CONTENT

INSTRUCTION

This manual mainly introduces the basic operation and maintenance methods of the Bosuer M series off-road competitive off-road motorcycles. Please read them carefully before driving.

This series is forbidden in road, street and residential area.

The proper way of using and maintenance can ensure the safety while you are driving and reducing the malfunction of motorcycle to keep the best performance of them.

If you have other questions about driving and how to maintain this motorcycle, please contact with the dealer of it.

The data and specifications indicated in this manual are based on the latest information at the time of writing. However with the improvement of our products we can't ensure the motorcycle you bought from us was the same with the one we showed in this manual. If you have any questions of it please contact with the dealer or after-sales department of Bosuer.

Thanks for choosing the M series competitive off-road motorcycles of Bosuer. May you have a nice riding.

ZHEJIANG BOSUER MOTION APPATUS CO., LTD.

NOTICE

Before starting please read the introduction and ensure you have the skills and tools which we need.

This Instruction is one of the necessary attachments when you sell it to other people please take it with the motorcycle.

This is an off-road bike with two wheels and limited to be used by one person only.

The fuel used by this bike is over 95#, because the fuel is flammable, if the fuel tank, oil filter, oil tube, carburetor are destroyed or have the oil leaking situation caused by ageing, users should use it after it is repaired.

Users can assemble or change the vehicle's route on his own, nor can he increase electrical equipment. Those changes will cause the overload of the electrical system of this bike which will lead to the fuse is dissolved or the line is short circuited, and even spark is created, resulting in danger of burning car and so on. We are not responsible for any consequences arising from the addition of electrical equipment.

Users should maintain the listed parts in strict accordance with the requirements in the "Maintenance Periodic Table".

Before any repair work, please turn off the engine.

1. Before you start the engine pleas choose a ventilation place.

2. The engine and exhaust system can only be touched after cooling, otherwise it will cause burns;

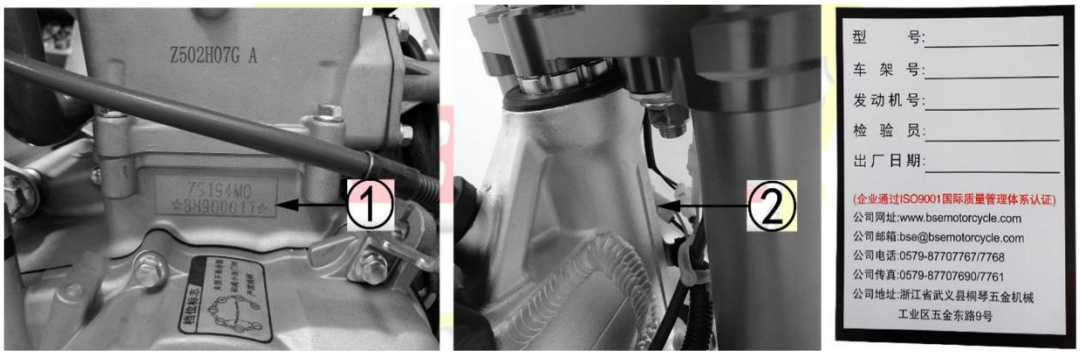
3. When the engine is abnormal during use, please do not start the engine. Stop and turn off the fire immediately. Please check it with professional maintenance personnel. After abnormal exclusion, start the engine.

To reduce the possibility of fire or explosion, be careful when using fuel. Use only non-flammable solvents to clean parts. Keep cigarettes, sparks and flames away from all fuel-related parts.

Please record the number indicated in the following places, and keep the certificate issued with the car for after-sales service.

Engine number 1 is on the middle cylinder of the engine.

Frame number 2 is on the right side of the frame head tube.



Note: if smear or change the original frame number or engine number, or company will not be able to confirm the configuration list and batch of vehicle identity, which will affect the after-sales processing, resulting in a state of inconsistency with the purchase status.

The frame number and engine number are the lifetime identification number of the vehicle and must not be altered, tampered or smeared.

Precautions and inspections before driving a motorcycle

First. The prepare working before riding a motorcycle

Before riding you must be prepared as follow:

Read the introduction;

(1) Ensure that you know the safety knowledges clearly;

(2) Ensure you know how to use all parts;

(3) You have a nice motion state when you are riding;

(4) Make sure that you wear appropriate helmets, goggles and protective clothes in condition that you have not used alcohol or used drowsing drugs.

Second. Safety equipment

(1) In order to ensure your safety, you must wear high-quality anti-collision helmets, goggles, gloves and other protective equipment when driving or competing;

(2) During the riding process, the temperature of the exhaust pipe is very high, and the rider driver should be protected to avoid burns;

(3) Do not wear loose and laced clothing to prevent clothing from being caught by the handle, ankle or wheels. It may also be hit by the wind and hooked on the road, causing accidents, but it must be borne in mind that high-quality protective equipment can only play a protective role. Do not ignore traffic safety regulations because of wearing protective equipment.

Riding the bike in the extreme sports racing venue should wear helmets, goggles, trousers, long sleeves, gloves, knee pads, elbow pads, neck protectors, chest protectors and boots to make you safer and more scientific during the ride.

Third. Check everything before riding

Be sure to carefully check the items in the table before riding, and never ignore the importance of these checks. Complete all inspections and necessary repairs before riding to ensure that the vehicle is safe and in optimum condition.

Check part	Check focus

Handle bar	(1) Smooth and no deformation (2) The limit position is not leaving the scale without the misplacement (3) No axial movement and looseness (4) The handlebar fixing screw is completely fastened
Accelerator	(1) Have a proper distance of accelerator line (2) Smooth rotation without jamming, the throttle can be automatic returned when throttle loosed
Fuel quantity	Have enough fuel to keep engine working
The front and rear break disc	(1) Disc brake friction wear should not exceed the limited range (2) The free travel distance of the disc brake is correct (3) No drag brake, front and rear wheels are flexible enough
Tires	(1) Have a proper air pressure (2) Have a proper tires thread depth (3) No break crack
Engine oil	Make sure it can achieve the standard requirement
Chain	(1) Have a proper tightness (2) Add a little bit of proper lubricant

Forth. Safety ride prevention

Before you ride your bike, please recall the important safety information.

(1) If you have ridden other series bikes before, you need to familiar with this bike also to have a nice feeling of it until you have mastered the skills and matched the dimension and height of it.

(2) The rider must have a skilled riding skills and cross-country common sense, and beginners must use it under the supervision of the coach.

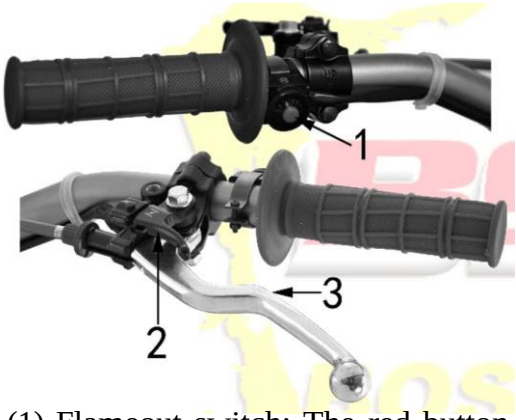
(3) For your safety, please not to start the vehicle in a closed environment. Harmful gases from vehicles will damage your health and even cause death.

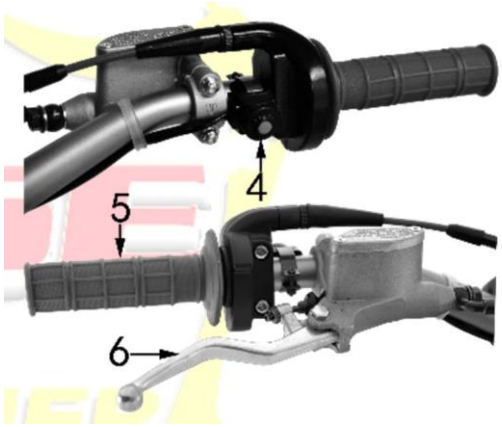
(4) The bike doesn't have a light system, so please don't ride it without light in a dark environment.

(5) This bike is an off-road bike and is strictly forbidden to be used on roads and streets or it will cause punishment.

(6) Drivers must wear a full set of off-road special protective gear to avoid physical damage.

Main components and corresponding functions of the vehicle





(1) Flameout switch: The red button disconnects the circuit and the engine stalls.

(2) Damper switch (standby): used to reduce the amount of air entering the carburetor inlet at low temperatures, increase the oil pressure at the fuel injection port, and increase the concentration of the mixture to start.

(3) Clutch handle: Transfers or cuts off power transmission between the engine crankshaft and the transmission.

(4) Start switch: The yellow button start the engine.

(5) Throttle handle: Control the flow rate of the carburetor, the free stroke value is 2mm-6mm.

(6) Front brake handle: Controls the speed of the front wheels.

(1) Oil tank lid: Grasp the oil tank lid and unscrew it counterclockwise. The fuel quantity can be viewed by opening the oil tank lid.

(2) Oil tank switch: The oil tank switch is under the oil tank, and the fuel is filtered and sent to the carburetor. Before the engine is started, turn the oil switch to the "ON" position to supply oil to the carburetor. After the engine is turned off, turn the oil switch to the "OFF" position to stop supplying oil to the carburetor. The oil tank switch is turned to the “FUEL” position, indicating that the oil is supplied by the spare oil passage. Only when the normal oil supply is used up, the spare oil passage can be used and the fuel can be added as soon as possible. After refueling, turn the oil pot switch to the "ON" position to avoid consuming the backup fuel.

(3) Water tube and water tank: Grasp the lid on the right tank and unscrew it counterclockwise we can open the water tank through this way. Align the hook inside the tank cover with the groove of the tank, press down, and tighten clockwise we can close it through this way. The hot water inside the engine is circulated to the water tank through the water tube, and is cooled to be recirculated to the engine, so that the engine is not overheated and loses its working ability.

(4) Shifting lever: The shift lever is used to change the components of the high speed gear and the low speed gear. When the pinch clutch is lifted and the shift lever is lifted, the loose clutch can be raised to the high speed gear, and the pinch clutch can be lowered to the low speed gear position; half-clutch, do not pinch clutch shift.

(5) Side stand: Step on the side support to support the vehicle while parked.

(6) The electric locked switch must be turned on before starting the engine. After parking, please pull out the key. The key position is shown in the follow table.

Location of the key	Features	State of the key
OFF	The engine can’t be started	The key can be pulled out
ON	The engine can be started	The key can’t be pulled out
	The engine can be started and turn on the headlight.	The key can’t be pulled out

(7) Foot break lever: when you push the foot break lever the rear disc break will be started to slow down the bike.

(8)Start lever: Start the engine.

Run-in

First. Run-in time

The running-in period refers to a treatment method in which the new vehicle is used for the first time in order to ensure that the joint surface between the part and the part is optimally combined.

Notice:

(1) During the first running-in period, the throttle should be avoided from full-open operation, and the maximum engine speed should not exceed 5000r/min;

(2) Each gear should be properly run-in;

(3) Do not ride the bike at a fixed throttle position;

(4) Change the lubricant every 200km during the running-in period and clean the filter.

Second. Operation way during run-in period

(1) 0-200km: The throttle handle is opened to avoid exceeding 1/3 of the maximum opening, and the engine speed is controlled at 4000r/min;

(2) 200-600km: The throttle handle is opened to avoid exceeding 1/2 of the maximum opening, and the engine speed is controlled at 6000r/min;

(3) 600-1500km: The throttle handle is opened to avoid 3/4 of the maximum opening, and the engine speed is controlled at 9000r/min.

Third. How to change the lubricant during run-in period

For the first time in the run-in period, 200km, or after a race or 2.5 hours of riding, it is recommended to change the lubricant, and then after 6 matches or 15 hours of total change. Please use the recommended lubricant grade for replacement.

Start of the motorcycle

First. Start working of engine

(1) Turn the fuel tank switch to ‘ON’;

(2) Turn the electric locked switch to ‘ON’;

(3) Hang the engine to neutral.

Second. When the engine is in the "cold" state

Lift the damper switch up, pinch the clutch handle with your left hand, press the yellow start switch with your right hand, and the throttle will rotate slightly. After warming up, press the damper switch back to the original position.

Note: The colder the weather, the longer the engine needs to be warmed up, and the engine will be fully warmed up to reduce engine wear.

Third. When the engine is in the ‘warm’ state

There is no need to use the damper switch just push the yellow start button.

Note:

(1) After starting, it should be preheated until the engine idle speed is stable, and the fuel is smooth, so that it can be ridden on the road;

(2) When using the start switch button, each period should be released within 3-5 seconds, and the second start should be separated by more than 15 seconds, otherwise it will easily cause the battery to discharge too fast and affect the battery life;

(3) After the engine is started, the start switch button should be released immediately. When the engine is running, it is not allowed to press the start switch again, otherwise the starter motor and is easily damaged;

(4) Ensure that the side support is completely stowed, avoiding riding hindrance and control failure when turning left;

(5) After starting or driving, you need to turn the throttle handle smoothly;

(6) Do not start the motorcycle in a small space to avoid the danger of the

exhaust gas spread;

(7) If the clutch lever was damaged you need to change it immediately;

(8) It is strictly forbidden to start the engine when the clutch handle is not clamped, otherwise it will cause damage to parts or safety accidents.

Riding of the motorcycle

First. Shift operation

The bike is a six-speed transmission with constant meshing two-stage transmission. The first and second gears are low speed, the 3rd and 4th gears are medium speed, and the 5th and 6th gears are high speed. For shifting, please refer to the following operations.

(1) When the engine is at idle speed, the left hand grasps the clutch handle to disengage the clutch, and the left foot is used to step down the shift lever to make the transmission enter the first gear position;

(2) Gradually increase the engine speed, slowly release the clutch handle, so that these two actions cooperate with each other to ensure the smooth start of the motorcycle;

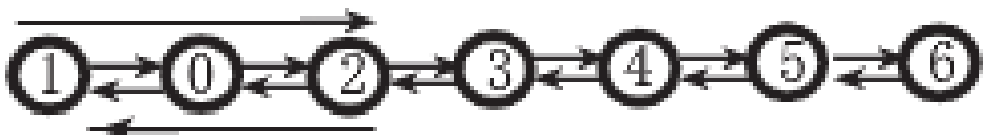
(3) After reaching smooth running, reduce the engine speed, pinch the clutch handle, hook the shift lever with the left foot and lift it up, so that the transmission enters the second gear, then gradually increase the engine speed, slowly release the clutch handle, two actions are required coordinate with coordination to ensure smooth running of motorcycles;

(4) We can follow the third step when you want to change the gears;

(5) When the gear is downshifted, the speed should be reduced. The left hand pinch the clutch handle to disengage the clutch, and use the left foot to step forward and lower the lever. When downshifting, you need to downgrade step by step;

(6) When shifting gears, make sure the shift lever is in place and release the clutch handle. It is strictly forbidden to shift gears when the throttle is not returned and the clutch is not pinched, otherwise the engine and transmission system may be damaged and a safety accident may occur.

Following picture shows the step of gear shift.



Second. Climbing or turning

(1) When the motorcycle is going uphill, even if the throttle is increased, the deceleration of insufficient power will occur, which is caused by the gear being too high. Therefore, it is necessary to quickly downshift before going uphill, and change to low gear to avoid the car slowing down and causing the clutch to slip;

(2) When the motorcycle turns, the car is decelerated too fast due to the emergency return to the throttle, which may cause the rear wheel to slip. Therefore, when turning or returning to the throttle, first use the brake to decelerate and quickly reduce to the low gear.

Third. Stopping

(1) Gradually return to the throttle and reduce the speed;

(2) Use the front and rear brakes softly to make the car stop smoothly;

(3) Turn the electric lock switch to “OFF” and pull out the key. If your motorcycle will not be ridden for a long time, please turn the oil switch to the "OFF" position;

(4) Put down the side support and prop up the vehicle.

Motorcycle maintenance

First. Maintenance period table

You need to maintenance the motorcycle according to the following table.

		remarks	1 game	3 games	6 games	9 games	12 games
			2.5 hours	7.5 hours	15 hours	22.5 hours	30 hours
Oil tube		(4)	I				R
Throttle seat			I				
Air filter element		(1)	C				
Engine oil		(3)	I		R		
Cooling water		(2)	I				
Cooling system			I				
Spark plug			I				
Air filter element		(1)	C				
chain			I , L	C , A , R			
Chain guider/Tensioner			I	C			
Sprocket			I , L	C			
Brake fluid		(2)	I				
Friction plate			I				
Front/rear brake			I				
Throttle/clutch line			I,L				
Front/rear shock			I				
Fork/linkage				L			
Front wheel			I				

Fastener		I				

Symbols in the above table: I means check and clean, adjust, lubricate or replace if it is necessary; C means clear; A means adjust; L means lubricate; R means replace it.

Something you need pay attention in remarks:

(1) Every time you use it in a dusty environment, you need to clean it;

(2) Replace every two years, replacement requires some mechanic repair technology;

(3) You need to change them after first run-in period;

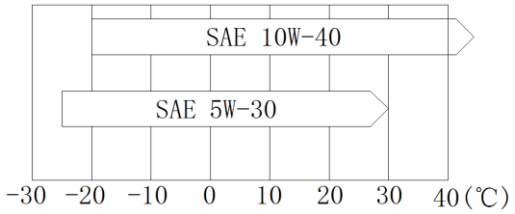
(4) You need to change them every year.

Second. Engine Lubricant

1. Choose of the engine lubricant

The lubricant acts on the engine to reduce friction, increase sealing, cool parts, clean parts, and prevent rust. Poor quality of lubricant, excessive use time, insufficient amount of lubricant, etc., will accelerate the wear of engine parts, reduce the service life of the engine, and even cause excessive engine temperature, clutch wear or burnout, power loss, abnormal noise, lubricant, etc. .

Use high-quality four-stroke lubricants to extend engine life. Lubricants should be graded in API SG, SH, SJ, SL, SM or SN. The viscosity is SAE 10W-40, or according to the local climate, please select the appropriate lubricant according to the following table.



Pay attention:

(1) No need to add any chemical additives to the lubricating oil;

(2) Do not use any lubricant of poor quality.

2. Check of lubricant

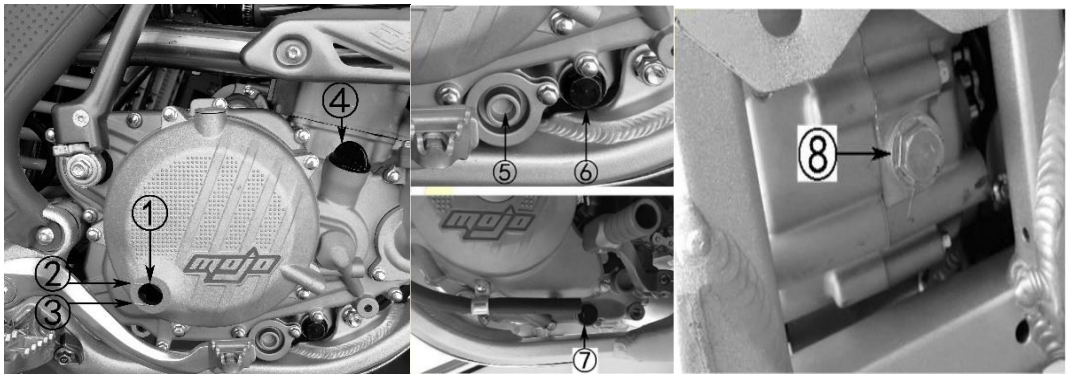
The level of the lubricant must be checked before each time of use. There is an oil window on the right crankcase cover, as shown on the following picture. Checking step as follows;

(1) Making the engine work in idle speed for 3 minutes then turn off it;

(2) Wait 3 minutes after turning off the engine to disperse the lubricant throughout the engine;

(3) Put the motorcycle in a horizontal position when you are checking the amount of oil;

(4) Check if the oil level is between the upper limit 2 and lower limit 3 marks via the right crankcase oil window 1. If the oil is marked at 2 or close to 2, you do not need to add oil; if the oil is below or near the lower level of the mark, you need to add the recommended lubricant until it reaches the previous mark, taking care not to overflow.



3. Change of the lubricant

(1) Making the engine work in idle speed for 3 minutes then turn off the engine;

(2) Put the motorcycle in a horizontal position;

(3) On the right side of the engine, mark 5, 6 and use the tool to remove the engine oil leakage bolt;

(4) On the left side of the engine, mark 7, remove the engine oil leak bolt with the tool;

(5) Under the engine, mark 8, remove the engine oil leak bolt with the tool;

(6) If there is a filter inside the oil drain bolt, it needs to be cleaned with gasoline;

(7) After the waste oil is drained, install the cleaned filter and drain bolt back to the engine;

(8) We recommended you that the oil and filter should be changed every 6 games or approximately 15 hours per ride, refer to the maintenance schedule.

Please to deal with the wasted oil in a proper way to avoid polluting the environment.

4. Raise the lubricant

The mark 4 can be unscrewed and lubricant can be added from there, and the amount of oil can be confirmed by the crankcase oil window 1. Install 4 back after reaching the oil level.

Third. Cooling system

1. Water tank

The water tank is located at the front of the engine. According to the environment you are driving, the water tank should be cleaned regularly for dust and dirt.

2. Cooling fluid

The cooling fluid should be maintained according to the "Maintenance Schedule". When adding or replacing cooling fluid, do not use non-glycol cooling fluid, tap water or mineral water. Improper use of cooling fluid can cause damage, such as corrosion in the engine, blockage of cooling passages or radiators, and premature wear of the pump seal. Please use special coolant:

(1) Check the capacity of cooling water

(2) You need to put the motorcycle in a horizontal position when you are checking it;

(3) You need to check it after the engine cooling down;

(4) You need to ensure the cooling water between to the up and down scale.

(5) Adding the cooling fluid

If the position of the cooling fluid is at or below the 3 mark, please add special cooling fluid to the 2 mark line. Methods as follows**;**

(1) Put the motorcycle in a horizontal position;

(2) Open the right tank cover 1 and add the coolant to the 2 upper marking position;

(3) Start the engine, let the cooling water circulate in the engine, and observe the position of the cooling fluid liquid level if it is insufficient;

(4) Install the tank cover 1

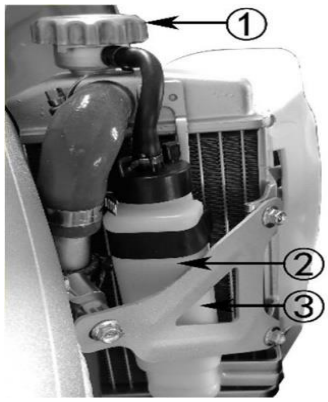
(5) Change the cooling fluid

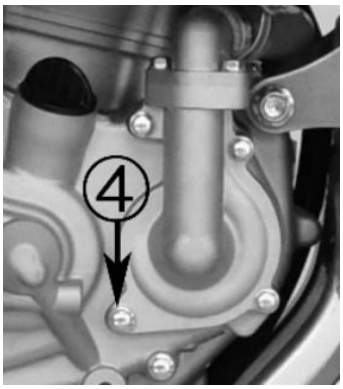
(6) Put the container under the engine;

(7) Remove the bolt 4;

(8) Loosen the tank cover and tilt the vehicle to the right as far as possible to drain the cooling fluid. When the radiator cap is loose, the cooling fluid will be sprayed laterally; therefore, the container is brought near the exit;

(9) Install bolt 4 and copper pad and lock to prevent fluid leakage.





Pay attention:

(1) If the tank cover is installed improperly, excessive cooling fluid loss may occur and the engine may be overheated and damaged;

(2) Always cool the engine and water tank before removing the tank cover. It is not allowed to remove the tank cover when the engine is very hot, which will cause the cooling fluid squirt and burns;

(3) Please deal with the wasted fluid properly to protect the environment.

Forth. Spark plug

1. Chosen of the spark plug

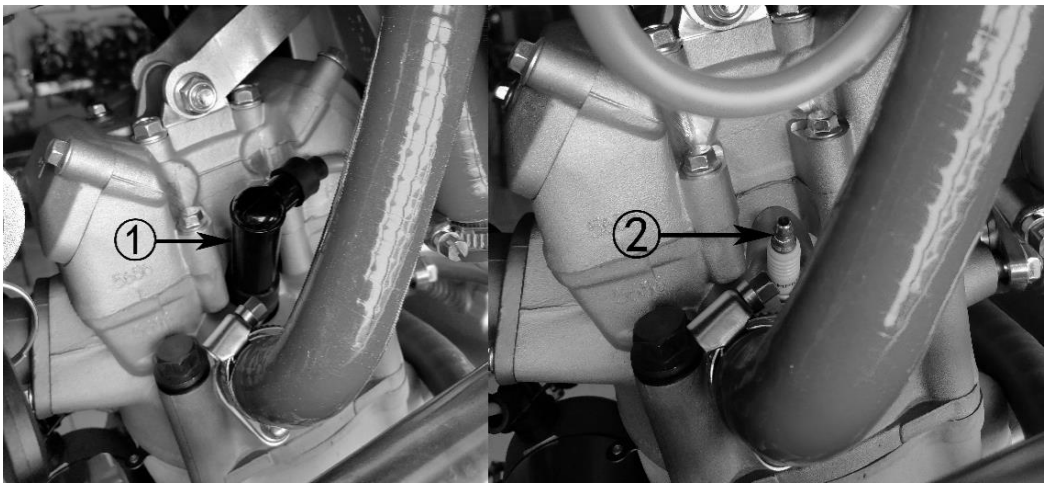
The model we choose: RG6YC.

The spark plug is used in this series of motorcycles have been carefully selected and matched to suit most of the working range. If the color of the spark plug is different from the normal spark plug, please use the original genuine spark plug, because selecting an inappropriate spark plug will result in engine damage.

2. Check the spark plug and how to change it

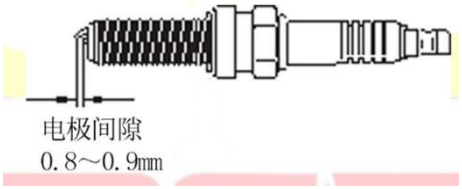
(1) You need to maintenance the spark plug according to 'Maintenance Table';

(2) Remove the high pressure cap 1 and remove the spark plug 2 with a special tool;



(3) Check the spark plug whether it is damaged, whether the electrode gap is burning, whether the gasket is intact, and if it is damaged, it should be replaced immediately;

(4) Check the electrode gap with a feeler gauge. The normal electrode gap is 0.8~0.9mm;



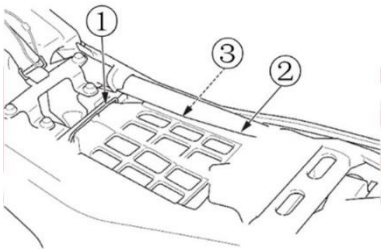
(6) When you are installing the spark plug, first screw the spark plug by hand and then lock it with special tools.

Fifth. Air filter

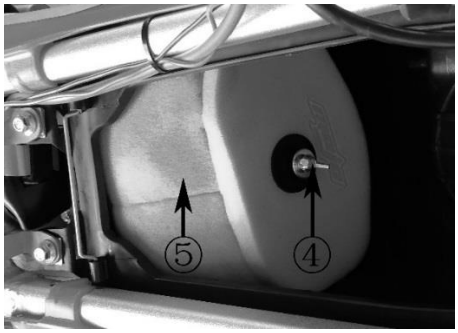
This series of air filter element are made of special sponges. This series of motorcycles has a complicated environment. When the air filter element is clogged with dust, it will affect the intake system, resulting in an increase in the intake air resistance. When the mixture is too rich, the engine power will decrease.

Cleaning step of air filter

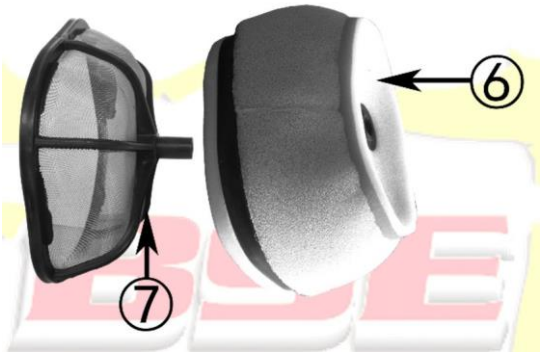
(1) Remove the seat cushion, loosen the air filter wire card 1, and remove the battery case 2 from the air filter box;



(2) Loosen the air filter sponge filter fixing bolt 4 and take out the air filter sponge and bracket assembly 5;



(3) Remove the air filter sponge 6 from the air filter sponge holder 7;



(4) The air filter element can be cleaned with a non-flammable fluid, then rinsed with hot soapy water and allowed to dry thoroughly. The air filter element has two parts and cannot be separated;

(5) Inner part of rear cover of the air filter need to be cleaned as well;

(6) After the air filter element is completely dried, spray the air filter oil evenly on the air filter, and disperse the oil evenly by hand;

(7) Install the air filter sponge on the air filter element. Install the air filter element into the air filter sponge strip, pay attention to the direction;

(8) Install and tighten the bolts 4;

(9) Install the battery case 2 onto the air filter case 3, then snap the air filter wire 1 to the battery case and install the seat.

Pay attention

(1) When you are cleaning the air filter sponge, do not twist it. Before cleaning or cleaning, pay attention to check the filter element if it is damaged. If it is damaged, replace the filter immediately;

(2) If you are driving in a dusty environment, shorten the period time between filter inspection and replacement. If the filter element is found to be clogged and worn, the engine's apparent power is reduced, and the fuel consumption is increased. The filter element needs to be replaced immediately. It cannot be processed until maintenance;

(3) It is strictly forbidden to start the motorcycle without filter element witch will damage the motorcycle;

(4) When disassembling the filter and sponge filter, it should be installed correctly to ensure that the bottom of the filter and the air filter front cover are completely pressed without gaps.

Sixth. Carburetor

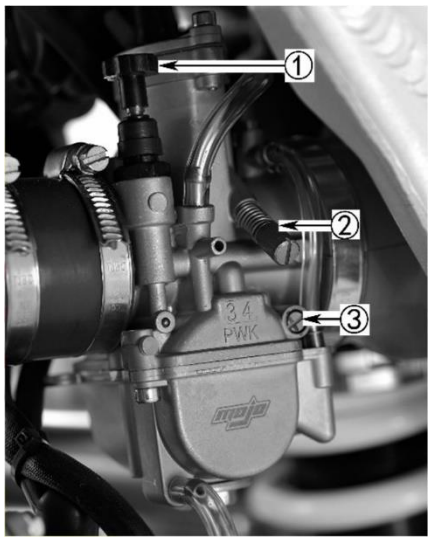
Under average load, climate and pressure conditions, our carburetor can be operated under normal conditions. However, in order to fine-tune the power output of the engine, the carburetor may need to be adjusted to specific needs.

As the following picture shows:

(1) The damper switch (used when the engine is in cold environment, detailed in the second section of this article "Motorcycle Startup");

(2) Idle speed adjustment screw;

(3) Mixing ratio adjustment screw;



1. Adjustment of idle speed

(1) When the motorcycle is in neutral, start the engine. When adjusting, turn the screw 2 clockwise to increase the idle speed; turn the screw 2 counterclockwise to reduce the idle speed;

(2) The carburetor's idle speed can be appropriately lowered when the ambient temperature is high; it can be appropriately raised when the ambient temperature is low.

(3) Note: The user cannot always adjust the idle speed to avoid causing the cylinder head to accelerate the wear of the parts or damage the engine due to insufficient oil supply.

2. Mixing ratio adjustment

(1) When the motorcycle is in neutral, start the engine. When adjusting, turn the screw 3 clockwise. The air volume will decrease the mixing ratio and become thicker. Turn the screw 3 counterclockwise to enter more channels. The mixing ratio will become thinner.

Note：The carburetor has been matched and confirmed at the development stage, and it can adapt to most of the working range. The customer does not need

to adjust it by himself; if it is necessary to replace the parts, please ask the original factory to help you. In order to ensure the best performance, it is recommended to find a professional to carry out carburetor adjustment.

Seventh. Chain

The life of the chain depends on proper lubrication and adjustment. Poor repair can result in premature wear or damage to the chain or sprocket. When motorcycles are driving on unusually dusty or muddy tracks, frequent repairs and maintenance are necessary. If the chain, sprocket, and engine teeth have reached the wear limit, they must be replaced in time. Before you service the chain, turn off the engine and check that your gearbox is in neutral.

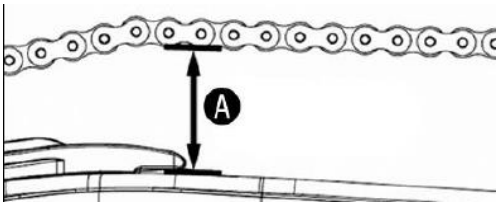
1. Check the chain

(1) Turn off the engine, place the bench under the engine, lift the rear wheel off the ground, and change the gearbox to neutral;

(2) Check the tightness of the chain between the engine's small teeth and the sprocket, the chain's slack range A is 10-15 mm;

(3) Rotate the rear wheel to measure the slack of the chain at any position, and the slack should remain unchanged;

(4) Check the chain for the following conditions: whether the chain pin is loose; whether the chain is dry or rusty; whether the chain is flexible; whether there is excessive wear.



2. Lubricant and clean of chain

(1) The maintenance period of the chain refers to the “Maintenance Table”. If riding in a dusty environment, increase the times of maintenance;

(2) Clean the chain, sprocket, engine small teeth, dry the dry chain and lubricate the chain spray chain oil. The chain oil should be sprayed on the inside of the chain and the ball. The outside of the chain section can also be sprayed a little to prevent rust.

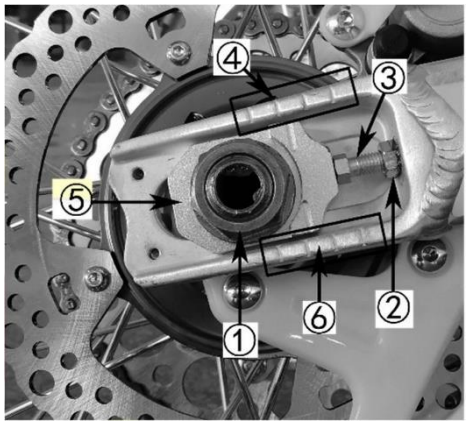
3. Adjustment and change of chain

a. Adjustment

(1) Turn off the engine, place the bench under the engine, lift the rear wheel off the ground, and change the gearbox to neutral;

(2) Loosen the rear axle nut 1, loosen the jack adjustment nut 2, rotate the adjusting hex head bolt 3 clockwise or counterclockwise, so that the chain slack meets the requirements, and the jack 5 is scaled on both sides of the flat fork 4, 6;

(3) Lock the rear axle nut 1 and tighten the jack adjustment nut 2 to confirm the chain slack.



b. Change the chain

(4) Use a needle-nose pliers to remove the chain locking tab, remove the chain link, and remove the chain;

(5) Check the wear of the sprocket and engine teeth, replace them if necessary;

(6) Put the new chain back and adjust the free travel of the chain;

(7) When you are installing the chain locking piece, the open end must be opposite to the running direction of the chain.

Eighth. Brake system

1. Check the brake fluid

(1) Place the car on the bench or check the brake fluid position;

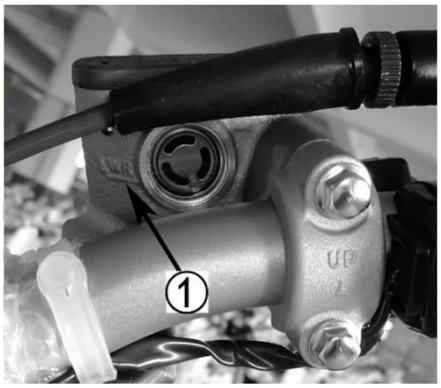
(2) The front brake fluid position should be 1 above the LWR mark. The rear brake fluid position should be above the LWR mark 2. If the liquid level is at or below the LWR mark, check the friction lining for wear; if worn, replace the friction lining. If there is no wear, check the brake system for leaks.

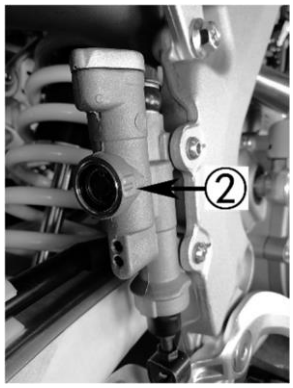
(3) When operating the front brake handle, if you feel the handle pressure is insufficient which means there is air in the brake system, it should be completely discharged after the brake system can be used normally, otherwise it will reduce the braking performance or cause the brake to fail;

(4) When the foot brake lever is pressed, the pressure is insufficient. If there is air in the brake system, it should be completely discharged from the brake system before it can be used normally. Otherwise, the brake performance will be reduced or the brake will be disabled. It is recommended to use DOT4 brake fluid, different grades cannot be mixed.

(5) The brake fluid is corrosive. Do not splash on the surface of paint or plastic parts. If it is accidentally consumed, it should be forcibly spit out. If it is on the eyes or skin, rinse it with water immediately.

(6) The front and rear brakes are operated under high pressure. To ensure safety and reliability, replace or add brake fluid. Please consult a professional for maintenance. Refer to the "Maintenance Table" for the maintenance cycle of the brake fluid.





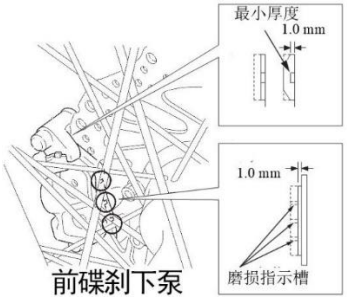
2. Friction plate

(1) Friction plate wear depends on the mode of use and track conditions. (In general, the friction plates wear faster under wet and dirty track conditions).

(2) Check the friction plates with the front brake lower pump assembly to determine the wear of the friction plates. If any one of the friction plates wears to a thickness of 1 mm, the two friction plates must be replaced.

(3) The friction plates are inspected by the rear brake lower pump assembly to determine the wear of the friction plates. If any one of the friction plates is worn to a thickness of 1 mm, the two friction plates must be replaced.

(4) If you need to replace it, please use the original friction plate and find a professional person to replace it. Refer to the “Maintenance Cycle” for the maintenance cycle of the friction plate.



3. Other check

Check that the front brake lever and foot brake lever assembly are properly installed and that the bolts are secure. Make sure there is no liquid leakage, check the high pressure tubing and fittings for aging or cracks.

Ninth. Front and rear shock

1. Front shock

The front shock of this series is two-way adjustable. You can adjust compression damping and rebound damping according to your personal preference and riding environment to suit different needs. Refer to the “Maintenance Cycle Table” for the shock maintenance cycle, and check the oil leakage regularly. If you need to repair, please consult a professional mechanic.

(1). Adjust of the front shock damping

Compression damping: Rotary compression damping adjustment bolt 1 to adjust the speed of front shock compression.

Rebound damping: Rotate the rebound damping adjustment bolt 2 to adjust the speed of the front shock rebound.

As the picture shows, the damping adjustment bolts have adjustment directions and English logos. The logo on the front shock absorber: HARD (referred to as "H"), SOFT (referred to as "S"); the logo under the front shock absorber: FAST (referred to as "F"), SLOW (referred to as "S"). The specific adjustment method is as follows:

a. Adjust of the hard and soft

To determine the number of adjustment steps, first rotate the compression damping adjustment bolt 1 clockwise "H" direction until it cannot rotate (not too much force), this is the maximum resistance state, then the compression damping adjustment bolt 1 counterclockwise "S" direction Rotate, while rotating the number of clicks until it can't rotate (not too hard), this is the minimum resistance state. The specific adjustment methods are as follows:

Adjust the compression damping adjustment bolt 1 to the middle level, hold the direction handle with both hands, pinch the brake handle, press the shock absorber up and down, adjust the compression damping counterclockwise or clockwise according to your personal preference and riding environment, and make sure that it is appropriate. The two damping are adjusted to the same number of stages. Remember that the two directions are not adjustable to the limit and 3-5 sections of damping should be reserved.

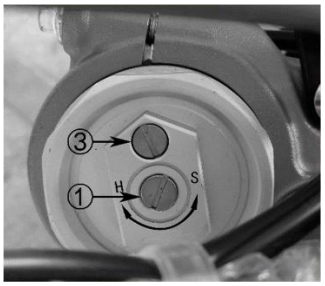
b. Adjust of the rebound damping

To determine the number of adjustment steps, first rotate the rebound damping adjustment bolt 2 counterclockwise "S" direction until it cannot rotate (not too much force), this is the slowest rebound state, then the rebound damping adjustment bolt 2 clockwise Rotate in the "F" direction, and rotate the number of clicks until it cannot rotate (not too hard), which is the fastest rebound state. The specific adjustment methods are as follows:

Adjust the rebound damping adjustment bolt 2 to the middle level, press the seat

cushion to compress the rear shock absorber up and down, and adjust the rebound damping counterclockwise or clockwise according to your personal preference and riding environment. Make sure that the two directions are not adjustable to the limit and 3-5 sections of damping should be reserved.

Note: Please remember the number of factory grades before adjusting the damping.



c. Deflation bolts

In order to ensure the normal use and good effect of the shock absorber, after using for a certain period of time and after intense driving, the open air bolt should be removed to release the high air pressure generated by the reciprocating absorption capacity inside and outside the shock absorber.

(1) Place a bench under the engine to keep the front wheels off the ground; do not let the front wheels touch the ground, otherwise it will affect the exhaust;

(2) Remove the deflation bolt 3.

(3) Check the seal state of the bolt.

(4) Assemble the bolt.

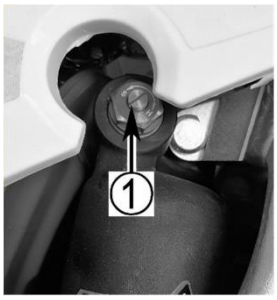
2. Rear shock

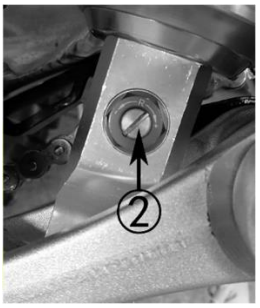
The rear shock of this series is an external air bag with adjustable two-way damping. You can adjust the spring preload, compression damping and rebound damping according to your personal preference and riding environment to suit different needs. Refer to the "Maintenance Cycle Table" for the shock maintenance cycle. Check the oil leakage regularly. The rear shock of this series is equipped with an external air bag. Do not disassemble it. If you need maintenance, please find a professional mechanic.

(1) Adjust of the rear shock damping

Compression damping: Rotate the compression damping adjustment bolt 1 to adjust the speed of the front shock absorption compression.

Rebound damping: Rotate the rebound damping adjustment bolt 2 to adjust the speed of the front shock absorption rebound.





a. Adjust of the hard and soft of the damping

To determine the number of adjustment steps, first rotate the compression damping adjustment bolt 1 clockwise "H" direction until it cannot rotate (not too much force), this is the maximum resistance state, then the compression damping adjustment bolt 1 counterclockwise "S" direction Rotate, while rotating the number of clicks until it can't rotate (not too much force), this is the minimum resistance state. The specific adjustment methods are as follows:

Adjust the compression damping adjustment bolt 1 to the middle level, hold the steering handle with both hands, pinch the brake handle, press the shock absorber up and down, adjust the compression damping counterclockwise or clockwise according to your personal preference and riding environment, and make sure that it is appropriate. The two damping are adjusted to the same number of stages. Remember that the two directions are not adjustable to the limit and 3-5 segments of damping should be reserved.

Note: Please remember the factory grade before adjusting the damping.

b. Adjust of the rebound damping

To determine the number of adjustment steps, first rotate the rebound damping adjustment bolt 2 clockwise "+" direction until it cannot rotate (not too much force), this is the slowest rebound state, then the rebound damping adjustment bolt 2 counterclockwise Rotate in the "-" direction, and rotate the number of clicks until it cannot rotate (not too much force), which is the fastest rebound state. The specific adjustment methods are as follows:

Adjust the rebound damping adjustment bolt 2 to the middle level, press the seat cushion to compress the rear shock absorber up and down, and adjust the rebound damping counterclockwise or clockwise according to your personal preference and riding environment. Make sure that the two directions are not adjustable to the limit and 3-5 sections of damping should be reserved.

Note: Please remember the number of factory grades before adjusting the damping.

c. Prepress of the rear shock spring

You can adjust the spring preload according to your personal preference and the riding environment. Please use special tools to make adjustments. Please make adjustments while the engine is cold. Do not exceed the adjustment range. The steps to

adjust are as follows:

(1) Place a bench under the engine to make the rear wheel off the ground;

(2) Remove the seat cushion, rear side plastic parts, rear tailstock, air filter throat;

(3) Check that the spring preload value is adjusted to the standard length. Loosen the upper spring lock nut 3 and turn the adjusting nut 4 to increase the spring preload, reduce the harder after the spring, and reduce the spring preload; the rear shock absorption becomes soft. Can be adjusted according to personal preferences and riding environment;

(4) After adjustment, hold the adjusting nut 4 and tighten the spring lock nut 3;

(5) Replace the removed parts.

Note: Before adjusting the shock preload, please remember the factory preload value.

3. Adjust the front and rear shock according to the road condition

Adjust your bike accurately as described below, using the method described above. Remember that each adjustment is a sizzle increase or decrease. You can test ride after the adjustment is completed.

Adjust of front shock

1. According to the road situation

Hard road track	Starting from the standard setting, if the damper is too soft or too hard, adjust according to the chart below
Sand rod track	Adjust the damper to a harder standard Rotate the compression damping adjustment nut to a harder position - install a spring of selectable hardness (adjust the compression damping to a softer position and then adjust the rebound damping to a harder position.)
Muddy road track	Since the muddy road will increase the weight of the bike body, it is necessary to adjust to a harder position example: - adjust the compression damping to a harder position - install a spring with a choice of hardness

2. Adjust the damper for it is too hard or too soft

	Performance	Solution
s o f t	The previous trip is too soft: Turning too fast When turning or traveling straight, the front shock absorber front section will be greatly stretched	Test the damper after adding a compression damping Test the damper after adding a rebound damping test
		If the front stroke of the shock absorption is not too hard: 1. Add a compression damping test

d a m p e r	The Mid trip is too soft: The front section of the shock absorber will slam down when cornering	If the previous stroke is hardened based on the above adjustment: 1. reduce one rebound damping 2. Reduce a compression damping test If the above adjustment does not solve the problem, install a spring with optional hardness.
	The final trip is too soft Bottom was touched Bottom was touched when bumping, especially when going downhill	If the front and middle strokes are not too hard. 1. Add a compression damping test if the front and middle strokes are too strong 2. Install springs with optional hardness If a spring with a selectable hardness is installed, the front stroke is too hard: Test the damper after reducing a compression damping. If a spring with a selectable hardness is installed, the front stroke is too soft: Test the damper after adding a compression damping. If a spring with a selectable hardness is installed, the rear stroke is too soft: Increase the amount of shock absorption by 5 ml.

	Performance	Solution
	The previous trip has a good trip:	1. Test the damper after reducing a compression damping. 2. Test the damper after reducing a rebound damping. 3. Check the dust of the dustproof oil seal and check if there is any debris in the front

H a r d d a m p e r	1. When the throttle is running at full speed, the small bumps can feel the shock absorption stiffness. 2. A small amount of bumps when cornering can feel the shock absorption stiffness 3. The throttle moves at full speed and the front section will deviate.	shock absorber oil. If the corner is turned after the above adjustment, the front section will be slammed downwards to reduce a rebound damping. If the problem cannot be solved, install a spring with optional hardness. If the hard spring makes the entire stroke of the front shock absorber too hard: 1. Reduce compression damping until the front compression damping is adjusted to the desired state
	The middle trip is too hard: 1. Shock and stiffness when turning bumps 2. Deviation from the front when turning 3. Shock absorption when bumping, especially when going downhill 4. When braking, the front section will slam down and the rider can feel the shock absorption stiffness	If the previous itinerary is not too hard: 1. Add a compression damping test if the front and middle sections are too hard: 2. Reduce a compression damping test 3. reduce one rebound damping
	The final trip is too hard 1. The bottom end will not bottom out, the rider can feel the shock absorption stiffness 2. When the bump is large, the shock is stiff, especially when going downhill. 3. When the turning is large, the bump is stiff	If the front and mid trips are not too hard. 1. Add a compression damping test If the above adjustment is still too strong, or the front and mid trips become hard. 1. Install springs with optional hardness 2. Test the damper after reducing a compression damping. After the above adjustment, the whole stroke is too hard, 1. Reduce one compression damping until the front

		compression damping is adjusted to a ideal state
	The whole trip is too hard	1. Reduce one compression damping 2. Reduce one compression damping 3. Reduce 5 ml of oil

3. State and how to adjust the damper

Usually adjusted on a standard basis

1. Adjust one compression/rebound damping at a time. Adjusting two or more grids at a time may miss the best state of vibration reduction. Test each time after adjustment.

2. If the front shock absorption feels abnormal after setting, find the corresponding performance in the following table and adjust the compression/rebound damping until it is adjusted to the ideal state.

	Performance	Solution
Hard damper	The shock is too hard when small bumps	1. Adjust softer low speed compression damping 2. If it is still too hard, then adjust the softer low speed and high speed compression damping at the same time
	The shock is too hard when big bumps	1. Test softer high speed compression damper. 2. If it is still too hard, then adjust the softer low speed and high speed compression damper at the same time
	It is too hard the whole distance	1. Simultaneously adjust softer low speed and high speed compression and rebound damping 2. If it is still too hard, install a softer spring instead, adjust from the standard setting state to the softer state.
Soft damper	It is too soft the whole distance	1. Adjust harder high speed and low speed compression damper at the same time. 2. If it is still too soft, install a hard spring instead of the standard setting then adjust it to a hard state.
	Shaking in the back	Adjust softer low speed and high speed compression and rebound

		damper to a harder state
The shock touch the bottom	The shock touch the bottom after jump	1. Adjust hard high speed compression damping 2. If still bottoming, adjust the softer low speed and high speed compression damping, if necessary, install a hard spring instead
	The shock touch the bottom after loading	1. Adjust the hard low speed compression damping 2. If still bottoming, adjust the harder low speed and high speed compression damping, if necessary, install a hard spring instead
	The shock touch the bottom after continuous bumping	1. Adjust the soft rebound damping 2. If still bottoming, adjust the harder low speed and high speed compression and softer rebound adjustment, if necessary, install a hard spring instead

Tenth. Wheels

1. Spoke

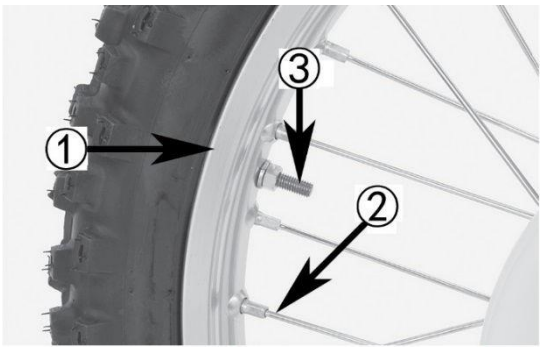
Keeping the rims out of shape and maintaining proper spoke tension is the key to safe riding. When the new car is in the run-in period, the spokes are extremely easy to loosen. Excessive spokes can cause high speed instability and loss of control. Fixed inner tube anti-skid lock prevents tire slippage.

(1) Check if rim 1 and spoke 2 are bent or damaged;

(2) Tighten the loose spokes and the inner tube lock 3;

(3) Check the rim bounce after adjustment.

(4) We advise you to adjust the spoke by a professional person.



2. Tires

a. Air pressure of tires

The tire is the only contact surface between the vehicle and the road surface, and must be kept in the best working condition at all times to ensure safety. Please use the proper tires. The tires should have enough tread and proper tire pressure.

Improper tire pressure can affect the handling and braking ability of the vehicle, especially in wet conditions, and seriously endanger your safety. Insufficient inflation of the tires will cause the heat to accumulate rapidly, eventually causing a sudden loss of tire pressure.

Check the tire pressure in the state when the tire is cooled, that is, after parking for at least three hours or the tire does not exceed 3 km; in general, the cold tire pressure reference value:

Front tire	225 kPa (1.0 kgf/cm2, 32 psi)
Rear tire	280 kPa (1.0 kgf/cm2, 41 psi)

You can according to the environment to adjust the tire’s pressure.

b. Check the tires

The tire pressure should be checked before each match or before riding. Make sure the valve cap is strictly installed. Replace the new valve cap if necessary. Please check the tires and wheels as follows:

(1) Carefully inspect the sides or tread of the tire for protrusions and cracks.

(2) Replace tires with raised or cracked openings;

(3) Check the tread wear condition, if the intermediate tread depth reaches the specified limit of 1mm, replace the tire;

(4) Carefully inspect the tire's cuts and cracks. If you can see the fabric or rope, replace the tires;

(5) Check and confirm if there are any foreign objects on the tires, and clean and maintain the tires in time;

(6) Check the position of the two stems. If the stem is tilted, it indicates that the inner and outer tires are sliding on the rim.

c. Change the inner tube

If the inner tube is punctured or damaged, you should replace it as soon as possible. A repaired inner tube may not have the same reliability as a new inner tube and will affect your riding. It is recommended to buy original inner tube for replacement.

d. Change the outer tube

The tires we use for matching provide good handling, braking, durability and comfort. If you need to replace, please buy the original tire.

Notice:

When you use an improper tires in the motorcycle will influence the operability and stability. They will cause seriously injury or death, please buy the original tires.

Please refer to the “Maintenance Table” for the specific maintenance period of the inner and outer tires. It is recommended to find a professional person for maintenance or replacement**.**

Eleventh. Batteries

The battery used in this series is a lithium battery. Please charge it with a dedicated charger.

1. Installation of battery

(1) Check the battery voltage with a voltmeter before installation. If the voltage is less than 12.4V, please charge.

(2) The positive and negative wires of the motorcycle are firmly connected to the battery terminals, the red is connected to the positive pole, the black is connected to the negative pole, and the positive and negative reverse connection is strictly prohibited.

2. Charge

(1) The charging voltage of the external charger of the motorcycle should be limited to between 14.0V and 15.0V;

(2) When using the external charger to charge the battery if it doesn't work, please remove the battery from the car and do not charge it directly in the motorcycle;

(3) Please charge with the current matched to the battery;

(4) After external charging, please check the voltage after leaving the battery for one to two hours. If the voltage is less than 12.4V, please continue charging;

(5) Do not use the maintenance charger to protect the battery.

3. Storage

(1) Make sure that when storing the battery it has more than 70 percent electricity left.

(2) The battery should be stored at -20~40 °C in a dry, ventilated environment to avoid contact with corrosive substances, away from high temperatures and flames;

(3) We advise to charge the battery if you have stored it for 90 days.

4. Maintenance

If the battery is not used for more than two weeks, it is better to remove the battery from the motorcycle to prevent the small current on the vehicle from discharging the battery and damaging the battery. Under normal circumstances, a fully charged motorcycle starts the lithium battery for one year or longer, and still reserves enough capacity to start. Therefore, a motorcycle that has no current when the key is in the off state should not need to disconnect the battery from the vehicle. If the voltage is lower than 12.4V during battery storage, please charge it in time.

Notice:

(1) Please do not invade the battery, otherwise it will cause damage to the battery;

(2) Avoid using or storing batteries near high temperatures and flames, otherwise battery and vehicle damage may occur;

(3) Do not install the battery positive or negative in a wrong way, otherwise it may cause damage to the battery as well as the motorcycle;

(4) Please install the battery firmly with matching screws and nuts, otherwise the battery and the motorcycle may be damaged;

(5) Please don’t change or open the battery by humans’ method;

(6) If the battery is found to have odor, heat, deformation, fading of the casing, and all other situations, stop using it. When the battery is in use or during charging, please remove the battery from the motorcycle immediately or disconnect the charger and stop using it.

(7) Please do not mix with batteries of different capacities, types and brands;

(8) When the temperature is under 5 degrees the battery’s performance will be influenced;

(9) Please use all capacities of the battery before you threw it;

(10) The charging voltage should under 15V or the battery will be damaged;

(11) When the motorcycle is in an idle or flameout state, do not turn on the power device for more than five minutes, otherwise the battery may be over-discharged and damaged.

(12) The electrolyte in the battery is harmful to human skin and eyes. If the electrolyte leaking from the battery touches your eyes, please don't lick, rinse immediately with water, and go to the hospital.

Twelfth. Bearings

1. Directional taper bearing

If you always ride in wet, muddy or dusty environments, regularly clean, inspect and lubricate taper bearings is very necessary.

(1) Place a bench under the engine to disengage the front wheels from the ground;

(2) Remove the scoreboard, the front disc brake lower pump, the front shock absorber guard cable clamp, and the front fender mounting screw;

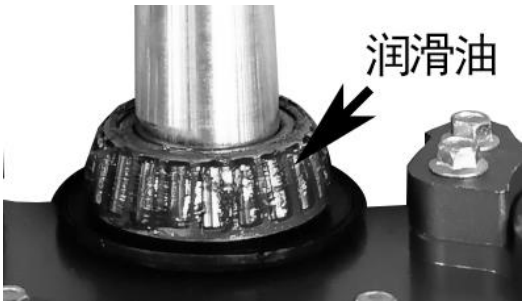
(3) Remove the front wheels;

(4) Loosen the steering gear up and down to lock the locking bolts and remove the front shock absorber;

(5) Remove the pressure block on the direction guide, remove the handlebar assembly, remove the direction column lock nut, take off the upper link plate, loosen the direction column adjustment nut, remove the dust cover and taper bearing, and remove the lower link plate and direction axis;

(6) Clean the taper bearing and the bearing outer ring with diesel oil, check the taper bearing and the bearing outer ring for damage, dents, etc. If necessary, replace the bearing. If the rotation is normal, smooth, and there is no retardation, evenly dry the lubricant and apply the roller of the tapered bearing evenly;

(7) Put the removed materials back in order, lock everything.



Note:

The direction assembly, the handlebar assembly, the front shock absorber assembly and disassembly require a certain degree of mechanical repair capability, and it is best to find a professional to carry out maintenance. It is recommended to carry out maintenance after 2.5 hours of driving or after a game. In case of dusty environment, increase the number of maintenance.

2. Linkage bearing

After 7.5 hours of riding, disassemble, clean, inspect and lubricate all bearings, oil seals and bushings of the triangular rocker and cradle to maintain proper suspension performance and minimize component wear and service life.

(1) Place a bench under the engine to disengage the front wheels from the ground;

(2) Remove the rocker arm mounting bolts in sequence;

(3) Remove the triangular linkage arm and the cradle fork;

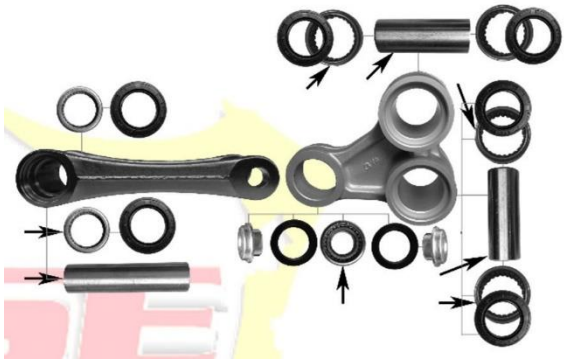
(4) Remove the oil seal, needle bearing and spacer in the linkage arm assembly;

(5) Clean the oil seal, needle bearing and spacer with diesel oil. Check whether there is any damage during cleaning, whether the needle is missing or not, and whether the bearing and the spacer are rusted. If necessary, please replace the bearing and spacer. If the bearing rotates normally, the oil seal is not damaged. After all the parts are dry, apply oil seal, needle bearing and inner bushing evenly with lubricating oil;

(6) Put the removed materials back in order, lock everything.

Note:

When installing the spacer, oil seal and bolt back, do not install the wrong size.



3. Fork bearing

After 7.5 hours of riding, disassemble, clean, inspect, and lubricate all oil seals, bearings, and bushings of the flat fork to maintain proper suspension performance and minimize component wear and service life.

(1) Place a bench under the engine to make the rear wheel off the ground;

(2) Remove the rear wheel and rear disc brakes under the pump;

(3) Remove the mounting bolts of the cradle fork and the triangular linkage arm, and remove the mounting bolts under the shock absorber;

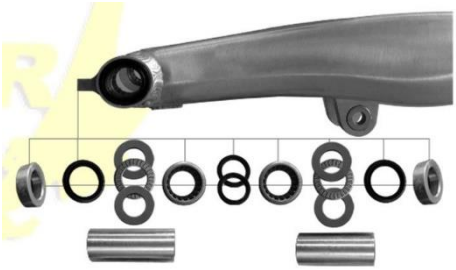
(4) Remove the rear fork to install the shaft and remove the rear fork from the frame;

(5) Clean the oil seal, needle bearing and spacer with diesel oil. Check whether there is any damage during cleaning, whether the needle is missing or not, and whether the bearing and the spacer are rusted. If necessary, please replace the bearing and spacer. If the bearing rotates normally, the oil seal is not damaged. After all the parts are dry, the oil seal, needle bearing and inner bushing are evenly applied with lubricating oil;

(6) Put the removed materials back in order, lock everything.

Note:

When installing the spacer, oil seal and bolt back, do not install the wrong size.



4. Spacer and bearing of front wheel

If you always ride in wet, muddy or dusty environments, regularly clean, inspect and lubricate hub bearings and axle spacers are very necessary.

(1) Place a bench under the engine to make the front wheel off the ground;

(2) Loosen the axle nut, hold the front wheel, pull out the front axle, and remove the front wheel from the front shock absorber;

(3) Remove the axle spacer;

(4) Check the hub bearing for looseness and axial sway. If the rotation is difficult or abnormal, please replace the bearing; clean the front axle, oil seal, bearing, spacer and hub surface, and apply lubricating oil on the oil seal and the axle spacer;

(5) Put the axle cover back, install the front wheel, properly insert the friction plate, install and tighten the front wheel nut.

Note:

Do not operate the brake handle after the front wheel is removed; ensure that the front disc brake disc is not damaged when the front wheel is placed; be sure to ensure that the front disc brake disc contains inorganic oil or grease and clean it with detergent when needed. When putting the axles back, do not reverse the left and right.

5. Spacer and bearing of rear wheel

If you always ride in wet, muddy or dusty environments, regularly clean, inspect and lubricate hub bearings and axle spacers are very necessary.

(1) Place a bench under the engine to make the rear wheel off the ground;

(2) Loosen the axle nut, remove the jack, pull out the axle, move the rear wheel forward, and remove the chain from the rear sprocket;

(3) Secure the rear wheel and pull the axle out. Take the rear wheel out of the rear fork;

(4) Remove the axle sleeve;

(5) Check the hub bearing for looseness and axial sway. If the rotation is difficult or abnormal, please replace the bearing; clean the axle, oil seal, bearing, spacer and hub surface, and apply oil on the oil seal and the axle spacer;

(6) Insert the axle spacer, install the rear wheel, insert the axle, and ensure that the friction plate is properly inserted;

(7) Install the chain, install the jacks, install the nuts, but do not tighten them. Make sure the jack is against the adjusting bolt, check the chain tension and tighten the nut.

Note:

Do not operate the foot brake lever after the rear wheel is disassembled; when placing the rear wheel, ensure that the rear disc brake disc and the rear sprocket are not damaged; be sure to ensure that the rear disc brake disc is filled with inorganic oil or grease, and clean it with detergent when needed. . When putting the axles back together, do not reverse the left and right.

Cleaning work

Cleaning your motorcycle can effectively prevent dirt from getting caught in moving parts. This is the simplest preventive maintenance that checks for damage, wear and oil leaks.

When cleaning a motorcycle with a high-pressure cleaner, the water beam cannot be directly aligned with the electrical parts, plugs, cables, bearings, etc. The minimum distance of 60 cm between the nozzle and the part of the high pressure cleaner must be maintained. Excessive pressure can cause malfunction or damage to parts. It is recommended to use a watering hose for cleaning.

Allow high temperature components such as the engine, exhaust pipe, and exhaust pipe to cool before cleaning. To avoid water seepage, seal the exhaust system.

(1) Rinse the motorcycle thoroughly with a garden hose to remove loose dirt;

(2) Add cold water to the barrel and mix it in a mild neutral detergent such as detergent or a product specially used to wash motorcycles or cars;

(3) Clean the motorcycle with a sponge or a soft towel. When washing, clean up heavy dirt. Use a mild detergent/degreaser to remove dirt if necessary;

(4) After cleaning, rinse the motorcycle thoroughly with plenty of water to remove residue. Residual detergent can corrode alloy parts;

(8) Dry the motorcycle with a suede or soft towel. Leave the water on the surface to air dry and cause dullness and water spots. After drying, check for damage and scratches;

(9) After the motorcycle is dry, lubricate all sliding parts and bearing parts to prevent rust;

(10) Start the engine and let it idle for a few minutes. The heat of the engine helps to dry the damp area;

(11) As a precaution, ride at low speed and brake multiple times. This will help dry the brakes and restore normal braking performance.

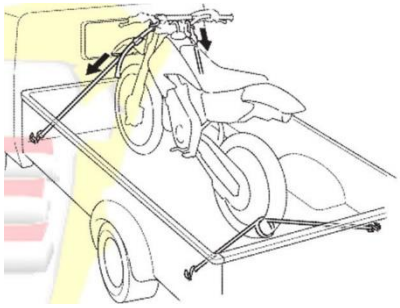
Transporting

If you use a truck or motorcycle trailer to transport, we recommend that you follow the guidelines

(1) Use the loading ramp

(2) Discharge the gasoline in the oil can and the carburetor

(3) Use a motorcycle strap to secure the motorcycle in an upright position. Avoid using ropes, the ropes will loosen and the motorcycle will be turned over



To secure the motorcycle, secure the front wheel to the front of the truck bed or trailer rail. Attach the lower ends of the two straps to the tether hooks on the truck chassis or trailer rails. Attach the upper end of the strap to the handlebars (one on the right side and the other on the left side), close to the front shock absorber.

Check that the strap is in contact with any control cables or wires. Tighten the two straps until the front shock absorber is compressed by approximately half. Too much pressure is not necessary and may cause damage to the seal. Use another strap to prevent the motorcycle from moving backwards. We recommend that you do not transport the side of the motorcycle. This can damage the motorcycle and the leaked gasoline can be dangerous.

Storage

If you do not use your motorcycle for a long time in winter or in other seasons, thoroughly check your motorcycle and solve the problem before storing it. To reduce or prevent problems that may occur during the storage period, please follow the guidelines:

(1) Thoroughly clean all parts of the motorcycle. If your motorcycle is exposed to sea water or salt water, rinse it off with water and dry it;

(2) Change the engine oil and oil filter;

(3) Remove the water pump cover and coolant drain bolts and gaskets to drain the coolant;

(4) Lubricant the chain;

(5) Discharge the oil in the oil tank and carburetor;

(6) Make sure the pressure of tires is in a suitable state;

(7) Place the motorcycle on a support frame or equivalent and lift the two tires off the ground;

(8) Insert the rag into the outlet of the exhaust, and then attach a plastic bag to the end of the exhaust to prevent moisture from entering;

(9) Store the motorcycle in an area that avoids moisture, away from sunlight, and has a small daily temperature change;

(10) Cover the motorcycle with a porous material. Avoid using plastic or similar non-respiratory coating materials.

Reuse:

(1) Uncover the dust cloth and clean the motorcycle. If it is stored for more than 4 months, the engine oil needs to be replaced;

(2) Uncover the plastic bag at the end of the exhaust tube and remove the rag from the outlet of the exhaust tube;

(3) Add the oil which we recommended into the oil tank;

(4) Pour the recommended coolant into the tank filling hole, the liquid level position is up to standard;

(5) Perform all maintenance checks.

Troubleshooting

Error	Cause	How to solve
The engine can't rotate	Wrong starting operation	use a right way
	Battery discharging	1. Charge the battery 2. Check the charge volt 3. Find the reason of discharge
	Fuse blown	Change the fuse
	Start failure	Check the starter
The engine can rotate but can't start	Wrong operation	use a right way
	Some old oil was left in carburetor	Clean the carburetor
	Fuel supply interruption	1. Check the vent of oil tank 2. Clean the carburetor
	Spark plug carbon or moisture	Clean and dry the spark plug change it if necessary
	Spark plug electrode gap is too long	Adjust the gap
	Something wrong with cable or electrical device	1. Check the cable 2. Check the electrical device
	CDI oxidation or poor contact	Clean the connector of CDI
	Fuse blown	Change the fuse
	Blockage of carburetor nozzle	Clean the carburetor
Rotating speed of engine can't increase	Something wrong with ignition	1. Check the ignition coil 2. Check the electrode stator winding 3. Check the high voltage package plug
	Carburetor floating needle dirty or worn	Check the carburetor
Power of engine is too low	Air filter is seriously dirty	Clean the air filter
	Oil filter is seriously dirty	Change the oil filter
	Gap of valve is too big or small	Adjust the valve gap
	The exhaust system is not sealed, deformed or the filler in the exhaust pipe is too small	1. Check the exhaust system 2. Replace the filler in the exhaust cylinder

	Something wrong with ignition	1. Check the ignition coil 2. Check the electrode stator winding 3. Check the high voltage package plug
The engine was stopped while working	Lack of fuel	Add the fuel
	Fuse blown	Change the fuse
The engine is too hot	The cooling water is decreasing in cooling system	1. Check if the cooling system leaks 2. Check the cooling water lever
	Driving wind is too small	Stop the engine
	The heat sink is seriously dirty	Clean the heat sink
	Foam formed in the cooling system	1. Pull out the cooling water 2. Add the cooling water
	Water pipe was bended	Change the water pipe
	Something wrong with the thermal controller	Change the thermal controller
	Radiator fan is damaged	Check the Radiator fan

Warranty regulations

Our company stipulates that the warranty period is from the date of purchase (applied to the local dealer for sale after valid registration certificate). From the date of purchase, (providing effective vehicle information and customer information to be sent to the company). The dealer or customer's after-sales information card, our company does not guarantee, please read carefully by the business and users.

Warranty range

(1) The engine is the core component of the motorcycle. From the date of purchase (subject to the purchase invoice or other valid and valid evidence), within the warranty period or within the warranty mileage, it is based on a single item. Exceed one of them, no warranty, and paid service.

(2) Within one year of purchase, if there is a problem with the main frame, rear tail frame and rear fork, the factory is responsible for repair or replacement.

(3) After purchasing the motorcycle for six months, if there is a problem with the upper and lower plates and the upper and lower pressure blocks, the factory is responsible for repair or replacement.

(4) After three months of purchase, the rim assembly, engine, shock absorber, carburetor, igniter, high voltage package, rectifier, relay, and main cable have problems, the factory is responsible for repair or replacement.

NO.	Part name	Warranty/change standard	Can't change standard	Warranty period
1	Frame	Disordering, fracture	1. Deformation or damage due to human or improper use 2. Surface scratches caused by human. 3. User modified or self-processed 4. caused by traffic accidents	1 year
2	Rear fork	Disordering, fracture	1. Deformation or damage due to human or improper use 2. User modified or self-processed 3. caused by traffic accidents 4. Serious missing parts	1 year

3	Upper and lower board	Disordering, fracture	1. Deformation or damage due to human or improper use 2. caused by traffic accidents	6 months
4	Direction axis	The direction axis and the lower plate fall off or break	1. Deformation or damage due to human or improper use 2. caused by traffic accidents	6 months
5	Hub assembly	1. Broken due to the hub 2. Flange weld breaks and disordering	1. Deformation of the rim due to improper maintenance. 2. Damaged of overload 3. Bearing damage (replacement of bearings)	3 months
6	Engine	(product use) special engine for competitive off-road vehicles, mechanical failure (maintenance)	1. Damage caused by improper operation or maintenance 2. Spark plugs, piston rings, clutches are consumables	3 months
7	Ignition	No high speed or idle speed, internal short circuit, scattered fire	1. Tested showed that it is normal 2. Dismantled by itself	3 months
8	carburetor		No high speed, oil cut, oil spill	3 months
9	Rectifier	Internal damage, no voltage regulation, no DC output, high supply voltage	1. Tested showed that it is normal 2. Dismantled by itself	3 months
10	Relay	Battery coil short circuit, open circuit	1. Tested showed that it is normal 2. Dismantled by itself	3 months
11	High voltage package	No fire, broken fire, weak fire, leakage	1. Tested showed that it is normal 2. Dismantled by itself	3 months
12	Main cable	1. The new car is unpacked and grounded (the main cable is grounded instead of other electrical components, and the	1. Modify cables or damage yourself 2. Cable surface wear, not normal structural problems	3 months

		molded sheath is checked for slipping) 2. Short circuit, open circuit, and ablation cannot be repaired due to grounding during use. 3. The cable itself is not caused by improper installation		
13	Front and rear shock	1. The front shock absorber is normally used, and the bottom tube fork tube is broken. 2. The front shock absorbing oil seal is seriously leaking oil (replace the oil seal) 3. The front shock absorber fork tube is rusted, strained, and the large area falls off causing oil leakage. 4. Rear shock absorption oil leakage (replacement oil seal), joint disordering 5. Rear shock absorber damper piston link broken, damper stuck 6. There is a shock in	1. Improper use causes obvious internal rod scars and oil leakage 2. The original parts are replaced privately and cannot be recovered if they are disassembled. 3. Damage caused by improper packaging during the return process 4. Rear shock absorber is obviously bruised 5. Due to human factors, the shock absorption is too soft or too hard 6. Self-installing the rear shelf, causing the rear shock absorber link to deflect and causing oil leakage 7. Anyone who can replace the oil seal to solve the oil leakage cannot replace the assembly. 8. Caused by traffic accidents	3 months

		the shock absorber		

Warranty principle

(1) The company produces non-road competitive off-road motorcycles. Due to the quality problems caused by the materials and manufacturing defects of the original parts, the company will give the free warranty according to the scope and time limit indicated in the warranty regulations.

(2) The warranty is adjusted, repaired or replaced with new parts. All parts replaced by the warranty are owned by the company.

Paid service description

(1) Motorcycle that has exceeded the warranty period

(2) Consumable parts are not covered by the warranty. Consumable parts include: spark plugs, oil filters, chains, gears, air filters, friction plates, clutch plates, fuses, tires, hoses, control cables and other rubber parts.

(3) Lubricant (such as oil, grease, etc.) and technically used liquids (such as coolant, etc.)

(4) Damaged or corroded by external influences (such as gravel, road salt, industrial emissions, and other environmental influences or cleaning with improper cleaning agents)

(5) Any aesthetic or acoustic effects that do not affect or have a minor impact on the use of the motorcycle (such as concealed sputum); poor perception of mechanical properties and performance (such as sound, vibration, heat, etc.)

(6) Damage caused by improper maintenance by a maintenance unit designated by our company (or authorized)

(7) Failure caused by the use of original parts not specified by our company

(8) Erase and modify the frame number and engine number

(9) User's own disassembly, modification, improper use, poor storage and damage caused by violation of maintenance regulations

(10) All secondary damage caused by malfunctions and expenses incurred directly or indirectly due to manufacturer's warranty (such as communication fees, accommodation, public transportation, etc.) and other financial losses (such as loss of income, loss of time, and other losses due to work stoppages)

(11) The agent or the dealer promises to the user that it exceeds the scope of the agreement with the two parties or exceeds the provisions of this regulation.

(12) Aging (such as lacquered or metal-coated surface fading)

(13) Damage to parts caused by traffic accidents, natural disasters or other external causes

(14) Motorcycles sold at processing price

(15) User registration information does not match the vehicle model, frame number, and engine number;

Note: The final interpretation of this warranty is owned by Zhejiang Boswell Sports Equipment Co., Ltd.

Technical Parameters

2018 M2	
Engine	
Engine	250cc, water cooled, single cylinder, 4 stroke, kick/electrical start
Bore diameter* stroke	77mm*53.6mm
Press ratio	11.6:1
Valve structure	Single overhead cam 4 valves
Oil supply form	PWK34 carburetor
Ignition way	DC-CDI
Maximum power	19kw/9000rpm
Maximum torque	23N.m/7000rpm
Economic fuel consumption	≤354g/kwh
Transmission system	
Gear box	6 speed, international
Final transmission	#520 chain; 13T/52T
Fuel	
Tank capacity	6.5L
Cooling water	
Tank capacity	1L
wheel	
Front wheel	Deep teeth 80/100 21
Rear wheel	Deep teeth 100/90 18
Rim	
Front rim	CNC hub 7 series aluminum rim 1.60*21
Rear rim	CNC hub 7 series aluminum rim 2.15*18
Frame	
Frame	Cradle type high strength aluminum alloy
Rear fork	Knife shape high strength aluminum alloy 18 inch
Handlebar	7 series aluminum alloy, variable diameter φ28.5mm
Directional device	7 series CNC aluminum alloy
Front shock	MOJO 930*53*58, adjustable in two-way damping
Rear shock	MOJO 480mm, External airbag, adjustable in two-way damping

Front brake	240mm disc brake, double piston caliper
Rear brake	240mm disc brake, single piston caliper
Size	
Axis distance	1450mm
Seat height	940mm
Distance from the ground	290mm
Length*width*height	2170*820*1270
Net weight	116±1kg
Maximum load	90kg

2018 M4	
Engine	
Engine	250cc, water cooled, single cylinder, 4 stroke, kick/electrical start
Bore diameter* stroke	77mm*53.6mm
Press ratio	11.6:1
Valve structure	Single overhead cam 4 valves
Oil supply form	PWK34 carburetor
Ignition way	DC-CDI
Maximum power	19kw/9000rpm
Maximum torque	23N.m/7000rpm
Economic fuel consumption	≤354g/kwh
Transmission system	
Gear box	6 speed, international
Final transmission	#520 chain; 13T/52T
Fuel	
Tank capacity	6.5L
Cooling water	
Tank capacity	1L
wheel	
Front wheel	Deep teeth 80/100 21
Rear wheel	Deep teeth 100/90 19
Rim	
Front rim	CNC hub 7 series aluminum rim 1.60*21

Rear rim	CNC hub 7 series aluminum rim 2.15*19
Frame	
Frame	Cradle type high strength aluminum alloy
Rear fork	Knife shape high strength aluminum alloy 18 inch
Handlebar	7 series aluminum alloy, variable diameter φ28.5mm
Directional device	7 series CNC aluminum alloy
Front shock	MOJO 930*54*60, adjustable in two-way damping
Rear shock	MOJO 480mm, External airbag, adjustable in two-way damping
Front brake	240mm disc brake, double piston caliper
Rear brake	240mm disc brake, single piston caliper
Size	
Axis distance	1450mm
Seat height	940mm
Distance from the ground	290mm
Length*width*height	2170*820*1270
Net weight	116±1kg
Maximum load	90kg

Wiring diagram