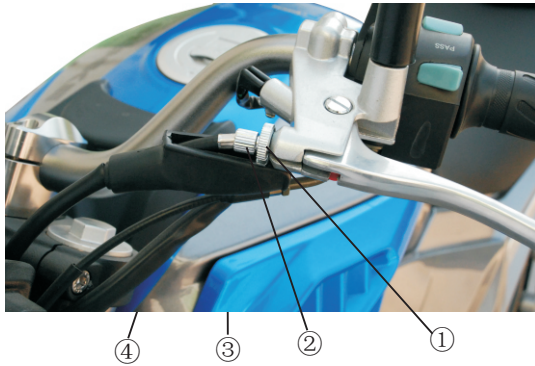
! WARNING :

You should recheck the moving condition of throttling rolling handle after finishing checking the throttle cable. Don't make the idling speed up engine when you make this adjusting. And meanwhile, you should make the throttling rolling flexible.

CLUTCH

The way of adjusting the clutch is to change the strain of the clutch cable ③, the gap of the clutch lever should be about 4mm as measured at the clutch lever end. If you find the gap of the clutch incorrect adjust it in the following way.

Loosen the lock nut ① and turn in the adjuster ② as far as it will go. Loosen the lock ⑤ nut and turn the adjuster ⑥ to obtain the correct gap arrive at about 4mm. minor adjustment can adjust the clutch lever side adjuster ②, after adjuster well then tighten the lock nut ① and ⑤ then put well the rubber cover.



DRIVE CHAIN

Transmission chain is one of the main components of the motorcycle on its quality directly affect the durability of the motorcycle, comfort and reliability.

! WARNING :

To guarantee safety, the drive chain check and adjustments should be done before in driving. As to the new chain change and the correct method of lubrication, please refer to our company's recommended contents.

We advise that you'd better look for the distributor to change new chain if it wears off. when inspecting the chain, look for the following:

1. Loose pins
2. Damaged rollers
3. Dry or rusted chain
4. Kinked or binding links
5. Excessive wear
6. Improper chain adjustment

! WARNING :

Improper relaxation of transmission chain can make the engine and other important components of the motorcycle overload, chain skid or fracture. To avoid this situation, transmission chain relaxation should keep within the prescribed limit.

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

1. Excessively wear of the gear.
2. Broken or damaged teeth.
3. Loose sprocket fixing nuts.

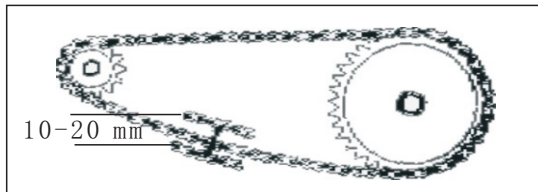
Maintenance of the drive chain

After the dirt drive chain, will accelerate the drive chain and sprocket wear itself, so each traveling 1000km ,use cleaning fluid to clean the drive chain with a clean brush or a special chain oil lubricant evenly with a good drop formed in the middle of the roller chain drive on a thin layer of film on the drive chain play a protective role, after a period of time, to be the film drying and then drops again and keep the drive chain tension moderately so the transmission chain and sprocket clean and durable so that it will be in accordance with regular maintenance and lubrication intervals specified in the table, cleaning and lubricating the drive chain, otherwise the drive chain wear quickly, especially driving in dusty or wet areas when.



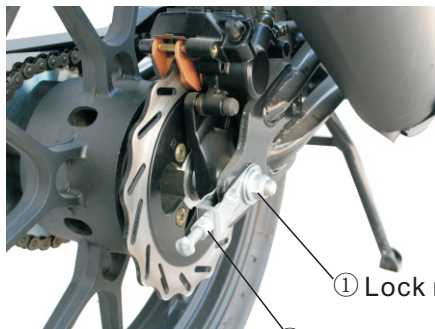
Drive chain adjustment

Motorcycle drive chain should be required to be adjusted periodically to make adjustments to maintain a normal state in the process of asking them to maintain good lines and tightness. To adjust the tightness of the right hand should be down stubbs drive chain ,drive chain moves up and down so that the distance in the 10-20mm range as standard. Such as driving conditions are not ideal, the number should be adjusted more frequently than the annual regular maintenance.



If traveling a long time does not make adjustments, the drive chain. Will be stretched due to wear or deformation . Link cause excessive slack off the chain and lead to accidents or serious damage to the engine. Please press the following method to adjust the drive chain.

1. Place the motorcycle on the center stand.
2. Loosen the rear axle nut.
3. Lossen the lock nut.
4. Adjust the drive chain slack by turning the right and left chain adjuster bolt. At the same time that the chain is being adjusted, the rear sprocket must be kept in perfect alignment with the front sprocket To assist you in performing this procedure, there are reference marks on the swing arm and each chain adjuster which are to be aligned with each other and to be used as a reference from one side to the other and keep the laxation between at 10-20mm then tighten the lock nut.
5. Final, tighten the lock nut of rear axle shaft again.



① Lock nut

② Rear axle nut

! NOTICE :

Except when adjusting the drive chain before and after a good drive chain adjusting the tone scale, but also the application of eye observation chainring and transmission chain is in the same line.

! CAUTION :

Our chain a the special material. If changing it, you should choose the original one from manu factory or the higher standard one. It may cause problem if you use other brand.

! NOTICE :

When you changing the chain, you should also check the sprocket weart condition to see if it needs to be replaced.

BRAKE SYSTEM

This motorcycle is front disc and rear disc. The correct brake operation is very important for driving safely. Please pay attention to check the brake system , and it need to be checked by the professional qualified dealer.

! WARNING :

If the brake system need to have maintenance, we are strongly recommend you to hand this job to your dealer shop. They had the complete tools and expert skill. Meanwhile, they could finish this job by the most safely and most economic way.

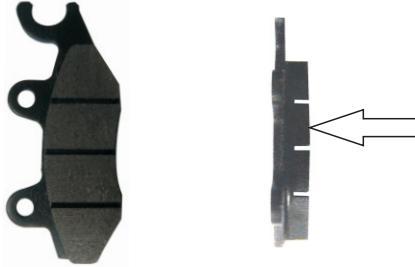
Brake oil

Pay attention to check the front and the rear brake fluid volume, if the liquid level reduced, adding our factory assigned brake fluid. When the brake pads wear loss, the remaining liquid inject into oil tube automatic and liquid surface decreases. Adding brake fluid should be considered as an important program of periodical maintenance. You should replace the brake fluid according to the provisions of the periodical maintenance schedule time interval. In addition, the brake master cylinder, caliper brake oil seal and brake hose should also be in accordance with the time interval, or change it when damaged or leakaged.



Brake fluid enough air into the brake system will probably lead to brake invalid. Before cycling, check whether the brake fluid is above the minimum oil level mark, add brake fluid if necessary.

Brake pad



Inspect the front、 rear brake pads by noting whether or not the friction pads are worn down to the grooved limit line. If a pad is worn to the grooved limit line it must be replaced with a new one, the inspection items as below.

1. Inspect the front、 rear brake system whether or not fluid leakage.
2. Inspect the brake hose whether or not leakage or crack.

3. Brake lever and pedal keep the elasticity all the time.
4. Checking of the wear condition to front and rear break pad.

! WARNING :

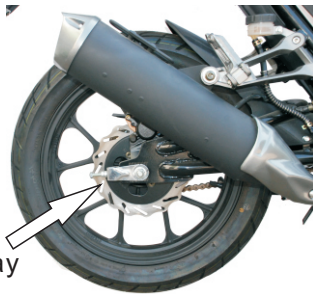
Do not drive the vehicle when just put on the new brake pad. Tighten and loosen the brake grip for several times to get the brake pad be normal and have the brake fluid circle completely.

Disc tray

Brake disk is an important part of braking system .In the course must pay attention to check the wear of the surface and the disk must be replaced when necessary.



Front disc tray



Rear disc tray

! WARNING :

No grease or dirt attaches on friction surface of a brake dist to avoid deterioration of braking quality and safety accident.

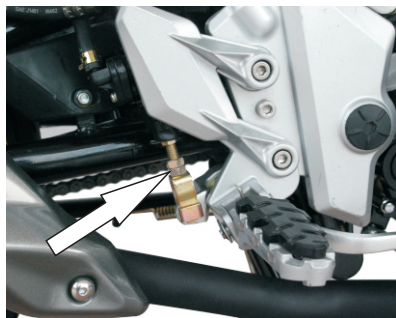
! WARNING :

Disk braking system is based on high-pressure brake. For the sake of safety, you must replace oil pipe and brake oil strictly at interval time specified in Maintenance section in this"Manual".

Rear wheel brake:

the adjustment of the rear brake pedal.

When adjusting rear wheel brake system, you should adjust the pedal at the most comfortable position. This kind of fixed position could to move the adjusting nut of pedal. Then twist the adjusting nut ①, to make the run-length to keep in 20-30 mm.



① adjusting nut

! WARNING :

After adjust the brake pedal gap, to check the operation of the brake lamp.

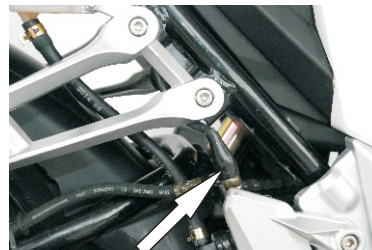
Front brake light switch

The front brake light switch is located under the brake lever. To hold the front brake lever lightly the brake light switch will come on.



Rear brake light switch

The rear brake light switch is located beside the rear brake oil hose. It would be lighten when the brake pedal is depressed.



TIRES

Every time before driving, the tires must be checked, if the middle of the tread pattern depth attained the limit, or a nail, shards of glass in the tire, or tires have crack, please contact dealers to replace tires immediately. Preventive maintenance, be sure to check the tires pressure and tread depth. In order to ensure largest safety and long service life, except the regular maintenance, you need check regularly.

Tire pressure

Every time before driving, you should check the tire pressure, adjust it if necessary. Low tire pressure not only increase the tire worn, but also affect the driving stability. Low pressure would cause to turn difficultly. High pressure would cause tire slip and even lose control for the small contact area with the ground. The tire pressure should be within the regulated pressure. And adjusting the tire pressure should be carried in normal temperature condition.

Basic parameter \ Name		Front tire	Rear tire
		Just driver	250
tire pressure (Kpa)	two people	250	250

! WARNING :

Because loading have great influence for the operation, braking, performance and security characteristics of the motorcycle, so be sure to keep in mind the following considerations:

1. Do not overload ! Overloaded motorcycle driving could lead to damage of tires, the motorcycle go out of control, or serious personal injure. Ensure that the total weight of motorcycle driver, passenger, goods and accessories shall not exceed the stipulated maximum weight.
2. Do not carrying goods in loose pack age, as goods will be easy to move in the process of driving.
3. Every time before driving, check the tire condition and air pressure.

Tire thread

Using the excessive worn tire would reduce the stability and may lose control. Change a new tire when front tire thread depth below 1.6mm and rear below 2mm.

! NOTICE :

Your motorcycle use the tire type are:

Front tire: 110/70-17

Rear tire: 130/70-17

It would bring some problems when using substandard tires .we sincerely recommend that you use the standard tires.The vehicle tire inflation pressure in terms of functionality and security is very important. check tire thread wear condition and tire pressure frequently.

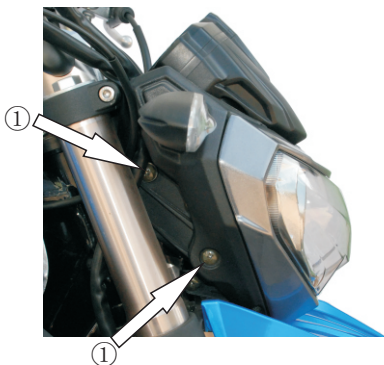
Light bulb replacement

The rated wattage shows as below list. when changing the broken bulb, then you should use the same wattage. If using different ones, then it may cause the overload electric system or the lamp broken easily.

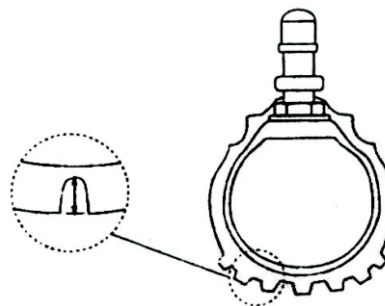
Front lamp	12V 35W/35W
Rear lamp/Braking lamp	12V 0.3W/2.7W
turnning / signal lamp	12V 0.5W
front position lamp	12V 2.7W

Change the front headlight bulb

1. Remove the nuts in the sides of hood ①, and then remove the front part of headlight.
2. Pull out the front headlight bulb and the position light base.
3. Remove the front headlight bulb, and put the new bulb.
4. Use the opposite process to fix the front headlight.



The main points of headlight bulb



! NOTICE :

In order to avoid the oil contamination, don't touch the glass components of headlight bulb. Otherwise, the light transmittance of glass, the brightness of the light bulb, and the using time of the light bulb will be adversely affected. Cloth stained with alcohol or diluents, carefully wipe the dust and fingerprints of light bulbs.

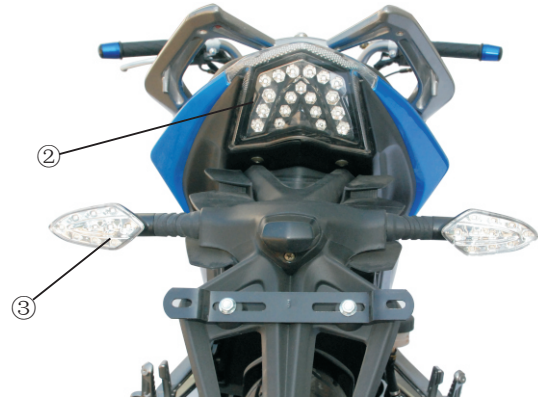
! NOTICE :

When mounting lampshades, don't tighten fastening screws excessively; otherwise lampshades break.

! NOTICE :

Prior to operation of any electrical component, you must turn it off to avoid short circuit. When replacing a bulb, you must comply with manufacturer's instructions to avoid injury and damage.

Taillight, Stoplight and Turning light are replacing.



② Rear light

③ Turning light

The motorcycle is made of LED tail light, brake lights ② and turning light ③, It is durable than usual lights. Because of its special construction. If you meet any exceptional problems, please do not fix it by yourself and contact your local agent to deal with it.

IX、TROUBLESHOOTING

Although we have carried out a comprehensive inspection before motorcycles loading, the possible faults exist in the operation process. The problem of fuel oil, compress or ignition system may result in the power loss and cannot be started..



Troubleshooting table as following provide the quick and easy operating procedures, you can inspect on these important system yourself. However, when motorcycle needs repair, please send the motorcycle to the dealer, their professional technical personnel have the necessary tools and professional knowledge, they can repair the motorcycle better.

If the engine refuses to start, perform the following inspections to determine the cause.

1. Make sure there is enough fuel in the fuel tank.
2. Oil pump is normal work.
3. Cut off the oil line from the injector, check the oil inlet to the filter, the filter to the fuel injector between whether there is a gas flow out.

4.If sure fuel supply is no problem, ignition system should be checked next.

5.Remove the spark plug and reattach it to the high- tension cable.

6.While fastening the spark plug firmly against the engine , push the starter switch or depress the kick kickstart with the ignition switch in the "  "position, the engine stop switch in the"  "position too, the transmission in neutral, and the clutch disengaged. If the ignition system is operating properly, a blue spark should jump across the spark plug gap. If there is no spark, consult your across dealer for repairs.

! WARNING :

When you inspect or operate of the fuel system, please keep away from the fire, don't smoke.

! CAUTION :

Don't make the fuel flow everywhere, any fuel should be collected in a container. No fuel approaches engine and exhaust pipe at high temperature. This check should be performed as far from fire as possible. Meanwhile no fuel approaches fire or heat.

Don't fix spark plug close to cylinder head when performing the check, because vaporising fuel in the cylinder may be ignited by spark and to cause a fire. To minimize possibility of electric shock, metal part of spark plug casing should attach to bared metal part of motorcycle. To avoid electric shock, a person suffering heart disease or wearing cardiac frequency modulator is forbidden from doing this work.

! NOTICE :

Before troubleshooting, it's better to consult with the dealer. If your motorcycle is still in the guarantee period. Before you are readying to repair, you must consult your dealer. For it may affect the warranty content when you disturb the vehicle during the guarantee period.

ENGINE STALLING

1. Check the fuel and oil supply in the fuel tank.
2. Check the ignition system for intermittent spark.
3. Check the engine idle speed.

Troubleshooting example

Malfunction		Cause	Remedy
Engine refuse start		<ol style="list-style-type: none"> 1.Engine stop switch didn't open. 2.No fuel in the fuel tank. 3.Side bracket not raised correctly. 4.Filter clogging 5.Fuel hose was clogged. 6.Spark plug failure. 	<ol style="list-style-type: none"> 1.Open the engine stop switch. 2.Fill the fuel oil. 3.Lift the side bracket to the upper limit position. 4.Cleaning filter 5.Replace or clean fuel oil pipe 6.Replace spark plug.
Engine hard start or stall easily	Poor sparking or no sparking	<ol style="list-style-type: none"> 1.Dirty spark plug. 2.Defective magneto. 3.Turn off ignition coil. 4.High tension cable leakage. 5.Matter of ignition coil. 	<ol style="list-style-type: none"> 1.Clean spark plug and dry it. 2.Maintain magneto or replace 3.Inspect the circuitry and connect. 4.Replace high tension cable. 5.Replace ignition coil.

Troubleshooting example

Ignite the engine but still can not start	Engine	<ol style="list-style-type: none"> 1.Intake pipe leakage. 2.Wrong ignition timing. 3.The battery is low or no power 4.Wire port is unconnected. 5.Throttle position sensor fault 	<ol style="list-style-type: none"> 1.Check the leakage and change the gasket fastening the bolt 2.Readjust the ignition timing 3.Battery charging. 4.Check the wiring harness port and connect. 5.View the fault code, check the throttle body position sensor is loose
Ignite the engine but still can not start	Remove the spark plug , and check the electrode	<ol style="list-style-type: none"> 1.If the spark plug is wet 2.If the spark plug is dry 	<ol style="list-style-type: none"> 1.Using dry cloth to wipe, and calibrate the spark plug gap, or replace the spark plugs. 2.Please ask the dealer to check your motorcycle.

Troubleshooting example

Engine run badly	Poor engine low idling speed	<ol style="list-style-type: none"> 1. Wrong valve clearance. 2. Wrong ignition timing. 3. in-take tube loose or gasket leak. 4. Weak sparking plug or no sparking. 	<ol style="list-style-type: none"> 1. Adjust valve clearance to 0.05mm, and check screw of rocker whether damaged or not. change if it be 2. Readjust the ignition timing. 3. Change the in-take tube gasket and fasten screw. 4. Handle it refer to “weak sparking plug or no sparking”
	Poor performance of engine high-speed	<ol style="list-style-type: none"> 1. Wrong ignition timing. 2. Wrong valve clearance. 3. Fuel used up. 4. Oil tube blocking 5. Wrong valve timing. 6. Valve spring failure. 	<ol style="list-style-type: none"> 1. Readjust the ignition timing. 2. Readjust the valve clearance to 0.05mm. 3. Fuel charging. 4. Change the oil tube. 5. Readjust the valve timing. 6. Change the spring.
Engine noise	Valve noise	<ol style="list-style-type: none"> 1. Valve clearance is big. 2. Valve wear 	<ol style="list-style-type: none"> 1. Readjust the valve clearance 2. Repair or change the valve clearance

Troubleshooting example

Engine noise		<ol style="list-style-type: none"> 1.Piston, valve wear. 2.Cylinder carbon deposit. 3.Piston pin and hole wear. 4.Clutch spring failure. 5.Chain wear. 	<ol style="list-style-type: none"> 1.Change piston, valve. 2.Clear the carbon deposit. 3.Replace the piston and piston pin. 4. Replace 5. Replace
Normal spark plug	Bad cylinder compression	<ol style="list-style-type: none"> 1.Loose starting arm assembly can not drive the engine. 2.Valve clearance is too small. 3.Valve block. 4.Cylinder or piston ring wear. 5.Damaged cylinder head gasket. 	<ol style="list-style-type: none"> 1.Retighten the starting arm; change if damaged. 2.Adjust the clearance to 0.05mm. 3.Clean the carbon deposit. (professional staff) 4.Change gasket. (professional staff) 5.Replace the senling gaoket. (professional staff)

X、CLEANING AND MAINTENANCE

Prop the main stand before cleaning the motorcycle, and be sure that stop steadily be ready for buckets, towels, and neutral detergent, and successive cleaning various parts of the body. After cleaning, dry all parts of the body with a clean rag gently do not wash by increasing the water pressure. And be careful not to immerse the carburetor, fuel tank electric equipment muffler and other components into water.

If you do not use motorcycle exceeded 60 days, clean it first and do some measures for maintenance to avoid damaging the motorcycle.

Cleaning

1. After the engine cooled, use the plastic bag to cover the emission hole.
2. Use the water, towel (if hard to clean, then could use booth brush or bottlebrush), detergent to wash motorcycle and the oil stain on crankcase. But do not paint this kind of wash material on seal, gasket, sprocket, driving chain or axle. It must wash the dirty and detergent cleanly.
3. After cleaning, it should dry the motorcycle by using leather or good water absorbability towel.

4. Dry the transmission chain at once, and coat lubrication to prevent rust.
5. To prevent rust, we suggest to paint the rust inhibitor on all metal cover, including the chrome and nickeling surface.
6. Use the spray lubricant as the cleaner, to remove all rest dirty.
7. To wax on all painting surface.
8. After the motorcycle dried all, then to start the second keeping.

Carefully

1. Cover the emission hole by plastic bags to prevent the water and gas into.
2. Dry fuel oil tank, oil pipe and filter oil storage.
3. Take down the empty fuel tank and add a cup of four-stroke oil, shake so that the fuel tank completely be put a layer of oil. pour the oil, and replace the fuel tank.

4. Remove the spark plug and pour and pour a spoon of oil into the cylinder, replace the spark plug and run the engine several times (ground the spark plug and high voltage respectively), so that distribute the oil on the cylinder wall well.
5. Lubricant all control cables.
6. After inflating the front and rear tire, use the appropriate to prop up the front and rear wheels . make sure that motorcycle be in a stable position and maintain the tire inflation regularly.
7. If kept in place where high humidity or salt. Please coat a thin layer of oil on all the metal surfaces. Pay attention not to coat the rubber parts and seat to prevent the aging.
8. Remove the battery to charge and put in a dry place. charge one at least, and do not put at hot(exceed 30)or cold(below 10)place.

! NOTICE :

Please make the necessary repairs before storing the motorcycle.

XI、 TECHNICAL SPECIFICATION

Carload parameter

Overall length	2100mm
Overall width	810mm
Overall height	1110mm
Wheelbase	1400mm
Minimum ground clearance	190mm
Unloading weight	148kg
Max loading capacity	150kg
Max. speed	≥150km/h
Max. accelerated noise	≤80dB (A)
Minimum oil consumption	≤354g/kw. h
Climbing ability	≥20°
Starting performance	≤15s

Wheel and brake

Front shock-absorber	hydraulically telescoping
Rear shock-absorber	Spring oil resistance
Turn angle	left/right≤48°
Front tyre type	110/70-17
Rear tyre type	130/70-17
Front tire pressure	280kpa
Rear tire pressure	280kpa
Tire rim (front/rear)	Light alloy/Light alloy
Front rim type	MT3.0×17
Rear rim type	MT3.0×17
Front brake	Disk brake
Rear brake	Disk brake
Brake fluid	Dot3 /Dot4

Engine

Model	Water- cooling, four-stroke
Cylinder	single
Bore×stroke	74mm×65.0mm
Displacement	279.5ml
Comprssion ratio	10.5 : 1
Spark plug	U22ESR-N
Standard power	16.5kw/8500 (r/min)
Max torque	23.0N·m/7000 (r/min)
Ldling speed	1400(1±10%)(r/min)
Ignition mothod	ECU controlled ignition
Lubricant method	Pressure and spray
Lubricant	SAE20W-50
ECU model	MT 05

Transmission system

Clutch	wet type, multi-plate
Transmission gear ratio	(five-gear international)
Primary reduction ration	3.091
Final reduction ration	2.692

Transmission gear ratio

One gear	2.583
Two gear	1.857
Three gear	1.538
Four gear	1.167
Five gear	1.000
Six gear	0.857

Electric system

Start method	Electrical start
Headlight	12V 35W/35W
Front position light	12V 2.7W
Tail light/barke lamp	12V 0.3W/2.7W
Turn signal lamp	12V 0.5W
Speedometer	12V 0.3W
Horm	12V 3A
Battery	12V 10Ah
Fuse	Leader cable 15A

Fuel and capacity

Fuel	Only use unleaded gasoline qualified
Capacity of fuel	14L(1.6L Spare)
Engine oil	1.1L-1.2L
Coolant	1.1L



All picture and information are only for reference, please set the reality motorcycle and specifications as real one without notice.