

Foreword

We express our sincere thanks for your purchasing our company's ATV.

The ATV manufactured by our company is assembled by selected high quality parts. With the merits of oil-saving, low noise, advanced structure, pleasing appearance, safety in driving and comfort, it is a good companion for people in their recreational and leisurely life.

This Instruction Manual introduces main specifications, basic structure, method of application, service and daily maintenance knowledge of this ATV. In order to exert better the functions of the motorcycle, reduce the malfunctions and enhance the service life of the motorcycle, please get familiar fully with all the provisions and requirements in this Instruction Manual before you drive the motorcycle.

The data, description and specification indicated in this Instruction Manual are based on the latest design of the motorcycle and the execution standard of the product is a currently-valid version, the Company has the right to make improvements on its products at any time without any notice otherwise. In case that this Manual is not in conformity with the physical object, the latter shall prevail. We sincerely wish you raise your precious opinion on the design, manufacture and quality of this motorcycle and inform us timely for improvements.

Wish you happy in your driving.

Table of Contents

1. Notice on safe driving.....1	
Rules of safe driving.....1	
Protective measures.....2	
Refit of the motorcycle.....2	
Loading of goods.....2	
Accessories.....3	
2. Main technical parameters.....4	
3. Name of the motorcycle parts and identification of the motorcycle.....6	
Position and name of the motorcycle parts.....6	
Identification of the motorcycle.....8	
4. Position and function of the operation and control parts.....9	
Ignition switch.....9	
Left handhold control system.....9	
Rear brake handle.....9	
Flameout switch.....9	
Head light changeover switch.....10	
Choke valve switch.....10	
Electric start switch.....10	
Parking switch.....11	
Right handhold control system.....11	
The throttle.....11	
Front brake handle.....11	
Emergency flameout switch.....12	
Fuel oil.....12	
Fuel cock.....13	
Adjustment of shock absorber.....14	
Adjustment of toe-in of front wheel.....15	
5. Direction on driving of the motorcycle.....16	
Inspection before driving.....16	
Engine starting.....17	
Test running of the engine.....18	
Driving of the motorcycle.....19	
Braking and parking of the motorcycle.....19	
6. Checking and maintenance.....20	
Driver's tool.....20	
Maintenance cycle table.....20	
Checking and replacing of lubricant.....22	
Selecting and replacing of spark plug.....24	
Cleaning and assembling of air filter.....24	
Checking and adjusting of valve clearance.....25	
Checking, adjusting and lubricating of driving chain.....26	
Maintenance and replacing of muffler.....27	
Checking and adjustment of throttle.....27	
Adjustment of the carburetor's idle speed.....27	
Check whether the connecting position of the air duct leaks...28	
Checking and adjustment of the front brake.....28	
Checking and adjustment of rear brake.....29	
Check of the front and rear shock absorber and suspension...30	
Tyre.....30	
Demounting of tire.....31	

Demounting of steering handle.....	31	Cleaning and storing.....	33
Fuse.....	32	Use after storing.....	34
Storage battery.....	32	8. Electrical schematic diagram.....	35
7. Troubleshooting and protection of the motorcycle.....	33		
Common troubleshooting.....	33		

1. Notice on safe driving of the motorcycle

Warning: Please get familiar with the safe driving rule on related motorcycles and related requirements and read motorcyclefully this Instruction Manual before you drive your motorcycle, so as to ensure your safe

Rules of safe driving:

- 1) This ATV is specially designed for the people aged over 14.
- 2) This motorcycle is a non-highway-running motorcycle, suitable to be used in open country.
- 3) This motorcycle is designed for only one people as both driver and passenger.
- 4) You have to observe strictly the traffic regulations in different areas.
- 5) You need to wear bright costumes.
- 6) While driving, please keep safety distance with other non-highway-running motorcycles to ensure the driving safety.
- 7) Driving after drunk is strictly prohibited to ensure life safety of the driver.
- 8) When turning to other direction or changing the driveway, please control strictly the driving speed to prevent turning over.

- 9) Driving over the speed limit is a main reason causing accidents, so please do not exceed the permitted speed range while driving.
- 10) Please hold the steering handle with two hands while driving; singlehanded operation is strictly prohibited, and you should be ready for braking at any time.
- 11) Young people is not allowed to drive the motorcycle if not being accompanied by an adult.
- 12) Before start the engine, you have to check the motorcycle, including all the fasteners, connecting pieces and adjusting pieces, to confirm their good order and condition, so as to prevent accidents happened and motorcycle parts damaged.

1

Protective measures:

- 1) In order to protect the personal safety, please wear the safety appliances such as the safety helmet, face shield, dustproof glasses and glove.
- 2) The driver should wear a pair of boots or something which can cover the legs while driving, to prevent the skin from being scalded due to touch the high temperature of the exhaust muffler.
- 3) Do not wear loose costume while in driving, which may hook the motorcycle parts such as control handle, start arm or motorcycle wheel.

Refit of the motorcycle:

Note: It is illegal to refit the motorcycle or replace the devices of the motorcycle discretionarily, because this will impact the driving safety. The user must observe the stipulations of the traffic departments of the government for use of the motorcycle. Our company will not bear any responsibility for the motorcycle refitted privately.

1) It is strictly prohibited to make wiring or change wiring arbitrarily.

2) In case of the fuse broken, it is strictly prohibited to replace the fuse with copper wire or a fuse of different capacity.

3) Do not install any cooling devices on the engine at will.

Our company will not bear any responsibility for burning of the motorcycle or other loss of quality problems due to above behaviors.

Loading of goods

Note: The motorcycle is not allowed to be used for loading goods over 5 kg . Overload will impact the maneuvering performance and stability of the motorcycle, causing danger to the motorcycle in normal driving.

Accessories

The accessories manufactured by our company have been deliberately designed and tested. Because our company is incapable of testing the products of all other manufacturers, you should bear the responsibility for any accidents caused by selection, fixing and use of the parts of other manufacturers. Please do as required in the "Rules of Safe Driving" and further perform as follows:

- ◇ Check the parts carefully to prevent them from obstructing the line of sight, and reduce the ground clearance and heeling angle to prevent the movement of the suspension and steering mechanism, or the control operation, from being confined.
- ◇ Do not add extra electrical equipment; if so, your ATV's storage battery may be overloaded, causing damage of the circuit system and bringing unnecessary troubles to you.

2. Main technical parameters

Item		Data	Item	Data
Length × Width × Height (mm)		1330 × 790 × 1105	Driving mode	Chain driving
Wheelbase (mm)		850	Fuel capacity (L)	2.4
Tread (mm)		Front 630/Rear 590	Fuel grade	93# or higher
Minimum ground clearance (mm)		85	Engine model	152 FMH
			Engine type	4-stroke Single cylinder Air cooling
Dry weight (kg)		96	Cylinder capacity (mL)	106.7
maximal loading weight (kg)		85	Lubrication	Press/splash
maximal speed (km/h)		≤45 km/h	Lubrication oil number	15W/40-SE
Minimum fuel rate (g/kW.h)		≤367	Cylinder diameter × journey (mm)	52.4 × 49.5
Specification of tyre	Front tyre	16x8-7	Compressive ratio in cylinder	9.1: 1
	Rear tyre	16x8-7	maximal power kW (r/min)	4.7kw/8000 r/m in
Tire pressure (kPa)	Front tyre	60-65	maximal torque N.m (r/min)	6.5N.m/5500~6000 r/min
	Rear tyre	60-65	Clutch type	Oil bath multi-disc
Braking mode	Front braking	Drum brake	Starting mode	Electric start
	Rear braking	Disk brake		

2. Main technical parameters (continued)

Item	Data	Item	Data
Ignition mode	CDI	Specification of storage battery	12V4Ah
Spark plug type	A7RTC	Fuse type	10A

3. Name of the motorcycle parts and identification of the motorcycle Position and name of the motorcycle parts



- 1、 Seat cushion
- 2、 Ignition switch
- 3、 Front brake handle
- 4、 Air cleaner
- 5、 Carburetor
- 6、 Front wheel
- 7、 Front drum brake
- 8、 Footrest
- 9、 Engine
- 10、 Rear wheel
- 11、 Rear shock absorber
- 12、 Exhaust muffler
- 13、 Rear support

Position and name of the motorcycle parts



- 14、Rear brake handle
- 15、Fuel tank cap
- 16、Footrest
- 17、Front shock absorber
- 18、Front bumper
- 19、Front support

Identification of the motorcycle:



- ① Vehicle identification number
- ② Engine serial number
- ③ Nameplate of vehicle

Record of the identification code:

Vehicle identification number: ☆ ☆

Engine serial number: ☆ ☆

Please fill the vehicle identification number and engine serial number of the motorcycle in the blank; this will facilitate you to order the spare parts, or for consultation when your motorcycle has been stolen.

Position of the vehicle identification number:

① The vehicle identification number (VIN) should be printed in front right of the frame.

② The engine type and serial number should be printed below the left side of the engine crankcase.

③The nameplate of vehicle frame should be fixed in front left of the frame.

8

4. Position and function of the operation and control parts

Ignition switch (fig. 1)

- 1) When the ignition switch key has been turned to "☉" position, the circuit is turned on. The key of the motorcycle can not be taken out.
- 2) When the ignition switch key has been turned to "☒" position, the circuit is turned off. The engine can not be started and the key can be taken out.



Fig. 1

Left handhold control system

Rear brake handle (fig .2)

When you need to use the rear brake to stop the rear wheel, hold fast the rear brake handle.

Flameout switch (fig .2)

If the switch is at "⊗" position, the ignition circuit will be disconnected; in normal condition, this switch should be at "⊙" position.



Head light changeover switch (fig .3)

The changeover switch has three positions "☰D", "☱D" and "●".

- 1) "●": In this position, the head light is off.
- 2) "☱D": In this position, the head light is a dipped headlight.
- 3) "☰D": In this position, the head light is a high beam.

Choke valve switch (fig .3)

The lower end of the dragline is connected to the choke valve of the carburetor. You can change the opening of the choke valve through turning the knob of the choke valve. If the knob is turned to direction A, the opening of the carburetor's choke valve will become smaller; if to direction B, become bigger.

Electric start switch (fig .3)

Electric start switch "⚡", if you need to make electric start, hold fast the brake handle while press the button of the electric start switch, then you can start the engine.

Note: The starting time should not exceed 5 seconds, or the exhaustion of the storage battery's electrical quantity will bring

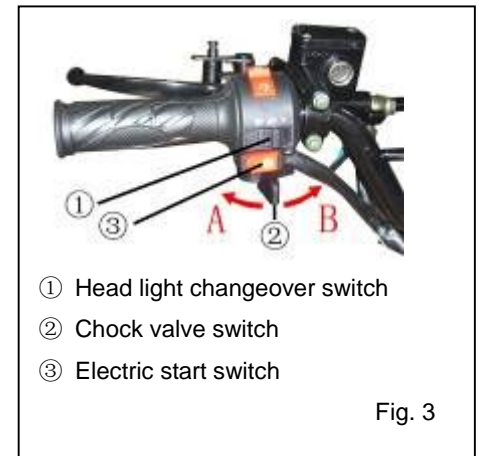


Fig. 3

inconvenience to you, and even cause damage of the storage battery.

10

Parking switch (fig .4)

- 1) When the motorcycle is stopped, press down the switch to lock the wheel and prevent the motorcycle from moving or slipping off.
- 2) If the motorcycle is to run again, hold fast the brake handle to pop-up the switch.

Right handhold control system



Fig. 4

The throttle (fig .5)

You can use the throttle to control the incoming oil and then control the rotation speed of the engine. If you turn the handle of the throttle in the direction of arrow, the incoming oil will increase and the engine speed will also increase; if you loosen the handle of the throttle, the incoming oil will decrease and the engine speed will also decrease.

Front brake handle (fig .5)

When you need to use the front brake to stop the front wheel, hold fast the front brake handle.

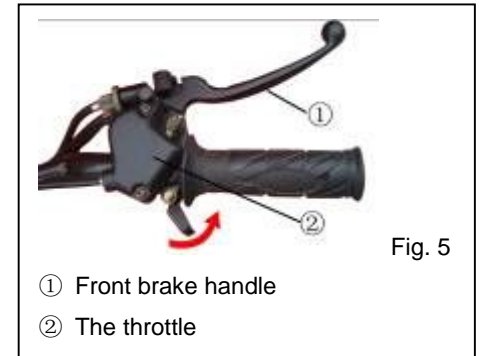


Fig. 5

11

Emergency flameout switch (fig .6)

While in emergency condition, seize the emergency flameout tape with your hand and pull down the emergency flameout switch to disconnect the ignition circuit, then the engine will stop running.

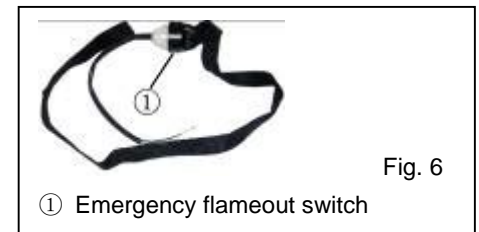


Fig. 6

Fuel oil (fig .7)

Selection of the fuel oil

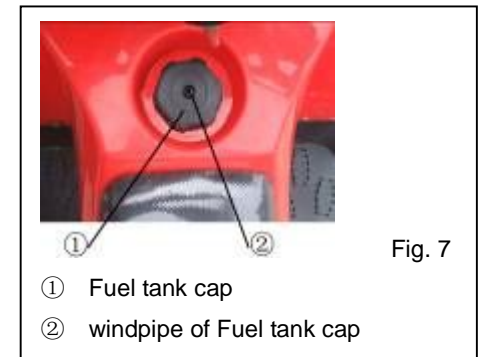
Fuel oil is an important factor of impacting the emission standard, so the selection of the fuel oil must be made according to the specification as specified in this Instruction Manual. The selected fuel oil should be the gasoline lead-free or of lower lead content, with the octane value of 93# or higher.

Fuel tank and filling-up of the fuel oil

The capacity of the fuel tank is: 2.4L.

Rotate the fuel tank lock in counterclockwise, then you take out the fuel tank lock and fill fuel oil into the fuel tank.

After filling up the fuel oil, you can rotate the fuel tank lock in clockwise direction to tighten up the fuel tank lock.



Danger

- 1) Do not overcharge the fuel tank when you fill the fuel oil (not exceeding the neck of the fuel tank). Be sure to fasten down the fuel tank lock after filling up the fuel oil.
- 2) Gasoline is inflammable, and easy to trigger an explosion and burning under certain condition, so before screwing out the fuel tank cap, check whether the engine is flameout or not and then fill the fuel in the place with good ventilation. It is strictly prohibited to smoke or let inflammables approaching when you fill the fuel oil.
- 3) Be careful to prevent overflow of the fuel oil while filling it, because the overflowed and evaporated fuel oil is

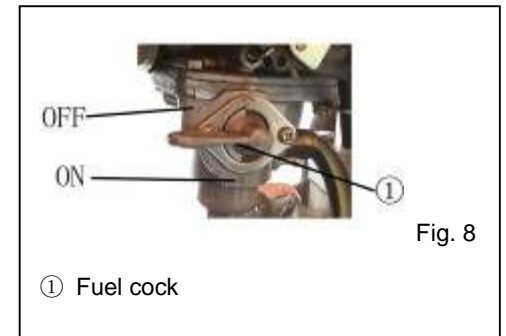
prone to causing burning. In case the fuel oil is overflowed due to negligence in filling, please mop up the fuel oil before restart the engine.

12

Fuel cock (fig .8)

The fuel cock is fit on the carburetor and there are two positions in the panel of the fuel cock; when the handle of the fuel cock is at different positions, the fuel cock will be of different status. The details are as follows:

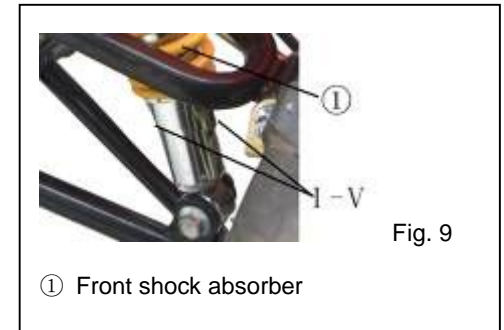
- "☪" (Open): When the handle of the fuel cock is at this position, the fuel feeding through the fuel line will be normal.
- "●" (Close): When the handle of the fuel cock is at this position, the fuel supply through the fuel line will be disconnected.



Adjustment of shock absorber

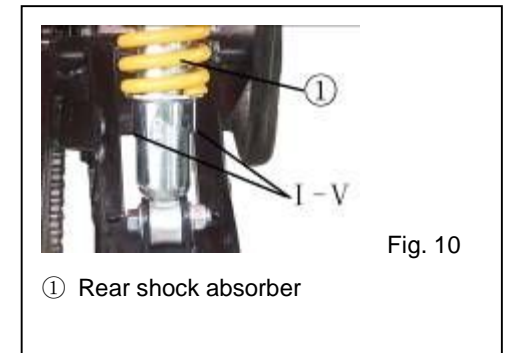
Adjustment of front shock absorber (fig .9)

The front shock absorber has five adjustment positions based on different road surfaces, loading capacity and driving conditions. Position "I" is suitable to light loading and driving in even road surface; in positions "II-V", the spring loaded tension increase gradually and make the rear suspension more and more solid, suitable to heavy loading or driving in uneven road surface.



Adjustment of rear shock absorber (fig .10)

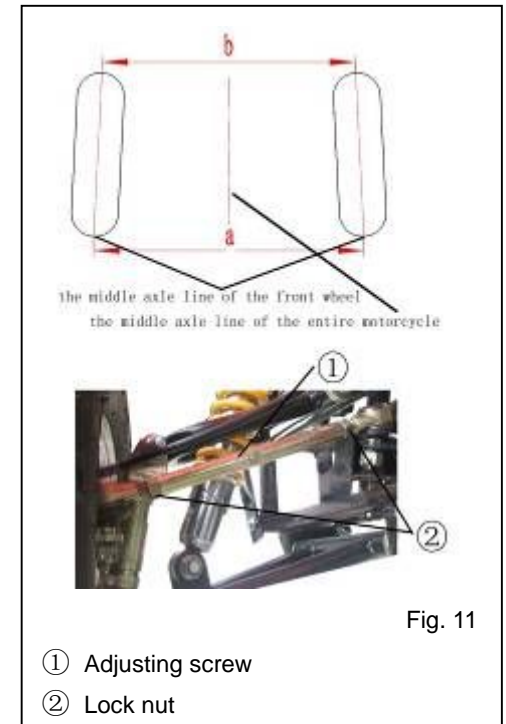
The rear shock absorber has five adjustment positions based on different road surfaces, loading capacity and driving conditions. Position "I" is suitable to light loading and driving in even road surface; in positions "II-V", the spring loaded tension increase gradually and make the rear suspension more and more solid, suitable to heavy loading or driving in uneven road surface.



Adjustment of toe-in of front wheel (fig .11)

Toe-in of front wheel means the front wheel closing to forward makes it not parallel to the middle axle line of the entire motorcycle. This is designed for ensuring the stable driving of a motorcycle. In general, the toe-in of front wheel should have been adjusted before the motorcycle leaving factory, and need not to be readjusted. But if you have discovered the motorcycle tends to be deflected to one side in running, you need to make adjustment on the toe-in of front wheel. The toe-in of front wheel can be adjusted using the steering drag rod.

While in adjusting, first loosen the lock nut of the steering drag rod, then turn the temper screw to reduce or increase the length of the steering drag rod. While reducing the length, the forehead of the front wheel will turn to outside and the toe-in will be smaller; while increasing the length, things will become contrary. After adjusting for some distance, put straight the steering handle and observe whether the two front wheels are symmetric or not. Drive the motorcycle for certain distance and see whether the direction is deflected to one side. If deflected to the left, increase



the length of the left steering drag rod or reduce that of the right steering drag rod; if to the right, adjust on contrary way. After completion of the adjustment, tighten up the lock nut, a-b must not be greater than 10mm.

5. Direction on driving of the motorcycle

Inspection before driving:

Before driving the motorcycle you must check it. Following check which only takes a few minutes, can not only save the time you may used for repairing malfunctions but also ensure your safety during your driving.

- 1) Check the mobile oil level of the engine-----fill the mobile oil if needed, and check whether there is oil leakage or not.
- 2) Check the fuel oil level----- fill the fuel oil if needed, and check whether there is oil leakage or not.
- 3) Check the front braking and rear braking-----check the movement of the front braking and rear braking, and make adjustment if the free travel is too big or too small.
- 4) Check the tyre-----check the air pressure and abrasion and damage of the front tyre and rear tyre.
- 5) Check the throttle-----check the movement of the throttle, connection of the dragline and free travel of the handle, and make adjustment or replacement if necessary.
- 6) Check the driving chain-----check the tension and lubricating of the chain, and you should replace it timely in case of severe wear or damage occurring.
- 7) Check fastening status of the bolts and nuts of important parts such as front wheel, rear wheel, front shock absorber, rear shock absorber, bottom forks and engine.
- 8) Check the steering operation mechanism-----check the flexibility and stability of the operation.

Engine starting

Note:

Do not start the engine in narrow place, or else hazard may occur.

Do not start the engine in the closed garage or the location with poor ventilation, because when the engine is working, the discharged tail gas contains hazardous material such as carbon monoxide, which may cause people poisoned.

Please start the engine according to following procedures:

- ◆ Please let the motorcycle be at even ground.
- ◆ Turn the fuel cock to "⌘", open position.
- ◆ Make the flameout switch be at "⌚", On position.
- ◆ Insert the key into the ignition switch and turn it to "⌚" position.
- ◆ If the engine is started at cool status, please turn the handle of the choke valve to make it at fully-closed position.
- ◆ Make the opening of the throttle less than 1/8, hold fast the brake handle, and then operate the electric start button. When the engine starts to work, turn the handle of choke valve to half-open position.
- ◆ Warm up the engine while the engine is running in an idle speed of 1500 ± 150 r/min, until the choke valve come back to the fully open position and the engine can work normally.
- ◆ After start of the engine, immediately loosen the start button.

Note:

For each operation the time for electric start should not exceed 5 seconds. If the start is failed, please loosen the start button for about 10 seconds, then press the start button again while the throttle is opened a little more.

Test running of the engine

Do not make the engine bearing too big a load for your new motorcycle during the driving period of first 1000Km, not letting the driving speed exceed 80% of the maximum speed of the motorcycle. Avoid to drive the motorcycle with the throttle fully open as much as possible, select proper shift of speed to reduce the load borne by the engine. Because during the test running period of the new engine all the parts can be abraded and gradually get normal clearance between them (needed for normal running of the engine), the lower load borne by the engine during the test running of initial driving period will remarkably prolong the service life of the engine. We suggest as follows:

1) 0~500km

During this period you are advised to drive the motorcycle in multiple speed, change the rotation speed from time to time and take a rest for 10 minutes after driving for one hour, while the openness of the throttle should not exceed 1/2.

2) 500~1000km

Do not drive the motorcycle with the throttle fully opened, and change the speed frequently while driving the motorcycle.

3) 1000km above

After the test running period, all the parts of the engine have been fitted and all the other parts have also been fitted; then all the adjustments should be completed, all the fasteners should be tightened, and the dirty oil should also be replaced.

Driving of the motorcycle

- 1) Make the engine warming-up gradually.
- 2) The driver sits on the seat with two feet on the pedals and two hands holding the left operation handle and right operation handle.
- 3) Loosen the brake handle.
- 4) Raise the throttle gradually, and the motorcycle starts to move forward.
- 5) Do not raise the throttle quickly while driving the motorcycle, or else the motorcycle will dash forward suddenly and may be out of control.
- 6) Let the throttle and brake cooperate closely and reduce the speed slowly.
- 7) When operate the front wheel brakes and rear wheel brakes simultaneously, do not overexert the force to stop the wheel too abruptly, or else the braking effect will be reduced and the motorcycle will be out of control.

Braking and parking of the motorcycle

- 1) Close the throttle, then use the front wheel brakes and rear wheel brakes to reduce the speed of the motorcycle until the motorcycle stopped.
- 2) Turn the key counter clockwise to "⊗" position, and after the engine is killed, take out the key.
- 3) After the motorcycle is parked stably, press the parking switch on the operation handle to ensure the motorcycle not sliding automatically.

6. Checking and maintenance

Driver's tool (fig. 12)

In use of the motorcycle, you can make small adjustment, repair and parts replacement with the driver's tool. The driver's tools of the motorcycle are as follows:

- ① One ebonite driver
- ② One double-end screwdriver with both cross tip and flat tip
- ③ One spark plug socket wrench
- ④ One open-end wrench (8mm×10mm)
- ⑤ One open-end wrench (10mm×12mm)
- ⑥ One open-end wrench (19mm×22mm)
- ⑦ One tool bag

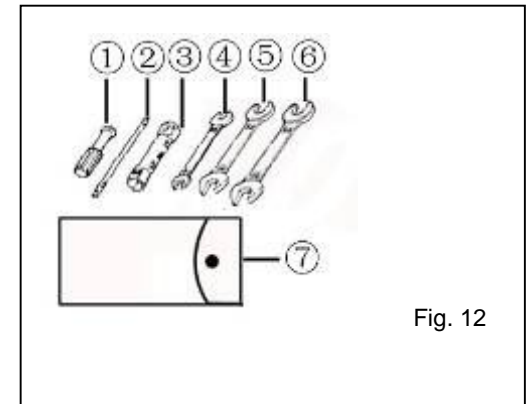


Fig. 12

Maintenance cycle table

The motorcycle should be maintained as per specified service time; the meaning of the symbols in the maintenance cycle table is as follows:

I. Make check, cleaning, adjustment, lubricating or replacing;

C. Cleaning; R. Replacing; A. Adjustment; L. Lubricating

☆: This kind of items can be serviced by the personnel of the maintenance station specified by our company; and if the users have the special tools, service material and maintenance capacity, they can also make the service by

themselves. For matters related to the maintenance, please refer to this Instruction Manual.

☆☆: For safety, this kind of items can only be serviced by the personnel of the maintenance station specified by our company.

Note: ① When driving in the dusty area, you should increase the number of cleaning;

② When the mileage exceeds the given maximum data, the maintenance cycle should be repeated as per the mileage interval specified in the table.

20

Service number Service item		Item Cycle	Mileage (Km)				Remark
			1000 Km	4000 Km	8000 Km	12000 Km	
*	Pipeline of fuel oil system			I	I	I	
*	Fuel filter		C	C	C	C	
*	Choke operating system		I	I	I	I	
	Carburetor's choke valve			I	I	I	
	Air cleaner element		I	C	C	C	
	Ignition plug		I	I	I	I	
*	Valve clearance		I	I	I	I	
	Engine lubricating oil	Per year	R	R (per 2000 Km)			
	Filter screen for lubricating oil	Per year R			C		
*	Tension rate of the cam chain		A	A	A	A	

	Carburetor's idle speed						
**	Transmission system		, L	, L	, L	, L	
	Storage battery	Per month					
	Abrasion of brake shoe/disc						
	Brake system						
*	Switch of stop light						
*	Suspension						
*	Fasteners of the entire motorcycle						
*	Wheel						

Checking and replacing of lubricant selection of the lubricants (fig. 13)

Lubricating oil is an important factor of impacting the performance and life of the engine, and also has certain impact on discharge of the motorcycle. You must select and replace the lubricating oil as per the provisions of the Instruction Manual, not using ordinary mobile oil, vegetable oil or gear oil as the substitute of lubricating oil.

This motorcycle is filled with 15w/40-SE grade mobile oil for gasoline engine. The applicable temperature is $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$. If you cannot purchase the 15w/40-SE grade mobile oil for gasoline engine, you can use the SE, SF, SC grade mobile oil for gasoline engine in the classified specification of API (American Petroleum Institute) as the substitute; or use number HQB-10 (if in the area with the air temperature lower than -10°C , use number HQB-6). If you want to replace the lubricating oil, the quality should reach SE grade and the viscosity should be selected based on different areas and change of the temperature referring to "Fig. 6". When replacing the lubricating oil, please discharge all the lubricating oil in the crankcase out, use kerosene to clean it, then fill new lubricating oil as required.

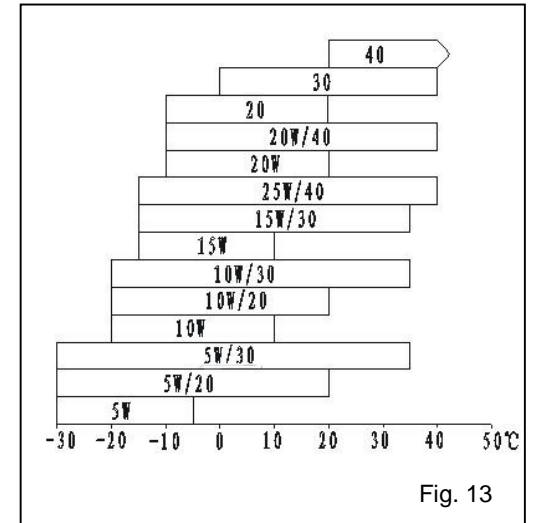


Fig. 13

Check of the lubricating oil level (fig. 14)

Before use of the motorcycle you must check the lubricating oil level; fill up the lubricating oil if necessary. The oil ruler is installed at the rear portion of the crankcase in the right of the engine, you can use the oil ruler to measure the level of the lubricating oil. The level of lubricating level should be between the high scale line and low scale line on the oil ruler. Note: if the engine is running under insufficient lubricating oil, it may be damaged.

Replacement of lubricating oil (fig. 15)

The oil drain plug screw of the engine is at the crankcase bottom, you can drain away all the lubricating oil in the crankcase through the mounting hole of the oil drain plug screw. The procedures for replacing lubricating oil are as follows:

- ◆ Place a vessel under the oil discharge outlet of the engine, then take out the oil filling plug screw and the oil drain plug screw of the engine.
- ◆ After all the lubricating oil has been drained away, fit back the oil drain plug screw of the engine.
- ◆ Fill up the 15w/40-SE grade mobile oil for gasoline engine into the crankcase through the mounting hole of the oil filling

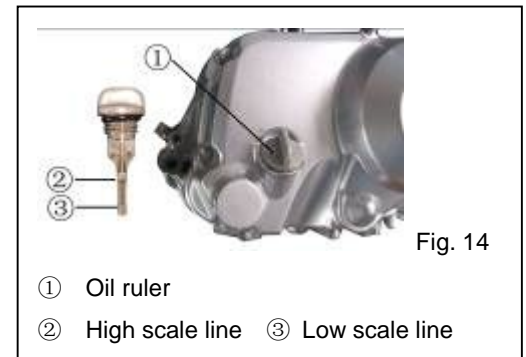


Fig. 14

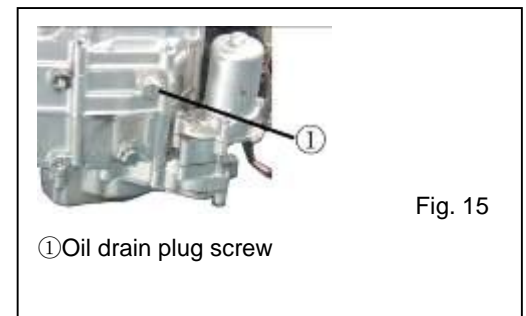


Fig. 15

plug screw, then start the engine; after running for 4 to 6 minutes stop the running, then check the level of the lubricating oil; if the oil level is improper, make adjustment.

◆Fit the oil filling plug screw and check whether there is oil leakage or not.

Note: 1) Make oil drain while the engine is hot;

2) When driving under severe polluted by dust, increase the number of oil change.

Selecting and replacing of spark plug (fig. 16)

The spark plug should be selected as per the "Main Technical Data" of this Instruction Manual.

Check and replacing of ignition plug

The spark plug is at right upper portion of the cylinder front end. For demounting it, first take out the spark plug cap and remove the surrounded dirt, then use the spark plug socket wrench to demount the ignition plug. Check the sediment, erosion and carbon deposition of the electrode and central magnetic pole; if there are severe sediment and erosion conditions and crackles or break-off in the insulator, you must replace the spark plug; use the spark plug cleaner or steel brush to remove the carbon deposition and dirt on the ignition plug. Use the feeler to adjust the clearance between eroded points, which should be 0.6-0.7 mm after adjustment.

Cleaning and assembling of air cleaner (fig. 17)

The air cleaner should be cleaned and immersed in oil at least once for each 4000 Km driving. If driving in the dusty area, you need to make more maintenance for your motorcycle.

The demounting and maintenance procedures for the air filter are as follows:

- ◆ Demount the air cleaner.

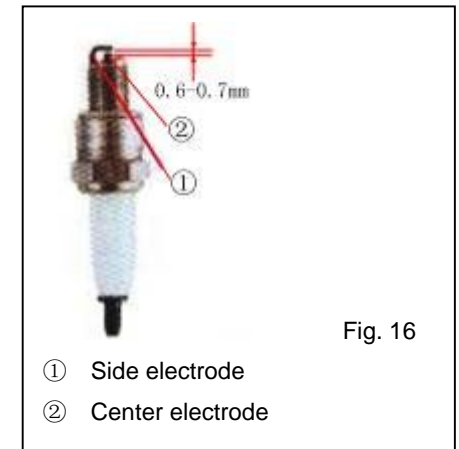


Fig. 16



Fig. 17

- ◆ Place the air cleaner element into the solvent for cleaning, and then make it dry fully.
- ◆ Immerse the air cleaner element into the 15w/40-SE grade mobile oil for gasoline engine until saturated, then take out the excessive lubricating oil.
- ◆ Mount the air cleaner element in the reverse procedures for demounting.

24

Checking and adjusting of valve clearance (fig. 18)

For checking and adjusting the valve clearance of the engine, the engine should be at cold status. The detailed procedures are as follows:

- ◆ Demount the inspection cap on the crankcase at left of the engine and the engine bonnet.
- ◆ Turn the magneto rotor counter clockwise to make the "T" mark on it aligned with the indicator, then touch the rocking arm with finger to check whether the plunger is at TDC (top dead center) point of the compression stroke. If the rocker arm is loosened, the plunger is at TDC point; and if not, you must turn the engine rotor for 360° and align "T" mark again.
- ◆ Check the clearance of the two valves. Standard clearance: intake valve 0.05mm, exhaust valve 0.05mm.



Fig. 18

◆ If the valve clearance is improper, you must make adjustment. For adjustment, first loosen the hold-down nut of the valve, then turn the adjusting screw of the valve to make adjustment (if turn the valve adjusting screw in direction A, the valve clearance will decrease; if in direction B, increase). After completion of the adjustment, tighten the hold-down nut and check the valve clearance again.

Checking, adjusting and lubricating of driving chain (fig. 19)

Check the abrasability and tightness of the driving chain; if it looks as if very dry, spread a layer of lubricating oil on it. Press the chain between the two chain wheels with finger to test the tightness of the chain. Adjust the tightness of the chain to about 10 to 20 mm.

Adjustment of driving chain

- 1) Unscrew the nut of the rear shaft liner .
- 2) Unscrew the lock nut of the adjuster of the transmission chain, and turn the adjusting bolt.
- 3) Make the adjusters at left side and right side in same scale, check and tighten up the nut of the rear shaft liner.
- 4) Check the tightness of the chain.

Lubricating of the chain

- 1) Dismantle the locking clip of the chain with pliers carefully, disconnect the chain elements and take down the chain.
- 2) Clean the chain in the cleaning solvent, then dry it by air.
- 3) Check the abrasability (wear-down of the connecting shackles) and rigidity of the chain and rupture of cast-off of the shackle or roller. If the chain is broken or shabby, replace it with a new one.
- 4) Fill some mobile oil or chain lubricating oil to lubricate the chain.
- 5) Assemble the chain in reverse order to dismantling, and adjust it.

Note:

When fix the lock clip, you should make the open direction

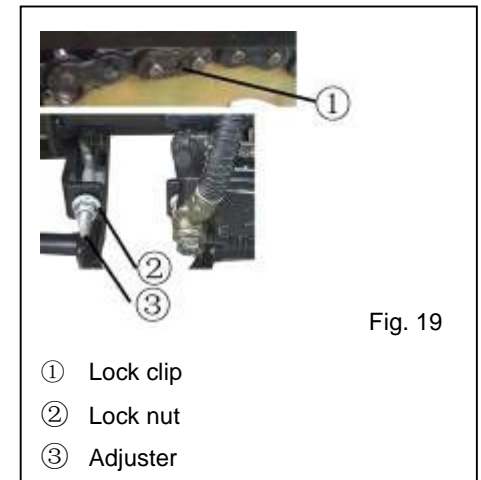


Fig. 19

- ① Lock clip
- ② Lock nut
- ③ Adjuster

of the lock clip of the chain reverse to the normal rotation direction of the chain.

Maintenance and replacing of muffler

Remove the carbon deposition of the muffler as required; check whether the inside of the muffler has been loose or damage; if so, replace or repair it.

Note: For each dismantling of the muffler, you must replace the sealing washer of the muffler with a new one; because the temperature of the muffler and the exhaust pipe is very high, do avoid to be scalded.

Checking and adjustment of throttle (fig. 20)

◆ Turn the oil filler of the throttle to see if the throttle return is normal or not.

◆ Check the free play of the throttle handle (standard free play: 2 to 6 mm). If the free play of the oil filler of the throttle is not proper, make adjustment timely.

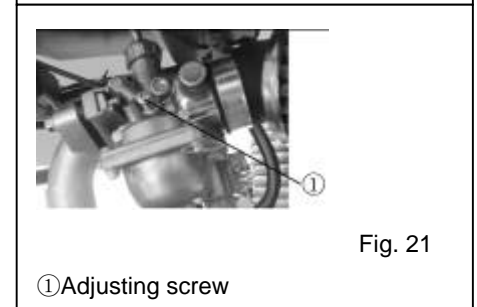
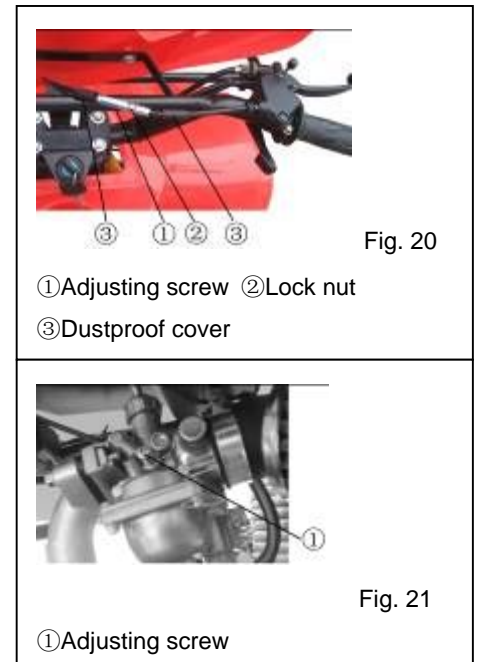
The adjustment measures are as follows:

- 1) Loosen the lock nut;
- 2) Turn the adjusting screw to adjust the free play of the oil filler of the throttle.
- 3) Tighten the lock nut.

Adjustment of the carburetor's idle speed (fig. 21)

The carburetor is installed between the engine and air cleaner, and its idle speed is 1500 ± 150 r/min.

If the idle speed is not proper, adjust it; the adjustment procedures are as follows:



Start the engine and warm up it fully; make the throttle return back to fully close position, and adjust the fine adjustment screw for the carburetor's idle speed (if turn the carburetor's idle speed in clockwise, the carburetor's idle speed increases; if in counterclockwise, decreases) to make the idle speed become 1500 ± 150 r/min.

After adjustment make the engine run again to see if the run of the engine is normal; if the idle speed is still not proper, adjust it again.

Note: The carburetor has been finely set in the factory, but in different working conditions the idle speed may be different. The use needs to adjust the idle speed based on different working conditions.

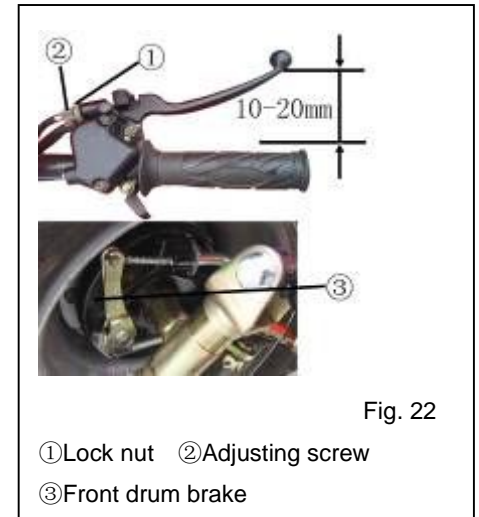
Check whether the connecting position of the air duct leaks

For air duct and connecting positions, you should check whether they leak or not, especially the connecting positions between the engine and muffler, the carburetor and the air intake pipe and air filter of the engine. If leakage exists, repair or replace them timely.

Checking and adjustment of front brake (fig. 22)

Hold fast the front brake handle until feeling distinct counterforce. The free travel of the front brake handle should be 10 to 20 mm; if the free travel is not proper, adjust it as follows:

Operate the front brake handle continuously for several times, then hold fast the front brake handle and turn the adjusting screw in clockwise, the free travel will increase; or the free travel will decrease until the brake handle reaches



the specified free travel. After completion adjustment of the free travel, hold fast the front brake handle for several times, then loosen the handle and turn the front wheel to check if the front wheel rotates well.

Checking and adjustment of rear brake (fig. 23)

A disk-type rear brake is installed in this motorcycle. The main pump of the rear brake is installed at right side of the steering handle, and the branch pump of the brake is installed at the right of the rear wheel spindle. The part of the branch pump which directly touches the rear brake disk to make frictional braking is the rear braking shoe. If the rear braking shoe is worn to the limit, you must replace it with a new one.

Before driving the motorcycle, you must check the remained brake oil in the oil cup; the level of the brake oil should be between the upper limit scale line and lower limit scale line. If the level of the brake oil is proper, supplement it. When fill the brake oil, loosen the screw, dismount the pump cover, and then fill the brake oil.

Note: ◆ The brake oil should be selected strictly according to provisions, or it will impact the braking effect.

◆ The brake oil may cause inflammation of skin or eye; if touch it, clean it with water. When filling brake oil, you cannot mix sundries or other liquid into it.

Hold fast the rear brake handle until feeling distinct counterforce. The free travel of the rear brake handle should be 5 to 10mm; if the free travel is not proper, adjust it as follows:

Operate the rear brake handle continuously for several times,

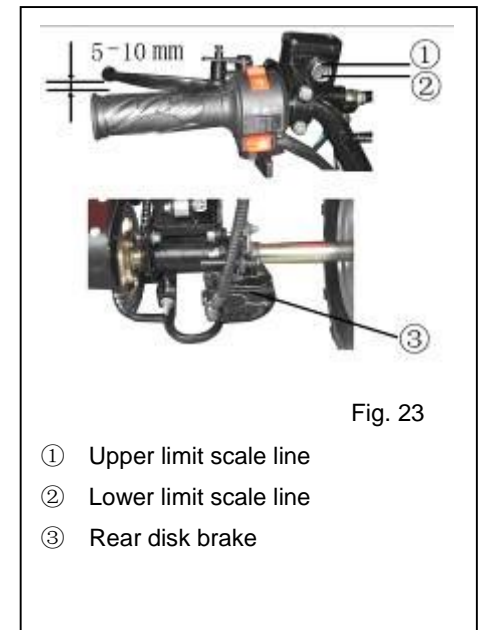


Fig. 23

then grip the rear brake handle, dismount the exhaust screw cap on the braking pump, after discharging the air inside the oil cylinder tighten up the exhaust screw cap immediately. If you cannot complete the adjustment in one time, repeat above procedures until the free travel of the brake handle meets the requirements. After completion of the free travel, hold fast the front brake handle for several times, then loosen the handle and turn the rear wheel to check if the rear wheel rotates well. **29**

Check of the front and rear shock absorber and suspension

Hold the front guard with your hands and press down with force, make the motions up and down for several times to observe whether the return is normal, there is abnormal noise and oil leakage, and the movement of the front suspension is stable or not. Hold the rear pipe of the motorcycle frame with your hands and press down with force, make the motions up and down for several times to observe whether the return is normal, there is abnormal noise and oil leakage, and the movement of the rear suspension is stable or not.

Tyre

The correct tyre pressure can keep the best roadability, and make driving comfortable and the tyre durable for use.

	Front wheel	Rear wheel
Tyre pressure (kPa)	60-65	60-65
Specification of tyre	16×8-7	16×8-7

Notice: The use of over-worn tyre is very dangerous. This will impact the traction force, stability and steering and maneuvering performance.

Note: Before driving you should check the tyre pressure while the tyre is cool. You should check whether the tyre has incision and embedding of nail or other sharp articles and the wheel boss has pits or distortion; in case of any damage discovered, please repair or replace it.

Notice: Incorrect tyre pressure will cause abnormal abrasion of tire tread and unsafe accidents. Insufficient tire pressure may cause the tyre damaged or disengaged from the wheel boss.

If the tread in the middle of the tyre reaches following limitation, please replace the tyre immediately.

Minimum Limit of the Depth of the Tire Tread			
Front wheel	2.0 mm	Rear wheel	2.0 mm

Demounting of tire (fig. 24)

When demounting the tyre, first insert articles under the motorcycle make the wheel off the ground, hold the front brake handle in parking status, dismantles in turn ,1pc Dust cloak cap, 1pc Split pin, 1pc Hexagonal slotting, 1pc Dust cover of wheel, 1pc Plain washer, and take down the tyre

Note on mounting

The mounting procedure is just reverse to demounting.

Demounting of steering handle (fig. 25)

Use a spanner to turn out 4 fixed bolts of the steering handle, take the anchor clamp of the steering handle and the fixed seats of the steering handle, and then take down the steering handle.

Note on mounting

The mounting procedure is just reverse to demounting.

Note: After mounting the steering handle should be turned flexibly and reliably.



Fuse (fig. 26)

The fuse is at rear of the motorcycle and near the storage battery. When the circuit is short or overloaded, the fuse will be burnt out automatically. At this time you need to check the circuit first; after removing the failure, mount the backup protector inside the protector box.

Storage battery (fig. 27)

Note: Avoid to get water surrounding the storage battery when washing the motorcycle. The electrolytic solution and waste batter are not allowed to be discarded at will and should be disposed as per related regulations.

Danger: When dismantling the wire of the storage battery, dismantle first the "-" pole and then the "+" pole; and when mounting, first the "+" pole then the "-" pole. You should prevent the wire of "+" pole from touching the motorcycle frame and tighten up the wire connector, or sparks will be caused and even bring about fire. When mounting the storage battery, you should ensure the venthole of the storage battery not blocked.

Warning:

1) The storage battery contains sulfuric acid (electrolytic solution) with corrosiveness. If the sulfuric acid touches skin or eye, severe burnt will be caused. If so, please wash



- for 5 minutes and send the patient to hospital promptly.
- 2) Do not let the children touch the storage battery.
 - 3) A new storage battery can only be used half hour after filled with the liquid.
 - 4) If the storage battery lacks electricity, you should charge it continuously for 10 to 15 hours with the current less than 1A.

32

7. Troubleshooting, protection of the motorcycle and options

Common troubleshooting

If the engine is failed to be started, please check it as follows to find the reason.

- 1) Whether the fuel oil in the tank is sufficient or not.
- 2) Whether the fuel oil can flow into the carburetor or not.
- 3) If the fuel oil can reach the carburetor successfully, please check whether the ignition system work normally or not.

Warning: Do not let the fuel oil spreading over the ground, you should collect the oil into the vessel. Do not let the fuel oil approach the engine and exhaust pipe with high temperature. While conducting the check, you should leave far from fireworks and keep clear of any ignition source or heat source.

- 4) Dismount the ignition plug and again connect it to the spark plug cap.
- 5) Fix the spark plug to the motorcycle body. Turn the ignition switch to "⊙" position, make the flameout switch at "⊙" position, and then press the electric start button. If the ignition system is normal, the two poles of the

ignition plug will emit blue spark. If no spark appears, please go to the professional service station for repairing.

Cleaning and storing

Cleaning

- ◆ Before cleaning the motorcycle, please first check whether the installation of the ignition plug and the oil filler is correct or not.
- ◆ Use a hose to flush out dirt and smears.
- ◆ After cleaning, dry up all the surfaces with clean towel or water-absorbing soft cloth.
- ◆ After completion of cleaning, let the engine running in idle speed for a few minute.

Note: Excessive pressure in flush will cause leakage and loosing or wearing of the wheel bearing, front fork, brake, speed changer, sealing element and electric parts. When flushing, you should prevent the muffler from water inflow and prevent the ignition plug from being wet.

Storage

If you need to store the parts for 60 days or more after cleaning, please do as follows:

- ◆ Discharge all the fuel oil in the fuel tank, fuel manifold, carburetor and other fuel pathways.
- ◆ Dismount the ignition plug and fill certain amount of 15w/40-SE grade lubricating oil into the spark plug hole.
- ◆ Lubricate all the controlling dragline.
- ◆ Use a plastic bag to wrap the exhaust pipe to prevent moisture from incoming.
- ◆ If storing the parts in the air with high content of moisture or salt, please spread a thin layer of rust preventing oil on all the exposed metal surfaces.
- ◆ Dismount the storage battery, charge it and store it in a dry place with room temperature.

Use after storing

If you reuse the motorcycle after a longtime storing, please check and adjust it as per the requirements in this Instruction Manual and make service and maintenance as per requirements. You only can use the motorcycle until it reached the condition of this Instruction Manual.

8. Electrical schematic diagram

34

