MOTORCYCLE 125-26C

OWNER'S MANUAL



http://www.lifanmotos.net/product

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PREFACE

Thank you for choosing LIFAN motorcycle. May you enjoy riding all time.

The manual contains the necessary instructions and guidance with respect to the operation and maintenance of the motorcycle, and BE SURE TO READ IT CAREFULLY BEFORE RIDING. Proper operation and maintenance can guarantee a safe riding to minimize troubles of the motorcycle and keep it in a sound condition, which can extend the engine service life.

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IMPORTANT NOTICES

●Operator And Passenger

The motorcycle is designed to carry the operator and one passenger. Never exceed the maximum load weight of 150kg.

●On-road

The motorcycle is designed for on-road use.

Pay special attention to statements preceded by the following words:

⚠WARNING ***Indicates a strong possibility of severe personal injury or death if instructions are not followed.***

⚠CAUTION ***Indicates a possibility of personal injury or equipment damage if instructions are not followed.***

NOTE ***Concern about the minor danger and provide helpful information.***

Environmental Protection (EP) ***Indicates special precautions that must be taken to meet environment protection laws and regulations. Improper use of a motorcycle may cause environment pollution.***

Users cannot settle the fault by themselves if it needs to be handle by the professional service and dealers. Otherwise, LIFAN will not take any responsibilities.

This manual should be considered as a permanent part of the motorcycle and should remain with the motorcycle when resold.

CONTENTS

SAFETY INSTRUCTIONS
Safe Riding Rules....1
Protective Device....1
Vehicle Modification....1
Vehicle Loading....1
Accessories....1
GENERAL INFORMATION
Parts Location....3
Vehicle Identification....4
Fuel and Engine Oil (EP)....4
CONTROLLING PARTS
Meter And Indicators....5
Ignition Switch and Steering Lock....5
Right Handlebar Controls....5
Left Handlebar Controls....5
Refuel And Cap....6
Gearshift Pedal....6
Rear Brake Pedal....6
Rear Shock Absorber Adjustment....6
Stands....6
OPERATION GUIDE
Pre-ride Inspection....8
Starting the Engine....8
Breaking-in....8
Riding....8
Braking And Parking....9
MAINTENANCE
Tool Kit....10
Maintenance Schedule....10
Engine Oil (EP)....12
Clear Away Carbon Deposit (EP)....12
Spark Plug (EP)....12
Air Cleaner (EP)....12
Valve Clearance....13
Exhaust Muffler (EP)....13
Basic Working Principle of EFI System....13
Schematic Drawing of EFI System....14
Components of EFI System....14
Operation And Troubleshooting to EFI System....17
Crankcase Exhaust Gas Recirculation System (EP)....19
Throttle....19
Air Passage Joints (EP)....19
Clutch....19
Drive Chain....19
Front Brake....20
Rear Brake....20
Brake Wear Indicator....21
Front/Rear Shock Absorber and Suspension....21
Tyre....21
Front Wheel....21
Rear Wheel....21
Fuse....21
Battery (EP)....22
TROUBLESHOOTING, STORAGE AND OPTIONAL PARTS
Troubleshooting....23
Cleaning and Storage....23
Use After Storage....23
Anti-theft Alarm (Optional)....23
TROUBLESHOOTING TO EFI SYSTEM....24
ELECTRIC DIAGRAM....28
SPECIFICATIONS....29

SAFETY INSTRUCTIONS

SAFE RIDING RULES

NOTE **Carefully read the instructions in the PRE-RIDE INSPECTION before riding and take notice of the traffic safety when driving to guarantee the safety of drivers, passengers and motorcycles.**

●Always make a pre-ride inspection before you start the engine and check the fasteners, connectors and adjusters, confirm the working condition to avoid the accidents and parts damage.

●Most countries require a special motorcycle riding test or license. Make sure you are qualified before you ride. NEVER lend your motorcycle to an inexperienced rider.

●Make yourself conspicuous to help avoid the accident that wasn't your fault.

NOTE

●Wear bright or reflective clothing

●Do not excessively close to other vehicles and proper use lights and horns.

●Do not speedily cross another's way.

●Obey all national and local laws and regulations.

●Obey the speed limits, and NEVER travel faster than conditions warrant.

●Signal before you make a turn or lane change to draw other drivers' attention.

●Use extra caution at intersections, parking lot entrances and exits.

●Always remember to ride with both hands and keep both feet on the rider footrests while the passenger holds the handrail with both feet on the rear footrests.

●In rainy days, remember that the braking distance is twice than that of in sunny days. Pay special attention to sewer cover, oily and wet roads when driving, decelerate on uncertain roads.

PROTECTIVE DEVICE

●For the safety sake, always wear a helmet, a face shield, dust glasses, gloves and protective clothing.

●The exhaust muffler becomes hot during driving. To avoid contact burns, passengers should wear hip boots or clothes covering legs.

●Do not wear loose clothing that could catch on the control levers, starting arm, footrests, wheels, etc.

VEHICLE MODIFICATION

⚠ **WARNING** **Illegal modifications to motorcycles are prohibited. Modifying or replacing the original vehicle's devices at will cannot guarantee the driving safety of the motorcycle and is illegal. Users must comply with the local vehicle usage regulations of the traffic management department. If you have any good suggestions for vehicle modification, you can write to our company to obtain approval before proceeding. Otherwise, you are responsible for all consequences.**

VEHICLE LOADING

⚠**WARNING** **The motorcycle has definite distribution requirements on load bearing, improper loading will affect the performance and stability.**

●Keep cargo and accessory weight lower and close to the center of the motorcycle. Load weight equally on both sides to minimize imbalance. As weight is located further from the motorcycle's center of gravity, handling is proportionally affected.

●Adjust tyre pressure and rear suspension to suit load weight and riding conditions.

●Make sure that cargo is fastened on the vehicle.

●Do not attach items to the handlebars, front fork or fenders. Otherwise, unstable handling or slow steering response may occur.

●Please do not overload.

ACCESSORIES

Genuine accessories produced by our company have been specifically

designed and tested on the motorcycle. Because the factory cannot test all other accessories, you are personally responsible for selection, installation and use of accessories not produced by the company. Always follow Safe Riding Rules and these below:

●Carefully inspect the accessory to make sure that it does not obscure any lights, reduce ground clearance or banking angle, or limit suspension travel, steering travel or control operation.

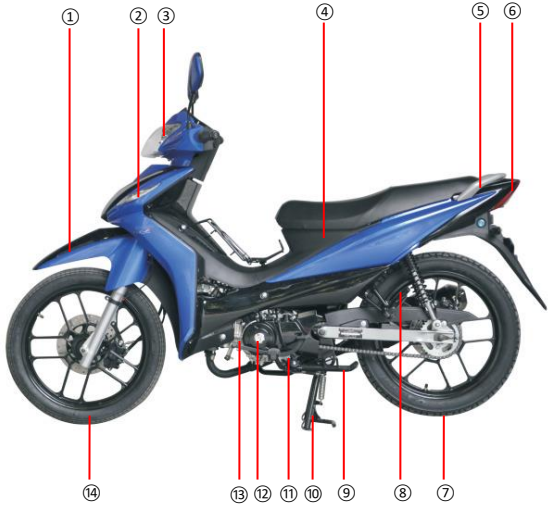
●Do not install the equipment for cooling engines.

●Do not add electrical equipment that will exceed the motorcycle's electrical capacity and blow fuse to cause the danger of lights not bright in night driving.

GENERAL INFORMATION

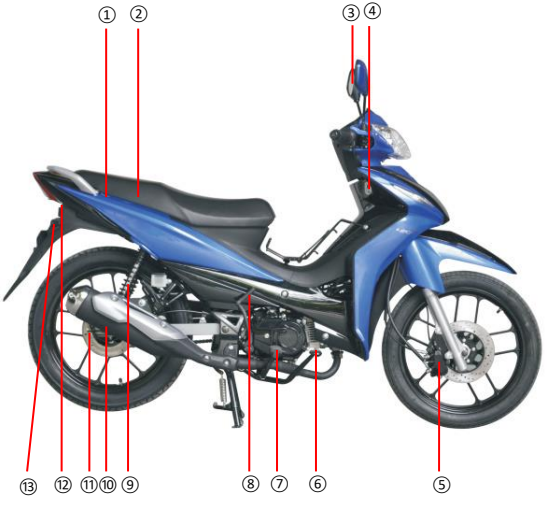
PARTS LOCATION (Fig.1-3)

Fig.1 (Left view)



①Front fender ②Front winker ③Headlight ④Trunk ⑤Handrail ⑥Taillight ⑦Rear wheel ⑧Rear footrest ⑨Side stand ⑩Center stand ⑪Engine model & code ⑫Engine ⑬Gearshift pedal ⑭Front wheel

Fig.2 (Right view)



①VIN ②Seat ③Rearview mirror ④Ignition switch ⑤Front brake ⑥Rear brake pedal ⑦Front footrest ⑧Kick starter ⑨Rear shock absorber ⑩Exhaust muffler ⑪Rear brake ⑫Rear reflector ⑬Rear winker

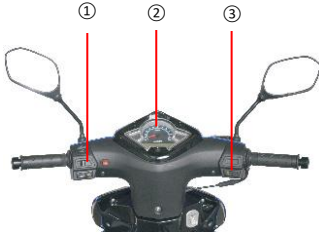


Fig.3
①Left handlebar controls
②Meter & indicator
③Right handlebar controls

VEHICLE IDENTIFICATION (Fig. 4-6)



VIN
Fig.3



Engine model & code
Fig.4



Nameplate
Fig.5

[VIN RECORD]
VIN: ☆ ☆
Engine Model:
Engine Code: ☆ ☆

Please fill the VIN, engine model and code of vehicle in the blank, which will help order spare parts and find the vehicle when stolen.

[VIN LOCATION]
①The VIN is stamped on the frame under the seat cushion.
②The engine model & code is stamped below the left crankcase.
③The nameplate is fixed at the right side of the frame.

FUEL AND ENGINE OIL (EP)

Fuel Selection
Fuel is a key factor in deciding the exhaust emissions from the engine, so selection of fuel must follow the rules below. Petrol E5 must be used.

Engine Oil Selection (Fig.7)
The quality of the engine oil plays a vital role in deciding the engine performance and service life, also the vehicle emission. Engine oil must be selected in accordance with rules, other oils such as ordinary engine oil, gear oil and vegetable oil are forbidden to be used.

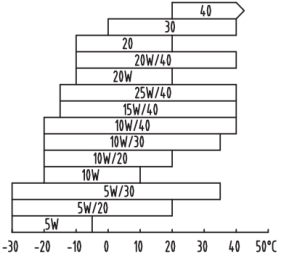


Fig.7

Before being delivered, the vehicle has been filled with engine oil SJ 15W/40, which is suitable for -10℃~+ 40℃. If other engine oil is to be used instead, the alternative must be respect to the Grade SJ in the API Classification. Viscosity varies with regions and temperatures, so the lubricant has to be selected according to our recommendation. When refueling, drain the previous oil in the crankcase and wash it with kerosene, then refuel according to the rules.

CONTROLLING PARTS

METER AND INDICATORS (Fig.8)

①Left /right turn signal indicator
②Tachometer ③Time
④Fuel gauge: flashes when the fuel is low.
⑤Fuel alarm light
⑥High beam indicator
⑦MIL ⑧Switching button
⑨Speedometer ⑩Neutral indicator
⑪Gear ⑫Odometer

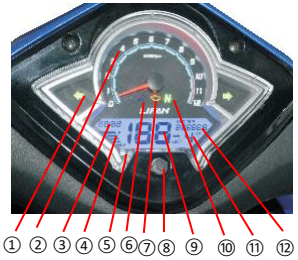
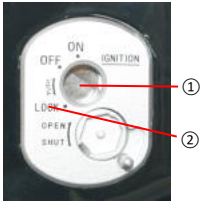


Fig.8

Button Function

1.At ODO/TRIP mode, short press (＜1s) the button to switch between the two modes.
2.At ODO mode with the red/white wire connected to +12V: cut off the meter power(black wire), and turn off the ignition switch. Then press and hold the button, and turn the meter power(black wire) on, i.e., turn on the ignition switch. Then release the button, the Metric/British system can be shifted.
3.At TRIP mode, long press (＞2s) the button to reset the subtotal mileage.
4.At ODO mode
[1]long press the button (＞2s) to enter the clock setting mode, the hour digit will flash, then short press the button to set the hour.
[2]long press the button again (＞2s) or no button pressed within 20s, it enters the minute setting mode. The minute digit will flash, and short press the button to set the minute.
[3]long press the button again (＞2s) or no button pressed within 20s, exit the clock setting mode.
5.Keep the button flexible and reliable at each operation.

IGNITION SWITCH AND STEERING LOCK (Fig.9)



①Ignition Switch
②Steering lock
Fig.9

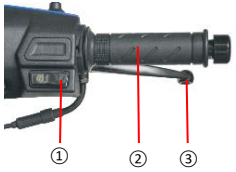
Ignition Switch

OFF: The circuit is off, engine cannot be started and key can be removed.
ON: The circuit is on, engine can be started, neutral indicator is lit and key cannot be removed.

Steering Lock

To lock the steering head, turn the steering bar left to the end, and turn the key to OFF position, then press and turn the key anticlockwise to LOCK position. The key can be removed at this time. To unlock the steering head, turn the key clockwise.

RIGHT HANDLEBAR *CONTROLS* (Fig.10)



①Electric starter button
②Throttle grip
③Front brake lever
Fig.10

1.Electric Starter Button

Press the button to start the engine while braking.

2.Throttle Grip

The grip is used to control the engine speed. Turning inward will increase fuel supply to accelerate, while turning outward will decrease fuel supply to decelerate.

3. Front Brake Lever

Hold it to brake the front wheel.

LEFT HANDLEBAR CONTROLS (Fig.11)

1. Dimmer Switch

Push the switch to "≡D" to turn on the high beam.
Push the switch to "≡D" to turn on the low beam.

2. Turn Signal Switch

Move the switch to "←" to signal a left turn, and to "→" to signal a right

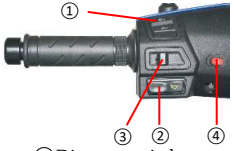
turn. At " ● " position, press it to turn off the turn signal switch.

3. Horn Button

Press the "➤" button to sound the horn.

4. Emergency Button

Press the emergency button to remind others in an emergency stop.



①Dimmer switch
②Horn button
③Turn signal switch
④Emergency button

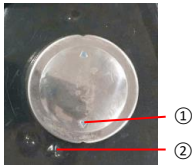
Fig.11

REFUELING AND FUEL FILLER CAP

Opening The Cap (Fig.12)

●When refueling, place the vehicle vertical to the flat ground and unfold the seat cushion. Turn the fuel filler cap anticlockwise and open the cap to fill fuel. After refueling, close the cap clockwise until mark① on it aligning with the mark② on the fuel tank with a click sound.

●Do not overfill the tank (do not exceed the fuel tank retainer). After refueling, make sure the fuel filler cap is securely closed.



①Mounting mark
②Mounting mark

Fig.12

⚠ WARNING

●Gasoline is extremely flammable and can be exploded under certain conditions. Before opening the fuel filler cap, make sure the engine is stopped, then refuel in a well-ventilated area. Do not smoke and keep away from flames or sparks when refueling.

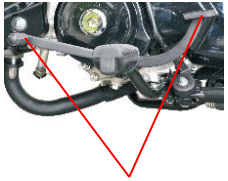
●Before refueling, make sure to filter fuel first.

GEARSHIFT PEDAL (Fig.13-15)

The vehicle is equipped with dual clutch engine, has two shift conditions (Fig.14 & Fig.15).

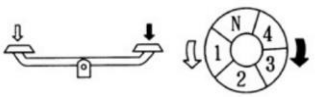
①When parking, it can shifted from the 4th gear to neutral (circular gear system).

②When driving, it must be shifted back to the 1st gear and then shifted to neutral.



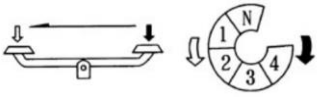
Gearshift pedal

Fig.13



Gears at driving

Fig.14



Gears at parking

Fig.15

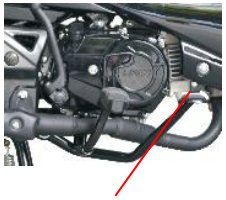
REAR BRAKE PEDAL (Fig.16)

The rear brake will function and the rear stop light will glow when applying the pedal.

REAR SHOCK ABSORBER (Fig.17)

The rear shock absorber has 5 adjustment positions.

NOTE Please adjust the shock absorber according to different road surface, loading quality and driving conditions. Pull it upward and turn the adjuster in adjustment. Keep the left and right shock absorbers at the same level.



Rear brake pedal

Fig.16



Rear shock absorber

Fig.17

STANDS (Fig.18)

Side Stand

When parking, turn the side stand clockwise along the frame to the end (Fig.18b). Before driving, turn it to the initial position (Fig.18a).

NOTE Be sure to retract the stand before driving, otherwise, it may fall over.

Center Stand (Fig.18c)

When parking, step on the center stand at the left side while rising the

rear portion with right hand so as to support the vehicle. Before driving, push the vehicle forward to let the center stand return automatically.



Center stand & side stand in driving
Fig.18a



Side stand in parking
Fig.18b



Center stand in parking
Fig.18c

OPERATION GUIDE

PRE-RIDE INSPECTION

Inspect your motorcycle every time before you ride it. The items listed here will only take a few minutes to inspect, and in the long run they can save time, expense, and possibly your life.

1.Engine oil level - Add engine oil as required and check for leaks.
2.Fuel level - Refuel when necessary and check for leaks.
3.Front and rear brakes - Check operation and adjust free play if necessary.
4.Tyres - Check wear condition and pressure.
5.Battery electrolyte - Check the electrolyte for suitable level (except for maintenance-free battery).
6.Throttle - Check for throttle operation, cable connection and handle free play, adjust or replace it if necessary.
7.Lights and horn - Check the headlight, tail/stop light, winkers, indicators and horn function properly.
8.Drive chain - Check the condition and slack. Adjust and lubricate it if necessary.
9.Steering system - Check for its smoothness and reliability.
10.Fasteners - Check all nuts, screws and bolts are mounted securely.

STARTING THE ENGINE

⚠ **CAUTION** **Do not start the engine in a narrow area to prevent accidents. The exhaust contains poisonous carbon monoxide (CO) gas that can cause loss of consciousness and even to death. It is strictly prohibited to start the engine when engaging, otherwise it will cause mechanical damage and accidents.**

- Insert the key into the ignition switch and turn it to ON position.
- Move the gearshift pedal to neutral to light up the indicator.
- Check the fuel amount in the tank.

Engine Starting At Cold

- Turn the throttle grip by 1/8~1/4 turn.
- Start the engine by electric starter or kick starter.
- Slightly rotate the throttle grip to increase engine speed and warm it up.

Engine Starting At Hot

- Start the engine as it is at cold.

⚠ **WARNING**

- Electric start or kick start cannot be performed at the same time. For the first start, please apply electric start to protect the battery.
- Do not slam on the starting lever to avoid bouncing back to hurt your foot or damage the mechanism in electric start.
- If it fails to start electrically in 5s, please try again after 10s to allow the battery to restore power.
- Unnecessarily long periods of idling should be avoided to reduce damage to the engine, especially at high speed.

BREAKING-IN

Do not overload the engine during the first 1,000 km of a new vehicle. In the initial breaking-in of 500km, its maximum speed should be≤40km/h and be careful to run at the beginning of 500~1,000km, its speed should be≤60km. During this period, avoid full throttle riding and change speed continuously to reduce excessive stress on the engine.

NOTE **After the breaking-in period, be sure to conduct maintenance so as to make in compensation for slightly wear. The service life will be extended obviously through such maintenance.**

RIDING

⚠ **WARNING** **Review the safety instructions before riding.**

NOTE **In order to prolong the service life of the engine, as well as reduce the engine weakness, high temperature, high fuel consumption, shivering, jamming and other phenomena, the following speed range is recommended for each gear:**

Gear	Speed	Gear	Speed
1	0-20km/h	3	35-60km/h
2	15-40km/h	4	55-80km/h

- Warm up the engine gradually and keep it at idle after starting.
- Gently and correctly shift the gearshift pedal to the 1st gear and

increase the speed slowly to keep steady starting.

●When the motorcycle reaches a stable running state, reduce the engine speed and shift the gearshift pedal to the 2nd gear, so as to change to other gears.

●When braking, the throttle and brake work closely together to decrease speed slowly.

●Do not operate the front and rear brakes roughly at the same time, otherwise sharp braking to the wheel will reduce braking effect and make it difficult to control the vehicle.

BRAKING AND PARKING

Braking

1.In normal braking, decrease the speed slowly, use the front and rear brakes at the same time if the transmission is in low gear.

2.If it needs to slow down as much as possible, close the throttle and use the front and rear brakes decisively.

⚠ WARNING

●Use the front brake or rear brake solely will decrease braking performance and lead to rapidly wear or damage to the brake.

●Braking roughly can cause the wheels to lock up and let the motorcycle out of control.

●Please slow down or brake before cornering; turning off the throttle or braking while cornering will cause the wheels to slip and weaken control of the motorcycle.

●Shift to a low gear and discontinuously use the front brake and rear brake while running downhill. Continuous braking will overheat the brakes and affect the braking effect.

●Running on wet, soft roads or in rainy days, rapid acceleration, braking or cornering will let the motorcycle out of control. For your driving safety, please pay special attention to above situations.

Parking

1.To stop the vehicle, firstly turn off the throttle, then smoothly apply the front and rear brakes until stopping.

2.Step the gearshift pedal and shift the transmission to neutral, turn the ignition switch to OFF.

3.Support the motorcycle with the center stand or the side stand.

⚠ WARNING Make sure to park the motorcycle on level and firm ground to avoid overturning.

MAINTENANCE

Tool Kit (Fig.19)

Some roadside repairs, minor adjustments and parts replacement can be performed with the tools available in the kit.

①Open-ended spanner, 8mm ×10mm
②Open-ended spanner, 13mm ×15mm
③Spark plug wrench
④Double-end screw driver
⑤Screw driver grip
⑥Tool bag



Fig.19

Maintenance Schedule

Maintenance work should be performed in light of Maintenance Schedule.
Letters in the table indicate as follows:
I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY
C: CLEAN R: REPLACE A: ADJUST L: LUBRICATE
* The item should be serviced by your dealer, unless the owner has the proper tools and is mechanically qualified. Refer to the manual.
** In the interest of safety, we recommend these items should be serviced only by your dealer.

NOTE

①Clean more frequently when riding in unusual wet or dusty areas.
②At higher odometer readings, still follow the frequency intervals established in this manual.

	FREQUENCY / SERVICE ITEMS	ODOMETER READING, km (NOTE②)								
		1,000	2,000	4,000	6,000	8,000	10,000	20,000	30,000	Note
*	Fuel line	I		I		I	Every 4,000km, I			
*	Fuel pump strainer	C		C		C	Every 4,000km, C/R			
*	Throttle/clutch/brake cable	I		I		I	Every 4,000km, I			
**	Throttle valve				C		Every 6,000km or yearly, C			
**	Engine idling	I		I		I	Every 4,000km, I			
*	Air cleaner element (paper)			I	R	I	Every 6,000km, R			Note①
*	Air cleaner element (foam)			C	C/R	C	Every 6,000km, C/R			Note①
*	Spark plug	I		I		I	Every 4,000km, I / every 10,000km, R			
**	Valve clearance	I		I		I	Every 4,000km, I			
*	Oil filter element (metal)	C	C	C	C	C	Every 2,000km, C			
*	Oil filter element (paper)	R	R	R	R	R	Every 2,000km, R			
	Oil filter strainer	C	C	C	C	C	Every 2,000km, C			
	Engine oil	R	R	R	R	R	Every 2,000km, R			
*	Coolant	I		I		I	Every 4,000km, I			
	Drive chain	I/L	Every 1,000km, I/L							
*	Battery	I	I	I	I	I	Every 2,000km, I			
*	Brake shoe wear	I	I	I	I	I	Every 2,000km, I			
*	Brake system	I		I		I	Every 4,000km, I			
**	Brake fluid	I		I		I	Every 2,000km, I / every 2 years, R			
	Signal switch	I		I		I	Every 4,000km, I			
*	Lighting system	I		I		I	Every 4,000km, I			
*	Suspension system	I		I		I	Every 4,000km, I			
*	Nuts/bolts/fasteners	I		I		I	Every 4,000km, I			
**	Wheel/tyre	I		I		I	Every 4,000km, I			
**	Steering stem bearing	I			I		Every 6,000km, I			
*	Fuel evaporation system						I	I	I	

ENGINE OIL (EP)

Check The Engine Oil Level (Fig.20)

Check the engine oil level before riding.

A dipstick is built in the engine to measure the engine oil level, which is should be between the top mark and the bottom mark of the dipstick.

●Place the vehicle vertical to the flat ground, remove and clean the dipstick. Then tighten it up and take it out to check the oil level.

●Add adequate engine oil as specified, do not overload.

●Reinstall the dipstick and check it for oil leaks.

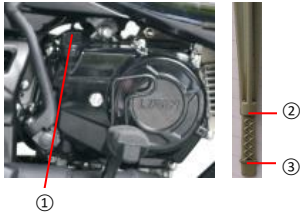


Fig.20

①Dipstick
②Top mark
③Bottom mark

NOTE Running the engine with insufficient oil may cause serious damage to the engine.

Change The Engine Oil (Fig.21)

It is better to drain when the engine is still warm.

●Place an empty container under the engine, unscrew the drain plug.

●Reinstall the drain plug, and tighten it up.

Pour about 0.8L (0.9L for new engine) engine oil as specified. Restart the engine, keep it idle for a few minutes, and then stall it. Recheck the oil level, and add oil if necessary.



Drain plug

Fig.21

NOTE When running in very dusty conditions, oil changes should be performed more frequently than specified in the maintenance schedule. The wasted engine oil cannot be discarded at will and should be handed over to a local department with waste material recycling qualifications.

CLEAR AWAY CARBON DEPOSIT (EP)

Clear away carbon deposits around the spark plug and piston rings, on the piston top, in the piston slot and combustion chamber regularly.

SPARK PLUG (EP) (Fig.22)

Spark plug type: As stated in SPECIFICATIONS.

Check and Replace

●Spark plug is located on the upper right of the cylinder head, disconnect the spark plug cap and clean any dirt around it. Remove the spark plug by a spark plug wrench from the tool bag.

●Inspect the electrodes and center porcelain for ablations and deposits. Replace the spark plug when too much ablations and deposits on or in the insulator with cracks or drops. Clean the deposits and dirt with a spark plug cleaner or a wire brush.

●Bend the side electrode, use a clearance gauge to adjust the spark plug gap to be 0.8-0.9mm.



Fig.22

⚠ CAUTION The spark plug must be tightened up, if not, it will become hot to damage the engine.

AIR CLEANER (EP) (Fig.23)

The air cleaner must be cleaned at least once every 4,000km. Riding in very dusty area, the job should be done more often. See your dealer for correct maintenance schedule according to your driving condition.

The air cleaner is mounted in the front middle of the vehicle.

●Remove the front windshield.

●Remove the air cleaner.

●Remove the air cleaner cover and disassemble the air cleaner to take out the element.



Fig.23

●Clean off dust on the element. Do not use water and oil.
●Clean off dust and foreign matters inside and outside of the air cleaner housing, dry it with a cloth.
●Reinstall the element and cover in the reverse order of removal.
⚠ **WARNING Do not clean the element with gasoline or low ignition agent, otherwise it may cause fire or explosion.**

VALVE CLEARANCE (Fig.24)



Fig.24

Check and adjust the valve clearance when the engine is cold.
●Remove the left windshield guard and left side cover.
●Unscrew the valve cover and view-hole plug on the engine left cover. Counterclockwise rotate the magneto rotor until marker "T" on it aligns with the marker on the left crankcase cover. Touch the rocker arm to check if the piston is at TDC of the compression stroke. If it is free, it means check can be done. Otherwise, rotate the rotor through 360° to align with the marker again.
●Clearances should be 0.03-0.06 mm for the intake/exhaust valve.
●When adjusting the valve clearance, loose the locknut and turn the adjusting screw. Turn towards direction A, the valve clearance will decrease, and turn towards direction B, it will increase. After tightening up the locknut, be sure to recheck the valve clearance again.

EXHAUST MUFFLER (EP)

Clear away carbon deposit in the exhaust pipe regularly, check the inside of exhaust pipe for crack and washer for damage, repair or replace it if necessary.
NOTE The exhaust muffler is internally equipped with 3-way catalyst which contains heavy metals that can cause environmental pollution. The wasted muffler cannot be discarded at will and should be handed over to a local department with waste material recycling qualifications or to a local dealer for recycling.

BASIC WORKING PRINCIPLE OF EFI SYSTEM

EFI system transform parameters such as inlet air quantity, cooling water temperature and engine working conditions (RPM, acceleration/ deceleration, etc.) obtained by various sensors into electric signals and inputs them to ECU. After comparing these parameters with stored information and calculating correctly, the ECU will output control signals. ECU can not only control the fuel supply accurately to instead of traditional carburetor, but also control the ignition advance angle and idle air flow to greatly improve the engine performance. It is the core of EFI system and characterized by closed-loop control of computer, direct ignition, fuel injection and 3-way catalyst post-processing.
For the convenience of maintenance, a fault diagnosis logic is developed. When there is something wrong with the EFI system, the MIL will be lit to remind users to repair ASAP, meanwhile the diagnosis scanner can be used to read the fault details and parameters of engine working condition.

Characteristics of EFI System

1.The core control logic of EFI system adopts the "Speed-density" method, which has been widely used in automobile with high reliability.
2.The system can judge the altitude and allows the engine to run well at different altitudes.
3.The inductive ignition is used to greatly increase the ignition energy and improve the combustion efficiency.
4.The 36-2 teeth magneto is adopted to improve the calculation accuracy of ignition advance angle, and the system can control the engine's ignition time intelligently to keep the engine always working in the best condition without any knocks.
5.When the throttle is released and the engine is not required to provide power temporarily for the vehicle due to deceleration, sliding or going downhill, etc., the EFI system can cut off fuel in time to avoid fuel waste and air pollution.
6.When accelerating suddenly, the EFI system can respond immediately

to give adequate fuel, and keep the motorcycle accelerate rapidly and steadily, which will avoid a violent starting and improve the driving performance.
7.The temperature correction function of EFI system gives the vehicle a prominent hot-cold starting performance, in which starting can be triggered at once.
8.The closed-loop control through oxygen sensor keeps the engine in a good working condition all the time.
9.The idle air quantity of engine is controlled by EFI system through a stepper motor, which keeps a stable idle speed.
10.The MIL of fault diagnosis scanner can be used to judge the current problem, so as to make the maintenance simple and easy.

SCHEMATIC DIAGRAM OF EFI SYSTEM (Fig.25)

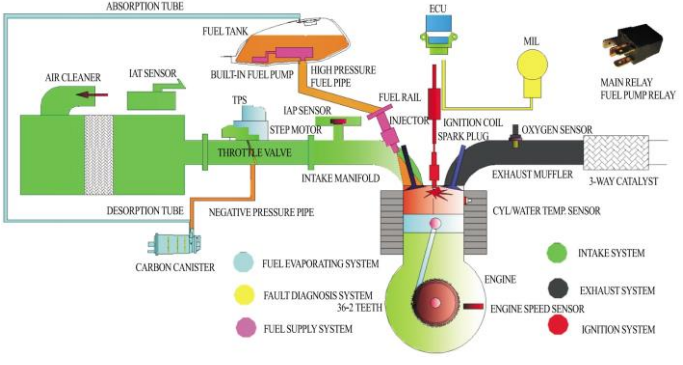


Fig.25

COMPONENTS OF EFI SYSTEM

Category	Component Name	Description
EFI System	ECU	Computer program, chips, electronic components and circuit board, etc.
	Throttle valve assy.	Throttle valve, TPS sensor, step motor
	Oxygen sensor	To test the oxygen content after combustion, used in closed loop control
	Cylinder/water tem. sensor	To measure the engine temperature
	IAT/IAP sensor	To measure the negative pressure and temperature of intake air
	Fuel pump	To supply a constant fuel pressure
	Injector	To inject fuel to the engine
	Fuel rail	To connect to the fuel injector
Vehicle	Fuel tank	Special part of EFI system, with outlet port and adsorption tube
	Fuel hose	Special part of EFI system, used to connect the whole oil circuit
	Exhaust muffler	Special part for EFI system, installed with oxygen sensor and 3-way catalyst
	3-way catalyst	Installed in the exhaust muffler
	Throttle cable	Special part of EFI system
	Main cable	Special part of EFI system
	Fuel pump relay	To supply power for fuel pump
	Carbon canister	Fuel evaporation system
Engine	Magneto	Including 36-2 teeth rotor, stator and engine speed sensor
	Rectifier	To match with magneto (3-phase)
	Ignition coil	Electromagnetic inductive
	Intake manifold	Installed with the throttle valve and injector

1. ECU (Fig.26)



Fig.26

ECU is the control center of EFI system, which is installed on the vehicle.

It decides the best fuel injection timing, fuel injection amount and ignition advance angle by analyzing and processing the parameters from IAP sensor, cylinder/water temperature sensor, IAT sensor, engine speed sensor, throttle position sensor and oxygen sensor to optimize engine performance and emissions.

Working conditions:

[1]Power supply range: DC 12±2V, provided by the battery.

[2]Ambient temperature: -25℃~85℃.

[3]For definition of ECU pins, please refer to Electric Diagram.

NOTE

[1]Do not plug or unplug the ECU with power on, otherwise the ECU may be damaged and the vehicle will not be able to drive.

[2]It's forbidden to dismantle the ECU and to pry the pins in the socket with solid objects, otherwise it may cause damage.

[3]Do not drop or collide ECU with solid objects. And keep the ECU and its coupler away from water and oil.

2. THROTTLE VALVE (Fig.27)

The throttle valve assy., composed of throttle position sensor, throttle valve, step motor and IAT/IAP sensor, are installed between the intake manifold and air cleaner of engine.

NOTE The throttle valve assy. should be cleaned regularly to keep the system at optimal performance.

Fig.27





Fig.28

3. FUEL PUMP (Fig.28)

The fuel pump is to deliver the fuel from the fuel tank to the engine with certain oil pressure and fluency.

Working conditions: When the smart ignition switch is turned on, the fuel pump will run for 3s. Then if ECU does not detect a valid engine speed signal of missing teeth, the fuel pump will stop running. When the engine starts to run, the fuel pump will start running unless the ECU detects at least 2 valid signals of missing teeth. Without engine speed signal, the fuel pump stops running.

4. OXYGEN SENSOR (EP) (Fig.29)

The oxygen sensor, installed on the exhaust muffler, is used to test the oxygen content in the exhaust gas emitted by the engine and to realize the closed loop and adaptive control to the system.

NOTE

[1]Make sure that there are no air leaks at the joints of the engine outlet port, oxygen sensor and muffler, otherwise the system will fail to work.

[2]It's forbidden to knock or impact the oxygen sensor when dismantling. And keep it and its coupler away from the water and oil when connecting.

[3]It's forbidden to clean the oxygen sensor directly with water when the engine is hot, which may cause damage.



Fig.29



Fig.30

5. CYLINDER/WATER TEMPERATURE SENSOR (Fig.30)

The cylinder/water temperature sensor, mounted on the cylinder head, is designed to measure the temperature of engine.

6. IAT/IAP SENSOR (Fig.31)

The IAT/IAP sensor, mounted on the throttle valve, is to measure the

intake air negative pressure, altitude and intake air temperature.

NOTE

[1]Impurities such as water and oil should not exist in the IAP sensor.

[2]Ensure the tightness of all connections, otherwise the system will fail to work.

7. MAGNETO (Fig.32)

It consists of a 36-2 teeth rotor, stator and speed sensor.

NOTE

[1]The magneto is for special use, so the same specification one should be used for replacement, or the system will fail to work.

[2]Keep the clearance between speed sensor and magneto rotor flange at a range of 0.7-1mm, or the starting performance will be affected.



Fig.31

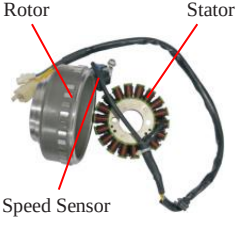


Fig.32

8. INTAKE MANIFOLD (Fig.33)

With the fuel injector installed on it, the intake manifold is connected to the throttle valve.

NOTE

[1]Check if the insulator O-ring is damaged at dismantling. And make sure it's installed properly and the air passages are air-tight without air leaks.

[2]Keep the oil circuit clean at dismantling, or it may block the fuel injector and prevent the system from working.

9. IGNITION COIL (Fig.34)

The ignition coil is of electromagnetic inductive type with great ignition energy.

NOTE The same model one should be used in replacement, or the system may fail to work.



Fig.33



Fig.34

10. THREE-WAY CATALYST (EP)

The 3-way catalyst, mounted on the exhaust muffler, is designed to decrease contaminations such as CO, HC and NOx through redox reaction of catalysts.

NOTE

[1]To avoid abnormal failure of the 3-way catalyst, pollution such as oil and dust should be eliminated. It is strictly prohibited for acid and water to enter into the exhaust muffler. And be sure to use unleaded gasoline.

[2]It is forbidden to do the spark-over test when the engine is hot, otherwise the 3-way catalyst may be damaged.

11. FUEL EVAPORATION SYSTEM (Fig.35)

The system consists of ①adsorption tube, ②desorption tube, ③carbon canister, ④check valve, and ⑤oil-gas delivery pipe.

When fuel vapor comes out from the fuel tank, it is absorbed and stored by the carbon canister, and then combusted when the engine is working. Therefore, fuel vapor fails to directly emit into the air, achieving environmental and energy-saving goals.

NOTE All the rubber hoses should not be squeezed or bent. The joint of carbon canister to the atmosphere must be facing downwards, and the outlet pipe cannot be blocked. Please check them regularly.

12. MIL

The activation of MIL follows the following principles:

[1]When there is no current fault, turn on the smart key and the MIL keeps steady on. And it won't go out until the engine is ignited and the ECU finds the engine speed signal.
[2]When there is current fault, turn on the smart key and the MIL keeps steady on. And it won't go out even though the engine is ignited and the ECU finds the engine speed signal. Then turn on the smart key and keep the throttle fully open without releasing: If there is no historical fault, the MIL will flash continuously at a frequency of 2Hz for at least 10 times. If there is a historical fault, the MIL will output a flashing code, i.e. PCODE. For example, the flashing way of P0203 is: continuous flashing 10 times - intermittent for 1 second - continuous flashing 2 times - intermittent for 1 second - continuous flashing 10 times - intermittent for 1 second - continuous flashing 3 times. If there is more than one fault, the fault code will flash sequentially every 4 seconds, following the principle of prioritizing the latest fault. If you need to check the flashing code again, please close the electronic fuel injection lock and open it again, then keep the throttle fully open. It is recommended to use a diagnostic tool to directly read the faults, which is convenient and fast.



Fig.35

OPERATION AND TROUBLESHOOTING TO EFI SYSTEM

Adjust the length of throttle cable

Check if the free travel of the throttle cable and choke cable is between 2-6mm in the natural state. If not, adjust them as follows,
1.Loosen the locknut and remove the sleeve.
2.Turn the adjusting screw to adjust the throttle cable length.
3.When the adjustment is done, tighten the locknut and put the sleeve on.
4.If the adjustment cannot be finished, fix the throttle cable to the end of the throttle cable bracket.

NOTE After the adjustment is done, check if the throttle grip can return without friction and dragging.

Troubleshooting to EFI system

For the first use of a vehicle which is new or after maintenance, or it is found that the engine is with malfunctions, please strictly follow the following steps to troubleshoot,
1.Check if the assembly for vehicle and engine is intact and check if all the parts of EFI system are in good condition with reliable installation and correct wiring. Specially pay attention to the connection of the positive and negative leads of the battery and make sure the cable is grounded securely.
2.Check if the fuel grade is correct and the fuel in fuel tank is enough (≥ 1L) and check if there is oil leaks or oil immersion in the oil circuit.
3.Turn on the smart ignition switch with the power on and engine not started, and run the fuel pump for 3-6s, the MIL should be steady on. If not, please troubleshoot according to the fault code before proceeding to the next step.
4.Check the brakes and start the engine at neutral. Ride and check the vehicle acceleration and driving performance.

NOTE

1.For the first use of a vehicle which is new or after maintenance, it will take a little longer to start due to the presence of air in the oil circuit.
2.Find the local dealer for a complete overhaul if there are still faults after troubleshooting.

13. FAULT CODE TABLE

Part Name	Fault Code	Flashing Code	Definition	Description
IAT sensor	P0112	31	Intake Air Temperature Sensor 1 Circuit Low	short to ground
	P0113	32	Intake Air Temperature Sensor 1 Circuit High	short to battery
Intake manifold pressure	P0107	41	Manifold Absolute Pressure/Barometric Pressure Circuit Low Input	short to ground
	P0108	42	Manifold Absolute Pressure/Barometric Pressure Circuit High Input	short to battery
Oxygen sensor	P0131	51	O2 Sensor Circuit Low Voltage	short to ground
	P0132	52	O2 Sensor Circuit High Voltage	short to battery
	P0134	53	O2 Sensor Circuit No Activity Detected	open load
Crankshaft position sensor	P0030	57	HO2S Heater Control Circuit	open load
TPS	P0031	55	HO2S Heater Control Circuit Low	short to ground
	P0032	56	HO2S Heater Control Circuit High	short to battery
Engine temperature sensor	P0335	63	Crankshaft Position Sensor "A" Circuit	abnormal signal
	P0122	21	Throttle/Pedal Position Sensor/Switch "A" Circuit Low	short to ground
Injector	P0123	22	Throttle/Pedal Position Sensor/Switch "A" Circuit High	short to battery
	P0117	11	Engine Coolant Temperature Circuit Low	short to ground
	P0118	12	Engine Coolant Temperature Circuit High	short to battery
Ignition coil	P0201	17	Injector Circuit/Open – Cylinder 1	open load
	P0261	15	Cylinder 1 Injector Circuit Low	short to ground
Oxygen sensor heat	P0262	16	Cylinder 1 Injector Circuit High	short to battery
	P2300	27	Ignition Coil “A” Primary Control Circuit Low	open load
	P2301	26	Ignition Coil “A” Primary Control Circuit High	short to battery
Purge control valve	P0444	77	Evaporative Emission System Purge Control Valve Circuit Open	open load
	P0458	75	Evaporative Emission System Purge Control Valve Circuit Low	short to ground
	P0459	76	Evaporative Emission System Purge Control Valve Circuit High	short to battery
Idle step motor	P0505	47	Idle Air Control System	open load
	P0508	45	Idle Air Control System Circuit Low	short to ground
	P0509	46	Idle Air Control System Circuit High	short to battery
Fuel pump	P0627	37	Fuel Pump “A” Control Circuit Open	open load
	P0629	36	Fuel Pump “A” Control Circuit High	short to battery
Main relay	P0685	67	ECM/PCM Power Relay Control Circuit Open	open load
	P0687	66	ECM/PCM Power Relay Control Circuit High	short to battery
ECU	P0601	94	Internal Control Module Memory Check Sum Error	ECU trouble

CRANKCASE EXHAUST GAS RECIRCULATION SYSTEM (EP) (Fig.29)

Working principle: It opens a gas channel between the crankcase and the air filter, and sets up an oil-gas separator, so that the exhaust gas in the crankcase passes through the oil-gas separator, then enters the air filter and throttle body, and returns to the engine combustion chamber for combustion, which avoids the waste gas in the crankcase being directly discharged into the atmosphere, thus reducing the pollution to the atmosphere.

Precautions during use and maintenance:

The oil pipe of oil-gas separator should be cleaned regularly. It is recommended to clean it every 500 km.



Oil Pipe

Fig.36

THROTTLE (Fig.37)

●Check if the throttle grip returns smoothly between both ends with the throttle from fully open to fully closed. No friction or blockage is allowed.

●Measure the free play of throttle grip. The standard free play should be around 2-6mm. To adjust the free play, loosen the locknut and turn the adjusting bolt. Turn it to direction A, the free play will decrease, and turn it to direction B, it will increase. Fasten the locknut after adjustment.

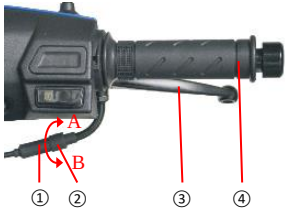


Fig.37

①Adjusting bolt ②Locknut ③Front brake lever ④Throttle grip

AIR PASSAGE JOINTS (EP)

Check the air passage joints regularly for air leaks, especially between the muffler and engine, the air cleaner and throttle valve, the throttle valve and engine, etc. Repair or replace the faulty parts if necessary

CLUTCH (Fig.38)

NOTE The clutch should be adjusted when the engine stops running.

●Loosen the locknut.

●Turn the clutch adjusting screw clockwise to the end, then turn it anticlockwise by 1/8-1/4 turn and tighten the locknut.

●Start the engine after the adjustment and check if the clutch works properly. If the clutch slips or becomes difficult to gearshift, please readjust it again.



①Locknut ②Adjusting screw

Fig.38

DRIVE CHAIN (Fig.39)

Check

Check the drive chain for wear and lubricate it if it seems to be dry.

●Place the vehicle vertical to the flat ground. Pull the chain by hand and press the middle part between two sprockets with fingers to test the slackness. The slackness should be adjusted to 10-20 mm.

Adjustment

●Loosen the rear axle locknut to adjust the slackness. Turn the adjusting nut to direction A, the chain will become tight. Turn it to direction B, the chain will become loose. The slackness after adjustment should be within the specified range.

NOTE When adjusting the chain, the both end faces of chain

adjusters should be at the same scale line at the same time. And tighten up the rear axle nut after adjustment.

Lubrication

Clean the chain if it's seriously contaminated. Then wipe and dry the chain, and apply a layer of lubricant to it.

NOTE When checking and cleaning the chain, if the chain is found to be damaged, it should be replaced. When reinstalling the chain, make sure the opening direction of the chain clip is opposite to the driving direction of chain. And the chain slackness should be readjusted after reinstallation.

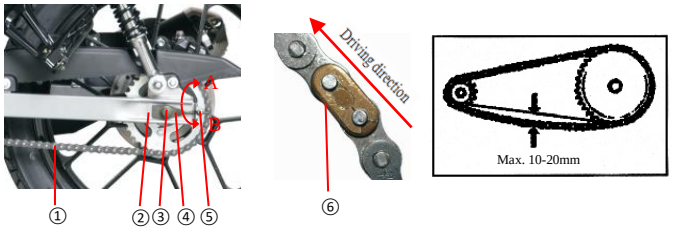


Fig.39

①Chain ②Scale mark ③Rear axle ④Chain adjuster ⑤Adjusting nut ⑥Chain clip

FRONT BRAKE (Fig.40)

Check

The front brake master cylinder is installed on the right handlebar.

The part on the brake caliper that contact with the brake disc for friction braking are called as brake shoe. It is necessary to replace the brake shoe when it wears to limit.

Place the vehicle vertical to the flat ground. Check the brake fluid level from the sight glass on the brake master cylinder. If the fluid level is below the mark "LOWER", please add brake fluid in time. Loosen the screw and remove the cylinder cover to add brake fluid.

⚠CAUTION Brake fluid should be strictly selected according to regulations, otherwise it will affect the braking effect. Brake fluid can cause skin or eye inflammation. Once in contact, please wash with water.

⚠WARNING When a new brake disc is installed, do not ride the vehicle immediately. Apply the brake lever several times to fully extend the brake disc, restore the recovery force, and make the brake fluid circulate normally.

Adjustment

Hold the front brake lever until the counter force occurs, the free play should be maintained within 5-10 mm. Adjust the free play as follows if necessary:

Apply the front brake lever continuously for several times, hold the lever and remove the bleed screw, and then tighten up the bleed screw as soon as air in the cylinder is discharged completely. Repeat above procedures until the required free play is reached.

Apply the front brake lever several times and then release it to check the front wheel for free rotation.

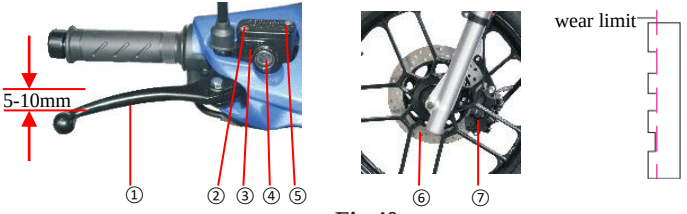


Fig.40

①Front brake lever ②Screw ③Front brake master cylinder ④Sight glass ⑤Cylinder cover ⑥Front brake disc ⑦Front brake Caliper

REAR BRAKE (Fig.41)

Place the vehicle vertical to the flat ground.

Measure the distance (called as free play) from the rear brake pedal to the position where the brake starts to work. The free play should be 5-10 mm.

Stamp the rear brake pedal for several



Fig.41 Rear pedal

times and then release it to check the rear wheel for free rotation.

NOTE Please find your dealer for adjustment if necessary

BRAKE WEAR INDICATOR (Fig.42)

Replace the front/rear brake shoe if it reaches the wear limit.

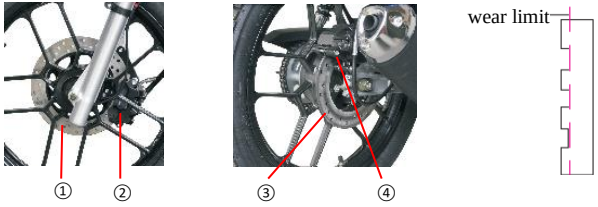


Fig.42

①Front brake disc ②Front brake caliper ③Rear brake disc ④Rear brake caliper

FRONT/REAR SHOCK ABSORBER AND SUSPENSION

Place the vehicle vertical to the flat ground, hold the front brake lever and press the front/rear shock absorber down for several times to check if it returns well without noise or oil leaks. And the front suspension should be stable. Check the rear fork bush for proper slackness by pushing the side of rear wheel. Make sure all the fasteners are tightened securely.

NOTE Repair or replace the front/rear shock absorber if it is found to be damaged.

TYRE

Proper tyre pressure will provide optimal driving stability, comfortable riding and long-lasting tyre life.

The following table shows the tyre pressure standards in cold state:

	Front	Rear
Tyre pressure (kPa)	175-200	200-225
Tyre size	2.50-17	2.75-17

The tyre pressure should be checked in cold state before riding. Then check the tyres for cuts, nails or other sharp objects embedded, and check the rims for dents or deformation. Find your dealer for help if necessary.

⚠ CAUTION Excessive or incorrect tyre pressure will cause abnormal tyre wear, leading to safety accidents. Insufficient tyre pressure will cause the tyre to be damaged or detached from the rim, making the vehicle lose control.

When the tread depth in the middle of tyre reaches the below limits, please replace the tyre.

Tread Depth Limits			
Front tyre	0.8mm	Rear tyre	0.8mm

NOTE Riding with excessively worn tyres is extremely dangerous and will affect traction, stability, steering and handling.

FRONT WHEEL (Fig.43)

Place the vehicle vertical to the flat ground.

Remove the odometer flexible shaft and front axle nut, extract the front axle and remove the front wheel.

NOTE Installation should be done in the reverse order of removal.

Tightening torque of front axle nut: 70±10N.m



①Odometer flexible shaft
②Front axle

Fig.43

REAR WHEEL (Fig.44)

Place the vehicle vertical to the flat ground.

Loosen the locknuts of chain adjusters at both sides of the rear wheel, and loosen the rear axle nut to remove the chain clip and chain. Then remove the rear axle nut, extract the rear axle and remove the rear wheel.

NOTE Installation shall be done in the reverse order of removal.

Tightening torque of rear axle nut: 70±10N.m.

Adjustment of rear brake and chain refers to the related items in the manual.



①Locknut ②Rear axle

Fig.44

FUSE (Fig.45)

The fuse is located in the rear trunk.

It will automatically blow to protect the circuit in the case of troubles

such as a short circuit or an overload. And the circuit needs to be checked at this time. After troubleshooting, install the spare one in the fuse box.

⚠ **WARNING The fuse should be selected as specified. It's strictly forbidden to use other substitutes, such as aluminum, platinum, iron wire or copper wire, which may cause vehicle burning.**



Fig.45



Fig.46

BATTERY (EP) (Fig.46)

The battery is located in the rear trunk.

The vehicle is equipped with a maintenance free battery, which does not require the user to add electrolyte.

⚠ **CAUTION**

1.The battery contains sulfuric acid (main constituent of electrolyte) which is strong corrosive.

2.Under no circumstances should the sealing cover be opened.

3.Please strictly follow the instruction manual for daily maintenance.

4.The battery which cannot be used should be handed over to a local department with waste material recycling qualifications or to a local dealer for recycling.

⚠ **WARNING**

To remove the battery, first disconnect the negative lead, and then the positive lead. Installation should be done in the reverse order of removal. Do not contact the positive lead with the frame. The leads should be securely tightened, otherwise spark may occur to cause a fire. Keep the battery away from children. Charge the battery with a current less than 1A for 10-15 hours if the battery is low. In order to ensure the service life of the battery, please strictly follow the instruction manual.

TROUBLESHOOTING, STORAGE AND OPTIONAL PARTS

TROUBLESHOOTING

If the engine fails to start, please check as follows:
1.Check if there is enough fuel in the fuel tank.
2.Check if the oil circuit is smooth.
3.If yes, check the ignition system as follows:
[1]Remove the spark plug and connect it with the high voltage wire.
[2]Fix the spark plug on the vehicle body. Turn the ignition switch on, set the emergency switch to " ↺ " position and press the starter button. If the ignition system is in normal, there will generate a blue spark between the two electrodes. If there are no sparks, find your dealer for help.

⚠ WARNING Do not fix the spark plug near the cylinder head for the above inspection, because the vaporized fuel in the cylinder may be ignited by the spark and catch fire. To reduce the possibility of electric shock, it is best to keep the metal part of the spark plug housing close to the unpainted metal part of the vehicle body.

CLEANING AND STORAGE

[Cleaning]
1.Check if the spark plug and oil filler inlets are well installed before cleaning the vehicle.
2.Clean the dirt and oil stains with a hose.
3.Wipe and dry the vehicle body with a clean towel or soft cloth.
4.Dry the chain and lubricate it to prevent rust.
5.Start the engine and keep it idling for several minutes.
6.Apply the brake for several times before riding, and repair or replace it if necessary.

NOTE Avoid excessive water pressure when cleaning, otherwise, it will result in water leaks, looseness or damage of wheel bearings, front fork, brakes, seals or electrical elements. Besides prevent muffler from water penetration and spark plug from getting wet.

[Storage]
Follow the steps below if the vehicle is to be stored for 60 days or more.
1.Replace the engine oil.
2.Empty the fuel inside the fuel tank, hose and fuel passages.

⚠ CAUTION Gasoline is inflammable and explosive. Make sure to drain the fuel away from fire and heat resources when the vehicle is turned off.

3.Remove the spark plug, pour an appropriate amount of specified engine oil into it. Then press the starter button for several times to make the engine oil evenly lubricate the cylinder wall.
4.Remove the drive chain. Clean and lubricate it.
5.Lubricate all the controlling cables.
6.Elevate the frame to make the vehicle (and wheels) higher than the ground.
7.Seal the exhaust pipe with a plastic bag to prevent the moisture from entering.
8.Coat all surfaces of metal exposed with a thin layer of rust-resisting oil if the vehicle is to be stored in the moist and salty regions.
9.Dismantle the battery, charge and store it in a dry place with room temperature. Make sure to charge it monthly during the storage.

USE AFTER STORAGE

Check, adjust and maintain the vehicle according to the requirements and operation guide stated in this manual if the vehicle is to be used after a long-term storage. Make sure all the requirements in this manual are met before riding.

ANTI-THEFT ALARM (OPTIONAL)

1.The remote controller can be used only if the ignition switch is turned off and the vehicle is in neutral.
2.Electric starting by the remote controller only warms up the engine, and the engine will flame out automatically in 2.5 minutes.
3.After the engine is electrically started by remote controller, do not apply the front and rear brakes before turning on the ignition switch, otherwise, the starting motor will run again.
4.Cancel the keyless drive to ensure the anti-theft function is reliable.

NOTE The anti-theft alarm is an optional part, please select it as required

TROUBLESHOOTING TO EFI SYSTEM

TROUBLE				CAUSE		REMEDY
Engine is hard to start or with automatic shutdown	Fuel pump fails to work			Insufficient power for system or no power at the fuel pump plug		Check the battery, fuse, fuel pump relay, wiring harness for correct connection or replace the ECU
				Electricity leaks at the fuel pump plug	Fuel pump is damaged	Replace the fuel pump
					Low voltage	Check the battery, relays and wires for connection
	Fuel pump works	No fuel pressure		Fuel pump wiring is reversed		Reconnect
				Low battery voltage		Charge or replace the battery
				Fuel shortage		Add fuel and the amount should be not less than 0.5L
				Fuel passages are severely blocked		Check the fuel pump strainer
				Fuel pressure regulator failure		Replace the fuel pressure regulator
		Insufficient fuel pressure		Oil leaks from the fuel passages		The hose/hose clip is broken. Replace the faulty part
				Fuel passages are blocked		Check the fuel pump strainer
				Fuel pump/fuel pressure regulator failure		Replace the fuel pump or fuel pressure regulator
				Low voltage		Check the battery, rectifier and magneto for charging
		Normal fuel pressure	With ignition high voltage	Spark plug is too humid to work		Remove and dry the spark plug, then keep the engine at idle speed for several times
				Electricity leaks from spark plug insulator		Replace the spark plug
				Spark plug is not well tightened		Tighten up
				Spark plug gap is too small		Adjust the gap to standard value
				Poor connection or electricity leaks at spark plug cap		Adjust or replace
				Wires failure or poor connection at couplers		Check the wiring harness, coupler and TPS for proper connecting
				Cylinder/water temperature sensor is damaged		Replace
				Engine failure		Check the valve, piston ring, etc.
			Without ignition high voltage or fails to ignite	Poor connection of ignition circuit		Check and repair the circuit
				The gap of magneto trigger coil is too large		Adjust the gap
				Ignition coil is damaged		Replace
				Electricity leaks from the ignition coil		Replace the water-proof grommet or ignition coil
				Poor connection of ECU or couplers		Check and reconnect
				Injector is blocked		Replace

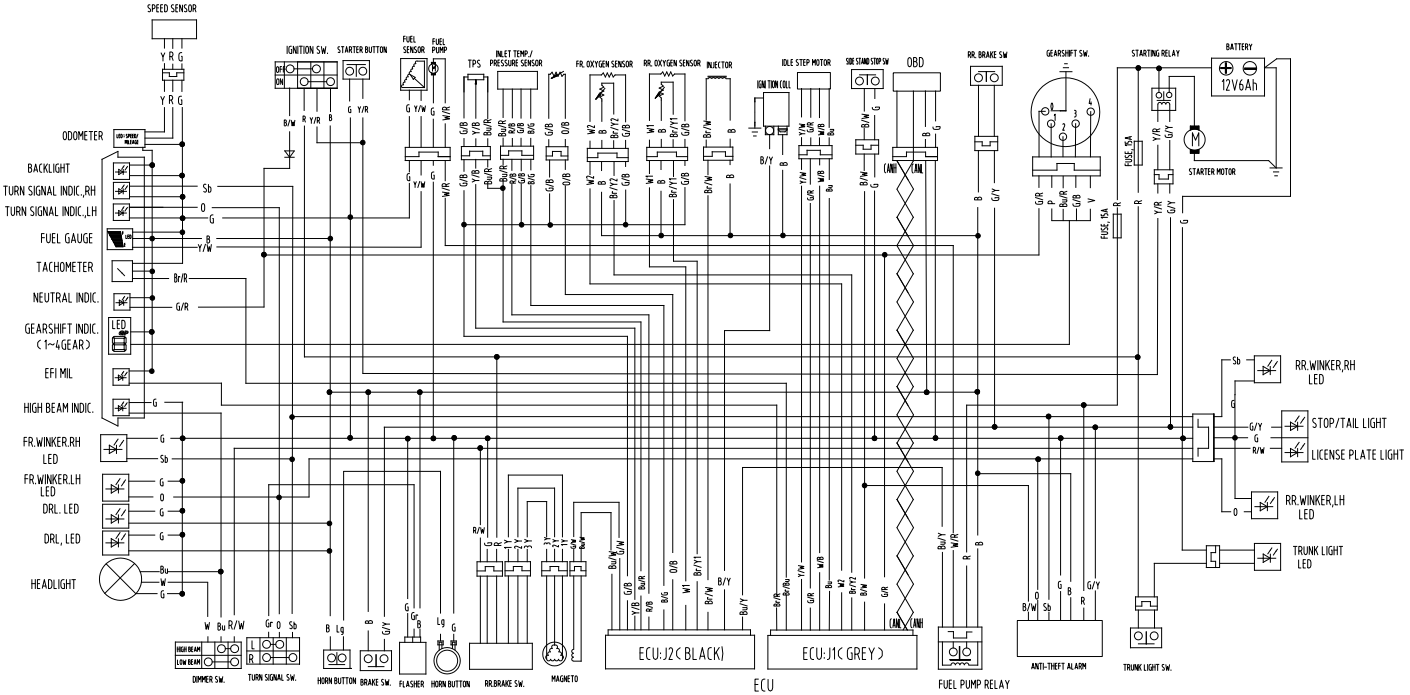
Unstable idle speed	Insufficient power supply	Check the battery and charging system
	Poor connection of ECU or injector coupler	Check and reconnect
	Air leaks from the throttle valve	Check the paper pad, O-ring or throttle body for proper installing
	Throttle valve is dirty or air cleaner is blocked	Clean
	Fuel flowing is not smooth	Check the fuel pump strainer and fuel passage for blocking
	Poor fuel quality	Replace the previous fuel with petrol E5
	Spark plug is not securely tightened	Tighten up
	Spark plug gap is too small	Adjust the gap to standard value
	Poor connection or electricity leaks at spark plug cap	Adjust or replace
	Electricity leaks at spark plug insulator	Replace the spark plug
	Engine failure such as the valve clearance is too small	Adjust the valve clearance and check the engine
	Air leaks at muffler or oxygen sensor	Check the muffler pad
	The air passages of carbon canister solenoid valve are blocked or with air leaks	Check or replace
Knocking sound or abnormal noise from engine	Engine overheats	Cool it down and avoid driving at a high speed for a long time
	Poor spark plug	Replace
	Too much carbon deposits in the cylinder	Clear
	Engine connecting rod is severely worn	Replace
	Piston pin is severely worn	Replace
	Crank is worn	Replace
	Crankcase is worn	Replace
	Foreign matter enters	Check and clear
	Too much carbon deposits in the exhaust pipe	Clear
	Others	Clear

Insufficient power	Air cleaner is blocked	Clear
	Too much carbon deposits in the combustion chamber and exhaust pipe	Clear
	Piston and cylinder are worn, and the gap between them is large	Replace the cylinder or piston
	Clutch is slipping	Adjust or repair
	Fuel passages are blocked or fuel pressure is low	Check the fuel pump strainer, fuel pressure regulator and fuel pump, replace them if necessary
High fuel consumption	Oil leaks at fuel passages	Repair or replace
	Engine failure	Repair or replace
	Cylinder/water temperature sensor is damaged	Replace
	Fuel pump is damaged	Replace
	Air cleaner is blocked	Clear
	Poor fuel quality	Use petrol E5
Low fuel pressure or fuel passages are blocked	Fuel pump strainer is blocked	Clean or replace. Don't contaminate the outlet port
	Fuel pressure regulator fails to work	Replace
	Fuel pump fails to work	Replace
Insufficient power for system	Poor connection	Check
	Rectifier is unable to charge	Check or replace
	Magneto fails to generate enough electricity	Check it for short-circuit
	The battery is aged	Repair or replace
	The electricity consumption is too large	Avoid driving at a low speed for a long time
Air leaks from the engine intake manifold	Air leaks at the joint between the intake manifold and cylinder head	Check the paper pad and O-ring for proper installation
	Air leaks at the joint between intake manifold and injector	Check the O-ring of injector
	Sand holes in the intake manifold	Replace

Fault Feedback Form

<table>
<tr><td>Custom Name</td><td></td><td>Purchase Time</td><td></td><td>VIN</td><td></td></tr>
<tr><td>Address</td><td></td><td>ECU No.</td><td></td><td>Engine Code</td><td></td></tr>
<tr><td>Telephone</td><td></td><td>Vehicle Type</td><td></td><td>Mileage</td><td></td></tr>
<tr><td colspan="2">Frequency of Failure</td><td colspan="4">☐Often ☐Sometimes ☐Only once ☐Others</td></tr>
<tr><td rowspan="4">Failure Conditions</td><td>Climate</td><td colspan="4">☐Winter ☐Summer ☐Sunny ☐Cloudy ☐Rainy ☐Snowy ☐Others</td></tr>
<tr><td>Driving road conditions</td><td colspan="4">☐Highway ☐Ordinary road ☐Rough road ☐Plain ☐Plateau ☐Uphill ☐Downhill ☐Others</td></tr>
<tr><td>Engine Temperature</td><td colspan="4">☐Cold ☐At warm-up ☐After warm-up ☐Any ☐Others</td></tr>
<tr><td>Engine Working Conditions</td><td colspan="4">☐At starting ☐After starting ☐At idle speed (with no load) ☐At driving (☐Constant speed ☐Acceleration ☐Deceleration) ☐Others</td></tr>
<tr><td rowspan="6">Failure Phenomenon</td><td>☐Fail to start</td><td colspan="4">☐Fail to start ☐Without starting sign ☐With starting sign</td></tr>
<tr><td>☐Hard to start</td><td colspan="4">☐Low engine speed at starting ☐Others</td></tr>
<tr><td>☐Improper idle speed</td><td colspan="4">☐Unstable ☐High ☐Low ☐Rough ☐Others</td></tr>
<tr><td>☐Lack of power</td><td colspan="4">☐Slow acceleration ☐Tempering ☐Bangs ☐Surge ☐Knocking ☐Others</td></tr>
<tr><td>☐Flame out</td><td colspan="4">☐At starting ☐At acceleration ☐At oil scavenge ☐At gearshift ☐Others</td></tr>
<tr><td>☐Others</td><td colspan="4"></td></tr>
<tr><td colspan="6">Suggestions and Feedbacks:</td></tr>
</table>

ELECTRIC DIAGRAM



SPECIFICATIONS

Vehicle type	125-26C
1. VEHICLE	
Overall dimension (L×W×H), mm	1960×715×1110
Steering angle, °	42
Min. ground clearance, mm	130
Turning circle diameter, mm	4060
Wheelbase, mm	1245
Kerb weight, kg	177
Max. loading weight, kg	150
Max. design speed, km/h	85
Fuel consumption, L/100km	≤2.9
Gradeability, °	≥24
Front tyre specs	2.50-17
Rear tyre specs	2.75-17
Front shock absorber	Hydraulic telescopic damping type
Rear shock absorber	Hydraulic telescopic damping type
Front brake	Disc brake operated by hand
Rear brake	Disc brake operated by foot
Fuel tank capacity, L	3.0
2. ENGINE	
Model	1P53FMI
Type	Horizontal single cylinder, four stroke and air cooled
Bore×Stroke, mm	53.5×55.5
Displacement, mL	125
Compression ratio	10.5:1

Starting mode	Kick/electric start
Ignition mode	ECU
Max. net power, kW/r/min	6.7/8000
Max. torque, N.m/r/min	9.0/6000
Engine oil	SJ 15W/40
Engine oil capacity, L	0.9
Lubrication	Press/splash
Fuel grade	Petrol E5
Clutch type	Wet, multi-plate
Transmission type	4-speed, constant mesh
Primary gear ratio	4.059
Gear ration, 1st	2.833
Gear ration, 2nd	1.706
Gear ration, 3rd	1.238
Gear ration, 4th	0.958
Final gear ratio	2.571
3. ELECTRICAL SYSTEM	
Battery	MTX7L-BS
Spark plug	CPR8EA
Headlight	12V35W/35W
Winker	LED
Taillight/rear brake light	LED
Horn	12V, electric
Odometer light	LED
Fuse, A	15