

豪天 摩托
HAOTIAN



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HAOTIAN ARROW125: HT125-4F
USER'S MANUAL

Disclaimer: Model shown may differ slightly to that received

HUONIAO Motorcycle

HN125-4F

HUONIAO MOTORCYCLE MANUAL

HUONIAO MOTORCYCLE

Passed ISO9001:2000 International Quality Series Verification

Passed China Compulsory Product (3C) Verification

Dear User:

Thanks very much for purchasing HN125-4F motorcycle!

This manual gives you directions on how to operate HN125-4F properly, how to drive it safely, and how to service it, etc.

This product observes the Standards Q/DH 001-2005.

For the sake of driving safely and comfortably, please read this manual carefully.

Enjoy your driving!

The specifications and instructions given in this manual are subject to change without prior notice.

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I. Safe driving

A pleasant mood and appropriate clothing are key elements to safe driving. For the sake of your safety and the safety of others, please observe the traffic regulations.

1. Cautions

- Please wear a helmet.
- Please observe the speed limit.
- When the exhaust Sound-killing Tube gets extremely hot, please park the motorcycle in a place where no one will touch it.
- Please have the motorcycle regularly checked and serviced.
- The maximum loading capacity of the rear cargo rack is equal to or less than 10 kg.

2. De-restricting the Motorcycle

De-restricting the motorcycle will affect its structure and functions, and therefore affect its performance, increase its noise, and shorten its life span; de-restricting the motorcycle is illegal. Please don't de-restrict the motorcycle.

3. Clothing

- Please wear a helmet and fasten its band.
- Please wear appropriate low-heel shoes.
- Please hold both handlebars and never drive with one hand.
- Please don't wear wide sleeves or unbutton your sleeves, because wide sleeves and unbuttoned sleeves may be blown onto your handlebar and endanger your driving. Therefore, please wear narrow sleeves and button up your sleeves.

4. Driving Methods

- Please relax yourself, especially your arms, hands, waist, and feet, and keep an appropriate sitting posture when driving, so that you will be able to make appropriate reactions in case of danger.
- Your sitting posture when driving has a great impact on your safety. When driving, please always put your gravity to the centre of the cushion. If you sit towards the end of the motorcycle, the pressure on the front tyres is reduced, the handlebars may shake, and danger may be resulted.
- When turning, slightly tilting your body inwards makes it easy to turn; If you remain vertical when turning, you may be in danger.
- Driving on a bumpy road, or a road with rubbles and caves, or a road without pitch pavement, may be dangerous, as the road surface is not flat. For the sake of safety, it's advisable to slow down the motorcycle, hold the handlebars tightly, and relax your shoulders, when driving on such a road.

Please don't make sudden braking or sudden turning.

- Sudden braking and sudden turning may turn over the motorcycle.
- Especially on rainy days and wet floor, sudden braking and sudden turning may endanger the driver by turning over the motorcycle.

Special caution is required when driving on rainy days.

- On rainy days and wet floor, it takes a longer distance to stop the motorcycle when braking, so please slow down before braking.
- Switch off the gear, make intermittent braking, and drive slowly when driving downhill.

II. Components and Their Usage

- | | |
|------------|-------------------|
| (1) 后视镜套件 | Back mirror |
| (2) 前大灯 | Head Light |
| (3) 前转向灯 | Front Winker |
| (4) 前反射器 | Front Reflector |
| (5) 油箱 | Fuel Tank |
| (6) 座垫 | Saddle |
| (7) 后货架 | Back Carrier |
| (8) 尾灯 | Tail Light |
| (9) 排气消声器 | Exhaust Silencer |
| (10) 主支架 | Chief Stand |
| (11) 前脚蹬 | Front Foot Rack |
| (12) 后刹车踏板 | Rear Brake Paddle |

1. Serial Number of the Motorcycle

The serial number of the frame is engraved on the right side of the turning fork.

The serial number of the engine is engraved on the left of the

The name plate of the motorcycle is engraved on the front of the turning fork.

Frame No:

Engine No:

2. Key Switch

The Key Switch is used to turn on or off the power.

·When the Key Switch is in its “OFF” position, the power is turned off, and the engine won’t start. Then, the key can be taken out.

·When the Key Switch is in its “ON” position, the power is turned on, the engine starts, and this time the key can’t be taken out.

Caution:

You should never turn off the Key Switch in the course of driving. Turning the Key Switch to its “OFF” position when driving will suddenly turn off the power and bring about unexpected dangers. Therefore, never turn off the Key Switch until the motorcycle is completely stopped.

3. Handle lock

In order to guard against theft, HN125-4F is with a handle lock on the steering stem comp. Locking up operation is as follows:

- Turn the steering handle to left fully
- Insert the main key into the handle lock
- Turn the key clockwise to lock
- Turn the key counter-clockwise to unlock

Caution:

- In order to guard against theft, please lock the handle lock when park the motorcycle**
- After lock up, please steer the handle to insure whether lock or not**
- After lock up, make sure to take out the key and bring it with you when leave the motorcycle**

4. Meters

- 1) Speed Meter: indicates the running speed (km/h) of the motorcycle in motion. Please conform to the speed limit so as to ensure safe driving.
- 2) Mileage Meter: indicates the accumulated mileage of the motorcycle (in kilometers).
- 3) Turning Indicator: when either the left or the right turning light is on, this orange indicator will shine.

- 4) Gear Indicator: when the engine changes its gear, the corresponding numerical light will shine.
- 5) Fuel Meter: The digit device on the top of the meter indicates the approximate fuel volume in the tank
- 6) Fuel Meter Red Area: When finger of the device turn to Red Area, the fuel in the tank is not enough, please refill fuel.
- 7) Journey Meter: indicates the distance of each journey (in kilometres)
- 8) Far shine indicator: when head light shows far shine, this indicator light.
- 9) Rotation Meter: indicates the speed of rotation of the engine.
- 10) Red Area of the Rotation Meter: indicates the limiting range of rotations of the engine. If the engine keeps rotating at a speed within this range, its life span will be shortened.

5. Fuel Valve

The Fuel Valve is in a lower position on the left of the fuel tank.

The “OFF” position

·When the Fuel Valve is turned to its “OFF” position, fuel can’t flow from the tank into the carburettor.

Turn off this switch when the motorcycle isn’t in use.

The “ON” position

·When the Fuel Valve is turned to its “ON” position, fuel flows from the tank into the carburettor.

The “RES” (the auxiliary tank) position

·When the Fuel Valve is turned to the “RES” position, fuel flows out of the auxiliary tank.

Warning:

In order to prevent sudden braking-off when the motorcycle runs out of fuel, you must use the Fuel Valve properly in the course of driving.

Avoid touching any part of the scorching hot engine when operating the Fuel Valve.

6. Far and Near Light Switch

- When the Far and Near Light Switch is turned to its Far Light position, the far bulb of the Front Light shines, and in the meantime, the Far Light Indicator on the meter shines.
- When the Far and Near Light Switch is turned to its Near Light position, the near bulb of the Front Light shines.

7. Start-up Button

- The Start-up Button is used to start up the engine. The engine is started up as soon as this button is pressed.
- Check the gear to see whether the engine is in the neutral gear. If it is in the neutral gear, the engine starts up as soon as the Start-up Button is pressed; otherwise, it won't start. In this case, you may press the clutch lever up to the handlebar and hold them tight, then press the Start-up Button.
- Don't press the Start-up Button continuously for over five seconds.

8. Light Change Switch

- When the Light Change Switch is on the “●” position, neither the front light nor the rear light shines. This position is for daytime driving.
- When the Light Change Switch is on the “P⊂” position, both the location light inside the front light and the rear light shine.
- When the Light Change Switch is on “⊖” position, both the front light and the rear light shine.

9. Winker Switch

- When the Winker Switch is pushed to the “←” position, the left Turning Light flickers, whereas when the Turning Light Switch is pushed to the “→” position, the right Turning Light flickers. In the meantime, the Turning Light Indicator on the Meter board flickers, too.

Caution:

Turn on the Turning Lights if you want to make a turning so as to warn the vehicles that are following behind.

Push the switch back to its central position to turn off the Turning Lights right after you make the turning; otherwise, the drivers behind you will be confused.

10. Horn Button

·The Horn Button is the lowest push button. The horn sounds as soon as the Horn Button is pressed.

Caution:

Don't press the Horn Button in the "No Horning" areas.

III. Operating Instructions

1. Essentials of Starting-up and Cautions

1) Insert the key into the Key Switch and turn it to the "ON" position.

Caution:

Check the machine oil and Fuel to see if they are adequate before starting up the engine. Start up the motorcycle in a well-ventilated place and avoid speeding when the engine is in the neutral gear.

2) The Fuel Valve shall be pushed to its "ON" position.

3) Pull the wind-blocking knob of the carburettor to the "CLOSED" position.

4) Turn the Fuel Throttle Handlebar to a position between 1/8 and 1/4 of its full radian length, and then press the Starting-up Button to start up the engine.

·You may also start up the engine by treading hard on the Starting-up Lever.

Caution:

- After the engine is started, it must be preheated for 2-3 minutes, and then push the wind-blocking knob back to its “fully-opened” position.
- After the engine is started, please put the Starting-up Lever, the Side Stand, and the Chief Stand back to their original positions.
- After the engine is started, don’t speed hastily while the engine is still in the neutral gear so as to protect the engine and save fuel.
- The exhaust air from the engine contains the poisonous carbon monoxide. Therefore, you’d better start up the engine in a well-ventilated place.

2. Essentials of Driving on Slopes

1) Driving uphill

·When driving up a gentle slope, you can drive in a high-speed gear; But on a steep slope or when the motorcycle has a heavy load of weight, it needs rather high driving power to help it climb up the steep slope; therefore, it should in the third, the second, or the first gear. Before the engine gets into difficulty, you should change to a lower gear so as to make the motorcycle run smoothly.

2) Driving downhill

·When driving down a gentle slope, turn the Fuel Throttle Handlebar to its “Fully-Closed” position (don’t

press the Clutch Lever), and use the front brake or the rear brake whenever necessary; And on a steep slope or when the motorcycle has a heavy load of weight, you should change to the third, the second, or the first gear accordingly, and also use the brakes properly.

Cautions:

·When braking, use both the front brake and the rear brake, otherwise, the motorcycle may be in danger.

3) Operation of the Gear Box

·The gear box has five gears and can be easily operated by treading on the left foot paddle. When driving on a road with heavy traffic, driving uphill or making a turn, you should change to a lower gear before the engine gets in difficulty. When driving downhill, you should also use a lower gear so as to stay at a safe speed and avoid braking too often.

·When changing the gear, you should press the Clutch Lever down to the Handlebar, and tread on the left foot paddle to adjust the gear, and then loosen your grip of the Clutch Lever gradually.

·Don't tread forcefully on the Gear Paddle in order not to damage the Gear System.

·In the course of driving, if you want to overtake the vehicle in front, you may change to a higher gear and speed up. For the speed range, please refer to the following chart.

·If the motorcycle is running at a high speed, you shouldn't make further speeding so as to keep the engine from rotating too fast, which affects the life span of the engine.

Possible Speed Range When Changing to a Lower Gear

5 th Gear → 4 th Gear	Below 70 km/hr
4 th Gear → 3 rd Gear	Below 60 km/hr
3 rd Gear → 2 nd Gear	Below 50 km/hr
2 nd Gear → 1 st Gear	Below 25 km/hr

3. Essentials of Starting to Move the Motorcycle and Cautions

- Before driving, you should check both the front brake and the rear brake to ensure that they are working well, and check the tyres to make sure that they have got adequate air pressure.
- Hold the Clutch Lever tight, and then tread on the left gear paddle to change into the first gear.
- Turn the Fuel Throttle Handlebar slowly; in the meantime let go of the Clutch Lever gradually and the motorcycle will start to move.

Caution:

After the engine is started up and before the motorcycle moves, you should never turn the Fuel Throttle Handlebar to increase the rotation speed.

- Before you move the motorcycle, you should turn on the Turning Lights, make sure that there is no vehicle coming up from behind, and then you may start to move.

1) Turn the Fuel Throttle Handlebar to regulate the driving speed.

·Speeding up is to increase the speed of the motorcycle. When driving on a slope, turn the Fuel Throttle Handlebar slowly to regulate the rotation speed of the engine and the speed of the motorcycle, and change the gear accordingly.

·Slowing down is to reduce the speed of the motorcycle. You may let go of the Fuel Throttle Handlebar quickly to reduce the speed.

2) In order to maintain the performance and life span of the new motorcycle, you should drive within a certain speed limit, so as to make the parts of the engine to grind in well.

·For a new motorcycle, within the first 1000 kilometres of mileage, the maximum speed should be no more than 50 km/h;

·For a new motorcycle, within the first 1000 kilometres of mileage, you shouldn't make hasty speeding when you start to move the motorcycle; you should keep the engine from rotating at a high speed continuously for a long time. Otherwise, the life span of the engine will be shortened.

·For a new motorcycle, after it runs for the first 300 kilometres of mileage, you should replace its machine oil and clean the filter gauze.

·After replacing the engine or after a major repair, you should also drive within a speed limit.

·The engine must be preheated until it rotates steadily, and then you may start to move the motorcycle. This helps to prolong the life span of the engine.

3) When braking you should brake both the front and the rear wheels.

- After releasing the Fuel Throttle Handlebar, you should brake the front and the rear wheels simultaneously.
- You should press the brakes slowly and gently in the beginning, and then forcefully to stop the motorcycle. This is the best way of braking.

Caution:

**Braking only one wheel may endanger the motorcycle, making it tilt and fall.
The running speed of the motorcycle must conform to the gear of the engine.
When the motorcycle runs at a high speed, you should not change it into a lower gear or make a sudden braking.**

4. Stopping Methods and Cautions

1) When approaching the place where you want to stop the motorcycle,

- you should turn on the Turning Lights ahead of time to warn the vehicles that are following behind, and then slow up and pull off at the roadside.
- Turn off the Fuel Throttle Handlebar (the Fuel-saving Handlebar) when stopping the motorcycle, and in the meantime brake both the front and the rear wheels immediately.
- When braking, the Braking Light will shine to warn the vehicles that are following behind.

2) Safe Stopping

·Turn the Key Switch to its “OFF” position, the engine will be turned off.

Caution:

You should never turn off the Key Switch in the course of driving. If you do, the power is suddenly turned off and unexpected dangers and accidents may result. Therefore, you can only turn off the Key Switch after the motorcycle becomes completely motionless.

3) After stopping the motorcycle, you may get off from the left side, and push the motorcycle to a flat ground and put up its Chief Stand to park the motorcycle. Don't park the motorcycle in a place to obstruct the traffic.

·If you park the motorcycle in a place that is not flat, the motorcycle may fall.

·Hold the Turning Handlebar with your left hand and the lower part of the back side of the seat with your right hand.

·Use your right foot to put up the Chief Stand steadily to park the motorcycle.

4) After parking the motorcycle, you should lock up the Turning Handlebar and take out the key so as to prevent theft.

IV. Pre-driving Check-up, Adjustment and Maintenance

1. Pre-driving Check-up

·Form the habit of checking up the motorcycle before driving.

·For the sake of safety, and in order to prevent dangers and traffic accidents, you should make pre-driving check-up. If you find anything wrong, please take the motorcycle to the distributor or maintenance centre for service.

2. Checking and Refilling Machine Oil

The machine oil is the “blood” of the motorcycle. Inadequate or dirty machine oil will both shorten the life span of the engine, and even bring about dangers.

1) On a flat place, put up the Chief Stand and turn off the power for 2-3 minutes.

2) Take out the machine oil dipstick, clean it and insert it in again (Don't lock it up).

3) Take out the dipstick again to check the oil mark. If the oil mark is near the Lower Limit, fill in more machine oil till it gets to the Upper Limit.

4) Put back the dipstick and lock it up.

Caution:

If after refilling the machine oil, the oil mark on the dipstick still goes down to the Lower Limit line, you should check the engine to see whether it has a leakage, and refill the machine oil till it gets to the Upper Limit line.

When checking and refilling the oil, please keep away from fire.

3. Replacing Machine Oil

- Interval of replacing machine oil: For a new motorcycle or after a major maintenance, the first replacement should be made after the first 300 kilometres of mileage; subsequently a new replacement should be made after each 1000 kilometres of mileage.
- If the motorcycle often runs on a macadam road or in a cold area, you should shorten the interval of replacing the machine oil.
- You should replace the machine oil when the engine is preheated. Take out the dipstick and unscrew the oil outlet bolt to let out the used oil.
- Screw up the outlet bolt again, and fill in fine machine oil until it gets to the Upper Limit line of the dipstick. The volume of the machine oil is one litre.
- Lock up the dipstick. Start the engine and check the oil outlet bolt to make sure it doesn't leak.

Point for attention when refilling the machine oil:

- You should use good quality machine oil.
- Don't let foreign substances or dust get in when refilling the machine oil.
- Mixing up different brands of oil may affect the performance of the engine.
- The total volume of the machine oil tank is 1.0 litre. The machine oil in the tank should not go beyond the inlet. When refilling machine oil, you should immediately clean the oil on the lid and around the inlet.
- After refilling the machine oil, you should screw up the dipstick to lock it.

4. Checking and Refilling Fuel

Check the fuel to see if there is enough fuel in the tank for motorcycle to get to the destination.

- When the machine oil runs out, you may turn the Fuel Valve to the “R” position to use the fuel in the auxiliary tank. The reserved fuel in the auxiliary tank is 2 litres. You should refill the leadless fuel with an octane value of 90 # or above immediately.
- Please insert the key into the fuel tank lock and turn clockwise, and then open the fuel tank lid to add oil. After refilling, please put the lid back and press it down for tightening.

Caution:

- You must turn off the power when refilling the fuel and keep away from fire.**
- You must put the fuel tank lid back and tighten it up after refilling.**

5. Checking the Front Fork Turning Handlebar For damage:

- Check the Front Fork with your eyes to see if it is damaged.
- Turn the Turning Handlebars to see if the Front Fork is curved and produces noise.

Lock-up of the Front Fork Axle:

- Use a spanner or other tools to check the Front Fork Axle to see whether its screw nuts are tight.
- Turn the Turning Handlebars to see if they are tight and in balance.
- Check the Turning Handlebars to see whether they are pulled tight by the braking cable.
- If you find anything wrong, please take the motorcycle to the distributor or special repair shops for maintenance or adjustment.

6. Checking the Brakes ---- the distance the Brake Lever travels

Front Brake Lever's free travel distance

- The ideal free travel distance the Front Brake Lever travels is 10-20 mm.
- When you press the Brake Lever towards the handlebar, if you find it very loose, you have to readjust the Brake Lever to shorten its free travel distance.

Rear Brake Paddle's free travel distance

- Press the Rear Brake Paddle till it stops.
- Measure the distance the Brake Paddle travels.
- The ideal free travel distance of the Rear Brake Paddle is 20-30mm.
- When you press the Rear Brake Paddle down, if you find it very tight, it is a problem.

·Then, you have to readjust the Brake Paddle to increase its free travel distance.

7. Readjusting the Brakes

Front Brake readjusting

·Check the level of the Brake Oil in the Brake Oil Box.

·If the level of the Brake Oil is lower than the Lower Marking Line, please add some Brake Oil.

·The Brake Oil standard is DOT.3. Brake oil in different standard can not be commixed use.

<Adjusting the free travel distance of Rear Brake Paddle>: Turn the screw nut of the Rear Tyre Brake Lever to adjust the free travel distance of the Rear Brake Paddle.

·Readjusting is to turn the screw nut.

·When you turn the screw nut clockwise, the free travel distance of the Rear Brake Paddle is shortened; otherwise it is lengthened.

·After the adjustment, press down the Rear Brake Paddle till it stops. Use a ruler to measure the free travel distance of the Brake Paddle to see whether it is within the normal distance range 20-30 mm.

·Damage to the Pulling Wire of the Brake: Look at the Pulling wire of the Brake to see if it is damaged or broken, or if it is entangled with any part of the motorcycle; check the joints with a spanner or other tools to see if they are loosened; in addition, check the Handlebars to see how much they shake when turning or in the course of driving.

·Check the Front Brake and the Rear Brake respectively when driving on a dry land and at a low speed to see whether they work properly.

8. Checking and Adjusting the Clutch Lever

The free travel distance of the Clutch Lever is 10-20 mm. Please check this any time and make appropriate adjustment to the screw nut whenever necessary. If you turn the screw nut in the direction of A, you will shorten the free travel distance of the Clutch Lever.

Caution:

·The function of the Clutch Lever is to pass on the horsepower of the engine to the Rear Tyre so as to effectively generate driving power. Therefore, whether the Clutch Lever is appropriately adjusted has a direct impact on the functions and performance of the motorcycle. If the Clutch Lever doesn't work properly, it's hard to change the gear and the Rear Wheel may spin and make the motorcycle fall.

·After the adjustment, make sure that you can change the gear easily and engine works properly.

·If the free travel distance of the Clutch Lever is too short or if the Clutch Lever is too tight, the Clutch disc may be damaged.

9. Readjusting the Throttle Wire

Check the following and make appropriate adjustments:

·whether the Throttle Wire can be changed from “Fully Closed” to “Fully Opened”;

- whether the Throttle Wire will be entangled if you turn the Handlebars;
- whether the Throttle Wire will be entangled with other wires, which could result in a blockage.

10. Readjusting the free travel distance of the Fuel Throttle Handlebar

- The ideal free travel distance allows the Fuel Throttle Handlebar to turn for 5-10 degrees.
- When adjusting, you should loosen the fixing screw nut first, turn the adjusting nut, and then fasten the fixing nut again.

11. Adjusting the Idle Speed

- Adjustment of the Idle Speed must be made after the engine revolves under a normal revolving speed to preheat for ten minutes. Then turn the Idle Speed adjusting screw (1) to adjust the Idle Speed. Idle Speed: 1400 rounds / min. (rpm) (in the neutral gear)

12. Checking and Readjusting the Driving Chain

After being used for a certain period of time, the Driving Chain may be strengthened, become slack and rub the chain case, producing a noise. Therefore, it is necessary to check and adjust the chain regularly.

How to check the Chain

- Check the Driving Chain to make sure that its amplitude of vertical vibration is within 10mm – 15mm.
- Put up the Chief Stand, turn the Rear Wheel to find out whether the driving chain doesn't work properly

and make noise.

·If the driving chain doesn't work properly, please readjust it.

How to readjust the Chain

·Loosen the fixing screw nut on the Rear Wheel Axle.

·Turn the adjusting screw nuts on both sides of the Chain till they become reasonably tight, and then adjust the screw till its marking gets on the same line with the marking shown in the picture, and finally fasten the fixing screw nut.

Caution:

·Turn the adjusting screw nut on the left side as much as the one on the right side.

·The chain must be cleaned and lubricated regularly so as to reduce friction and protect the chain.

13. Checking the Front Light and the Rear Light/Braking Light

·Turn on the Key Switch, and then turn on the Front Light switch to find out whether the Front Light and the Rear Light work properly. Check the brightness of the Front Light. With the help of a wall, check whether the Front Light shines at a right angle. Press both the Front Brake Lever and the Rear Brake Paddle to check whether the Braking Light works well.

- Check the Light Shade to see if it is dirty, damaged, or loosened.

14. Checking the Turning Lights and the Horn

- Turn on the Key Switch.

- Turn on the Turning Lights to check whether they flicker.

- Check the Shades of the Turning Lights to see whether they are dirty, damaged or loosened.

- Press the Horn button to see whether the Horn works properly.

15. Checking and Refilling the Electrolyte

The Storage Battery is source of power of the electrical system. It must be checked and serviced regularly to keep it in normal conditions. The electrolyte in the Storage Battery can be evaporated; therefore, it must be checked and refilled regularly.

- Take off the left side cover of the motorcycle. Look at the electrolyte to see whether it is the “Upper” level and the “Lower” level.

- If the electrolyte is below the “Lower” level, please take off the fastening band and take out the Battery, then open the six inlets of the electrolyte and fill distilled water into the inlets.

Caution:

- When the motorcycle tilts towards one side, the level of the electrolyte can't be measured;
- Adding too much distilled water into the Storage Battery will make the electrolyte overflow and corrode the motorcycle;
- When taking out the Storage Battery, try to keep it away from fire;
- After checking and refilling the electrolyte, don't squeeze or block the air ventilation hose;
- Squeezing or blocking the air ventilation hose will increase the inner pressure of the Storage Battery and cause it to crack;
- The electrolyte is thinned Sulphuric Acid and it may do harm to your eyes and skin. Therefore, you should be extremely careful when handling it. If ever you get it on yourself, wash it off immediately with clean water or go to a medical doctor for emergency treatment;
- Be careful with the electrodes when you dismantle the Storage Battery.

16. Cleaning the Battery Terminals

- If the terminals of the Storage Battery are dirty or have been corroded, please dismantle it and clean it.
- If the terminals are corroded and have white powder attached to them, rub it off with warm water.
- If the terminals are obviously corroded, dismantle the electric wires from the terminals and rub the

terminals with a steel brush or sand paper.

·After rubbing off the corrosive powder, connect the electric wires back to the terminals, and apply a thin layer of margarine to the terminals.

Caution:

·When dismantling the electric wires from the terminals, you must turn off the **Key Switch** and dismantle the wire from the **negative electrode first**. When installing, you should connect the wire to the **positive electrode first** and then the **negative electrode**. Make sure that you tighten up the screw / nut and don't let them slack.

·In order to prevent foreign substances from getting into the **Storage Battery**, don't open the **Battery cover** when cleaning it. If you don't use the **Storage Battery** for a long period of time, and in order to prevent the battery from discharging on its own and leaking, you should dismantle the battery from the motorcycle and fully recharge it, and then keep it in a well-ventilated but not well-lit place. If you want to keep on the motorcycle, please disconnect the electric wire from the **negative electrode**.

17. Checking and Replacing the Fuse

- Turn off the Key Switch, and take off the left side cover.
- The fuse is located near the Storage Battery in the Fuse Box.
- In order to take out the fuse, you should open the cover first, open the fuse box, grab the two ends of the fuse wire and take it out, and then disconnect the fuse from the electric wire.
- Check the fuse to see if it is blown: When driving at night, if the lights go off all of a sudden, probably the fuse is blown. If the fuse is blown, please replace it with designated fuse. You should never use a fuse that is not in conformity with the standard, nor use a copper wire to replace the blown fuse just in case the electric system is blown.
- If the newly replaced fuse is blown off immediately, there must be something wrong with the electric system.

Caution:

- When taking out the fuse, be careful not to pull the wire loose.**
- When putting the fuse back, make sure that the fuse and the wire are tightly connected on both ends; If the connection is loose, the fuse will easily be heated and blown.**
- Electric components: For example, light bulbs and meters. When you replace them, make sure to use the designated products, otherwise, the fuse will be easily blown or the battery consumption will unexpectedly increase.**

- When the fuse is blown, if you can't find the reason, please take the motorcycle to the distributor for a thorough examination.
- When washing the motorcycle, try not to splash onto the fuse box.

18. Checking the Tyres

- If the part of the tyre that touches the ground is improperly curved, check the tyre with an air pressure meter, and inflate the tyre till it gets a normal inner pressure.
- Before checking the tyre's inner pressure with a tyre pressure meter, you should let the tyre cool off.
- Too high or too low air pressure in the tyre will both speed up the wearing-off of the tyre, and cause dangers. Follow the stipulations in the chart to inflate the tyre.

Tyre	Front tyre: 225kPa
	Rear tyre: 225kPa
Maximum loading capacity (including the passenger)	150 kg

Cracking on the tyre:

Check the tyre with your own eyes to see if it has got any cracking on the side or in the area that touches the ground.

If the demonstrative patterns of the tyre are worn out too much, the stability of the motorcycle will be lowered and the motorcycle could get out of control. When the depth of the patterns on the front tyre becomes less than 1-6 mm, it is advisable to replace the tyre. As for the rear tyre, if the depth of its patterns gets to be less than 2 mm, the tyre should be replaced with a brand new.

19. Cleaning the Filtering Net of the Air Filter

If the air filter is blocked by dust, it will surely affect the function of the engine and consumes extra amount of fuel. Therefore, giving the air filter a regular cleaning is an important maintenance.

- Dismantle the right cover.
- Screw off the screw that is used to fasten the air filter and take down the air filter.
- Take out the filtering disc and clean it with detergent. Then, press the filtering disc with both palms to squeeze off the detergent.
- Soak the disc in the machine oil to clean it. Take it out, squeeze off the excessive oil, and re-install it.

20. Checking the Ignition Plug

If the electrodes are dirty, or if the interval is too big, the spark thus produced isn't big enough.

- Remove the high-pressure coil cover, and use the ignition plug spanner to take down the Ignition Plug.
- Check the ends of the Ignition Plug to see they are dirty.
- Rub off the dirt on the electrodes with a steel wire, wash the electrodes with petrol, and then dry them with a piece of cloth.

- Check the electrodes of the Ignition Plug, adjust the distance between them to 0.6-0.7 mm. (Please use a thickness gauge to measure)
- When installing the Ignition Plug, please put it in first, and then use a spanner to turn it half a round .

Caution:

- When the motorcycle stops, its engine can be extremely hot. Beware of scalding yourself.**
- Don't use any ignition plug other than the designated one.**
- If you often drive at a high speed, please use a high-heat ignition plug.**
- if you often drive at a low speed (below 40 km/hr or in a cold area), please use a low-heat ignition plug.**

V. Adhesiveness of the Machine Oil of the engine and Its Selecting Reference

1. The adhesiveness of the Machine Oil of the engine

The choice of the Machine Oil of the engine is made according to the temperature in the area where the motorcycle is driven. The chart on the right is the reference checklist for the choice of machine oil in relation to the temperature.

·SEA is a unit of Adhesiveness, that is, the adhesiveness of the lubricating oil used by automobiles. The machine oil is graded from the thinnest to the thickest and each grade is indicated with a number.

·The single grade petrol is good for an area where the temperature difference between day and night isn't very significant.

·The comprehensive grade petrol is good for an area where there is a big difference between the temperature in daytime and that of at night.

·The “W” (winter) refers to the cold areas.

·In order to reduce the number of times you change the oil, you'd better select the multi-stage oil.

2. Information about the machine oil used by the Four-Stroke Petrol Engine

In order to reduce the number of times you replace or refill the fuel, you'd better select and use the multi-stage petrol.

Requirements on the quality:

·fairly adhesiveness in high temperatures;

·fine cleaning and dispersing capacity;

·good anti-oxidation, resistance to erosion, antifriction;

·good lubricating capacity.

Cautions:

·Select an appropriate degree of adhesiveness.

·The key to use machine oil properly is to select an appropriate time to replace the oil.

·In order to prolong the life span of the machine oil, don't mix it up with any other oil so as not to reduce its function.

VI. Common Troubles, Their Causes and Solutions

The common troubles of the engine, their causes and solutions include:

Where the trouble is	Symptoms	Causes	Solutions
Fuel Supply System (when both the compression pressure of the engine and the ignition plug work well)	Fuel supply is stopped, the engine can hardly or even doesn't start.	a) There is no fuel in the tank; b) The fuel valve is turned off; c) The carburettor is blocked d) No fuel in the tube.	1. Refill the tank; 2. Turn on the fuel valve; 3. Clean the carburettor; 4. Use the auxiliary tank to supply the fuel.

	<p>The idle speed doesn't fit, making it hard to start the engine; the accelerator doesn't work and the engine goes off automatically.</p>	<ol style="list-style-type: none"> 1. The carburettor is blocked; 2. The air throttle valve is not turned on; 3. The air economizer is worn out; 4. The mixture ratio isn't right; 5. There is water in the fuel tank. 	<ol style="list-style-type: none"> 1. Clean the carburettor; 2. Turn on the air throttle valve; 3. Replace the air economizer; 4. Adjust the mixture ratio screw; 5. Clean the fuel tank.
	<p>The motorcycle runs powerlessly; when you turn the Fuel Throttle Handlebar, the speed picks up very slowly.</p>	<ol style="list-style-type: none"> 1. The air throttle valve isn't opened; 2. The mixture ratio isn't right. 	<ol style="list-style-type: none"> 1. Open the air throttle valve; 2. Adjust the mixture ratio screw.

Ignition system	The engine doesn't start or the motorcycle breaks down: 1. when the compression pressure, the carburettor, high-pressure coil discharge all are normal but the spark isn't	1. The ignition plug carburized and is dirty; 2. The interval between the electrodes of the ignition plug isn't proper; 3. The insulating part of the ignition plug is damaged and has resulted in a short circuit.	1. Decarburize the ignition plug and rub off the dirt on it; 2. Adjust the interval to make it conform to the standard; 3. Replace the ignition plug.
	1. when the compression pressure and the carburettor work well, the high-pressure coil discharge, but the ignition plug doesn't discharge properly	1. The high-pressure coil joint is dropped or burned; 2. The CDI ignition electronic induction components are broken.	1. Reconnect the joint or replace the coil. 2. Replace the broken components.

<p>Crank connecting rod of the engine</p>	<ol style="list-style-type: none"> 1. The engine doesn't start or the motorcycle breaks down (when the carburettor and ignition plug work well but the compression pressure is inadequate) 	<ol style="list-style-type: none"> 1. The piston ring is worn out or broken; 2. The piston ring is stuck; 3. The air inlet valve leaks; 4. The air cylinder lid leaks; 5. The starting spring is broken; 6. The starting gear is worn out. 	<ol style="list-style-type: none"> 1. Replace the piston; 2. Clean the piston ring; 3. Readjust or replace the air inlet valve; 4. Replace the air cylinder pad; 5. Replace it; 6. Replace it.
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	<p>2. The engine doesn't revolve properly and produces a beating noise.</p>	<ol style="list-style-type: none"> 1. The piston, the piston ring and the air cylinder are worn out; 2. The piston pin rubs against the piston; 3. The crankshaft ball bearing is worn out; 4. The crank needle bearing is worn out; 5. The distance between the air inlet and the air outlet is too big; 6. The protruding axle, the rocker, the rocker shaft case, as well as the protruding axle case are worn out; 7. The revolving parts of the engine are out of grease. 	<ol style="list-style-type: none"> 1. Replace the piston, the ring, and the air cylinder 2. Replace the piston and the pin; 3. Replace the ball bearing; 4. Replace the needle bearing; 5. Adjust the distance till it conforms to the standard; 6. Replace what is worn out; 7. Add some machine oil.
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	3. The spark is normal, but the engine doesn't revolve normally.	There is water in the fuel.	Clean the fuel supply system.
	4. Temporarily the engine doesn't have enough horsepower.	1. The ignition plug is problematic; 2. The engine is too hot.	1. Replace the ignition plug; 2. Let the engine cool off, and try to avoid driving at a high speed for a long time.

Common troubles of the Transmission Case and their solutions

Troubles	Causes	Solutions
1. The gear doesn't work properly.	<ol style="list-style-type: none"> 1. The gear and the cog are worn out; 2. The spring is broken. 	<ol style="list-style-type: none"> 1. Replace the gear and the cog; 2. Replace the spring.
2. The transmission box leaks	<ol style="list-style-type: none"> 1. The joints on the transmission box are not tight, or the screws are loosened. 2. The oil seal is too old and peeled off. 	<ol style="list-style-type: none"> 1. Apply some fluid sealant and tighten up the screws. 2. Replace the oil seal.
3. The gear doesn't work.	The teeth on the gear are worn out, the spring is broken, and the cog is stuck.	Check and replace the broken parts.
4. The transmission case produces strange noise.	The gear teeth, the gear axle and the gear cog are worn out	Replace what's worn out.

Common troubles of the driving and operating parts as well as their solutions

Troubles	Causes	Solutions
1. The motorcycle shakes dramatically.	The springs of both the front and the rear dampers are broken, they leak oil; the dampers are curved.	Replace the dampers.
2. The driving direction isn't stable.	<ol style="list-style-type: none"> 1. The handlebars and relevant parts are too tight or too loose; 2. The tyre isn't adequately inflated; 3. Either the front or the rear tyre is loosened. 	<ol style="list-style-type: none"> 1. Adjust them; 2. Inflate the tyres till it conforms to the standard.
3. The brake doesn't work.	<ol style="list-style-type: none"> 1. The braking pads of both the front and the rears are worn out. 2. The pull wires of both the front and the rear brakes are damaged, and the braking gap is too big. 3. The braking cam is worn out. 	<ol style="list-style-type: none"> 1. Replace the braking pads; 2. Replace the pull wires and readjust the braking gap; 3. Replace the braking cam.

4. The driving inertia problematic.	<ol style="list-style-type: none"> 1. The inner pressure of the tyre is inadequate and the chain is too tight; 2. The wheel bearing is worn out and the relevant parts are stuck. 	<ol style="list-style-type: none"> 1. Inflate the tyre and adjust the chain; 2. Replace the bearing and repair the problem.
The motorcycle doesn't respond to your operation.	<ol style="list-style-type: none"> 1. The throttle wire is broken or blocked; 2. The air-saving knob is installed in a wrong way. 	<ol style="list-style-type: none"> 1. Replace the throttle wire; 2. Re-install the air-saving knob.

Appendix:

1. Regular Maintenance Checklist

Checklist: For the sake of safe driving, maintaining the functions, prolonging the life span, minimizing pollution, you should have your motorcycle serviced regularly. Measures like cleaning, lubricating, refilling, repairing or replacing, should be taken whenever necessary. A stands for “adjustment”, C stands for “clean”, R stands for “replace”, and T stands for “tighten up”.

Items	Travelling distance (km)													Check daily before starting off	
	300	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000		
Machine oil	R	R	R	R	R	R	R	R	R	R	R	R	R	R	I
Oil filter	C				C				C				C	I	
Gear oil	R					R					R				
Ignition plug	Clean it every 2000 kilometres and replace it whenever necessary.														
When the Ignition Plugs works well		A			A				A				A		
Air valve gap		A			A				A				A		
Cam gap		A			A				A				A		
Carburettor					I				I				I		

Air purifier	Clean the filter net every 1000 km and replace it whenever necessary.														
Electrolyte		I	I	I	I	I	I	I	I	I	I	I	I	I	I
Fuel filter															
Machine oil pump	I				I				I				I		
Braking system		I	I	I	I	I	I	I	I	I	I	I	I	I	
Screws and nuts	T					T					T				

The above-listed items vary according to type of motorcycle. Please implement the maintenance according to your own motorcycle. Beyond the listed mileage, please have your motorcycle serviced in an interval showed in this chart. When driving in a dusty area, you should clean and replace the air purifier more often than is shown in the chart.

2. Main Functional Parameters List

Measurements and weight		Main functional parameters	
External measurements (mm)	2075×725×1145	Maximum speed (km/h)	90
Wheelbase (mm)	1290	Lowest steady speed (km/h)	≤20.0
Minimum ground clearance (mm)	150	Starting time (s)	≤15
Completed vehicle weight (kg)	130	Accelerating time (s)	
Maximum Payload Mass (kg)	150	Start-off accelerating (0-200m)	≤16
Fuel tank capacity (L)	16	Overtaking accelerating[200m/(30km/h)]	≤16
Specifications of the front wheel	2.75-18-4PR	Sliding distance (m)	≥200
Specifications of the rear wheel	90/90-18	Grade ability (o)	≥18.0
		Economical speed fuel	≤2.1

Parameters of the engine		consumption (L/100 km)	
Pattern	Sole-cylinder, wind-cool four-stroke	Braking distance [m/(30km/h)]	≤7.0
Displacement (ml)	124.1	Luminosity of the front far light(cd)	≥10000
Bore × stroke (mm)	56.5 × 49.5	Electric system	
Compression ratio	9.0 : 1	Ignition method	C.D.I
Standard power (kw/ (r/min))	7.2/8000	Fuse	12V, 15A
Maximum power	8.0/8500	Front light	12V, 35/35W
Maximum torque	8.5/7000	Location light	12V, 3W
Lowest continuous speed no-load (r/min)	1400	Turning light	12V, 10W
Minimum fuel consumption rate	367	Tail /braking light	12V, 21/5W
Starting method	Electric or Kick Starting	Speed indicator light	12V, 3W
Clutch type	Wet multiple disc	Turning indicator light	12V, 3W

Sincerity as principle

Quality as principle

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