This manual has been updated, because of QLINK constant efforts to further improve performance, you may find some differences between your motorycle and this manual,therefore if you have any questions or comments please contact your local QLINK Service Center.

For any repairs not mentioned in this manual,the parts catalog can be refered for any further questions, please contact your local QLINK Service Center

Use only genuine spare parts and accessories manufactured by QLINK

The meanings of some signs in the manual are as follows:

⚠ WARNING

Indicates potential hazard that could result in injury or death

⚠ CAUTION

Indicates potential hazard that could result in vehicle damage

⚠ ADVICE

Indicates special information to make maintenance easier or instruc--tions clear

756 PORT AMERICA PLACE ,

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For more information
visit our web page
www.qlinkmotor.com

Warning

Please read this book before your ride

⚠ WARNING

* Always follow regulation and ride safely
* Never lend your machine to other riders who do not hold a valid licence or insurance
* Never take part in competition, if accident happens to machine or person, you should be responsible for the consequence.
* Check all accessories and documents when unpacking
* The maximum load of the motorcycle is 330lbs and one rider with one passenger are allowed.
* Wear helmet and suitable protective clothing

⚠ CAUTION

* Never wear loose items or accessories that could become entangled with the machine or restrict its operation/control

⚠ ADVICE

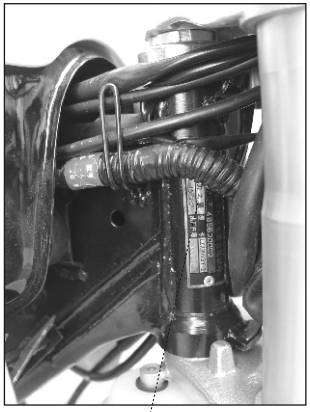
* Never change any part of this machine and that will be influence reliability,stability of motor--cycle.

Vehicle Identification Number (VIN) /Engine Number

These numbers are important and must be recorded on the machine's Vehicle Registration document.

VIN

VIN is recorded on the right side of frame.



Nameplate

The nameplate is stamped on the left side of frame.

Engine number

The Engine Number is stamped on the right-hand side of the crank--case.

Fill in the corresponding blanks for check.

VIN
Engine No:

Location of Parts

① front brakes

② front shock absorber

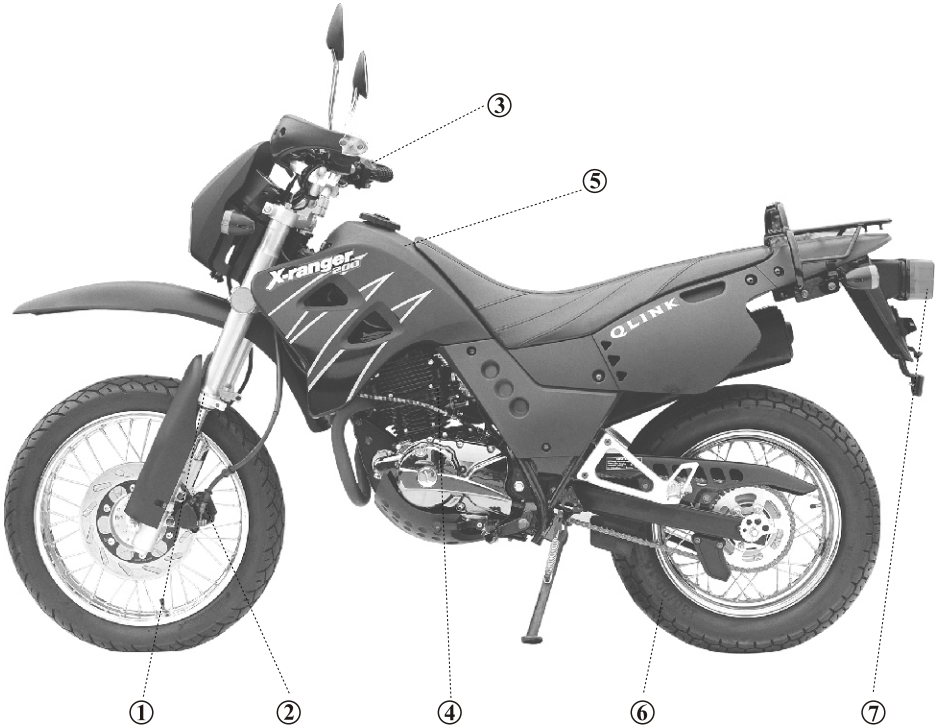
③ handle bar

④ fuel shut-off

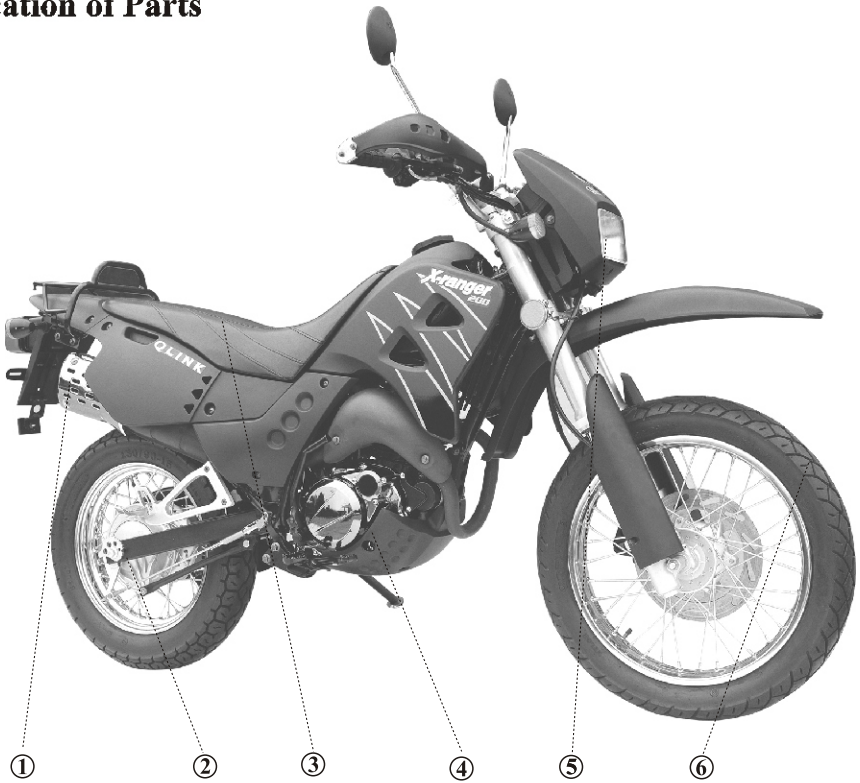
⑤ fuel tank

⑥ rear wheel

⑦ rear lamp



Location of Parts



① muffler

② rear brakes

③ seat

④ rear brake pedal

⑤ headlamp

⑥ front wheel

Location of Parts

① rear mirror

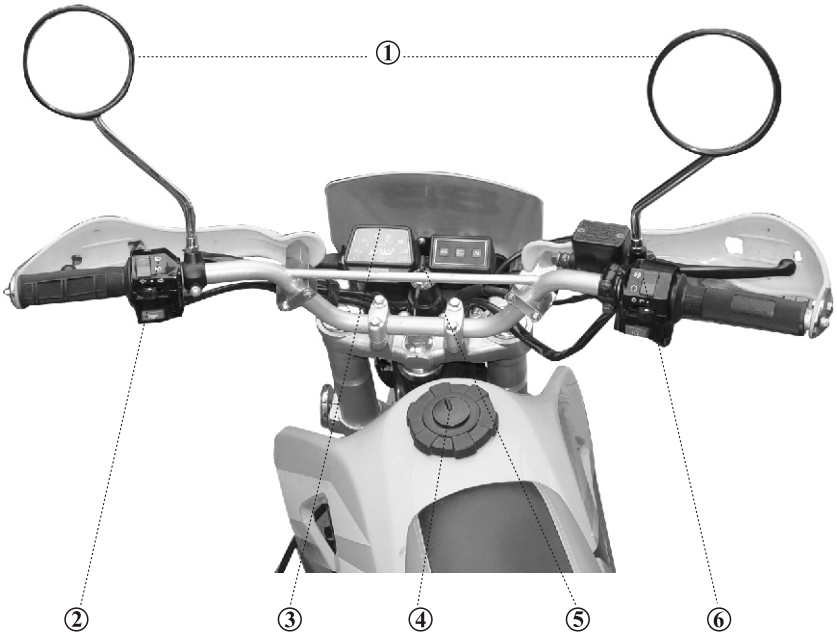
② left controls

③ instrument console

④ fuel tank key

⑤ ignition switch

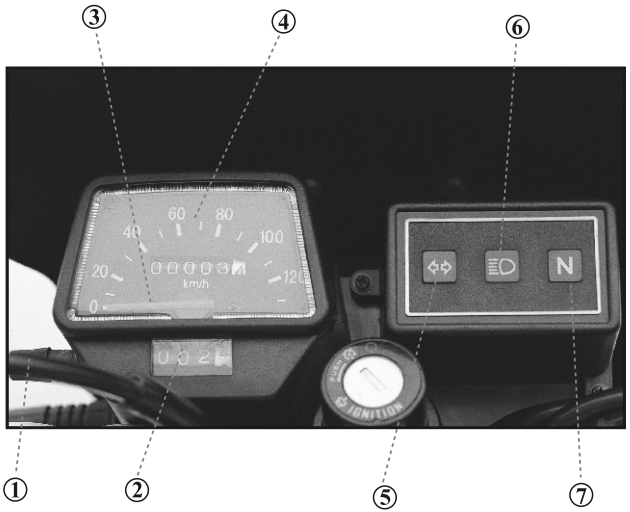
⑥ right controls



Specifications

Items		Description	
Dimension (Length X Width X Height)		Carburetor	MV28P-1C
	85.8"X31.9"X47.2"	Clutch	manual, wat and multiple
Wheelbase	53"	Transmission	mesh with 5-speed
Min.ground clearance	9.8"	Spart plug	D8RTC
Gross mass	309 lbs	Fuel tank capacity	1.5 Gallon / .2 reserve
Max. load	330 lbs	Fuel Type	Gasoline
Engine mode	ZS167FML	Octane Reting	90 octane or above
Bore X Strok	2.6X2.2"	Lubricant capacity	1.06 Quart
Compressing ratio	9.5:1	Lubricant brand	SE15W/40
Max. power/corresponding rev	14.7 hp @ 7500rpm	Brake	front: disc/ rear:drum
Max. torque/corresponding rev	10.48lbs @ 6500 rpm	Front Tire	100/90-18/ 32psi
Max. speed	55.8 mph	Rear Tire	130/90-15/ 36psi
Starter	kick/electrical	Battery	12 volt
Economic fuel consumption	45mpg	Fuse	10A
Ignition	C.D.I non-contact	Headlamp	12V35W35W
Lubrication	pressure and splash	Rear light/brake light	12V5W/21W

Instrument Unit



① **Zero set:**

Reset the accumulated miles in odometer to zero.

② **Short odometer:**

Shows the accumulated short kilometers covered

③ **Speedometer finger:**

Indicates speed during ride

④ **Odometer:**

Indicates total miles accumulated

⑤ **Turning indicator:**

Illuminates when turn left or right

⑥ **High beam:**

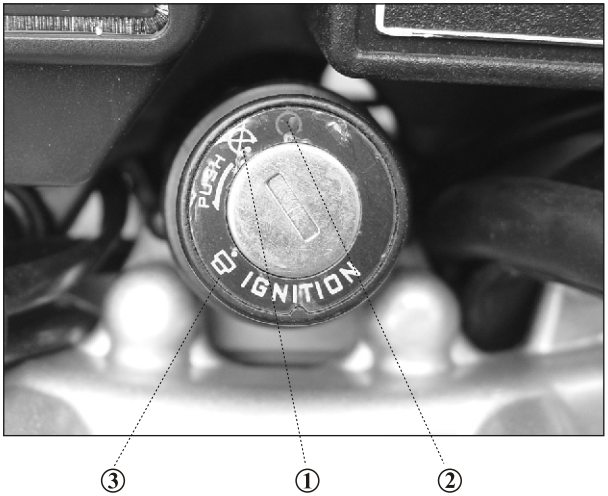
Illuminates when in operation

⑦ **N:**

Illuminates when transmission in neutral

Ignition Switch

Ignition switch is located under instrument

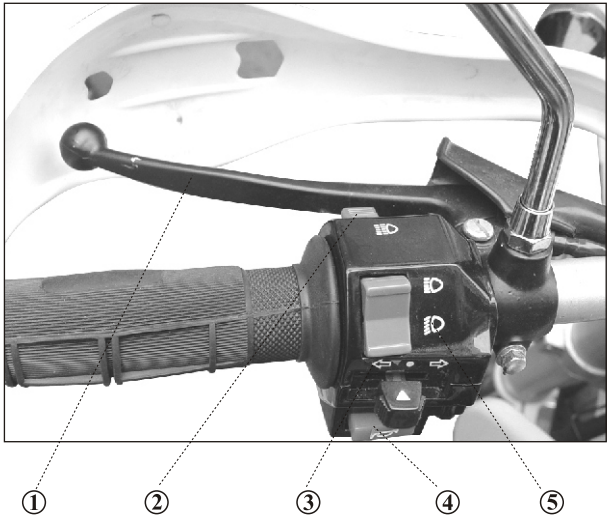


① Turn right ignition key to "" position, electrocircuit is cut-off

② Turn left ignition key to "" position, electrocircuit is switch-on

③ Turn left steering bar to limitation, insert key and turn to horizontal level, vehicle can be locked.

Left Handlebar Switches



① Clutch handlebar:

Hold it tightly to disengage the power plant.

② Passing light switch

This switch is used for passing a vehicle.

③ Turn signal light switch:

When making a turn, switch it to left or right.
To cancel, press down on the middle.

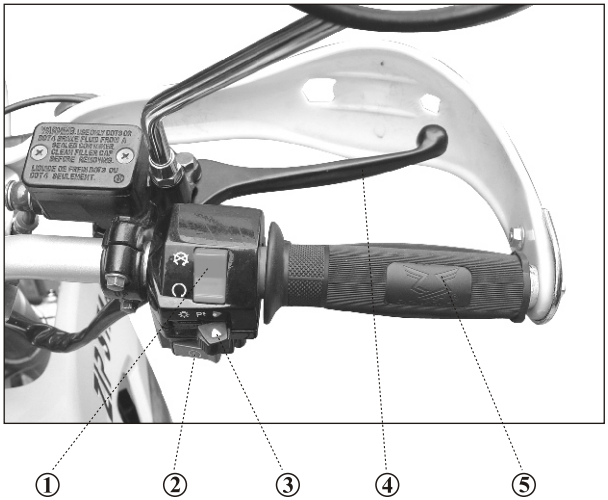
④ Horn button:

The horn sounds as it is pressed to be used as an alert.

⑤ Headlight switches:

Control the shift of full beam and low beam.

Right Handlebar Switches



① Engine kill switch:

Controls starting circuit.

② Electronic starting buttton:

It controls the power supply and cutting out.

③ Illumination switch:

Controls the illumination circuit.

④ Front brake lever:

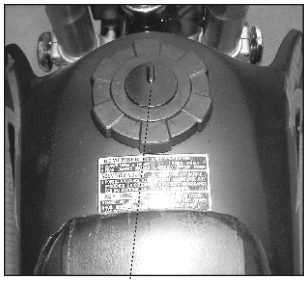
Applied to brake front wheel.

⑤ Throttle:

Controls acceleration of vehicle.

Fuel tank

fuel tank capacity ⩾8.0L, including 2 liters of reserve tank.



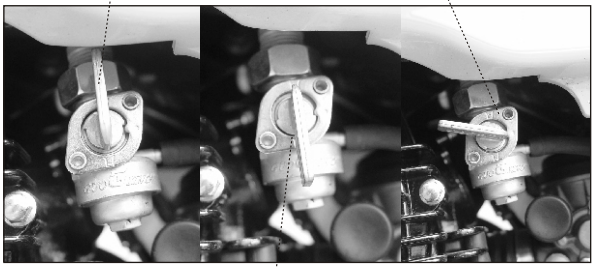
Insert key to open cap to add fuel.

CAUTION

- Do not over add the fuel.
- For the fuel is flammable, add it in cool, good air--flowing, dry place. Smoking is strictly prohibited.

Fuel Switch

Located under fuel tank.



CAUTION

- Add fuel as soon as possible, when using the reserve fuel tank.
- Do not keep the handlebar in "⊔" postion after adding fuel.

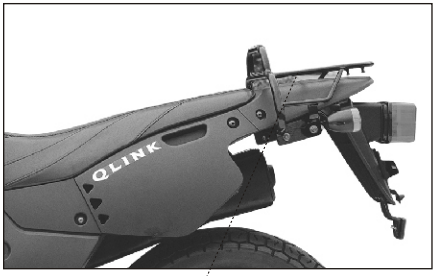
Goods Loading

There are some requirements for the cargo loading of a vehicle.Improper loading may affect the stability and safety of vehicle.

All the cargo must be fixed to vehicle firmly.

Loading cargo on steering handlebar, front fork and fender is dangerous

Never load cargo beyond the max limit(10lbs)

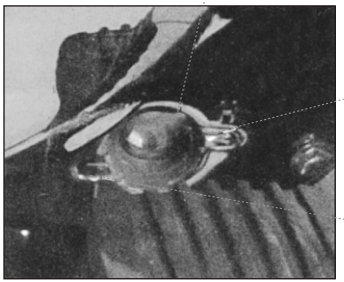


The rating load of carrier should not be more than 10lbs

Check before driving:

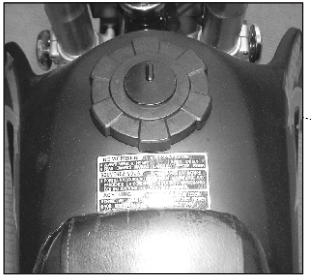
Check the following items to ensure your your security

Keep the vehicle vertical and check the level of oil

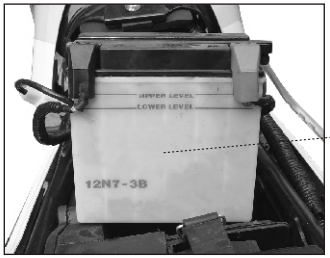


Upper limit

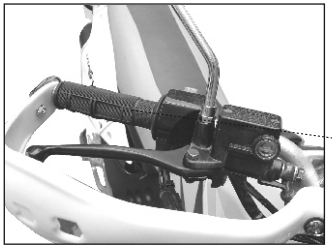
Lower limit



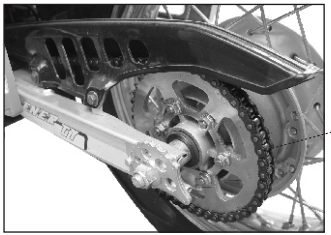
Check whether there is a need to add fuel



Check whether the battery is fully charged and if the connections are secured

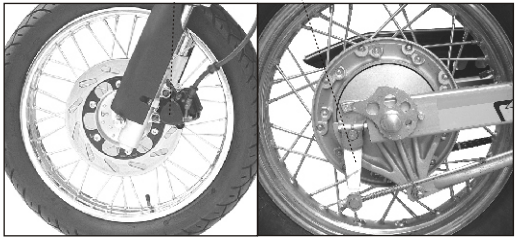


Check the clutch free stroke and mesh condition.

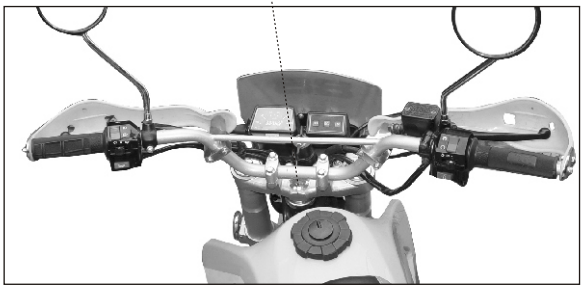


Check the tension and lubrication of the chain

Check tire pressure and wear of tire, check operation of brakes



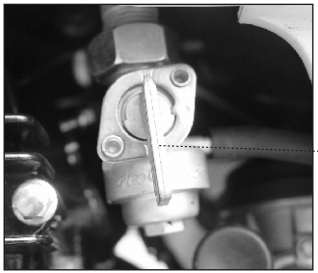
Check stability of steering stem



Check operation of headlamp, rear lamp, brake light, turning light and horn.

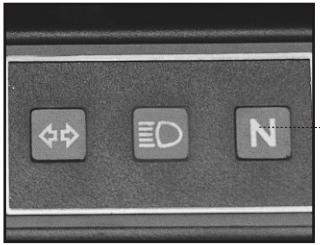
Starting of engine

Please check as flollws before starting engine.



Turn the fuel cock to “ ”

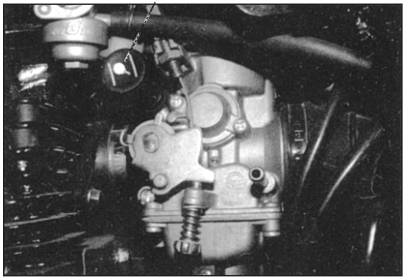
Insert the key igntion switch and turn it to “ ”position

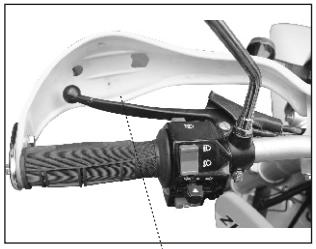


Neutral indicator illu--minates when trans--mission in neutral

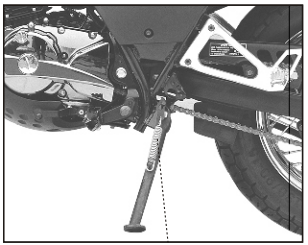
Turn the engine stop switch to “ ”

Put choke button left to close choke if engine is in cold.





Grasp clutch lever to cut off engine power.

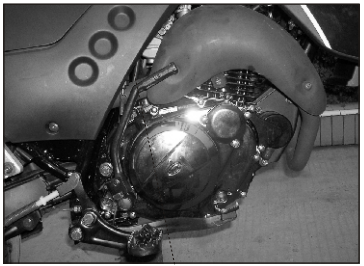


Kick back side stand

Electrical Starter

Press electrical starter and twist throttle lever.

Kick Starter

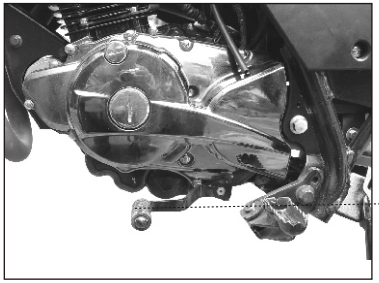


Step starting lever and twist throttle lever.

⚠ WARNING

- Choke lever controls air flow in carburetor.
- Push the choke lever to the left, the choke is in on
- Push choke lever to right, the choke is in off
- Never start engine at narrow place to avoid damage.
- Never operate for more than 5 seconds at a time. If the engine does not start 3 times, should check the motorcycle.

Gear Change

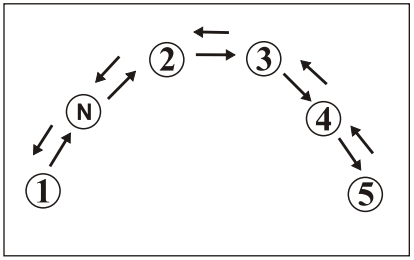


Step down or up to change gear.

Clench clutch lever when gear changing.

⚠ CAUTION

Step down gear change lever in 1-speed when starting and unclench clutch lever gently.

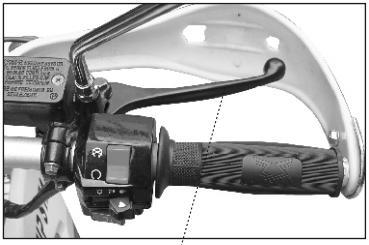


Caution during Breaking-in

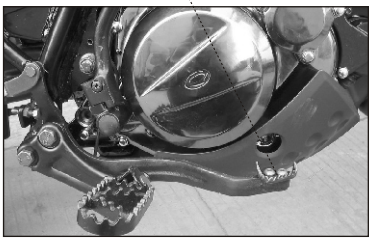
For best performance and a long and trouble-free operating life from your X-ranger 200, for the first 620miles you should check as follows:

- Keep the speed to below 65000rpm
- Avoid operating by full throttle
- Check heat of engine, transmission and brakes.
- Check chain elasticity and stroke of brakes, clutch and throttle lever.
- Avoid suddenly braking for the first 620miles

Brakes



Return to idle before brake, grip front brake lever and step rear brake lever.

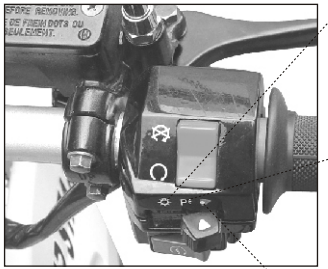


⚠ CAUTION

Brakes are used to decelerate after decelerating, grip clutch lever.

Operation of Handlebar

Opertation of illuminating switch



" ☼ " Position:Headlamp, tail light, instrument illumi--nator and positioning light are turned on.

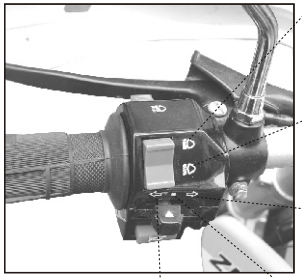
" ☼ "Position: tail light, instrument illuminator, positioning light are turned on .

" ● " Position: Headlight, tail light, instrument light position indicator are off

CAUTION

While operating headlight, turn ignition switch to "ON" position.

Operation of turning light and headlight



Press the button to " ≡D " position, turn on the high beam.

Press the button to " ≡D " position, turn on the low beam.

Press the button to " ⇨ " while turning right, front and rear turning light are on.

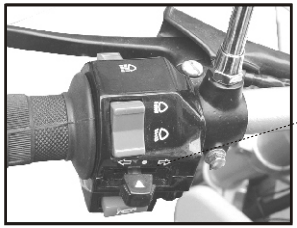
Press the button to " ⇦ " while turning left, front and rear turning light are on.

Press this button, so that turning signal lights are turned off.

CAUTION

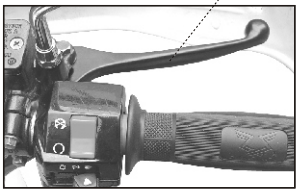
While operating the headlight switch, turn the illuminating switch to " ☼ " position.

Parking

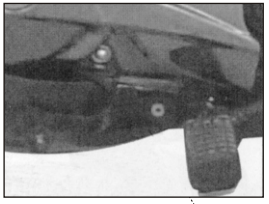


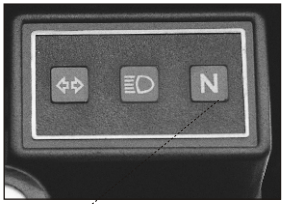
Turn on proper turn signal light if neces--sary.

Apply brake lever at the same time.



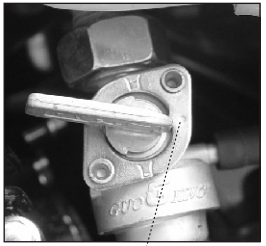
Grip clutch lever





Step gear change lever to neutral gear.

Turn fuel shut-off to "⛽"



Turn fuel shut-off to "●" to stop fuel supply.

⚠ CAUTION

Lock steering after parking and remove key. Step gearchange lever to 1st gear to avoid vehicle sliding.

Maintenance Requirements

- To obtain a optimum performance, service your motorcycle before and after each riding. Clean it frequently.
- Maintenance as the following:

  1.Crank the engine for a few minutes after cleaning.

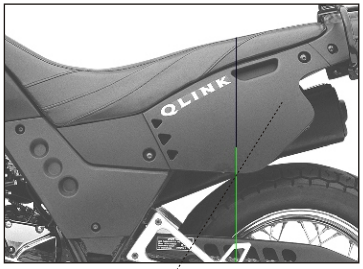
  2.Check the bike for leaks.

  3.Inspect all connectors for tightness.

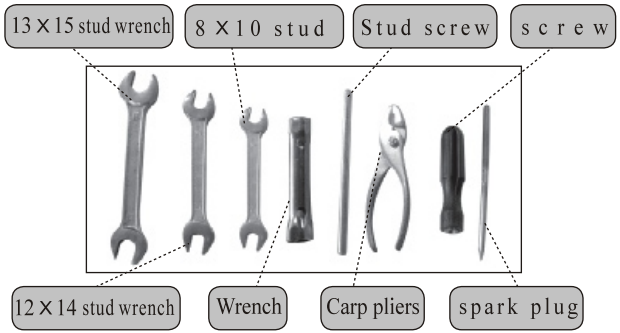
- Service the bike according to odometer readings:
- Service for Level 1:After you have ridden 620 to 1240miles, check the lubrication state and tightness of your bike.
- Service for Level 2: After you have ridden 1860 to 3720miles, check the state of your bike and adjust as necessary.
- Service for Level 3: After you have ridden 3720 to 6210 miles, disassemble your bike to inspect for worn parts and if there is a need to replace them

Toolkit

Tools attached are as the following:



Toolkit lies at rear left-side.



Regular Service

Parts eventually wear or become loose after a period of riding. A regular maintenance will help keep your new bike operating at peak performance. Lack of regular maintenance can affect the safety and reliability of your motorcycle and shorten the service life.

Service requirements are as the following:

1. Proper clutch disengagement and proper operation of gear shifting lever and throttle control grip.
2. Proper operation of brake handle lever and brake pads.
3. Reliable operation of front and rear shock ab--sorber; correct pressure for tires and proper operation of all items.
4. Keep the tightness of all connectors.
5. Keep rolling parts lubricated.
6. Well connection of battery posts.
7. Keep tools and accessories are all ready and without rust.
8. Make sure there is not excessive leaks.

Break-in Maintenance

"Break-in Period" is very important for a new vehicle, which will have a direct impact on the service life.For the first 620 miles, keep the engine speed below 6500 rev/min in all gears (speed is below 30miles/h) and avoid riding at the same speed for a long distance.Maintenance the vehicle after the first break-in procedure, which will assure future performance and durability.

Pay attention to the following during the break-in period:

1. Frequently inspect the connecting parts for tightness.Tighten as necessary.
2. Replace the filter media per 310miles in brake-in period.
3. Check whether the motorcycle, transmission system and brake system is overheating.If has, find out the reason and solve the problem.
4. Check drive chain, brake pedal and throttle con--trol grip for proper operation.Adjust as necessary.
5. Warm engine up before operating, and limit speed during first 1-2 miles.
6. Change the speed as the load increased to avoid the engine wear or damage.Do not overload the engine.
7. Avoid hard braking unless necessary
8. Strictly control the driving speed.

Service for Level 1:

- Maintain your vehicle after riding per 620miles to 1240miles as follows:
- Adjust the stoke of front brake lever to 10mm-20mm and adjust stroke of rear brake pedal to 20mm-30mm.
- Adjust stroke of throttle cable to 2mm-6mm and lubricate the throttle cable and throttle control grip.
- Clean carburetor, fuel tank, filter media and air cleaner.
- Adjust idle speed to (1400 ± 140)r/min.
- Remove carbon deposit on spark plug and adjust spark plug gap to 0.6mm-0.7mm.
- Remove battery and charge.
- Check and tighten screw and nut of exposed parts.
- Check the tightness of the joint of electric system. Tighten as necessary.
- Check the stroke of drive chain, which should be 15mm-25mm. Dismantle the chain to clean and add luboil.

Service for Level 2

Maintain your vehicle after riding per 1860miles-3720miles as follows:

- Remove carbon deposit on cylinder, piston, piston ring, cylinder cover and muffler and clean.
- Inspect cylinder, piston and piston ring for wear and damage. The compress ratio should be 9.2:1.
- Inspect the clutch friction discs and brake disc for wear and damage. Replace as necessary.
- Clean carburetor, air cleaner, fuel tank and filter media.
- Clean steel ball of steering stem and add lubricating oil or grease.
- Check axial and radial jumping of front and rear wheel, adjust as necessary.
- Check the abrasion of control cables and replace if necessary.
- Clean gearbox and clutch disengage box; check the abrasion of gear and replace luboil.
- Wipe off dirt on rear mirror and check rear mirror position.
- Check electric parts for proper operation.
- Tighten bolt and nut of fasten parts.

Service for Level 3

Maintain your vehicle after riding per 3720miles 6210miles as follows:

- Keep lubricating system operating well.
- Keep valve mechanism operating well.
- Keep electric starting system operating well.
- Keep clutch, gearbox and transmission system for proper operation.
- Check the state of gear tooth of gearbox.Replace as necessary.
- Remove carbon deposit on cylinder cover, piston, piston ring and exhaust port when disassemble engine. Check the match clearance of connecting rod and piston pin.
- Keep the front and rear shock absorber,frame and accessories operating well.
- Keep the fuel system, meters and electric system for free operation.
- Check the state of steering stem, front and rear wheel, carburetor, air cleaner, brakes and control system when disassemble vehicle.Clean the parts and add oil. Re-adjust match clearance after assembling.

Carburetor Maintenance

A well maintained carburetor can keep the vehicle in good working condition.

Maintain carburetor as the following :

1.Check the carburetor, intake pipe, cylinder head, cylinder and air intake of crankcase to make sure they are in good seal condition.Otherwise, the gas leakage would result in no or poor idle speed.Clean the carbure--tor frequently.

2.Remove carburetor to check and clean every 1240 miles to avoid the main jet, idle jet and mixer gas hole plugged.

3. After cleaning of carburetor, check sealing of float needle before installing. The checking method is: dismantle float chamber cover, insert fuel feed hose to the outlet of fuel tank, reverse the carburetor and then fit float needle and turn on fuel supply valve. If there is oil leakage from float needle, which indicates a poor sealing. Replace float needle as necessary.

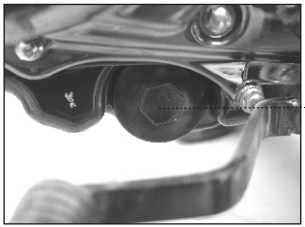
4. Inspect the gasket for distortion and damage. Replace as necessary. When installing, pay attention to the sealing of carburetor connecting tube and cylinder, and if air leakage appears,apply a film of sealant.

Maintenance schedule is on the basis of odometer readings and should be shortened when the generator is frequently used.

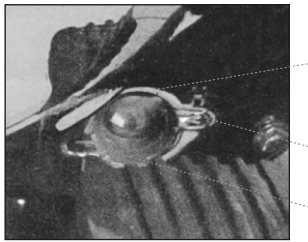
Items \ Maintain times		Items / Times	Odometer Reading				Remark
	Fuel system		C	C	C	C	• ※※Only operate by QLINK Serviceman. • You should often mainten--ance vehicle after wet and dusty condition
	Oil filter		Clean	C	C	C	
	Control cable		Adjust	A, C	A, C	A, C	
※※	Carburetor		Clean	C	C	C	
	Air cleaner		Clean	C	C	C	
	Spark plug gap		Adjust	A, C	A, C	A, C	
※※	Valve clearance		Adjust	A	A	A	
	Engine lubrication		Replace	Replace once every 1240miles after running-in			
	Filter media		Clean	C	C	C	
※※	Timing chain		Check	A	A	A	
	Carburetor idle speed		Adjust	A	A	A	
	Drive chain		Adjust and lubricate per 310miles				
	Battery		Charge	C	C	C	
	Brake pads		Check	A	A	R	
※※	Brake system		Adjust	A	C	C	
	Brake light switch		Adjust	A	A	A	
	Illuminating system		Check	C	A	A	
	Clutch		Adjust	A	A	A	
※※	Shock absorber		Adjust	A	C	C	
	Nuts/Bolts		Tighten	T	T	T	
※※	Front and rear wheel		Check	C	C	R	
※※	Turn handlebar bearing		Adjust	A	A	R	

Lubricating Oil

Open the oil adding bolt and add lubrication oil.



Release half mount of oil and check whether the quality of oil



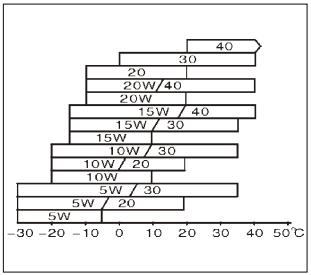
Keep the vehicle vertical and check the level of luboil

Upper limit

Lower limit

CAUTION

- Replace oil when the engine is warm
- Start with kick-starter for several times and drain out all the oil.
- Wash the crankcase with 0.5L of petrol and drain out all this petrol.
- Newly added oil has to be filtered.
- Choose the oil according to the temperature; SF15W/40 oil is recommended. The grades of other luboil must be above SE.
- Check filering net, seal ring, spring, O-shaped seal ring and oil draining bolt.
- After replacement, tighten the draining and injecting bolts.
- Start the engine, keep it running at idle speed for 2-3 minutes.



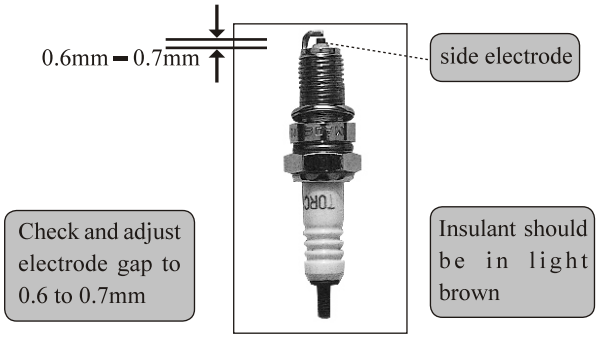
Spark Plug

Spark Plug type:D8RTC

Remove Spark Plug and inspect the insulator color.

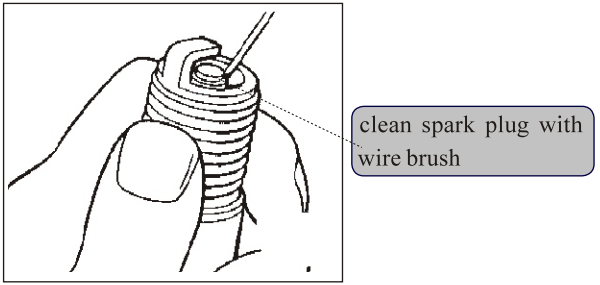
1. If gray, this indicates an overheat condition may exist. Return vehicle to QLINK Service.

2. If very black in color or coated with black deposits, the carburetor may be misadjusted.



Cleaning Spark Plug:

Avoid damaging insulator when cleaning spark

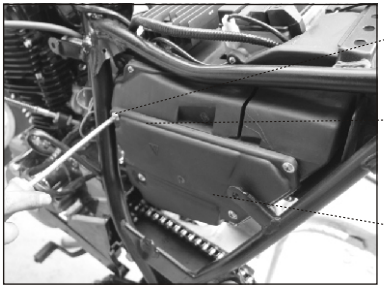


Remove carbon deposit and never bake and clean spark plug with metal brush.

Fix gasket on spark plug and then tighten spark plug.

Cleaning of air filter

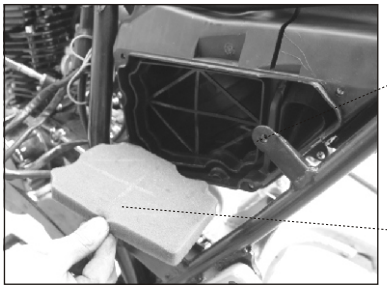
When its core is blocked, it may lead to obstacle increase, overdensity of gas and decrease of power, so it should be cleaned frequently.



①bolt

Dismantle the cap of air filter

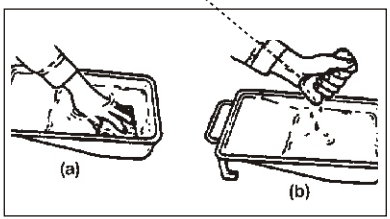
②airfilter cap



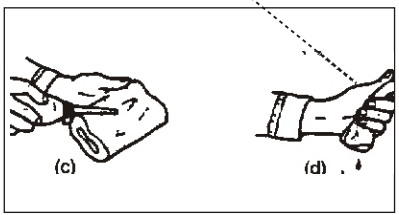
Clean the inner side of filter with a piece of dry cloth.

Unfix the air filter, remove the core.

Put it into inflammble liquid. Replace it there is any damaged found.

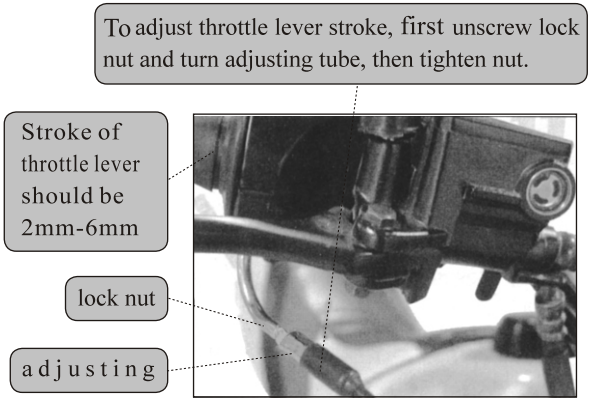


After drying it, put it in SAE oil for enough time and drain out oil.



Special attention: The following cleaning liquid is restricted:Low flamming point liquid, organic vipora--tion oil.

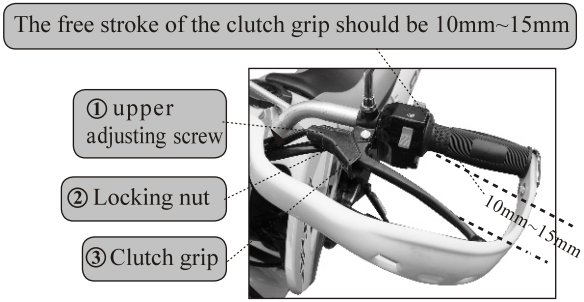
Check and maintenance of throttle



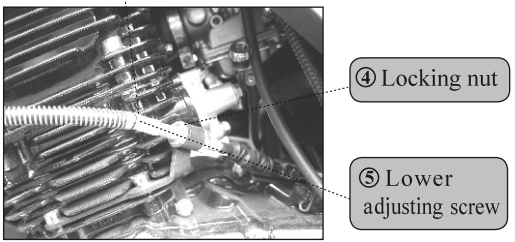
Adjustment of Clutch

Clutch controls the power output of engine, its movement distance should be between10mm-15mm, or it may affect the safety of driving.

Adjust the movement distance of clutch handlebar. Loosen the nut 2. Turn the adjusting bolt 1 after that, tighten the locking nut.

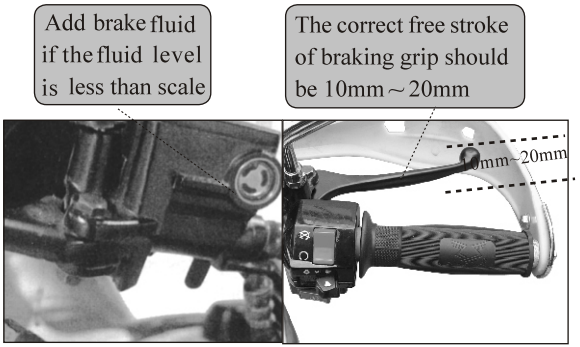


Adjust the movement distance of clutch handlebar. Loosen the nut 4. Turn the adjusting bolt 5 after that, tighten the locking nut.



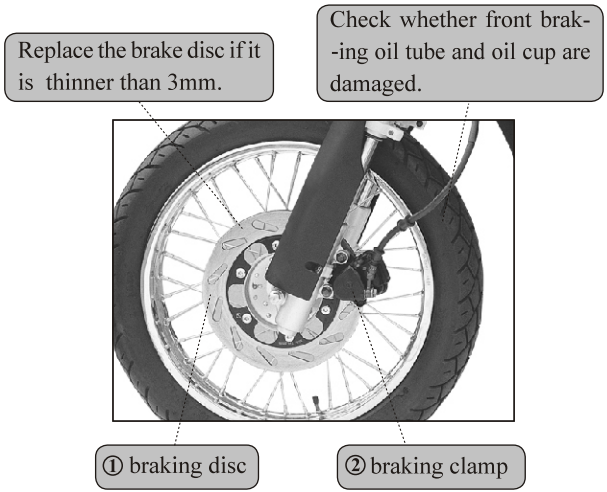
Maintenance of brakes

- It adopts rear wheel braking disc system of power--saving and reliability.
- Carry out the following check operation in the regular use.



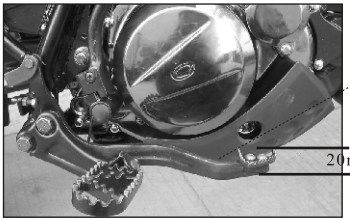
CAUTION

1. Only recommended brake fluid is allowed.
2. Never use the braking fluid which has been kept for long time in an open air.
3. Do not drop the braking fluid onto plasic, paint or skin.



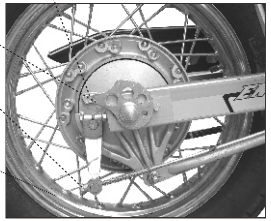
4. See professional service staff for maintenance.
5. If some air is found in the braking system, adjust and drain it as soon as possible with the help of service staff.
6. After the newly replaced brake handlebar is held and released for several times, it can be used.

Adjustment of rear brake



Proper movement distance of rear braking footpeg is 20mm-30mm.

Check whether the rear block is worn. After the brake, keep the needle on the rear braking rocker and the standard graduation on braking cover in the straight line or replace the rear braking block.



②braking wearing indicator

①Adjusting nut

Adjust the free stroke of the rear brake footpeg to the set value.

- Operate the rear brake for several times and loosen it to see whether it still rotates freely.
- After adjusting the free stroke of rear braking footpeg, adjust the rear brake switch.

Adjustment of Rear Braking Light Switch

Adjust the rear braking light switch here.
Light is postponed to be on, turn the adjusting nut 1 clockwise .
Light is on in advance, turn the adjusting nut 1 anticlockwise.

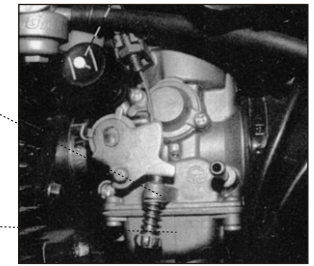
① Rear braking switch

②Adjusting nut

Adjustment of carburetor idle speed

- Preheat the engine before starting it .

Adjust the idle speed to (1400±140)r/min, turn the throttle, the engine speed would be increased steadily.



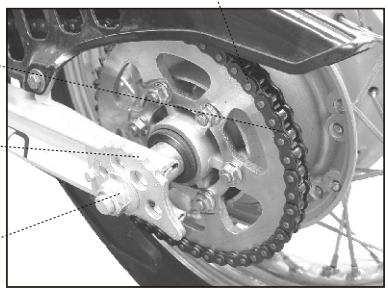
① Idle speed adjusting bolt

Check Cleaning and Lubricating of Driving Chain

Maintenance includes:Adding chain lube ; check whether joining spot is loose; check whether two sprcket wheel are on the same plain.

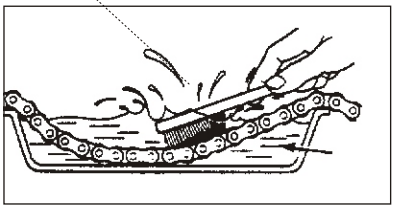
Check of Chain

Keep the swinging distance of chain between (25mm-30mm).
Loosen the rear wheel shaft nut 1.
Turn adjusting nut 2.
Readjust the movement distance of rear braking footpeg.

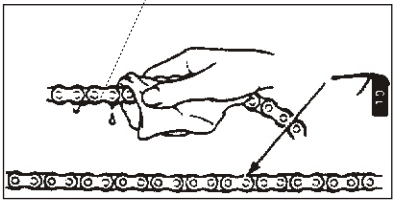


Cleaning lubricating of Driving Chain

Unfix the chain, clean it and replace it when necessary.



Add proper amount of chain lube



⚠ CAUTION

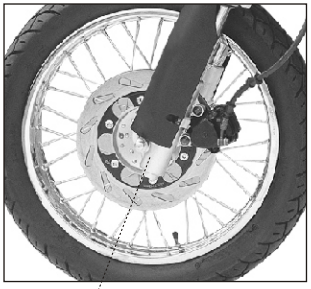
When fixing the tightening plug, keep its open end in the oppsite direction with moving direction of chain.

Replacement of front wheel

- Support it with main stand.
- Dismantle front wheel shaft nut,take out front wheel shaft and dismantle front wheel.

⚠ CAUTION

- Do not hold the braking handlebar after dismantling the wheel.
- Upon fixing it again, the torque of shaft nut should be 70N.m – 80N.m.
- Check whether front wheel rotates normally.

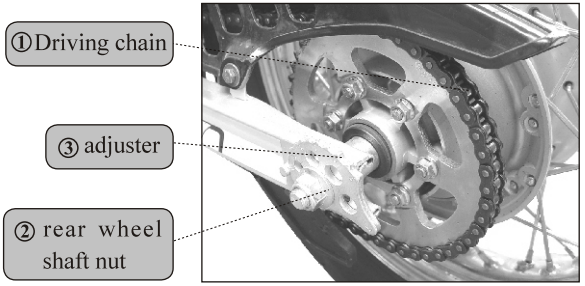


Replacement of Rear Wheel

- Put gear to the neutrual position, turn off ignition switch.
- Support the vehicle with main stand.
- Dismantle braking lever pin shaft and spring, remove the braking lever from braking arm.
- Dismantle rear restricting braking lever.
- Dismantle rear wheel nut 1, driving chain , rear wheel shaft and rear wheel.

Relative instruction:

- Upon fixing the again, the torque should be between 85N.m-95N.m.
- Readjust the movement distance of driving chain.
- Adjust the rear brake.



Tire

Proper pressure assures stability and great power, enhances the comfort, prolongs the life expansion.

Dimension	front	100/90-18
	rear	130/90-15
Pressure	front	32 psi
	rear	36 psi

CAUTION

Check the pressure when tire is cold and examine the damage of tire, if there is any damage found, see the service station for help.

Replace the tire when the worn line reaches the limit below.

Min limit value	front	2.0mm
	rear	3.0mm

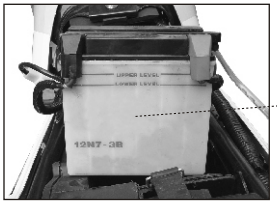
CAUTION

- Too low pressure may cause serious damage to parts as well as whole vehicle.
- Too high pressure may shorten tire life, decrease the comfor and increase the wearing of parts.

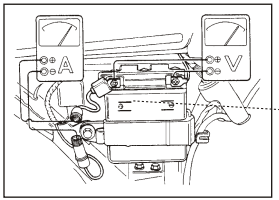
Maintenance of battery

Battery is located under footpeg.

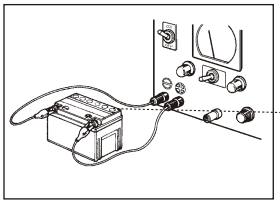
The vehicle is equipped with 12V 7A which easily maintained.



The level of electrolyte should be between the up--per and lower limits, add distilled water when neces--sary.



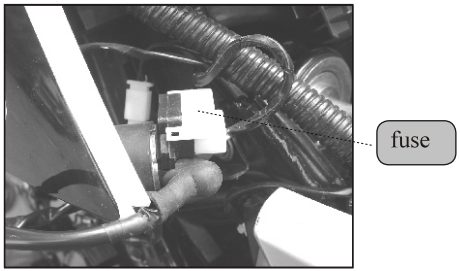
Regularly check whether battery is fully recharged.



Recharge the battery once a month when it is out of use for long time.

Fuse

- Fuse, which will be broken when the current goes beyond the limit to protect the electronic appliances is connected with battery in series.
- Check out the reason for the fuse brake and replace it with the one that complies with standard.



Maintenance of the horn

- After using the vehicle for a period of time, the join--ing parts of the horn may be loose, which might affect the performance of the horn.

Parking

- Long time parking
- If a vehicle needs to be parked for over one month, operate it as follows:

1. Drain out all the oil from fuel tank and carburetor and swelter the inner side of fuel tank with rust-proof oil and cover the fuel tank.
2. Dismantle the spark plug, pour the spoon of luboil into clylinder and tread the kick-starter for several times, then fix spark plug.
3. Dismantle the battery, keep it in a dry, cool place and recharge the battery once a month.
4. Clean ATV,dry it,wax it and cover it with rust--proof oil.
5. Keep the pressure proper and put a wooden curtain beneath the wheel to keep the vehicle off ground
6. Cover the motorcycle, park it in a cool, clean, dry and dark place from chemical substance.

- Reuse after parking

1. Clean it, replace the oil.
2. If it is parked over 4 month, check the remainng volume of electrolyte.
3. Remove the rust-proof oil and add new one.
4. Make a overall check before driving.

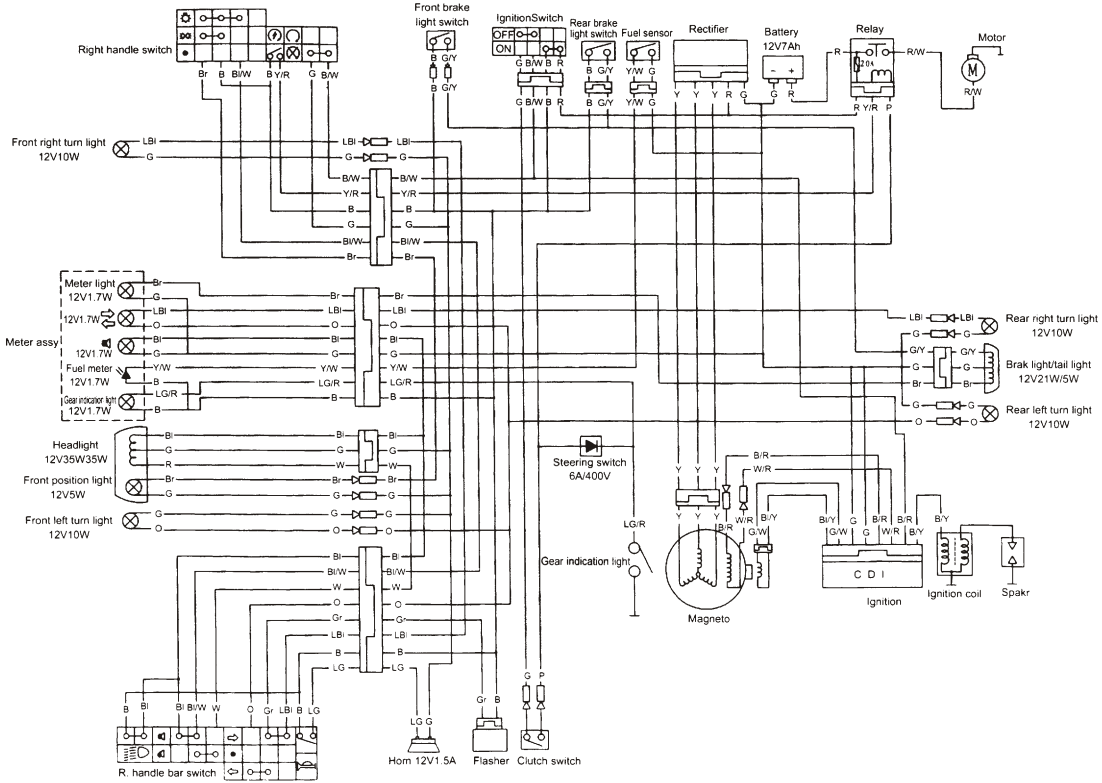
Common failure, reason and trouble shooting methods

Engine common failure and trouble shooting methods

Source of problem	Description	Problem Cause	Solution
Fuel System	Engine fails to start or starts hard.	air filter block oil tube block carburetor block	clean drain oil tube clean carburetor
	Poor idle speed or the engine starts hard.	mixture ratio of carburetor is incorrect carburetor valve worn	readjust mixture ratio of carburetor replace
Ignition System	spark plug not firing	carbon deposit or dirt on spark plug improper spark plug gap spark plug insulator is damaged	remove carbon deposit or dirt readjust gap to 0.6mm-0.7mm replace
		ignition coil short circuit C.D.I. failure pulser failure connections of ignition system loose	replace ignition coil replace replace check and tighten
Valve Mechanism	The engine starts hard or idle speed is instable	air leakage from cylinder head gasket improper valve clearance adjustment valve stem bend defective valve spring	replace reset the clearance to 0.06mm to 0.08mm replace replace

Source of problem	Description	Problem Cause	Solution
Valve mechanism	pressure is over high	excess carbon deposit on combustion chamber and piston top	remove carbon deposit
	large sound from engine	improper adjustment of valve clearance valve spring is broken cylinder and piston worn	readjust replace replace
	pressure is over low	cylinder, piston and piston ring are worn badly	replace
	blue smoke from muffler	piston ring worn installing of piston ring is incorrect piston and cylinder inner wall worn	replace piston ring reinstall replace piston or cylinder
	air leakage at cylinder head	valve stem or valve guide worn	replace valve stem or guide
Ride system	front wheel at side direction	front shock absorber get distortion front axle bend front wheel get distortion improper installation of front wheel front bearing worn or damaged	replace correct correct and replace reinstall replace
	front wheel swing	front wheel spoke broken front wheel spoke get loose tire pressure is over low front axle get loose	replace reajust recharge tighten

Source of problem	Description	Problem Cause	Solution
Ride system	rear wheel swing	rear wheel spoke broken rear wheel spoke get loose rear bearing worn or damaged rear axle get loose pressure is over low	replace readjust replace tighten recharging or replace
Suspension	shock absorber is over soft	weak or broken spring oil leakage from shock absorber	replace replace oil seal
	shock absorber is over stiff	improper adjustment of shock absorber shock absorber is overfilled	readjust drain off excess shock absorber oil
Brake system	poor brake performance	improper adjustment of brake system brake shoe worn brake disc worn defective brake cable brake fluid level is below the mark	readjust or maintain replace replace replace refill
Light system	headlight failure	headlight bulb burns out illuminating switch failure connection plug get loose fuse burns out defective battery	replace repair tighten replace replace or recharge
	weak light	magneto coil failure rectifier failure	replace replace


Right handle switch
Front brake light switch
IgnitionSwitch
Rear brake light switch
Fuel sensor
Rectifier
Battery 12V7Ah
Relay
Motor
Front right turn light 12V10W
Meter light 12V1.7W
Meter assy
12V1.7W
12V1.7W
Fuel meter 12V1.7W
Gear indicator light 12V1.7W
Headlight 12V35W35W
Front position light 12V5W
Front left turn light 12V10W
Steering switch 6A/400V
Gear indication light
Magneto
C D I
Ignition
Ignition coil
Spakr
Rear right turn light 12V10W
Brak light/tail light 12V21W/5W
Rear left turn light 12V10W
R. handle bar switch
Horn 12V1.5A
Flasher
Clutch switch