

**Safety Riding Rules:**

● Before starting the engine you must check the motor. Be care the all lock pit, connection parts, adjusting part to confirm if it in normal state, that can prevent the accident and the damage of part.

● The rider must attend the test of transport department and pass it to get the riding license, not allowed to lend the motor to others that no license.

In case of the others damage to you, you should:

- Wear eyes catching
- You'd better not near the mechanical vehicle, use light, corn correctly.
- Rush to the road is forbidden
- Obey to the transport rule strictly
- Over speed may cause of many accident
- When turning or change line should turn on the turning light to aware of others
- Be more attention when in the intersection, parking door, car road line.
- When riding, the double hands should hold handle closely, feet touch the foot bar, the partners should hand the handbar solidly, feet tread on the sub-foot bar.
- Be care the brake distance in humid road should double than dry ground.
- Slow down if can not judge the road situation.

**Protection setting:**

● For the safe you must wear helmet, face protection, ant-dirty glass and glove ETC

● The temperature of muffler very high in riding, the passenger should wear special shows or others clothes that can protect the leg.

● Don't wear the relaxing clothes for it may hook the handle, starting arm, foot bar, and wheel.

**Refitting vehicle:**

Attention: Alter the parts of motorcycle or replace the equipment of original vehicle will not able to ensure the safe

Riding, it is illegal. The user must conform to the regulation of transport department.

● If have good advise on assembly please inform factory, it could be changed after been agreed.

Otherwise, the all responsibility should carry by himself.

**The loading of cargo:**

Attention: there is the inurnment of motorcycle to the division of cargo weight. Improper load will influence the character and steadiness.

● The cargo should lie in low position and near the center of motorcycle. Put the weight average on the both sides for the balance. When the core of cargo far away the middle of vehicle will affect the control of motorcycle.

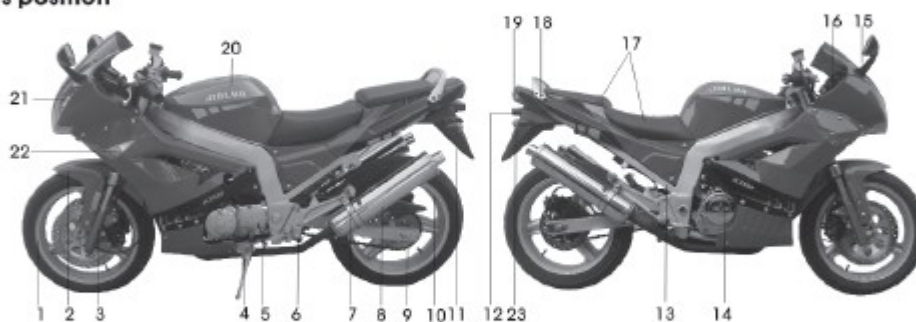
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● Following the cargo weight and riding condition, do proper adjustment on the tyre pressure and shock absorber spring.

● To ensure the operate steadily the all goods must tie up to the motor body

● Don't put the large, weighty cargo on the front fork, turning handle, fender, or will cause imbalance or poor sensitive.

● Never carry cargos over 150kgs.

**Parts position**

- |                         |                      |                         |                        |
|-------------------------|----------------------|-------------------------|------------------------|
| 1. Front wheel          | 2. Front fender      | 3. Front shock absorber | 4. Side support        |
| 5. Speed gearshift bar  | 6. Front foot rest   | 7. Rear foot rest       | 8. Exhaust pipe        |
| 9. Chain                | 10. Rear wheel       | 11. Rear fender         | 12. Lamp, rear license |
| 13. Rear shock absorber | 14. Engine           | 15. Rear view mirror    | 16. Meters             |
| 17. Seat                | 18. Rear handrails   | 19. Rear taillamp       | 20. Oil tank           |
| 21. Front headlamp      | 22. Front turn light | 23. Rear turn light     |                        |

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### Handlebar switch Lh.

Headlamp change switch : If need far light should stop switch ① to "F" if need near beam should stop to "N"  
 Turning signal switch: Move switch ② to ← if need turn left ; stop to → if need turn right.  
 Horn switch: press switch ③ "H" if need alarm



### [The addition of fuel]

Insert the key into ignition ② Turn the key right in 90 degree.

Open the tank cap ①, press down it if need shut cap.



### Fuel choice

The choice of petrol must conform to the instruction menu for it is key element to influence displacement. The fuel should leadless or low lead with 90# octane rating.

Note: The economic fuel consumption standard must strictly based on the (fuel consumption trial method of motorcycle and light motorcycle of GB.T16846-1996.) Test as above should the lowest economic fuel usage. Owing to the road and drive skill may different to result in the practical consumption larger than theory.

### Fuel tank & the addition of fuel

The cubic of tank is 16L liter with additional fuel tank in 1.6L.

### △ Notice:

- Don't exceed the neck of tank when add fuel and screw the cap closely.
- Fuel attribute to easily explosive and ignition, please check whether engine is turn off when open the fuel cap , with the ventilated and non-smoking and away from things easily ignition.
- There is a filter net when inject the fuel or give special filter before infusing.

### Attentions:

- After filling tank full please do not stay the handle in "L" RES, otherwise, the storage fuel will use out .
- Right using fuel switch will ensure you not lack of fuel when riding

### Choice of lubrication oil

Lubrication oil is a main reason to influence the life and function of engine and to the displacement of motorcycle. Normal oil , gear oil, plant oil is forbidden.

The original fuel range in 15W/40-SG luboil with the proper temperature between -10°C to +40°C . It can be replaced by the SE,SF,SC of API(America petrol institute) if local lack of the petrol ,or the rate reach to QE if change to others lubrication , the oil density must adjust as to the temperature listed in the above picture. Please discharge out old lubrication oil and wash by kerosene and insert the fresh oil.

In case can not buy luboil in grade of 15W/40-SG then could be instead by QB-10 ( use HQB-6 rate under 10 ) . The luboil , plant oil and castor oil plant .

### Tyre

Proper pressure of tyre will keep up the best stability of riding and riding comfortably and stretch the service life of wheel.

	Pressure of tyre	
Rider	Fr wheel: 200(kpa)	Rr wheel: 200(kpa)
Rider & passenger	Fr wheel: 200(kpa)	Rr wheel: 225(kpa)
Tyre measure	Fr wheel: 110/70 - 17	Rr wheel: 140/70 - 17

Attention: It will cause danger and the damage of tyre skin if air pressure irregular.

If the air pressure of trye not enough will injure the wheel or let tire escape from the rim.

Please check the air pressure before riding. To examine if the nail, cut or sharp things insert into tyre. Judge whether have hollow or misshape with the tyre and replace it if found.

Notice: The overused tyre must threat the pulling power, steadiness, turning and operation.

Please change tyre when the wrinkle reach follow restriction.

The lowest depth of tyre			
Front wheel	1.5mm	Rear wheel	2.0mm

### Checking before riding:

You must check before riding it. The following inspections only take few minutes can save occasionally broke off and ensure the safe riding.

1. Checking the fuel according to the requirement and whether exist leakage oil.
2. Seeing the fuel capacity---please add it if it is not available and whether have leakage, refer to page 5.
3. Inspection front & Rear shock -adjust it if the free distance overlarge or too small.
4. Inspect the tyre---checking the air pressure and damage extent.
5. check the electrolyte of battery---- see the depth of electrolyte.

6. Test the action of throttle---view the link of steelrope, free distance of handle and change or adjust if needed.
7. Checking horn and lamp--- look over the large lamp, braking light, stopping light, turning lamp, directive lamp and the attribute of horn.
8. Checking chain---check the extension of chain, lubrication situation to change if seriously damage.
9. Checking the axles of front & rear, front and rear shocker absorber, engine append and solidness of screw.
10. Checking the turning operation --- see the flexibility and stability of operation.

#### Starting engine

##### Attention:

You'd better not start the engine in lane in case of accident.

Starting the engine when gearshift engaged is forbidden, otherwise will lead to structure damage and accident.

- Insert the key into the ignition switch and turn to position of open "O"
- Change the speed gearshift bar to zero and the directive lamp "N" showing green
- Pull the choke grip up if engine under cool state.
- When the gap of throttle less than 1/8 then you can operate the button of electric starting. Air throttle Grip
- Restart the engine in the speed of



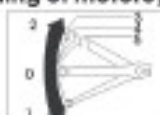
1500±100r/min, turning choke grip back to make engine work regularly.

#### Wearing in engine

It is not allowed to let engine bear over heavy load and the maximum speed is forbidden in any gearshift exceed it's 80% in the initial 100km of new motorcycle.

Never operate the throttle fully and change speed constantly to reduce the pressure on engine. At the beginning of riding should carefully drive to test, when reach to 300km, it should fulfill a repair to compensate the damage in probation and will prolong the usage life of engine.

#### The riding of motorcycle



- Let the engine warm up gradually
- When engine stay in stable speed the clutch should loosely, foot touches the gearshift to let speed into lowest gear.
- To increase the engine gradually and set free the clutch slowly to cooperate with each other and make the motorcycle walk stable.

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- When the motorcycle reach to steady speed, then lower the engine speed, escape the clutch, trample to idle speed, trample the footbar to second band. It is the same way to change other gear.

● Let the throttle and brake collaborate closely to reduce speed step by step.

- Don't turn the throttle quickly when operation front and rear brake simultaneously, to make the wheel brake suddenly,

Will decrease the efficiency of brake and motorcycle out of control.

##### Attention:

Changing the gear is prohibited if not escape from clutch or turn down the throttle, or will cause the damage to the engine and transmission system parts.

#### The checking of lubrication oil

Checking the lubrication oil before riding everyday. Ensure the oil capacity between ①&②.



upper mark lower mark

- Add 15W/40-SG petrol as to the situations but not exceed scale ②.

##### Attention:

The inner parts may be injured if engine lack of gas.

#### Replace the lubrication oil

Discharge the oil when engine in the warm state.

- Put a vacant fuel tank under the engine then turn on the tap.

● Press the starting tap until the left oil out.

- Upload the tap and screw to examine if it leakage.

Insert the lubeoil approximately 1L.15W-40-SG. To start engine works some rounds then stop it, recheck the fuel volume and add it if necessary.



Screw

Notice: Add the fuel change times as to the pollution of dirt.



#### The clearance of stale carbon

The clearance of stale carbon on the spark plug, piston, piston ring.

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### The usage and checking of spark plug

Suggestion usage: D7EA

- Clear the dirt after split the spark plug cap and disconnect the spark by wrench.
- Checking the situation of sediment, ablation and piled carbon. Please change the Spark plug if serious ablation with much carbon or insulator with crack or shed.

Take the cleaner or steel brush to rid off the carbon or dirt.

- Bending side electrode to adjust the hole by ruler as  $:0.7 \pm 0.1 \text{ mm}$ .

### The checking and adjusting of valve gap

Please check and rectify the valve in the state of unstarting.

- Unlink the cover of sign, electrode and valve.
- To make the T mark in line with indication mark, letting the piston lie in the upper point of pressing stroke. Using finger to touch the swing arm to test to judge the arm can freely move to show piston in the upper stopping point of stroke. Otherwise, to turn  $360^\circ$  in order to level between t and indication mark.



- Inserting the ruler into the valve gap to check the aperture in the two valves.
- Standard valve distance: Insert  $0.06-0.10 \text{ mm}$ , discharge  $0.06-0.10 \text{ mm}$ .
- How to amend the gap of valve. Firstly loose the screw in the valve body then turn the screw with the ruler to make it reach to standard, at last latch the screw and recheck the valve gap.
- Turning the magnet roller as clockwise to  $180^\circ$  after adjusting the gap to level the t & indication sign.
- Assembly the engine in the opposite order.

### The examine and maintenance of air filtering

Air filtering at least Clear and oil once after riding about 4000kms. If the region has much dirt it should be pay more attention to care. The local distribute will teach how to keep maintenance.

### Checking & Maintenance of air cleaner

- Open the air filter and take the filter core out.
- Clearing the core in the detergent then let it dry.
- Put the core into gasoline till fully wet and squeeze the redundantly lubrication oil.
- Equip the core as the order.

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### Checking of the leakage of air pipe

The regular testing on the combined parts of air road is necessary and to supply repairing or replacement if needed.

### The operation and checking of throttle

Examine the handbar of throttle, from the whole open to close whether turn well.

Checking the freedom hole of handbar that the normal space about 2-6mm.

The way of adjusting hole through loosen the nut ①, then turn the screw ②.



① Lock screw ② adjust bolt

### The adjusting of carburetor

- Operation after the motor go through the temperature arising.
- Adjusting the speed screw to make reach  $1300 \pm 100 \text{ r/min}$ . speed up after turn screw as clockwise, the opposite will decrease speed.
- Trying run motor and speed up but still work well means speed is steady, the otherwise should adjust. ① Idle screw-



### The adjust of clutch

- Operating the left grip of clutch to keep the freedom hole between 10-20mm. If need adjust, should loosen the locknut ① of clutch position plate ② on crankcase box.
- Turn to the A direction to lessen the free travel of left grip.
- Open the anti-dirt rubber of left handle to adjust by roll the upper adjustor.



### The checking, adjust and lubrication of transmission chain

- Checking the tense state and damage situation of chain.
- Stand the motorcycle in plain place to press the chain by thumb then test the degree of chain. Normally make distance between 10 and 20mm is best.

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### The adjusting of transmission chain

- Loosen the screw of rear wheel.
- Loosen the screw of transmission adjuster then turn the axle.
- Let the bilingual adjustor in same scale, checking the rear wheel



Screw to let rear wheel axle fasten torque in 55-65N.m.

Checking the flexibility of chain.

Adjusting the free clearance follow the actual state after changing the density.

### The lubrication for chain

Tear down the chain lock nip then open the chain section. Spread chain.

Clean the chain in the detergent and dry it.

Checking the damaging, rigidity, crack of ball,

button or out of chain, if yes please replace it.

Add proper diesel fuel or lubrication oil on chain.

Install the chain as the opposite order and correct it.

### Attention:

Avoiding the direction of chain lock pin reverse to the normal turning when fasten the lock nip.

### The checking and maintenance of front brake

#### Brake liquid

Put the motorcycle on flat ground then checking the oil capacity by seeing from fuel meter, to ensure the oil during the two marks. If below the below mark you should go to the special repair shop to check the hose of brake, make sure there is any leak in brake general pump, brake part pump, joint parts and add brake oil. Be loosening the screw and tear down the cover then can add oil.



#### Braking bushing:

Checking the fray of bushing. As the double array point to check, if damaged seriously, should be replaced the new two brake bushings.

#### Notice:

You must use our company stipulated special repair shop products. The mending on brake must by special personnel.

### The adjust of rear detent

Let motorcycle stand by main stand.

Press pedal of rear brake by hand till feel resist, the free travel is the displacement of head of break pedal.

Measure free travel of break pedal. Normally free travel is 20-30mm.

It is abnormal when free closely after press rear brake pedal and should adjust it.

Adjust of free travel of rear brake pedal: Turn clockwise to adjust screw and reduce free travel, vice versa. Press lever of rear pedal by hand till feel resist after adjust, measure free travel by special ruler to ensure if it in normal(20-30mm)



### The checking of front and rear swing frame

Hold closely the front detent and lift and press the front fork many times hardly, then the front swing frame should steady and no oil leakage.

Rear fork bushing check firstly let main support the motorcycle, with force to push the side of rear wheel to feel the flexibility clearance of fork bushing. Examine the steadiness of front and swing frame carefully.

### The discharge of front wheel

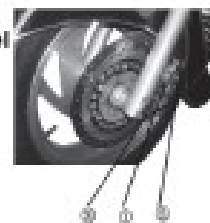
Let motorcycle stand by main support when separate front wheel. Loosen the screw ①, tear down the soft axle of KMPH meter ②, Tear down the front wheel bolt ③, take out the front wheel axle and front wheel.

① Screw ② Soft axle of meter

③ Front wheel axle bolt.

The assemble method reverse with the separate.

The front wheel bolt fasten torque in 40-50N.m



### The discharge of rear wheel

Let motorcycle stand by main support. Loosen the rear wheel axle screw, put out the axle, take away the rear wheel, Left & right bush, disc break bracket and chain.



**[Assembly method]**

The method of a assembly is opposite with disassemble.

Adjust the rear detent and chain, after equip the rear wheel, brake many times then relax detent examine, rear wheel should free revolve.

**The maintenance and checking of muffler**

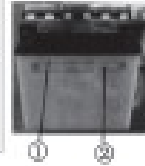
Clear the carbon as the regulation. Checking the exhaust pipe whether exist the damage and bashing relax, please change if have it.

**The maintenance of battery**

You must deal with the battery liquid as the relation regulation, throw away is forbidden. The checking should follow the maintenance schedule "AND"

examine before riding. When check you should keep the electrolyte in level and should stay in standard mark ①, if too shallow you can add pure water but limit in standard level ②, or it will cause corrupt owing to exceed.

**Attention:**  
there is sulfur (electrolyte) in battery with attribute of corrupt, if the sulfur contact to surface will lead to burn, please were safe clothes and head cover, never make the children touch it.



**Double insurance pipe**

When the accident in electric cable or overloading, the insurance fuse will cut automatically, you need check the cable, overcome the obstacle, and replace the spare insurance cable in 15A that put in the insurance box.



double insurance pipe

**The adjusting of rear detent switch**

The rear detent switch locates in the right rear side frame of engine.

Method to change: adjust the screw to (A) if light earlier, turn the screw to(B) if light later.

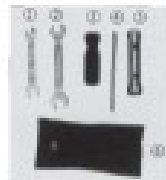
- ①Rear brake lamp switch
- ②Adjust nut
- A flash in advance
- B flash in delay



**Free tools**

Follow are tools names:

- ①. 10mmx12mm spanner
- ②. 14mmx17mm spanner
- ③. Screw handle
- ④. " - " " + " Double use screw
- ⑤. Spark plug set spanner 16# × 18#
- ⑥. Tool bag



**Usually accident checking**

Please checking as follow if motor not start up

- (1) Whether fuel available
- (2) Whether fuel can flow into the carburetor by fuel tank
- (3) Dial away the fuel pipe in carburetors to check to check whether flow out fluently.
- (4) If the fuel can reach to carburetor then next step should check ignition system.

**Warn:** Don't let fuel spread into ground. Don't let fuel near to high temperature engine & exhaust pipe. You should make it far away the heat or fire when checking it.

1. Tear down the spark plug, then connect it to high voltage cable.
2. Fix the spark plug onto the motor body, turn on the ignition switch to "ON" flameout switch to " Ⓞ " position, then press the start button., If the ignition system works regularly, then the blue spark between the two poles of spark plug. If not you can ask the distribute to mend it.

**Cleaning and storing**

**Cleaning:** At first examine the spark plug and all fuel mouths fix correct before cleaning.

Use hose to clean dirty. Dry the surface of body by towel or absorbing clothe after cleaning. Dry chain and lubricate in case of rust. Let the motor run several minutes without moving forward.

**Attention:** The overlarge cleaning pressure will cause water leakage, the damage of wheel bearing, front fork, detent, sealing parts and the electric gas parts. Be aware of the muffler enter water, the wet of spark plug.

**Storage**

After cleaning, if need store 30days or even longer, please do as follow:

Discharge out the all fuel, oil in the tank, carburetor, pipe and others place have. tear down the spark plug, insert some(about15-20ml) ASE10W/40QE rank lubrication oil spark plug, fit well spark plug ,turn off the ignition switch, starting by electric several times to spread the lubrication on average.

Tear down the riding chain, wash thoroughly, lubrication. Lubrication the all controlling chain.

Heighten the motor frame to let whole motor higher than ground. Using plastic bag fasten the mouth of dischargement in case of humidity entry.

You should paint thin antirust oil on outer metal to when store in humid sky. Download the battery, put into the shady, dry place after charging and recharge once per month. Cover motorcycle with cloth and store in the shady and dry position.

**How to use after long times stock**

You need replace the diesel oil in motor if stock over four months.

Checking before the riding. To check if it is normal when run on slow speed.

**Recycle maintenance**

The vehicle must repair as the regulated period. The meaning of mark in the table as follow:

I: Check, clean, adjusts, lubricate or change  
C: clean, R: change; A: adjust; L: lubrication

\*The work must do by major people to repair. It canbe done by personnel if you have suit tools, mending instruction or ability. Maintenance knowledge please refer to the instruction book.

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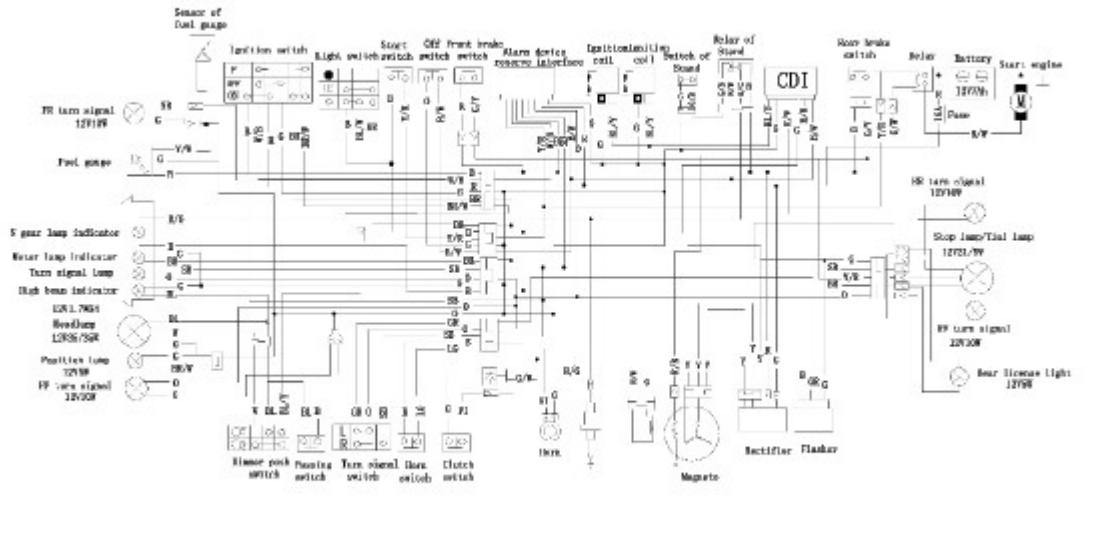
Notice:

①It should clean if you usually drive in dirty regions.

②If the KMPH meter exceed the maximum figures, the maintenance period still according to the right table

**Recycle of maintenance:**

ITEMS	TIMES	Item	Mileage meter (Km)(notice②)				Note
			Schedule	1000kms	4000kms	8000kms	
* Fuel system				I	I	I	
* Fuel filtering			C	C	C	C	
* Throttle operation systems			I	I	I	I	
* Carburetor choke gate				I	I	I	
Air filter core	Notice①			C	C	C	
Spark plug			I	I	I	I	
* Air inlet clearance			I	I	I	I	
Engine lubrication oil	Per year	R		Per 2000kms R			
* * Lubrication filter net	Per year R				C	A	
* * Chain tension		A	A	A	A	I	
* Carburetor idle speed		I	I	I	I	L, L	
Drive chain		I, L	I, L	I, L	I, L	I	
Battery	Per month	I	I	I	I	I	
* Brake bar /teaching damage		I	I	I	I	I	
Brake system		I	I	I	I	I	
Brake lamp switch		I	I	I	I	I	
* Front light		I	I	I	I	I	
* * Clutch		I	I	I	I	I	
Side support			I	I	I	I	
Swing frame		I	I	I	I	I	
* Screw, bolt lock pit		I	I	I	I	I	
* * Wheel/spoke		I	I	I	I	I	
* * Turning bearing		I	I	I	I	I	



**Main technique parameter**

Total Length-----	2020mm
Total Width -----	790mm
Total Height -----	1170mm
WheelBase-----	1390mm
Net Weight -----	144kg
Ground Space -----	190mm
Engine -----	2cylinder 4stroke wind cooling
Displacement -----	234ml
Bore ×Stroke-----	53*53mm
Compression Rate -----	9.2:1
Regular power Kw/(r/min)-----	12/8000
Max. Torque N.m(r/min) -----	15/8500
Ignition Mode-----	CDI
Valve inlet clearance-----	0.05mm
Valve outlet clearance-----	0.05mm
Start mode-----	electric start
Clutch-----	wet mutli-sheet
Gear alter mode-----	five gearshift with meshing
Battery-----	12V 9AH
Generator-----	fadeless magnet
Front lamp-----	12V 25/25W
Tail/brake light-----	12V 5/21W
Front turn signal lamp-----	12V 10W
Rear turn signal lamp-----	12V 10W
Mileage meter-----	12V 1.7W

RPM meter lamp-----	12V 1.7W
Neutral indication lamp-----	12V 1.7W
Far beam lamp-----	12V 1.7W
Turn signal indicate lamp-----	12V 1.7W
Horn speciation -----	12V 1.5A
Max. speed-----	130km/h
Slope capacity-----	≥18°
Brake distance-----	≤7m
Economic fuel consumption-----	2.5L/100km
Front detent-----	disk brake
Rear detent -----	disk brake
Transfer	
Initial slowdown ration-----	3.631
1 <sup>st</sup> rank transmission ration-----	2.846
2 <sup>nd</sup> rank transmission ration-----	1.777
3 <sup>rd</sup> rank transmission ration-----	1.333
4 <sup>th</sup> rank transmission ration-----	1.083
5 <sup>th</sup> rank deceleration ratio -----	0.913
Last ratio -----	2.4
Front tire-----	110/70-17
Rear tire-----	140/70-17
Fuel tank capacity-----	16L
Luboil-----	1.2L