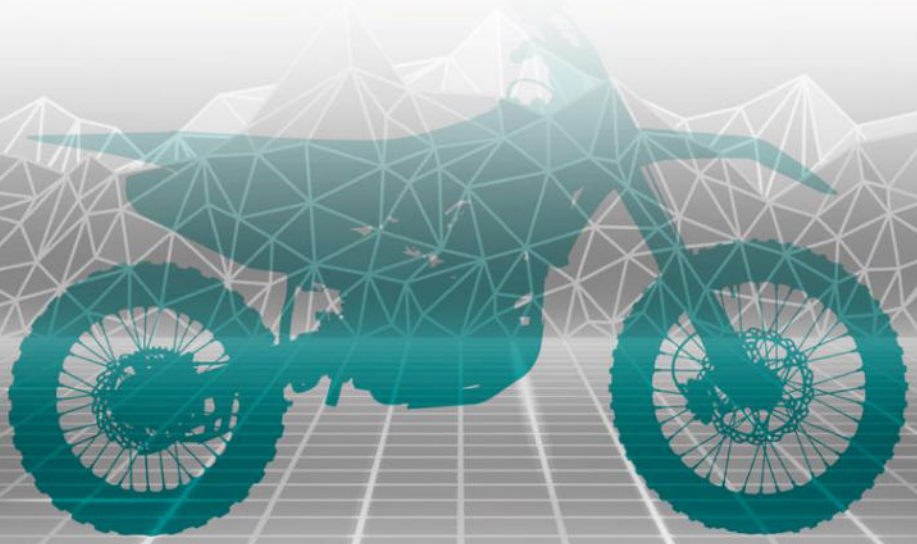
ZKOVE

MX250
OFF ROAD



INSTRUCTION MANUAL

To Owners

MX250 Motorcycle Owner's Manual

First Version（April, 2023）

First of all, congratulations on purchasing the brand new KOVE motorcycle! By choosing KOVE product, you have become a member of the KOVE motorcycle family.

The Owner's Manual provides an introduction to the main specifications, basic structure, adjustment methods, and maintenance knowledge of the motorcycle. It will guide you to master the basic operations of the motorcycle, as well as troubleshooting or reducing common issues, ensuring driving safety, optimizing vehicle performance, and improve the service life of the motorcycle.

This manual contains an introduction to the basic configuration of the motorcycle. The contents and images are for reference only. Please refer to the actual product for accuracy.

Actual vehicle may differ from the information provided in this manual due to factors such as manufacturing time, user requirements, and design improvements, etc., KOVE reserves the right to make changes without notice and without any obligation. We apologize for any inconvenience and appreciate your understanding.

The Owner's Manual is an important component of the vehicle and must be handed over to the new owner if the vehicle is sold.

This manual is copyrighted by KOVE. Reproduction without written consent from KOVE is strictly prohibited and will be subject to legal action.

To ensure your safety and increase your riding pleasure：

- Please read the Owner's Manual carefully;
- Please follow all recommendations and procedures in the manual;
- Please pay more attention to the safety information and warning labels in the manual and the one posted on the motorcycle.

Security precautions

This Motorcycle is a off-road motorcycle, only in the professional track riding. It is illegal to ride on public streets or public roads.

Your safety and the safety of others is important, and riding this motorcycle safely is an important responsibility, **the rider must have some physical fitness and off-road riding experience.**

To assist you in making informed decisions regarding safety, we have provided operating procedures and other information on the safety labels and in the Owner's Manual. These serve as reminders of potential hazards that could cause harm to you or others

Of course, it is impractical for us to list all the dangers associated with riding and maintaining a motorcycle. You must make the correct judgment personally.

Do not install additional electrical devices, as the vehicle's lithium battery has limited capacity, and adding such devices may lead to battery depletion.

You will encounter various forms of important safety information, including:

- Safety label on the body of the motorcycle；
- The safety message is preceded by a safety warning symbol ⚠ and one of the following three warnings: CAUTION, DANGER, WARNING.

The meanings of the three warning phrases are shown below：

CAUTION **-if you do not follow the instructions, you may be injured.**

DANGER **-if you do not follow the instructions, it will result in serious injury or death.**

WARNING **-if you do not follow the instructions, it will result in serious injury or death.**

Additional important information is listed below the following headings：

Note -Information to help you avoid damage to your motorcycle, other property or the environment.

TABLE OF CONTENTS

SAFETY ADVICE

This section contains important information for safe motorcycle riding, please read this section carefully.

Safety Guide

To enhance your riding safey, please follow the following guidelines:

- Perform all daily and routine checks specified in the owner's manual.
- Before refilling the fuel tank, turn off the engine and keep it away from sparks and open flames.
- Check critial nuts and bolts for tightness after trail riding.。
- Don't start the engine in a confined or semi-confined space because the exhaust gases contain carbon monoxide, a toxic gas that can be fatal.

Before Riding

Ensure you are in good physical condition, fully attentive, and free from alcohol or drug consumption. Wear a certified motorcycle helmet and protective clothing, keep your hands on the handlebars and your feet on the pedals, and lean your body when turning, even when the motorcycle is stopped.

Take the time to learn and practice

Even if you have experience riding other motorcycles, it is essential to practice riding the motorcycle in a safe area. This will help you become familiar with its operation, handling, and adapt to its size and weight.

Be aware of protection when riding a bike

Always be mindful of the vehicles around you. Never assume that other drivers can see you. Be prepared for emergency braking or evasive maneuvers at any time.

Do not carry passengers

This motorcycle is designed and constructed to be ridden by the rider only, never carry a passenger, carrying a passenger could result in an accident and you and others could be injured.

Make yourself easily seen

Especially at night, wear bright reflective clothing to make yourself more visible, stop where other drivers can see you.

Do not drink and ride

Alcohol and riding are never compatible. Never ride beyond your personal capacity or exceed the speed limit set by your bike; fatigue and negligence will impair your ability to make good judgments and drive safely.

Keep your motorcycle in safe condition

It is important to keep your motorcycle in good condition at all times; check your motorcycle before each ride and complete all recommended maintenance and repairs. **Do not modify your motorcycle or add accessories that would affect safety, and strictly prohibit overloading.**

Dealing with unexpected situation

Your personal safety is your first priority. If you or anyone else is injured, you should first carefully assess the severity of the injury and determine whether it is safe to continue riding. If necessary, call for emergency assistance. When other people or motorcycles are involved in a collision, you should also follow the laws and regulations that apply.

If you decide to continue riding, turn off the engine, then assess the condition of the motorcycle, check for oil leaks, check that critical nuts and bolts are tight, and check the steering handle, steering column, brakes, and wheels to make sure that the person and the vehicle are in a safe condition, and then ride slowly and cautiously.

Your motorcycle may have sustained damage that is not immediately apparent, so please take it to an authorized KOVE repair shop or a qualified repair store for a thorough inspection as soon as possible.

Carbon monoxide hazards

The exhaust contains toxic carbon monoxide, a colorless and odorless gas that can cause unconsciousness and may even be fatal if inhaled.

If you start your engine in a confined or semi-confined space, the air you inhale may contain dangerous amounts of carbon monoxide. Never start the engine in a garage or other confined space.

WARNING

- Running a motorcycle engine in a confined or semi-confined space can lead to a rapid build-up of toxic carbon monoxide gas.
- Inhalation of this colorless and odorless gas can cause rapid loss of consciousness and death.
- Start the motorcycle engine only in a well-ventilated outdoor area.

Safety Precautions

- Only rider, do not carry passenger.
- Keep your hands on the handlebars and your feet on the footrest.
- Always be safe on the road and try to stay away from all kinds of vehicles.
- Make sure you always wear a certified off-road helmet and related protective gear.

WARNING

- Not wearing a full face helmet increases the chances of serious injury or death in an accident.

Riding instructions

Break-in period

During the first 5 hours of riding time, ride carefully and avoid full throttle starts or rapid acceleration to ensure the reliability and performance of the motorcycle later in the lifetime.

Brake

Follow these guidelines:

- Avoid excessive emergency braking and downshifting
  - Sudden braking can reduce the stability of your motorcycle
  - Slow down before you turn, otherwise you will risk slipping.
- Always ride carefully on slippery roads
  - Tires on such surfaces are more likely to skid and require longer braking distances.
- Avoid continuous braking
  - When going downhill on long and steep slopes, repeated braking will cause the brakes to seriously overheat and affect the braking effect, so the brakes should be used intermittently to slow down with the help of engine braking.
- Using both front and rear brakes can achieve complete braking effect.

Engine Brake

When you release the throttle, the engine brake will help the motorcycle slow down. If you want to slow down even more, you can downshift to a lower gear; when going downhill on long and steep slopes, you should slow down with the help of the engine brake and use the brake intermittently.

Wet and rainy conditions

In wet and rainy conditions, the road will be slippery and wet brakes will reduce braking efficiency, so be extra careful when braking. If the brakes are wet, you can intermittently and repeatedly brake while driving at low speeds, which helps to dry the brakes quickly.

Parking

- Park on a solid and flat surface.
- If you must park on a slightly sloped or loose surface, make sure it is firmly parked and that the motorcycle cannot move or tip over.
- Make sure that hot parts do not come into contact with flammable materials.
- Do not touch the engine, muffler, brakes and other hot parts until they have cooled down.
- To avoid the possibility of theft, always lock your vehicle before leaving it unattended.
- You can use other devices such as parking racks or maintenance brackets to park your bike.

Refueling/Brake Fluid and Fuel Guide

Follow these guidelines to protect your engine and catalytic converter：

- Use only 95# and higher unleaded gasoline.
- High octane gasoline is recommended; use of lower octane gasoline will reduce engine performance.
- Ethanol gasoline is not recommended; using ethanol gasoline can reduce engine performance.
- Do not use spoiled or contaminated gasoline, or oil-gasoline mixtures.
- Prevent dirt and water from entering the fuel tank.
- Brake fluid has a corrosive effect. When adding it, be sure to avoid splashing in the eyes, adhering to the skin and avoiding contact with non-metallic materials of the vehicle.

Accessories and modifications

We strongly recommend that you do not add accessories to your motorcycle other than those designed specifically for your motorcycle by KOVE, and do not modify the original design of your motorcycle, as doing so may render it unsafe.

It is prohibited to attach a trailer or add a straddle bucket to your motorcycle; it is prohibited to modify or add other equipment at the engine mounting point. Your motorcycle is not designed for these accessories and their use can seriously damage the handling and safety of the motorcycle.

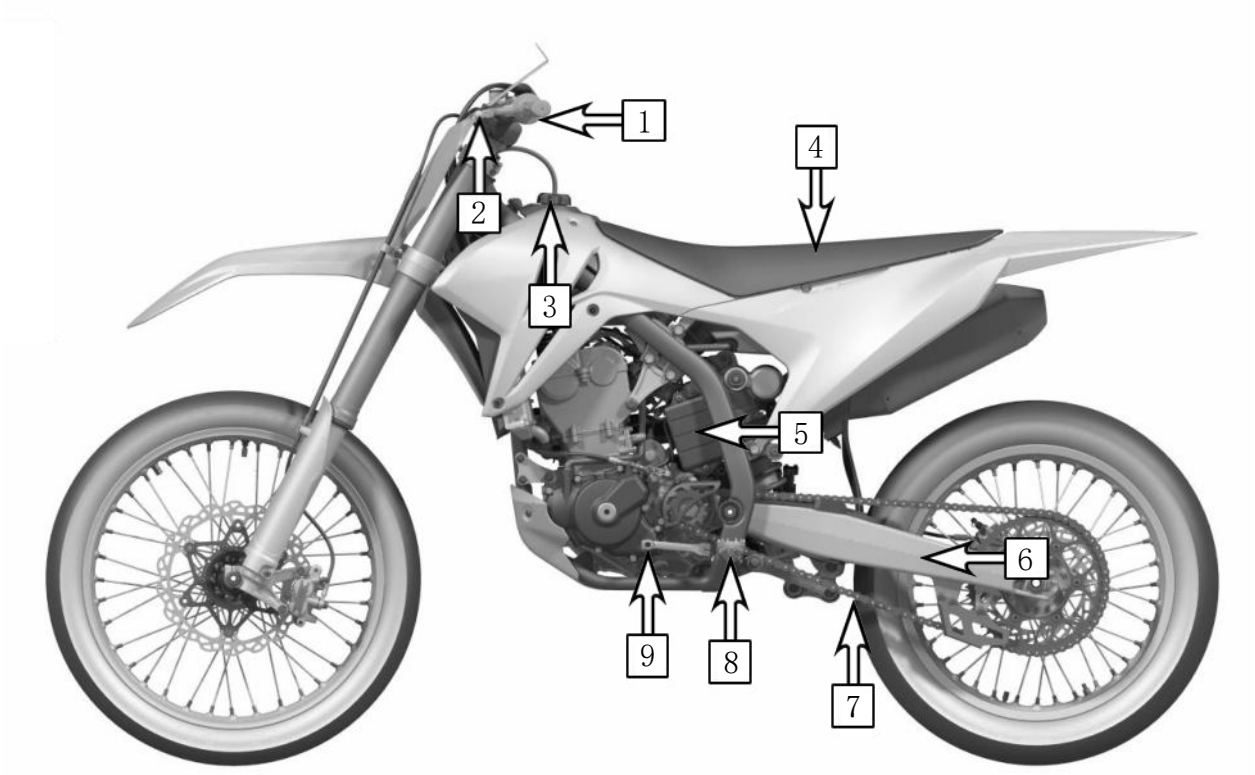
⚠ WARNING

- Overloading or improper loading can lead to accidents and serious injury or death.
- Please follow the loading instructions in the instruction manual for loading.

CONTROLS

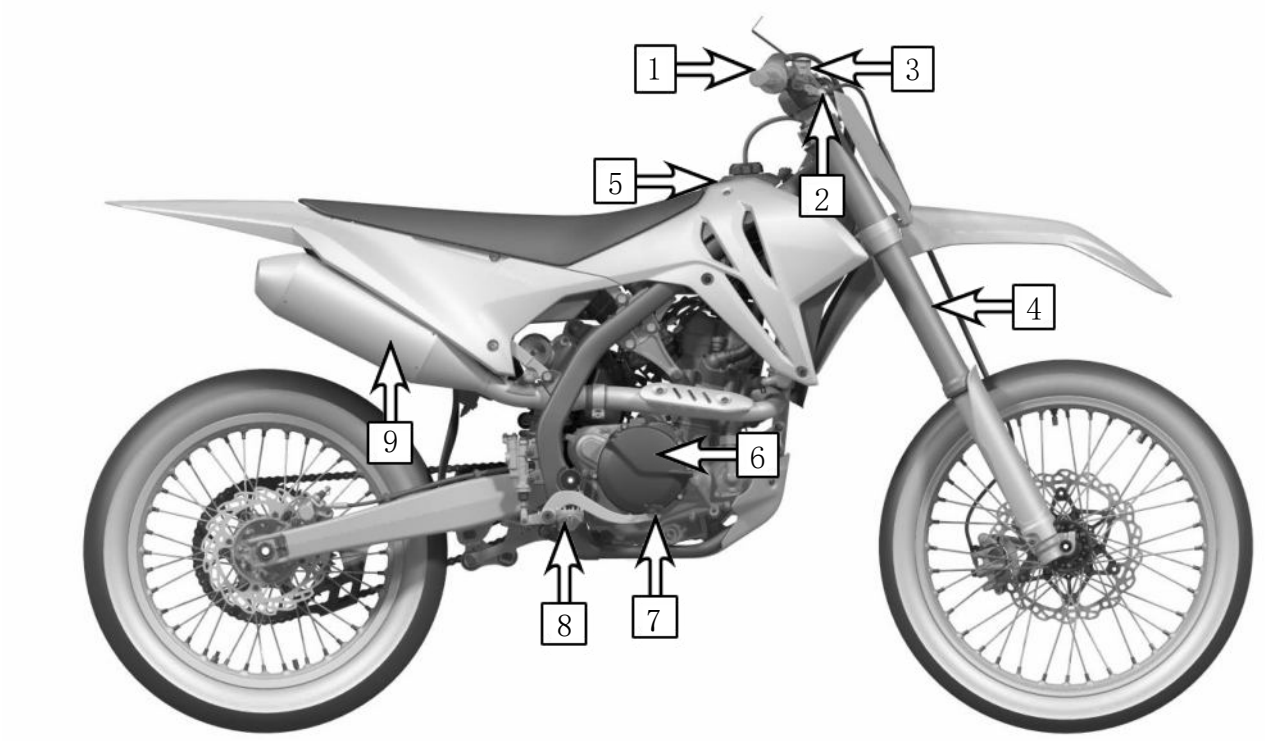
This section contains important information on the operation of motorcycle use, please read this section carefully.

View of vehicle, left (example)



1.Left handlebar switch 2.Clutch lever 3.Fuel tank cap 4.Seat 5.Battery 6.Swingarm 7.Chain 8.Left footrest 9.Shift pedal

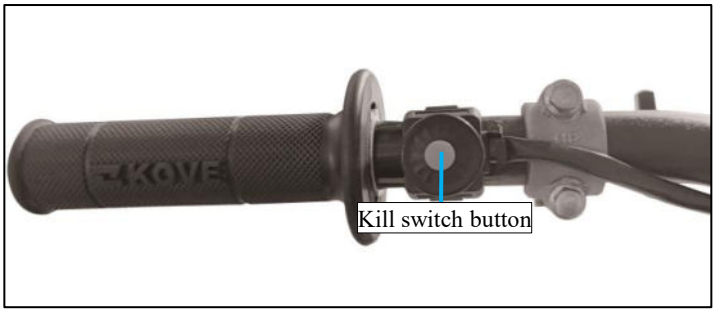
View of vehicle, right (example)



1.Right handle switch 2.Front brake lever 3.Front brake fluid reservoir 4.Front fork 5.Fuel tank 6.Engine
7.Rear brake pedal 8.Right footrest 9.Muffler

Switch

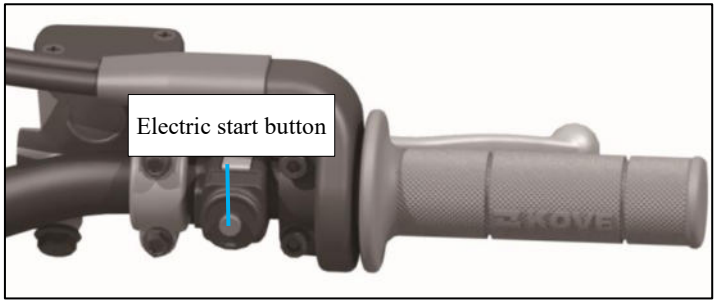
Left handlebar switch



Kill switch button：
The kill switch button is located on the left side of the handlebar.

Push the kill switch button - Disconnect the ignition circuit and shut down the engine.

Right handlebar switch



Electric start button：
The electric start button is located on the right side of the handlebar and is pressed to start the engine.

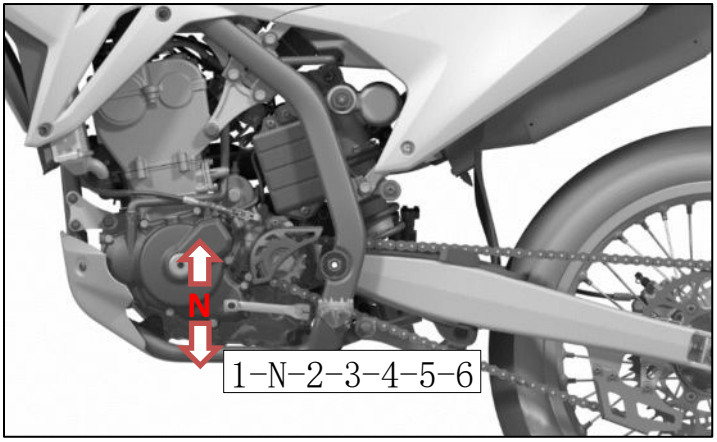
If the engine doesn't start：
If the engine does not start within 3 seconds, wait 10 seconds and then press the electric start switch button repeatedly.

Note

- Prolonged periods of high-rpm idling and revving can damage the engine and exhaust system.
- Rapidly opening the throttle or idling at high-rpm for more than 5 minutes may cause discoloration of the exhaust pipe.
- If the throttle is fully open, the engine will not start.
- If the gear is not in neutral at startup, pull the clutch lever.

Shifting

Your motorcycle has 6 forward gears and uses a 1-down, 5-up shifting pattern.



Shifting method:

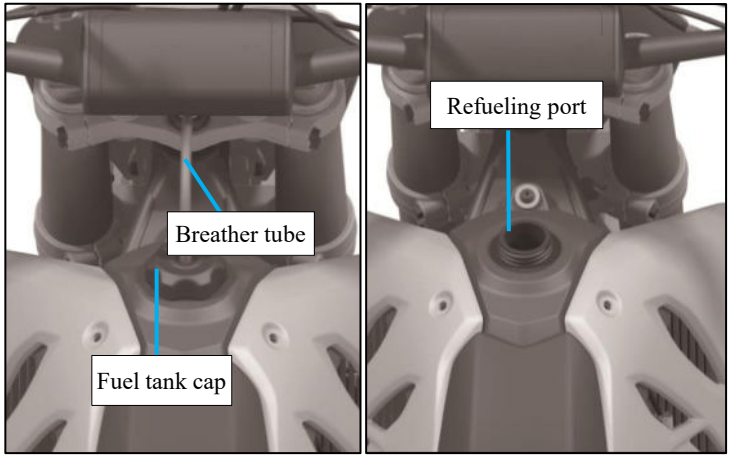
Warm up the engine to ensure it is running normally.

1. With the engine at idle, disengage the clutch and press down on the shift lever to shift into the first gear.
2. Gradually increase the engine rpm and slowly release the clutch lever, coordinating these two actions to ensure a smooth start.
3. Once the motorcycle reaches a balanced riding state, reduce the engine rpm, disengage the clutch, and shift up by lifting the shift lever to enter the second gear. Repeat this process for subsequent gears.

Points to note while riding:

1. Avoid unnecessary engine revving and never allow the engine to idle at high rpms, as it can cause serious damage to the engine components.
2. Riding with the clutch partially engaged will quickly wear out the clutch plates.
3. When climbing a slope and feeling a lack of engine power, promptly shift to a lower gear.
4. In steep slopes, curves, or situations that may lead to loss of control, it is not allowed to use the front brake alone or coast in neutral. It is also prohibited to ride with hands off the handlebar.
5. When parking, reduce the throttle, disengage the clutch, and then apply the brakes.

Refueling



Open the cap： rotate counterclockwise.

Close the cap： turn and tighten the cap clockwise, the breather tube cannot be twisted during the tightening process.

When filling fuel：

After stopping using the side stand bracket, open the fuel tank cap for filling, and after refueling, close the fuel cap.

- Fuel tank capacity 5L, recommended to use 95# and above unleaded gasoline.
- Avoid overfilling the tank, pay attention to the fuel level during the filling process, it is recommended to fill no more than 90% of the total capacity of the fuel tank (to avoid fuel expansion due to heat).

WARNING

- When refueling, please do it outdoors, be sure to turn off the engine, keep away from heat, sparks or open flames, and wipe clean immediately if splashed.

Maintenance

Please read the "Maintenance" and "Pre-ride inspection" carefully before performing any maintenance tasks. For repair data, please refer to the "Technical Data".

IMPORTANT NOTES

The importance of maintenance

It's important to keep your motorcycle in good service condition, which is essential for your safety, as well as protecting your property, getting the best performance, preventing breakdowns and mitigating air pollution.

Maintenance is an important responsibility of motorcycle owners, ensuring that inspections are carried out before each ride and that regular inspections are carried out as described in the maintenance cycle table.

Safety of maintenance

Read the maintenance instructions before each service to ensure you have the necessary tools, parts and skills. We cannot alert you to every hazard that may arise during maintenance. Only you can decide if you should have maintenance or repairs done.

Follow these guidelines for maintenance:

- Turn off the engine.
- Park the motorcycle on a firm and level surface and support it with a maintenance stand.
- Please wait for the engine, muffler, brake, and other hot parts to cool down before starting operation, otherwise it may cause burns.
- Please start the engine under specified circumstances and in a well-ventilated environment.

WARNING

- Failure to perform proper maintenance prior to riding or to properly remove malfunctions may result in serious injury or fatal accidents.
- Follow the inspection, maintenance recommendations and maintenance cycle table provided in the owner's manual.

MAINTENANCE SCHEDULE-1

The motorcycle should be maintained within the specified time, and for safety, it should only be serviced by the KOVE repair shop.

The symbols in the table have the following meanings:

I: Inspection, cleaning, adjustment R: replacement A: adjustment L: lubrication

Items \ Times	Remark	Each race/about 2.5h	Every 3 races/about 7.5h	Every 6 races/about 15h	Every 9 races/about 22.5h	Every 12 races/about 30h
Fuel line	Note 6	I				R
Fuel filter	Note 6					R
Throttle operation system		I				
Air filter element	Note 1	C				
Crankcase vent pipe		I				
Spark plug		I				
Valve clearance/relief valve	Note 4			I		
Engine oil	Note 3、5	I		R		
Engine oil filter	Note 3			R		
Engine idle		I				
Piston and piston ring				R		
Piston pin				R		
Radiator coolant	Note 2	I				
Cooling system		I				
Drive chain		I、L	R			
Drive chain slider		I				
Drive chain roller		I				
Sprocket		I				
Driven sprocket		I				

This maintenance schedule is based on average riding conditions and should be maintained more frequently if the bike is regularly used in adverse conditions.

Note：

1. Clean motorcycle after each preliminary round/race.
2. Replace every two years, requires mechanical skills.
3. Replace after first break-in.
4. Inspect after the first break-in.
5. Change engine oil if clutch or clutch plate is replaced.
6. Replace once a year.
7. Use original parts

MAINTENANCE SCHEDULE-2

The motorcycle should be maintained within the specified time, and for safety, it should only be serviced by the KOVE repair shop.

The symbols in the table have the following meanings:

I：Inspection, cleaning, adjustment R：Replacement C: Cleaning L：Lubrication

Items \ Times	Remark	Each race/About 2.5h	Every 3 races/About 7.5h	Every 6 races/About 15h	Every 9 races/About 22.5h	Every 12 races/About 30h
Brake fluid	Note 2	I				
Brake pad wear		I				
Brake System		I				
Clutch System	Note 5	I				
Cable		I、L				
Muffler		I				
Suspension		I				
Swingarm/rear suspension linkage			L			
Shock absorber oil	Note 3				R	
Nuts, bolts, fasteners		I				
Wheel/tire		I				
Steering colume bearing					I	

This maintenance schedule is based on average riding conditions and should be maintained more frequently if the bike is regularly used in adverse conditions.

Note：

1. Clean motorcycle after each prelim/race.
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5. Change engine oil if clutch or clutch plate is replaced.
6. Replace once a year.
7. Use original parts

Service Personnel：_____

User Signature：_____

Date：_____

PRE-RIDE INSPECTION

To ensure safety, it is your responsibility to conduct a pre-ride inspection and ensure that any problems you find have been corrected. A pre-ride check is required.

Items	Content
Handlebar	Check for smooth rotation, no play, and tightness.
Brake system	Inspect its operation, check the front and rear brake fluid levels, and brake pad wear.
Fuel level	Ensure you have enough fuel for your race (refuel if necessary).
Throttle	Check if it opens smoothly and fully closes at all turning positions.
Clutch	Inspect its operation and adjust the free travel if necessary.
Wheels and tires	Check their condition and tire pressure, if necessary, please inflate the tires.
Drive chain	Check its condition and sag status, adjust and lubricate if necessary.
Cooling system	Check coolant level and radiator operation for proper functioning.
Oil level	Add engine oil if necessary and check for any leaks.

REPLACING

Battery

▌Check and replace the battery

1. Before installing the battery, if you notice any dirt or debris on the terminals, wipe them clean before installing. Poor contact due to dirt can cause functional failure.
2. If the battery is deformed, abnormally heated, smoked and other abnormal phenomena during use, please stop using it immediately and go to the KOVE repair shop in time for investigation.
3. If the battery is placed in a high temperature and humid environment for a long time, there may be a functional failure, life-shortening, etc., before using it again, please ensure that the appearance and function of the battery are normal before installation and use.
4. If the motocycle fails to start, please check whether the battery is normal, if the battery is damaged, please replace it in time.
5. When installing the battery, make sure to securely tighten the battery terminal bolts.

▌If the battery has not been used for a long time, please pay attention to the following situations:

- To prevent excessive discharge, charge the battery every two months.
- Store the battery in a cool, dry place and prevent short-circuiting between the positive and negative terminals.

Note

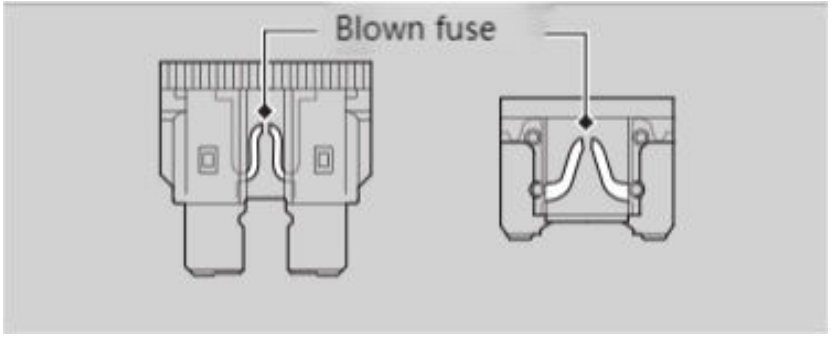
- Improper disposal of batteries may cause harm to the environment and human health, please dispose of disposed of batteries in accordance with local environmental protection regulations.
- Installing additional electrical components can lead to battery drain and even electrical system failures.

Fuse

Fuses protect your motorcycle's circuitry, if some electrical parts on your motorcycle stop running, check and replace the blown fuse.

▌Check and replace the fuse

Shutdown the engine, remove and check the fuse. If the fuse blows,replace it with a fuse of the same specification as indicated in the "Technical Data" section. If the fuse is often blown out, there may be hidden problems in the electrical appliance, please leave it to KOVE repair shop for repair.



Note

- ·Always replace fuses with the same rating; using a higher-rated fuse increases the risk of damaging the electrical system and potential fire hazards.
- ·Installing non-KOVE electrical accessories can overload the electrical system, leading to battery discharge and system damage.

Engine oil

The consumption of engine oil and the drop in oil quality will vary depending on the riding conditions and use time, the higher the operating speed, the faster the oil consumption rate, long-term high-speed or high-speed operation, should shorten the oil change interval, check the engine oil level frequently, if necessary, add the recommended engine oil.

When used in extreme temperatures, the oil quality drops faster, and the oil that has become dirty or has been used for a long time should be replaced as soon as possible.

Select engine oil

The oil should be SN grade of API classification, and its grade is SN10W-40.

Coolant

Only the original undiluted KOVE pre-mixed coolant can be used, the original KOVE pre-mixed coolant can be excellent in preventing corrosion and overheating, please pay attention to the coolant capacity, if the liquid level is lower than the lower limit, please add it in time. Coolant freezing point -38 ° C（-36.4 °F）, boiling point 125 ° C（257 °F）.

Note

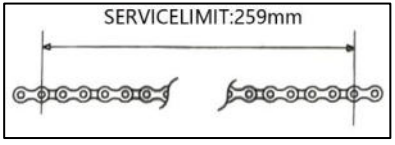
- Corrosion can be caused by using coolant that is not specific to aluminum engines, regular tap water, or mineral water.

Drive chain

If the drive chain does not run smoothly, makes strange noises, has damaged rollers or loose pins, have the drive chain inspected by the KOVE repair shop.

Checking the drive chain

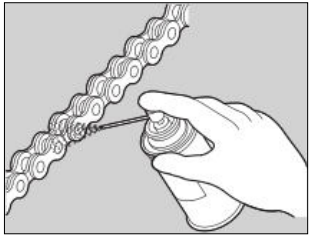
Measure the spacing between the 17 pins (16 pitch) from pin center to pin center, keep the drive chain tensioned and any kinked joints straightened, use a limit of 259mm, if the measurement exceeds the limit, replace the drive chain.



Clean and lubricate

After riding you should clean and lubricate the drive chain to extand the chain lifetime. You can use a dry cloth, special cleaner for the oil seal chain or neutral detergent, if the chain is dirty, you can use a soft brush; After cleaning, wipe dry and lubricate with the recommended oil.

Avoid getting oil on the brakes or tires, and avoid using excessive amounts of oil to avoid splashing on clothes or motorcycles.



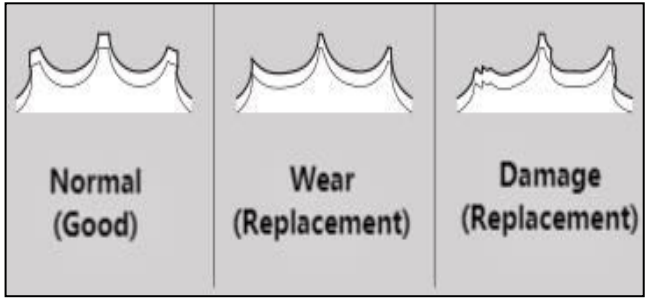
Note

- Recommended lubricant: drive chain lubricant.

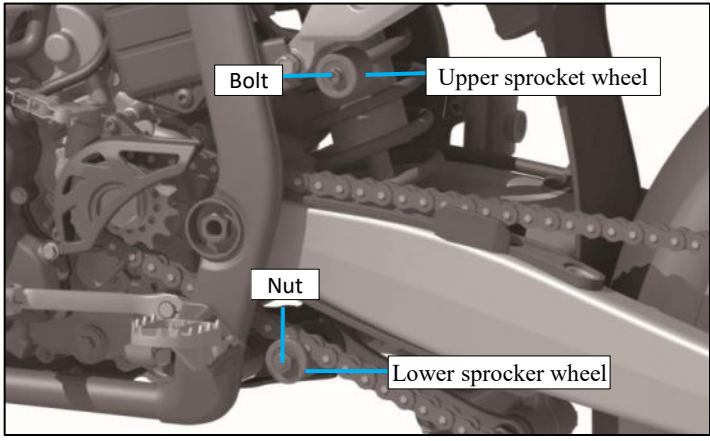
Drive sprocket

Check the engine sprocket and the rear sprocket for wear or damage and replace if necessary. Never use a new drive chain on a worn sprocket, the drive chain and sprocket must be in good condition or the newly replaced drive chain will wear out quickly.

Check the bolts and nuts on the sprockets and if any are loose tighten to the specified torque values. 36 N·m for the engine sprocket nut and 88 N·m for the rear sprocket bolt.



Sprocket wheel



Check whether the upper guide sprocket and lower guide sprocket are excessively worn or cracked, if the diameter of the guide sprocket is less than 27mm or cracked, it should be replaced in time, and new bolts and nuts should be used for the replacement.

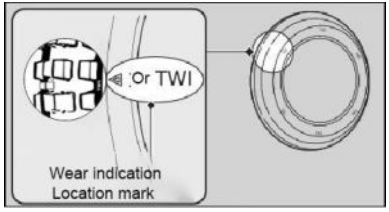
Check whether the upper guide sprocket and lower guide sprocket bolts and nuts are tightened, the torque of the upper guide sprocket and tailstock is: 22N·m, and the torque of the lower guide sprocket fastening nut is: 22N·m.

Tires (inspection/replacement)

Check the specifications

Front wheel: Tire：80/100-21M/C 51M Inner tube：80/100-21 Belt：Liner 21×30mm

Rear wheel: Tire：100/90-19M/C 57M Inner tube：100/90-19 Belt：Liner 19×30mm



Abnormal wear check

Check the contact surfaces of the tires for signs of abnormal wear.

Check the depth of the tread

Check the tread wear indicator and replace the tire immediately if the wear reaches the indicator mark.

Check your tire pressure

When you feel that the tire pressure is low, visually inspect the tire and measure it with a barometer, check the tire pressure while the tire is cool, and check the tire pressure at least once a month. Make sure the valve core cap is fastened and, if necessary, replace it with a new one.

Tire presure： Front tire 110KPa; Rear tire 110KPa.

Inspect for any damages

Inspect the tire for cuts, cracks, exposed fabric, tire threads, nails or other foreign objects embedded in the side tread of the tire, and check the sidewall of the tire for any abnormal bulges or swelling.

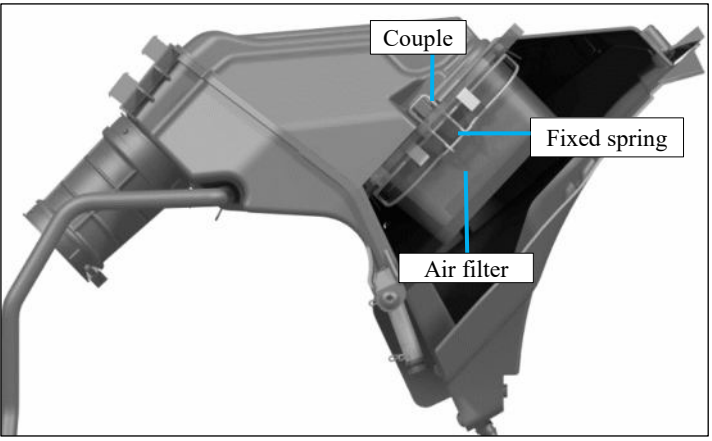
Whenever you change your tires, follow these guidelines:

- Use recommended tires or equivalent products with the same size, construction, speed rating and load capacity.
- After tire installation, use the KOVE original wheel balancer or equivalent equipment to balance the wheels.
- When changing tires, be sure to replace the inner tube, the old inner tube may have been deformed and if it is installed on a new tire, it will also cause cracking.

WARNING

- Using over-worn or improperly inflated tires can lead to accidents and serious injuries, please follow the relevant tire maintenance guidelines in the instruction manual.
- Installing unsuitable tires can affect handling and stability and lead to accidents that can seriously injure you or even endanger your life.
- Always use the size and type of tires recommended in this manual.

Air filter



This motorcycle is equipped with an air filter made of sponge, which should be cleaned or replaced after each race.

Remove the air filter:

1. Park the motorcycle on a firm level surface and remove the seat cushion assembly.
2. Open the air filter cover.
3. Remove the air filter by pulling the couple of the fixed spring.
4. Apply air filter oil evenly around the clean or new air filter element and reinstall it on the air filter assy.

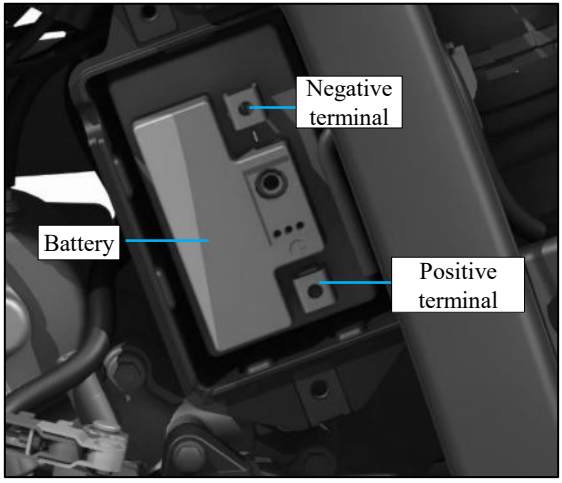
NOTE: Installation is in the reverse order of removal.

Clean the air filter:

Add an appropriate amount of neutral detergent to clean water and thoroughly clean the air filter to ensure that there is no dirt or ash layer in the air filter, and clean it again if necessary.

Disassembly and installation of body components

Battery



▌Disassembly

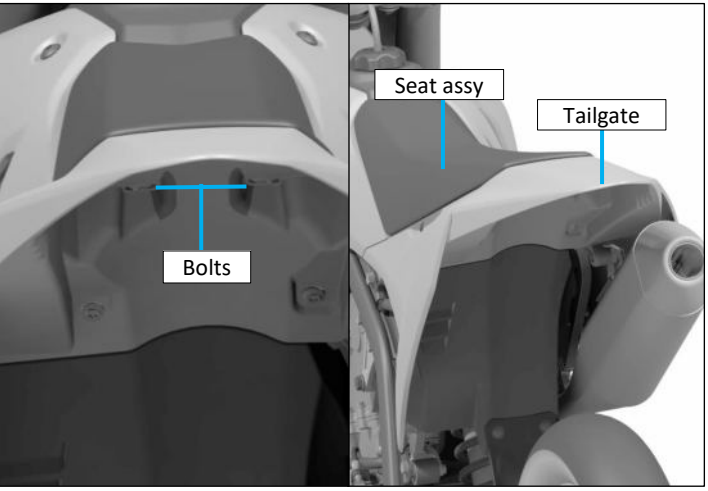
Verify that the engine is off.

1. Remove the battery box cover.
2. Disconnect the negative (-) battery terminal.
3. Disconnect the positive (+) battery terminal, being careful not to lose the bolt and nut.
4. Remove the rubber band and battery.

▌Installation

Install the parts in the reverse order of removal, always connecting the positive (+) terminal first, then the negative (-) terminal, make sure that the bolts and nuts are tightened.

Seat



Disassembly

1. Remove the 2 bolts that connect the rear of the seat cushion to the rear tailgate.
2. Pull up the rear end of the seat cushion diagonally toward the rear and remove the seat cushion with a little force.

Installation

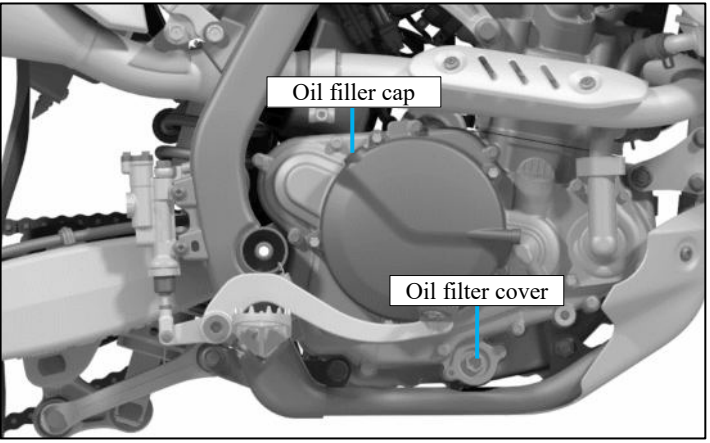
1. Snap the front and rear pins of the seat cushion assembly into the frame slot respectively.
2. Install the bolts, torque: 10N·m.
3. Gently pull the seat cushion upward to ensure that the seat cushion is firmly installed.

Note

- Please ensure that the seat latch is inserted accurately into the frame slot, otherwise the seat will not be able to support your weight and the seat may be crushed.

Engine oil

Replace the engine oil and oil filter



Changing the engine oil and oil filter

Changing the engine oil and oil filter requires special tools and is recommended to be done by KOVE rpair shop. Please refer to the Maintenance Schedule for engine oil and oil filter service intervals.

Use the original engine oil and oil filter specified by KOVE.

1. If the engine is cold, please idle for 3-5 minutes; then shutdown the engine wait another 2-3 minutes.
2. Park the motorcycle on a stable horizontal surface and place an oil tray under the oil drain bolt.
3. Remove the oil filler cap with a #6 hex wrench.
4. Remove the oil drain bolt and washer and drain the oil until the oil drips.
5. Remove the oil filter cover and spring, and remove the oil filter element.
6. Replace the oil filter element with a new one, and install the spring and oil filter cover in turn, torque: 11-13N·m.
7. Install a new sealing washer onto the oil drain bolt and tighten the oil drain bolt, torque: 24N·m.
8. Add 1600mL of recommended original engine oil to the crankcase, and after filling, tighten the oil filler cap, torque: 11 to 13N-m.
9. Check for oil leakage.

Precautions for replacing engine oil and oil concentrate filter:

1. . Using the wrong engine oil and oil concentrate filter can seriously damage the engine.

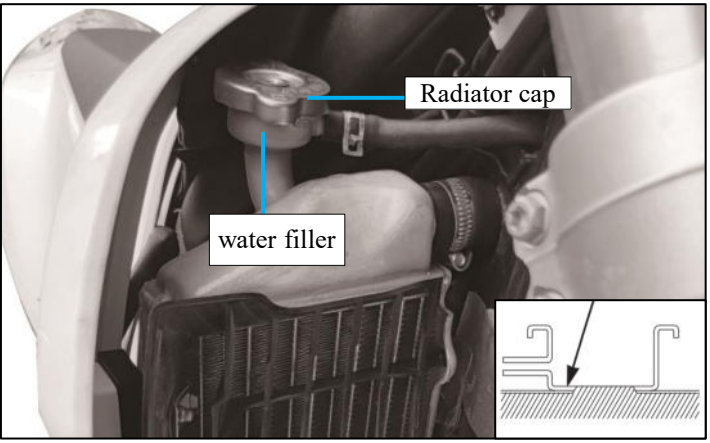
2. Excessive refueling or insufficient oil will damage the engine, do not mix different brands and grades of oil, which will affect lubrication and clutch operation.

3. Long-term contact with engine oil should be avoided, and it should be thoroughly washed after contact with engine oil.

4. Used oil, oil concentrate filter and container are harmful to health and the environment, can not be treated as daily garbage, treatment methods should be in line with local environmental protection regulations.

Coolant

Check coolant



Check the coolant level in the radiator while the engine is cooling.

1. Park the motorcycle on a firm, level surface.
2. Keep the motorcycle upright.
3. Remove the radiator cap and check the coolant level from the filler neck, which should be at the lower edge of the filler neck
4. If the coolant level drops significantly or if the coolant is empty, a serious leak may have occurred, so refer the motorcycle to an authorized Kove Repair Shop.

Add coolant

If the coolant level is low, add the recommended coolant to the filler neck.

When adding coolant, open the radiator cap while the engine is cool and add it through the filler neck, making sure that no foreign objects enter the filler neck during the process. After adding coolant, reinstall the radiator cap.

Change the coolant

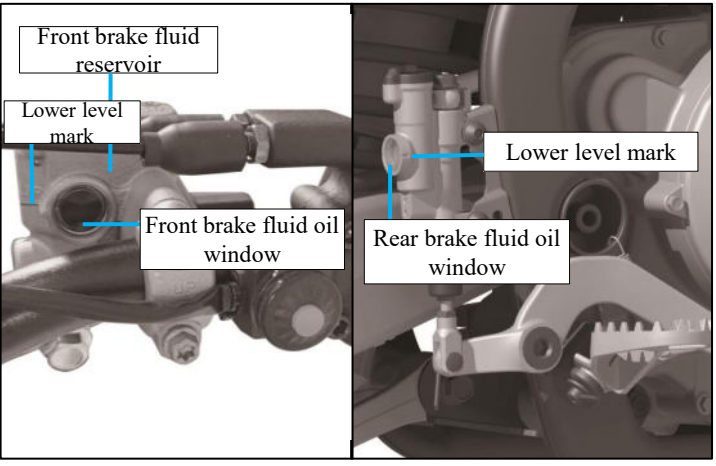
Unless you have the right tools and qualified mechanical skills, have the coolant changed by an authorized Kove Repair Shop.

WARNING

- Do not remove the radiator cap when the engine is not cooled down, as this will cause coolant to spray out and may cause you burns.

Brake

Check the brake fluid



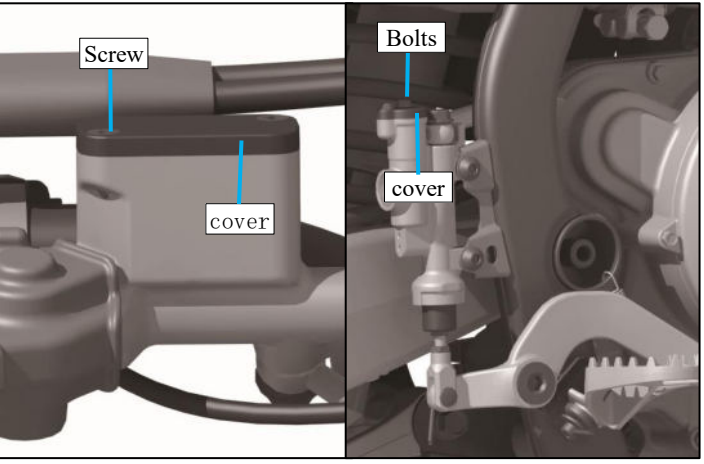
1. Place the motorcycle vertically upwards on stable fla ground.

2. Check that the brake fluid reservoir is level.

3. Check whether the brake fluid can be seen in the oi window, if the brake fluid is lower than the lower limit of the oi window, please add it immediately.

If the brake fluid level in the reservoir is below the lower level mark (LWR), or if the free travel of the brake lever and pedal exceeds the mark, the brake pads must be checked for wear, if they are not worn, there may be a leak, please have them serviced by an authorized Kove repair shop.

Add brake fluid



Do not mix different types of brake fluids, use only freshly removed brake fluid from a sealed container, and take care to avoid the entry of foreign objects when adding brake fluid.

Recommended brake fluid: DOT4 brake fluid or equivalent.

Adding Front Brake Fluid

1. Remove the screws, cap and diaphragm above the front brake fluid reservoir.
2. Add the recommended brake fluid to above the lower limit of the front brake fluid reservoir.
3. Install the diaphragm and cap after adding.
4. Tighten the screws, torque: 1N-m.
5. Check for leaks.

Adding Rear Brake Fluid

1. Remove the screws, cover, gasket and diaphragm from the top of the rear brake fluid reservoir.
2. Add the recommended brake fluid to the rear brake fluid reservoir above the lower limit.
3. Install the diaphragm, gasket and cover after adding.
4. Tighten the screws, torque: 1N-m.
5. Check for leaks.

Note

- Brake fluid can damage plastic and painted surfaces; wipe up any spills immediately and clean thoroughly.

Check the brake pads

Check the condition of the brake pad wear indicator mark, if the brake pad is worn to the indicator mark, it needs to be replaced.

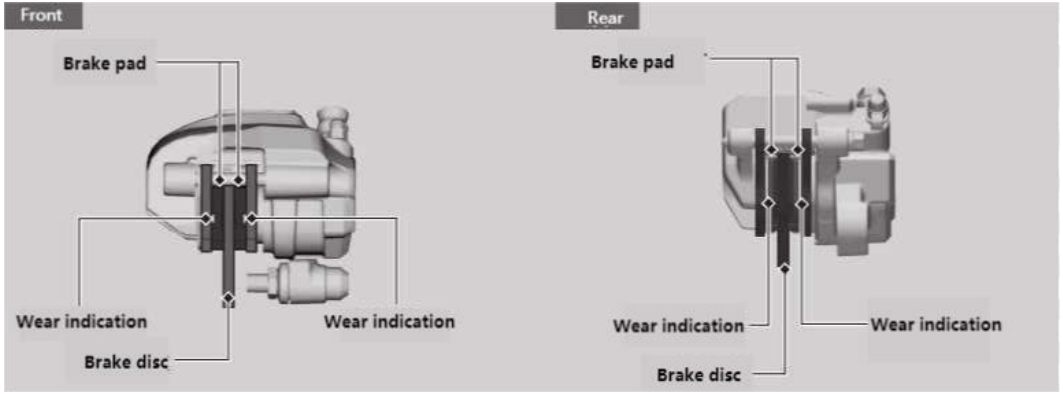
F

- Check the brake pads from under the calipers
- Brake pad lining thickness: 3mm (indicated as wear limit)

R

- Check the brake pads from the right rear of the caliper
- Brake pad lining thickness: 5.4mm (indicated as wear limit)

If necessary, please take the brake pads to the Kove Repair Shop to replace the brake pads, when the wear limit is reached, the left and right brake pads must be replaced at the same time.

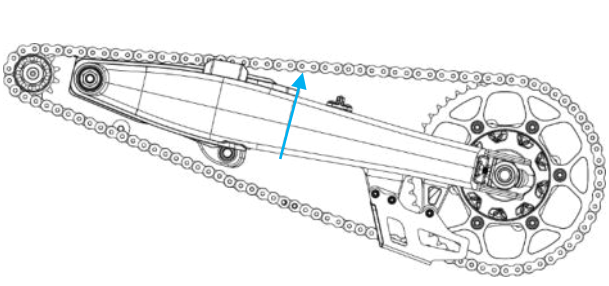


Drive chain

Check the sag of the drive chain

Check the sag of different points along the chain, if not all points have the same sagging, some links may have been bent and kinked, please leave the chain to the Kove repair shop.

1. Hook the transmission into neutral and turn off the engine.
2. Place the motorcycle vertically on a stable and flat ground.
3. In the area behind the chain guard, push the chain in the direction close to the flat fork to determine the sag of the chain.
4. Turn the rear wheel forward to check whether the chain runs smoothly.
5. Check the sprocket.
6. Clean and lubricate the drive chain.



Sag schematic

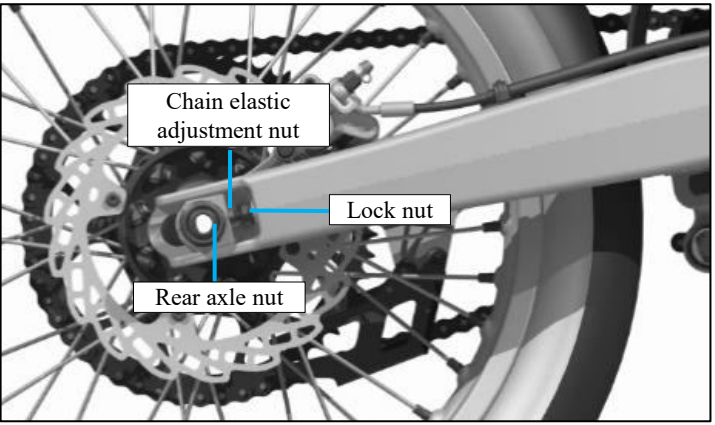
Drive chain sagging: 25-35mm

If the sag exceeds 35mm, you can't continue to ride the motorcycle.

Note

- When checking the drape of the drive chain, make sure that the upper part of the chain must be tensioned.

Adjust the sag of the drive chain



When adjusting the drive chain sag:

1. Hook the transmission into neutral and turn off the engine.
2. Place the motorcycle vertically on a stable and flat ground.
3. Loosen the rear axle nut.
4. Use an open wrench to loosen the lock nut and chain tightening adjustment nut.
5. Rotate the chain tightness adjustment nut to adjust the tightness of the chain, the chain tightness adjustment range is: 25-35mm.
6. In the middle position of the upper part of the rear flat fork, push the chain in the direction of the flat fork to determine the reasonable sag of the chain.
7. The left and right sides of the sag are adjusted on the same tick line.

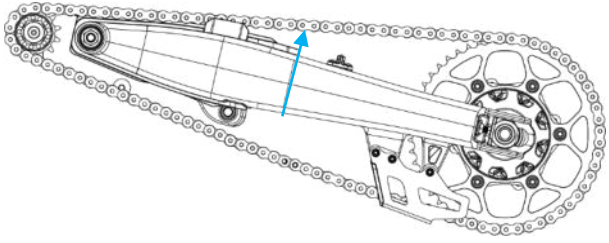


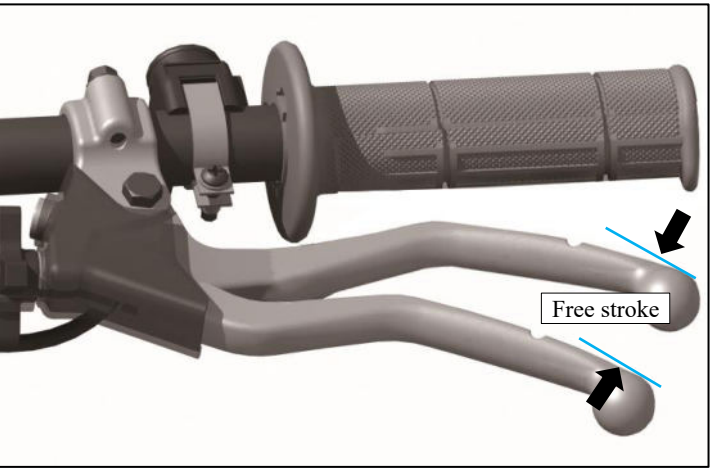
Diagram of tightness

Note

- When adjusting the drive chain sag, make sure that the upper part of the chain must be tensioned.

Clutch

Free stroke of clutch lever: 10-15㎜



Check whether the clutch cable is bent or broken. If necessary, please leave it to Kove repair shop for replacement.

Please lubricate the clutch cable with a special cable oil to prevent premature wear and corrosion.

Note

- Incorrect adjustment of free travel can cause premature clutch wear.

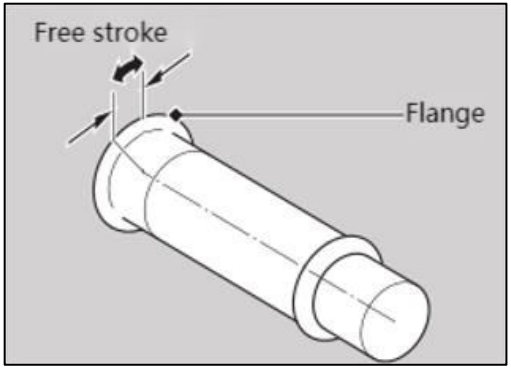
Throttle

Check the throttle

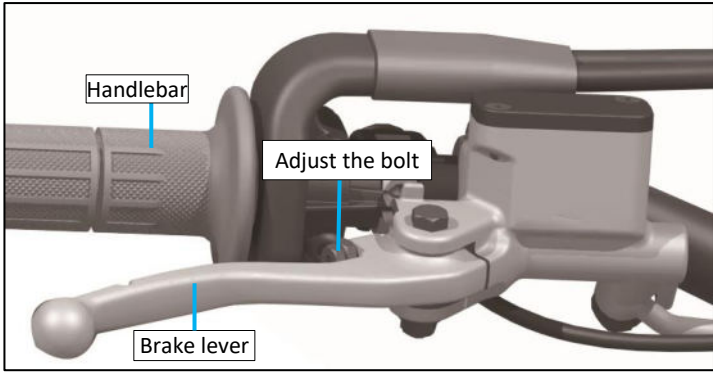
When the engine is off, check that the throttle smoothly shifts from full off to full open in all directions and that the free stroke is correct.

If the throttle operation is not smooth, the automatic closing or the cable is broken, please refer it to the Kove repair shop for maintenance.

Free stroke of throttle handle flange: 2-6mm



Adjust the brake lever



You can adjust the distance from the top of the brake lever to the handlebars.

▌Methods of adjustment

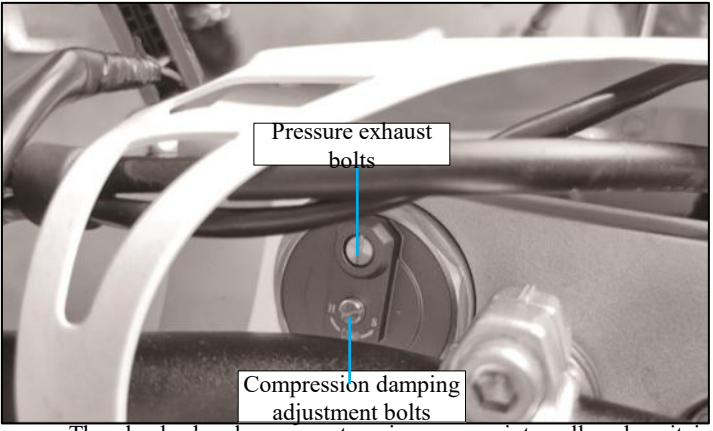
Rotate the adjusting bolt in a counterclockwise direction, and the brake handle is close to the handlebar; Rotate the adjusting bolt clockwise and keep the brake handle away from the handlebar.

The adjustment range is limited, do not screw the adjustment bolt beyond its natural limit.

Adjustments are not allowed while driving.

Front shock absorber adjustment

Air pressure adjustment



The shock absorber generates air pressure internally when it is worked, and the air pressure is like a progressive spring that affects the entire stroke of the motorcycle. On long rides, the front shock gets stiffer. Therefore, it is necessary to release the air pressure inside the front shock absorber in time.

You can use pressure exhaust bolts to release the air pressure that has built up inside the front shock absorber. Before releasing pressure, be sure to make sure that the front tires are off the ground, at which point the front shock absorbers are fully extended.

Methods of adjustment：

1.Place an optional table under the engine to lift the front wheels off the ground.

2.Remove the pressure exhaust bolt.

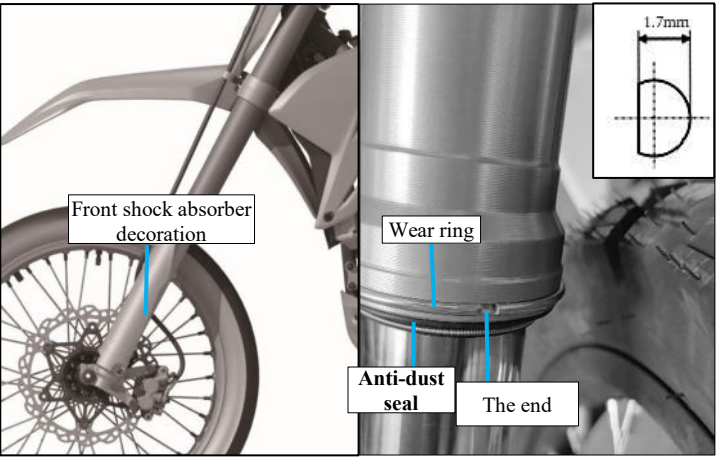
3.Coat the O-ring with No. 2 lithium grease and install it.

4.Tighten the pressure exhaust bolt. (Torque: 1.3N·m)

Note

- When discharging the air pressure of the shock absorber before discharging, if the O-ring is broken, it should be replaced in time.
- The front wheel adjusts the air pressure on the ground, which gives the wrong degree of pressure.

Front shock absorber inspection



Regularly inspect and clean all components of the front shock absorber to ensure the best performance of the front shock absorber:

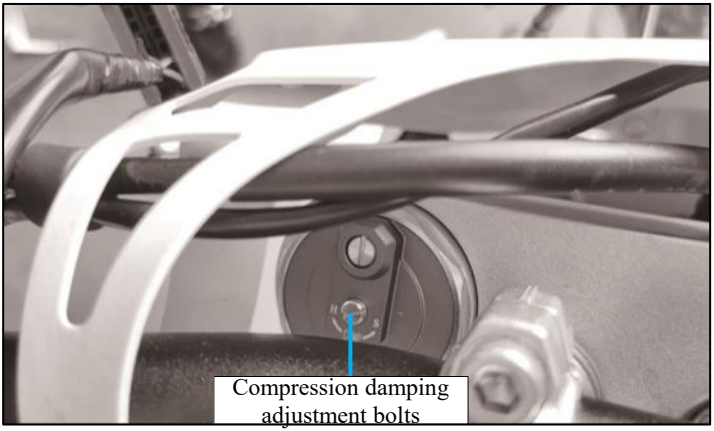
1. Check that the front shock absorber decoration and dust seal are clean and not stuffed with mud and dirt.

2. Check for oil stains under the shock absorber dust seal, if there are signs of oil leakage, replace the damaged dust seal and oil seal.

3. Check the wear ring for wear or damage. If the wear ring is less than 1.7mm in diameter or flush with the outer barrel, the wear ring needs to be replaced. When replacing the wear ring, remove the bottom barrel and install the wear ring so that the end gap position is towards the rear of the motorcycle.

4. Squeeze the brake handle and press down on the handlebars a few times to check that the front shock absorber rebounds smoothly.

Compression damping adjustment



The adjustment of the compression damping affects the speed at which the front shock absorber compresses. The front shock absorber compression damping has 22 stages. Each segment is 1/4 turn. Turn the compression damping adjustment bolt for a full turn, and the adjuster will turn 4 segments.

Turn the adjusting bolt in the clockwise direction (H) to harden the compression damping, and turn the adjusting bolt in the counterclockwise direction (S) to become softer.

Set standard compression damping:

1. Turn the compression damping adjustment bolt clockwise until it no longer rotates;

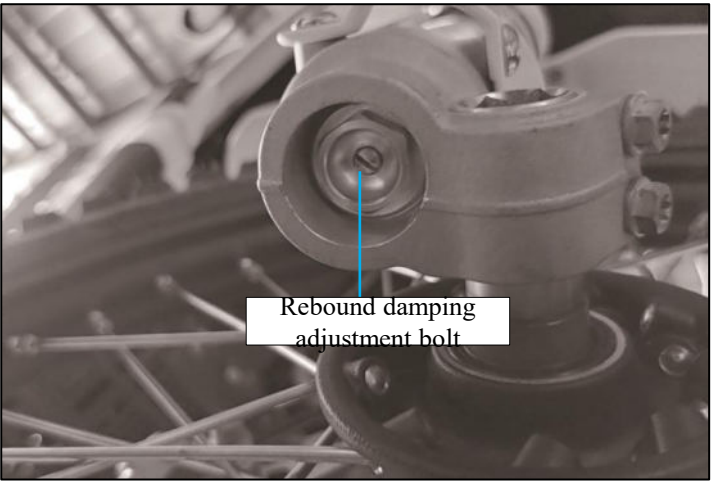
2. Then turn the adjusting bolt counterclockwise, the standard compression damping is from the hardest position counterclockwise turn 10 sections, hear the click position.

You can adjust it according to your weight and riding conditions, making sure that the adjustment bolts stop in the clicking position and the left and right ends are adjusted to the same position with each adjustment.

Note

- Do not rotate the adjusting bolt beyond the given position, otherwise you may damage the adjusting mechanism. The adjustment torque does not exceed 0.5 N·m.

Rebound damping adjustment



The adjustment of the rebound damping affects the speed at which the front shock absorber rebounds. The front shock absorber rebound damping has 22 stages. Each segment is 1/4 turn. Turn the rebound damping adjustment bolt for a full turn, and the adjuster will turn 4 segments.

Turn the adjusting bolt clockwise (H) to increase rebound damping (hard) and counterclockwise (S) to decrease rebound damping (soft).

Setting the standard rebound damping:

1. Turn the rebound damping adjustment bolt clockwise until it no longer rotates;

2. Turn the adjusting bolt counterclockwise (lighter), the standard rebound damping is 10 segments from the hardest position, and a click is heard.

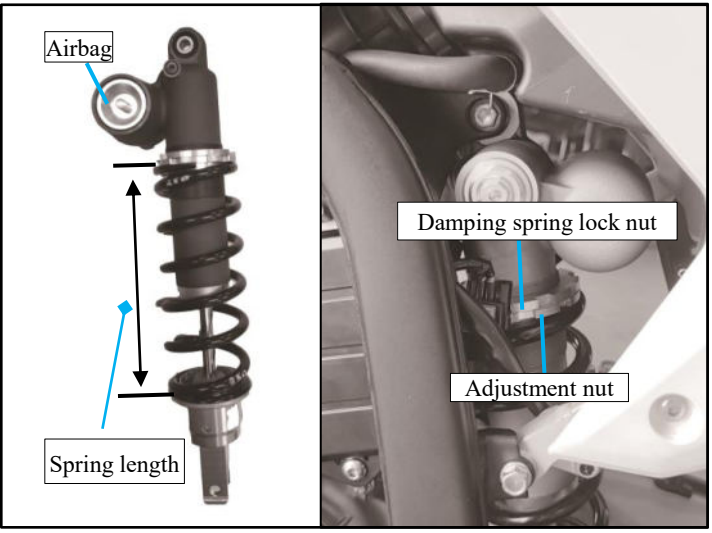
You can adjust it according to your weight and riding conditions, making sure that the adjustment bolts stop in the clicking position and the left and right ends are adjusted to the same position with each adjustment.

Note

- Do not rotate the adjusting bolt beyond the given position, otherwise you may damage the adjusting mechanism. The adjustment torque does not exceed 0.5 N·m.
- Both compression damping and rebound damping can be increased by rotating the adjustment bolt clockwise.

Rear shock absorber adjustment

Airbag



The rear damping assembly consists of a damping airbag containing high-pressure nitrogen. Do not attempt to disassemble, repair or dispose of the device, piercing or exposure to flames may also result in an explosion causing serious injury. Repair or disposal should be done by Kove repair shop.

Spring preload adjustment

Spring preload should be adjusted while the engine is cool by turning the shock spring lock nut and adjusting nut to adjust the spring preload.

Adjustment method：

1. Firmly support your motorcycle with a maintenance bracket or crane and lift the rear wheels off the ground.

2. Check whether the spring preload is at the standard length.

3. Loosen the shock absorber spring lock nut, rotate the adjustment nut, and the spring length will change by 1.5mm for each turn of the adjustment nut.

4. Adjust accordingly to the needs.

5. After the adjustment is completed, hold the adjustment nut and tighten the damping spring lock nut（Torque：44±3N·m)

Increase spring preload：

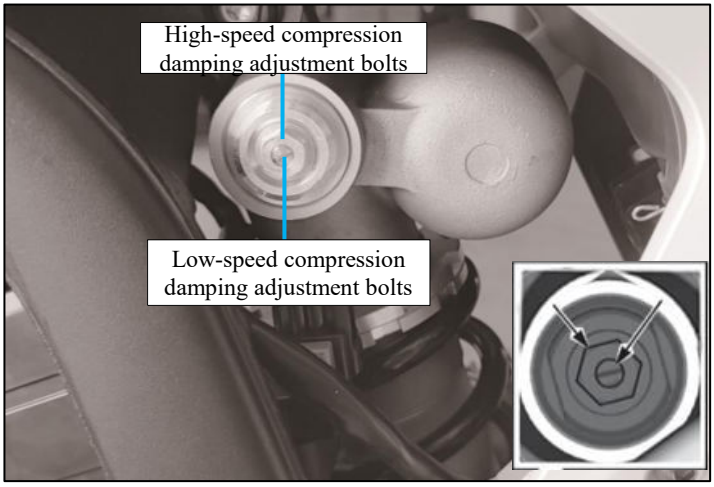
Loosen the shock absorber spring lock nut with a special tool, turn the adjusting nut, shorten the spring length, the shortest must not be less than: 215mm.

Reduce spring preload：

Loosen the locking nut of the damping spring with a special tool, turn the adjusting nut and increase the length of the spring up to a maximum of: 235mm.

Each turn of the adjustment nut will change the spring length and spring preload.

Compression damping adjustment



Compression damping can be adjusted in 2 stages - high speed compression damping and low speed compression damping - with separate adjustment bolts, and you can adjust it according to your weight and riding conditions.

When adjusting the compression damping adjustment bolt, be sure to use a tool of the right size to avoid damage.

High-speed compression damping adjustment

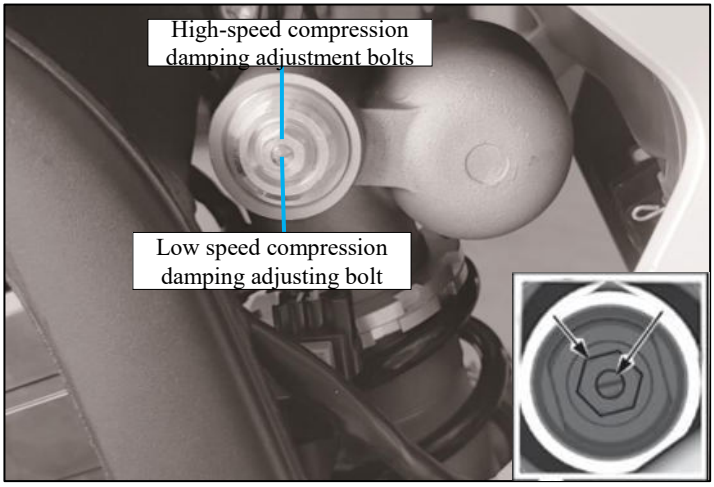
When it is necessary to adjust the compression damping of the shock absorber for high speed movements, adjust the hexagonal part of the compression damper with an adjustment stroke of approximately 4 turns. The clockwise (H) adjustment increases the compression damping, the counterclockwise (S) adjustment decreases the damping.

Adjust to the standard position：

1. Turn the adjustment bolt in a clockwise direction (H) until it cannot be turned.

2. Turn the adjusting bolt counterclockwise 2 turns from the hardest position.

Compression damping adjustment



Low speed compression damping adjustment

When it is necessary to adjust the compression damping for low speed movement of the damper, adjust the centre of the compression damper in one bolt section, the adjustment range is 16 sections, each section is 1/4 turn. The clockwise (H) adjustment increases the compression damping, the counterclockwise (S) adjustment decreases it.

Adjust to standard position:

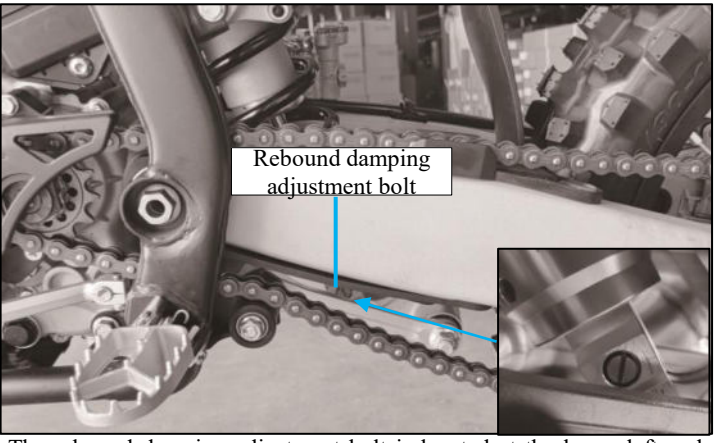
1. Turn the adjusting bolt clockwise (H) until it cannot be turned.

2. From the hardest position, turn the adjusting bolt counterclockwise by 8 segments to the click position.

Note

- The low-speed compression damping adjustment torque does not exceed 0.5N·m.

Rebound damping adjustment



The rebound damping adjustment bolt is located at the lower left end of the rear shock absorber, turning the adjusting bolt clockwise to increase the rebound damping (hard), and turning the adjusting bolt counterclockwise to reduce the rebound damping (soft).

Setting the standard rebound damping：

1.Turn the rebound damping adjusting bolt clockwise (H) until it can't be turned;

2.Turn the adjustment bolt counterclockwise (S) again, the standard rebound damping is 10 counterclockwise turns from the hardest position and a click is heard.

Note

- Gently rotate the adjusting bolts to prevent damage to the rear shock absorber.
- When adjusting the rebound damping adjustment bolt, be sure to use a tool of the right size to avoid damage.
- Make sure the adjusting bolts are firmly in the fixed position for each adjustment.
- The adjustment torque doesn't exceed 0.5N·m.

Troubleshooting

Please read "Maintenance" and "Maintenance Specification" carefully before maintenance, please refer to "Technical Specs" for maintenance data.

The engine doesn't start

The starter motor runs, but the engine fails to start

Check the following items:

- Check the tank for gasoline.
- Check whether the battery voltage is too low.

The starter motor isn't working

Check the following items:

- Confirm that the engine starting sequence is correct.
- Check for low battery voltage, blown fuses and loose battery connections, if the problem persists, have it serviced by an authorized Kove repair shop.

Engine overheating

In case of engine overheating and slow pickup, push the motorcycle to a safe area and check the following items:

1. radiator pads for severe soiling, clean radiator pads.

2. After the engine has cooled down, check the radiator hoses for leaks.

If there is a leak: do not start the engine and transport your motorcycle to a Kove Repair Shop for service.

3. Check the coolant level for low coolant and add it if necessary.

Note

- Continuing to ride with an overheated engine can seriously damage the engine.

Puncture the tire

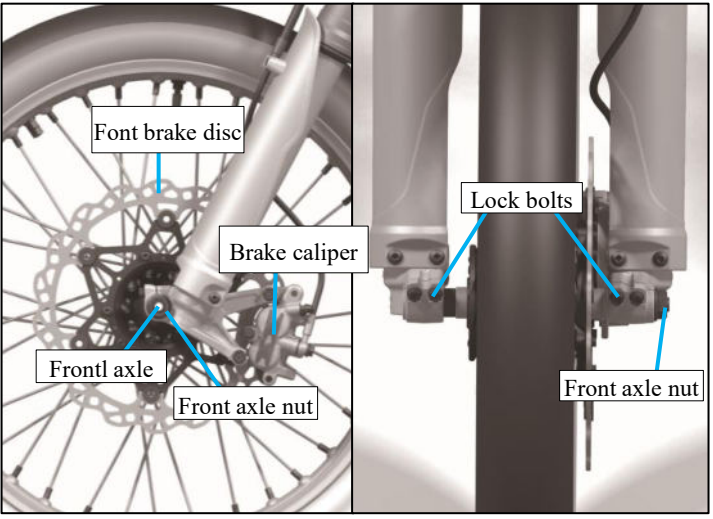
If a tire is punctured or damaged, replace it, not repair it. Repaired tires, which do not perform as well as new ones, may break while you are riding. Replacing a tire requires special tools and expertise, and we recommend leaving this type of repair to Kove repair shop.

WARNING

- Riding a motorcycle with temporarily repaired tires is dangerous, and if the temporary repair fails, an accident will occur, resulting in serious injury or death.
- If you must ride a motorcycle with temporarily repaired tires, please ride carefully and slowly, not exceeding 50 km/h, until new tires are put on.

Disassemble the tire

Front wheel



If you need to remove the wheel to replace the tire, follow these steps:

Disassembly

1. Securely support your motorcycle with a maintenance stand or crane and lift the front wheel off the ground.

2. Loosen the front axle nuts and the left and right axle locking bolts.

3. Pull the front axle out of the hub and remove the front wheel.

Installation

1.Clean the front axle and front shock absorber mount holes, apply grease evenly in the groove and around the circumference between the primary and secondary lips of the front hub oil seal.

2.Place the front wheel in the middle of the front shock absorber and at the same time snap the brake disc into the brake caliper, taking care not to damage the brake pads.

3.Put the front axle through the front shock absorber and wheel hub from right to left, and tighten the front axle nut and the locking bolts on the left and right sides. (front axle M16, torque: 88N·m; front axle locking bolt M8, torque: 22N·m)

4.Place the front wheel on the ground.

5. Operate the brake handle several times, then shake the fork up and down several times.

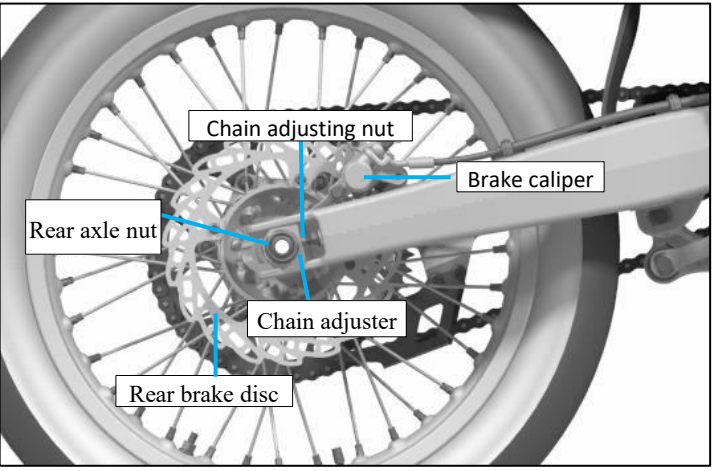
6. Raise the front wheels off the ground again and check that the wheels turn smoothly after you release the brake handle.

If a torque wrench is not used during installation, please take it to a special Kove repair shop as soon as possible, improper installation can lead to a decrease in brake performance.

Note

- When installing wheels or calipers into place, to prevent scratching them, please install the discs between the brake pads carefully, a damaged disc will affect the braking effect.
- When installing the front wheel, the front axle must be tightened first, followed by tightening the locking bolts on the left and right sides of the front axle, and the order of the two cannot be switched.

Rear Wheel



Disassembly

1. Park the motorcycle on a stable level surface.
2. Securely support your motorcycle with a maintenance stand and raise the rear wheel off the ground.
3. Remove the rear axle nut.
4. Hold the rear wheel and pull out the rear axle.
5. Removing the drive chain from the drive sprocket.
6. Remove the rear wheel.
7. Remove the rear brake caliper assembly from the flat fork slot.

- Support the brake caliper assembly, do not hang on to the brake hose and do not twist the brake hose.
- Avoid getting lubricant, oil or dirt on the brake discs or pads.
- Do not operate the brake pedal when the brake caliper is removed.
- Be careful to prevent the brake caliper from scratching the wheel during removal.

Installation

1. Check whether the rear wheel bearing is damaged, if the bearing is damaged, the rear wheel bearing needs to be replaced and apply grease evenly in the groove between the main and sub lips of the oil seal and around the circumference.

2. Clean the rear axle and rear flat fork mounting holes.

3. Snap the rear brake caliper assembly into the rear flat fork slot.

4. Push the rear wheel into the rear flat fork, and at the same time snap the brake disc into the brake caliper, taking care not to damage the brake pads.

5. Reinstall the drive chain on the drive sprocket.

6. Insert the rear axle and turn the rear wheel so that the drive chain and the drive sprocket are fully seated.

7. Tighten the rear axle nut, torque：128N·m

If a torque wrench is not used during installation, please take it to Kove repair shop as soon as possible, improper installation can lead to a decrease in brake performance.

Note

- When installing wheels or calipers in place, install the discs between the brake pads carefully to prevent scratching.

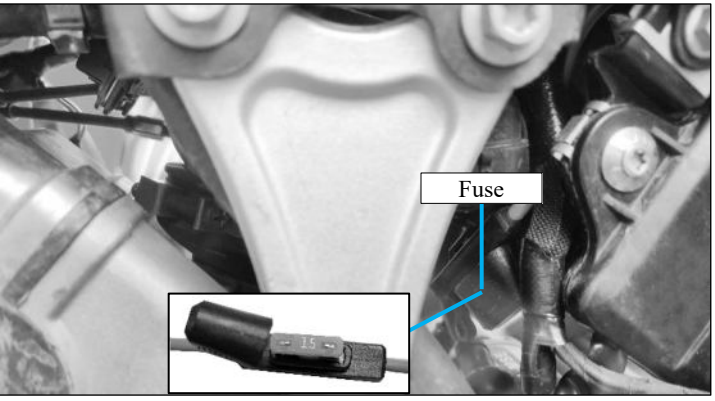
Checking spoke tightness

Incorrect spoke tightness affects rideability and causes collateral damage, if the spokes are too tight, overloading will cause the spokes to break, if the spokes are too loose, the wheel will oscillate laterally or jump radially, and during the first few rides the spokes will loosen up faster as the components are in a break-in state, check the spoke tension regularly.

Use a screwdriver to tap each spoke in short bursts, the sound must be crisp. If the spokes emit a different audio, this indicates a difference in spoke tension, in which case the spoke tension must be adjusted to a front and rear spoke torque of 5-7N·m.

Electrical failure

Fuse blown



Fuse replacement

Remove the fuse adhesive cover, take out the fuse, and check if the fuse is blown. If it is blown, be sure to replace it with a fuse of the same size.

The battery is dead

Please charge the battery with a special charger fo motorcycle lithium batteries, and remove the battery from th motorcycle before charging. If the battery still does not recove after charging, please contact the Kove Repair Shop.

Note

- It is forbidden to charge with a car battery charger or motorcycle lead-acid battery charger, which may cause battery damage or even fire.
- Before handling the fuse, refer to "Checking and Replacing the Fuse".

Related information

Motorcycle maintenance

Frequent cleaning and polishing ensure that the motorcycle lasts for a long time, and a clean motorcycle is more likely to detect potential failures, especially noting that the anti-icing seawater and salt spilled on the road will accelerate the formation of corrosion, and it i important to thoroughly clean the motorcycle after driving along the coast or on the above-mentioned treated roads.

Clean

Wait for the engine, muffler, brakes, and other hot parts to cool before cleaning.

1. Rinse the motorcycle thoroughly with low-pressure hose water to remove dirt.
2. If necessary, use a sponge or soft towel dipped in flexible detergent to remove the dirt on it.
3. Rinse the motorcycle thoroughly with enough clean water and dry it with a clean, soft cloth.
4. After drying the motorcycle, lubricate the moving parts to make sure that no lube oil spills on the brakes or tires; Oil-contaminated brake discs, brake pads, brake drums, and brake shoes will have a greatly reduced braking performance and may cause accidents.
5. After washing and drying the motorcycle, lubricate the drive chain immediately.
6. Waxing can prevent corrosion. Avoid products containing strong stain removers or chemical solvents that can damage metal, paint, and plastic parts of motorcycles; Do not wax tires and brakes.

If your motorcycle has parts with matte paint, do not wax on these matte paint.

Cleaning precautions

- Do not use high-pressure water guns：
  - High-pressure water cannons can damage moving and electrical parts beyond repair.
  - Moisture from the air intake may be drawn into the throttle body or into the air filter.
- Do not use water to flush the muffler directly:
  - Water ingress in the muffler can cause the muffler to fail to start and the muffler to rust.
- Drying brake:
  - Water will reduce braking performance, after cleaning, you should intermittently use the brake at low speed, repeatedly press the brake pedal, and use the heat generated by brake friction to dry the water until the braking efficiency is restored.
- Do not rinse directly under the seat with water:
  - Water getting into the seat compartment can damage your documents and other items.
- Do not flush the air filter directly with water:
  - If water enters the air filter, the engine may not start.。
- Do not wax and polish matte pain:
  - Clean the matte paint finish with plenty of water and mild detergent and dry it with a soft, clean cloth.

Aluminum components

Aluminum can be corroded after contact with dirt, mud or salt, clean aluminum parts regularly and follow these guidelines to prevent scratches:

- Do not use stiff brushes, steel wool balls or other abrasive cleaning products.
- Do not drive or scratch on the curb.

Panel

Follow these guidelines to prevent scratches and damage:

- Wash gently with a sponge and enough water.
- Clean with diluted detergent and wash thoroughly with plenty of water to remove stubborn dirt.
- Please avoid contact with corrosive liquids such as gasoline and brake fluid on the instrument panel and lampshade.

Muffler

The muffler is stainless steel, but it can also be dirty due to mud or dust, which can be removed with a wet sponge dipped in detergent, then carefully rinsed with clean water and dried with suede or a soft towel. If necessary, burn marks can be removed with commercially available compounds with a fine texture and then rinsed in the same way as mud and dust.

If the muffler has been painted, use a neutral stain remover t clean the exhaust pipe and muffler paint, and if you are unsure whether the muffler has been painted, contact the Kove Repair Shop.

Note

- Although the muffler is stainless steel, it can also rust. Once found, remove all traces and dirt immediately.

Storage of motorcycles

If you leave your motorcycle outdoors, you should consider using a motorcycle full body shield. If you don't ride for a long time, follow these guidelines:

- Wash the motorcycle and wax all paint surfaces (except matte paint) and apply anti-rust oil to all chrome parts.
- Lubricate the drive chain.
- Place the motorcycle on the maintenance stand and raise it with a wooden block so that both tires are off the ground at the same time
- After it rains, remove the body cover and let the motorcycle dry.
- Remove the battery to prevent discharge.

Fully charge the battery and place it in a cool and ventilated place, and if you leave the battery in place, disconnect the negative terminal to prevent discharging. Before reusing the stored motorcycle, check all items required on the maintenance cycle.

Transportation of motorcycles

If your motorcycle needs to be transported, a motorcycle trailer, a flatbed truck loaded with ramps or lifting platforms should be used, and motorcycle straps should be used. Never try to drag a motorcycle with its wheels on the ground.

Note

- Towing a motorcycle can seriously damage the transmission.

You and environment

Owning and riding a motorcycle is enjoyable, but you have to do your duty to protect the environment.

Choose the right detergent

Use biodegradable stain removers when washing motorcycles and avoid sprays containing chlorofluorocarbons (CFCs) as it destroys the protective layer of the atmosphere (the ozone layer).

Waste recycling

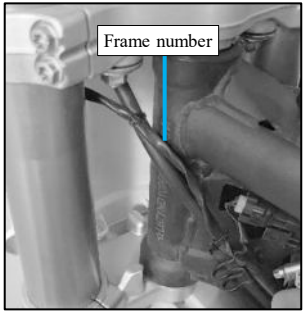
Separate motor oil and other toxic wastes in approved containers and take them to a recycling center, call your local National Public Affairs or Environmental Services office to find a recycling center in your area, and instructions on how to dispose of non-recyclable waste, do not dump used engine oil in trash cans, sewers or on the ground because used motor oil, gasoline, coolants and cleaning solvents contain Toxic substances that can harm cleaners, pollute drinking water, lakes, rivers and the sea.

Frame number, engine number, nameplate

The frame number and engine number are required for motorcycle registration, which are unique and used to identify your motorcycle and may be required when ordering replacement parts, please keep these numbers on record and keep them in a safe place.

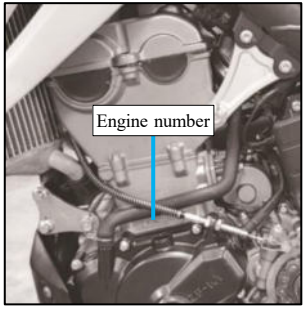
Frame number

The frame number is engraved on the left side of the frame riser



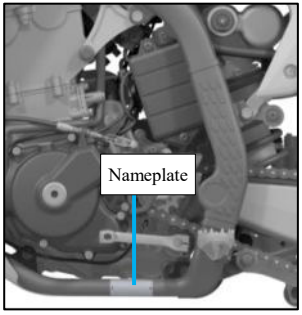
Engine number

The engine number is engraved on the left side of the engine block



Nameplate

Nameplate affixed to the lower left edge of the frame



Technical Specification

Motorcycle related specs-1

Model	MX250	Engine model	Z177MM
Length（mm）	2168	Bore(mm)× stroke(mm)	77×53.6
Width（mm）	805	Compression ratio	14:1
Height（mm）	1265	Max.net power（KW/r/min）	28±5%/11500±5%
Wheelbase（mm）	1490	Max. torque（N·m/r/min）	25±5%/9000±5%
Wheelbase（mm）	/	Idle speed（r/min）	1600±10%
Curb weight（kg）	108	Cylinder working volume（ml）	249.6
Preload（kg）	75	Spark plug	NGK-CR8E
Front tire	80/100-21	Spark plug gap（mm）	0.7-0.8
Rear tire	100/90-19	Valve clearance（mm）	Intake valve: 0.10-0.15
Max. speed（km/h）	140		Exhaust valve: 0.15-0.20

Motorcycle related specs-2

Primary gear ratio	2.91	Final gear ratio	3.77
First gear	2.58	Main fuse	15A
Second gear	1.80	Battery	12V 2.7Ah（lithium battery）
Third gear	1.33	Ignition	ECU
Fourth gear	1.10	Lubricant capacity（mL）	1600
Fifth gear	0.96	Gasoline capacity（L）	5
Sixth gear	0.88	/	/

Torque Specs

Fastener type	Torque （N·m）	Fastener type	Torque （N·m）
5mm bolts and nuts	6	6mm screws	8
6mm bolts and nuts	12	6mm flange bolts(8mm head:small flange)	10
8mm bolts and nuts	22	6mm flange bolts(8mm head:big flange)	12
10mm bolts and nuts	60	6mm flange bolts(10mm head) and nuts	12
12mm bolts and nuts	80	8mm flange bolts and nuts	22
5mm screws	5	/	/

Note

- In addition to the specified torque, this motorcycle adopts the standard torque values in the table above.

Frame tightening torque

Assembly position	Thread diameter（mm）	Torque (N·m）	Remark
Internal hex bolts for front brake oil pipe pressure plate and left front trim	M5	1	
Hex bolts for fuel pump and fuel tank	M5	4	
Internal hex step screws for number plate and upper connecting plate	M5	6	
Internal hex step screws for battery case cover and battery case	M5	6	
Internal hex step screws for fuel tank front left and right trim and fuel tank	M5	6	
Internal hex step screws for fuel tank front left and right trim and water tank	M5	6	
Internal hex step screws for fuel tank front left and right trim and frame	M5	6	
Internal hex step screws for fuel tank front left and right trim and tailstock	M5	6	
Internal hex step screws for left and right body and tailstock	M6	10	
Internal hex step screws for air filter and tailstock	M6	10	
Internal hex step screws for rear tailgate plug and tailstock	M5	6	
Internal hex bolts for seat and tailstock	M6	10	
Internal hex step screws for rear tailgate (front) and tailstock	M6	10	
Cross pan head screws for brake oil pipe clamps and flat forks	M5	6	
Cross pan head screws for side sway sensor and fuel tank	M5	6	
Inner hex bolts for water tank grill and water tank	M5	6	
Hex bolts for small sprocket cover and engine	M6	10	
Internal hex bolts for frame and fuel tank	M6	12	
Internal hex bolts for swing arm and engine	M6	10	
Internal hex bolts for clutch handle mounting	M6	12	
Internal hex bolts for water tank and frame	M6	12	

Assembly position	Thread diameter（mm）	Torque (N·m）	Remark
Internal hex bolts for left and right front shock trim and front shock	M6	8	
Internal hex step screws for battery box (top) and frame	M6	8	
Internal hex step screws for lower engine guard and frame	M6	8	
Internal hex bolts for fuel tank(front) and frame	M6	8	
Internal hex bolts for rear brake master cylinder and frame	M6	10	
Internal hex bolts for upper tail cap and subframe	M6	8	
Internal hex bolts for rear fender front section and tailstock	M6	8	
Crossed half-round head screws for chain guards and flat forks	M6	12	
Inner hex bolts for front disc brake and rim	M6	12	Threading glue
Inner hex bolts for battery case and frame	M6	12	
Internal hex step screws for front brake oil pipe clamp and lower connecting plate	M6	10	
Internal hex bolts for front fender and lower connecting plate	M6	10	
Inner hex bolts for regulator and air filter	M6	8	
Inner hex bolts for front brake master cylinder mounting mounts	M6	12	
Inner hex bolts for chain guides and flat forks	M6	10	
Hex bolts for muffler front section and tailstock	M8	22	
Hex bolts for muffler rear section and tailstock	M8	22	
Hex bolts for tailstock and frame	M8	22	
Internal hex bolts for engine front suspension and frame	M8	26	

Assembly position	Thread diameter（mm）	Torque (N·m）	Remark
Hex bolts for left and right chain adjustment	M8	10	
Hex socket head cap screws for steering handle and upper and lower mounts	M8	22	
Brake bolts for rear brake arm and frame	M8	22	Threading glue
Hex self-locking nut for lower bay and upper connecting plate	M8	22	
Hex self-locking nut for lower guide sprocket mounting	M8	22	
Hex self-locking nuts for chain disc and rims	M8	32	
Self-locking nut for muffler and engine	M8	22	
Internal hex bolts for upper suspension plate and frame	M8	35	Threading glue
Hex bolts for upper coupling plate and front shock	M8	22	
Internal hex bolts for lower connecting plate and front shock	M8	22	
Internal hex bolts for front brake calipers and front shock	M8	32	Threading glue
Internal hex bolts for upper guide sprocket and tailstock	M8	22	
Internal hex bolts for front shock and front axle connection	M8	22	
Subframe to frame bolts	M8	32	Threading glue
Hex bolts from engine front suspension plate to engine	M10	60	
Hex bolts for U-shaped rocker and frame	M10	60	
Hex bolts under engine to frame	M10	60	
Flat head bolts underneath the rear shocks to the triangle rockers	M10	45	
Chain guide bolts	M8	22	
Hex self-locking nut for engine front suspension plate and engine	M10	60	
Internal hex bolt for frame above and rear shock	M10	45	

Assembly position	Thread diameter（mm）	Torque (N·m）	Remark
Internal hex flat round head bolts for engine upper suspension plate and engine	M10	60	
Flat head bolts for triangular rockers and flat forks	M12	60	
Flat head bolts for triangular and U-shaped rockers	M12	60	
Hex nut for steering column and upper connecting plate	M24	108	Grease during assembly
Front axle nuts for front axle locking	M16	88	
Flat fork axle locking front axle nut	M16	88	
Rear axle nut for rear axle locking	M22	128	
4-slot adjusting nut for steering column locking	M25	40N·m，loose in add 10N-m, back 1/4 turn	