



# USER'S MANUAL

## ***Introduction***

Thank you for choosing our motorcycle. We know that you have choices when it comes to selecting an off-road motorcycle. We appreciate your supports and in an effort to provide a safe recreational activity for you, encourage you to make time to thoroughly review this Owner's Manual.

Off-road motorcycle riding can be dangerous even fatal so please follow the rules and guidelines found in this booklet. Please adhere to your local off-road vehicle guidelines and only ride on approved trails.

## ***Important Safety Information***

Safe operation of this motorcycle is very important, as your safety depends on the operator's adherence to the information detailed in the Owner's Manual.

The information contained herein, if followed correctly, may protect you from injury or death by providing guidelines and recommendations for safe operation of your motorcycle.

Motorcycle riding is dangerous and you must exhibit sound judgment at all times while riding. It is not possible to provide warnings for all potential hazards. Stay focused while riding to avoid potentially dangerous circumstances.

Please read this manual carefully before operating this motorcycle, ensuring safe and enjoyable experiences.

**⚠ Warning** This warning symbol identifies special instructions or procedures which, if not strictly observed, could result in personal injury or death to the machine operator or bystanders.

**⚠ Caution** This symbol indicates special precaution that must be taken to avoid damage to or destruction of the machine and/or equipment.

**⚠ Note** Please comply local traffic law and highway code.

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### **Section II :**

**Maintenance and Service Information.....PAGES 28-66**

This section reviews: Break in period, general maintenance and service, maintenance schedule, specifications, torque table, throttle grip/freeplay, carburetor adjustments, engine oil, fuel, modular saddle system, spark plug, air cleaner, clutch system, spark arrester, suspension, brakes, tires and tubes, wheels, sidestand, drive chain and cleaning.

### **Section III:**

**Troubleshooting Basics.....PAGES 67-69**

This section will enable you to be prepared to solve the common issues with your motorcycle that may arise periodically.

### **Section IV :**

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A topical index helps you find information quickly and easily.

## **Section I**

### **General Information**

In order to thoroughly familiarize yourself with your new motorcycle it is imperative that you read this section of the . Owner's Manual prior to operation. This will ensure that you are well versed in the various features, location of key parts and safety precautions. It will also provide basic instructions on ride preparation, starting and stopping the motorcycle and other helpful tips.

The manual was prepared to help you obtain a working knowledge of your motorcycle and its parts. After reading it you should be able to perform the basics in terms of riding operations, transporting, your motorcycle and storage procedures.

## **Safety Information**

**Please follow the below guidelines for safe operation of your motorcycle. Motorcycle riding is dangerous and can cause injury and death if precautions are not followed.**

Safety Information:

- 1、 This motorcycle is designed for one experienced adult rider only. Do not attempt to carry a passenger.
- 2、 You should possess good athletic ability and be in good physical condition. Good coordination, balance and judgment are necessary to ride safely.
- 3、 Always wear protective gear, including an approved helmet, eye protection, long-sleeve shirt, long pants, sturdy boots and gloves.
- 4、 Never wear loose-fitting clothing that may get caught up in the motorcycle's moving parts.
- 5、 This motorcycle was designed for off-road use only. Please follow all applicable laws and regulations.
- 6、 Proper maintenance is crucial to the motorcycle's safety and reliability. Please perform pre-operation checks as outlined in this manual.
- 7、 Never start the engine in an enclosed area due to the harmful effects of carbon monoxide. Carbon monoxide can cause unconsciousness and even death.
- 8、 Make sure to always have the motor turned off when refueling with gasoline. Do not spill gasoline on the engine or on the exhaust system. DO not smoke or re-fuel near an open flame.
- 9、 Do not spill any gasoline or inhale its fumes. Do not allow any gasoline to contact your eyes. Contact medical personnel immediately if gasoline contacts your eyes.
- 10、 Do not, under any circumstances, use alcohol or drugs while operating your motorcycle. Serious injury or death may result.

## ***Weight Guidelines***

Your motorcycle was designed to have one adult rider. Do not carry a passenger, as it will create an unsafe condition in which an accident may occur.

### **Maximum weight capacity: 220 pounds**

Including the weight of the rider and protective gear

### **Loading Guidelines**

We recommend that you do not carry any cargo on this motorcycle.

- Never exceed the maximum weight limit
- Check that both tires are inflated properly

This motorcycle was specifically designed for one adult rider. Do not, under any circumstances, carry another person on your motorcycle. The result may injury or death to the rider and/ or the passenger.

In addition, do not carry any cargo on your motorcycle. It was not designed to carry cargo or be used for hauling cargo. Using your motorcycle to carry cargo may result in injury or death.

### **Warning**

Carrying a passenger may cause an accident and you can be seriously hurt or death may result. Do not carry a passenger or any cargo, as it may cause an accident that can lead to serious injury or death.

## ***Parts and Accessories***

Modifying your motorcycle or using other accessories can make your motorcycle unsafe.

Before you consider making any modifications or adding an accessory, be sure to read the following information.

### **Accessories**

Do not use parts that have not been specifically designed and tested for your motorcycle. Because we cannot test all other accessories, you must be personally responsible for proper selection and installation.

### **Modifications**

Do not remove and/or change any parts from your motorcycle. In addition to voiding the warranty, installing aftermarket or non-OEM parts may alter the performance of the motorcycle, causing injury or death.

### **Warning**

Improper accessories or modifications can cause an accident in which injury or death may occur. Follow all instructions in this Owner's Manual regarding modifications and accessories.

## Safety Labels

This motorcycle we manufacture is the off-road vehicle, specifically designed and manufactured for the cross-country course. It has particular requirements for riders' skill. When you ride the motorcycle for the first time, please read its instructions carefully in advance, which can ensure your safety much better. The specific requirements are as follows:

- 1、 Please check the performance of the vehicle's components before riding.
- 2、 This motorcycle is the vehicle for special use, and it may cause injuries or death when riding.
- 3、 The riders must be at least 14 years old.
- 4、 Please read the warning marks pasted on the motorcycle.
- 5、 Please use the qualified protective gear when riding. Please do not carry passenger, because this vehicle is designed for the single person.
- 6、 This motorcycle is designed and manufactured for the off-road use, does not meet the standard of normal motor vehicles. Therefore, it is illegal if you ride it on any motor way, streets or high-way.

~07~

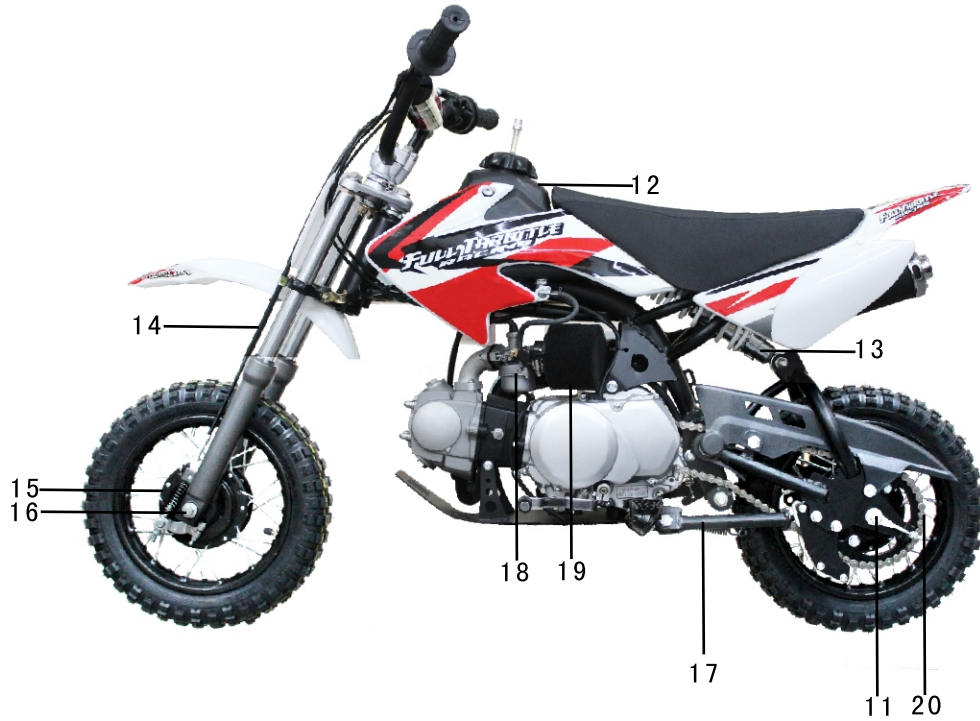
## Component Location



- 1、 Engine stop button
- 2、 Throttle
- 3、 Front brake lever
- 4、 Spark plug
- 5、 Engine oil filler cap /dipstick
- 6、 Adjusting nut (drive chain)
- 7、 Rear brake pedal
- 8、 Engine oil drain bolt(under engine)
- 9、 Steering head
- 10、 Front suspension

~08~

## Component Location



11. Rear wheel axle
12. Fuel tank
13. Rear suspension
14. Front brake cable
15. Front disc rotor
16. Front wheel axle
17. Sidestand
18. Carburetor
19. Air cleaner
20. Drive chain

~9 ~

## Component Location



1. Engine stop button
2. Throttle
3. Front brake lever
4. Spark plug
5. Engine oil filler cap /dipstick
6. Adjusting nut (drive chain)
7. Rear brake pedal
8. Engine oil drain bolt (under engine)
9. Steering head
10. Front suspension

~10~

## Component Location



- 11、Rear wheel axle
- 12、Fuel tank
- 13、Rear suspension
- 14、Front brake cable
- 15、Front disc rotor
- 16、Front wheel axle
- 17、Front brake caliper
- 18、Carburetor
- 19、Air cleaner
- 20、Drive chain
- 21、Sidestand

~11~

## Component Location



- 1、Engine stop button
- 2、Throttle
- 3、Front brake lever
- 4、Spark plug
- 5、Engine oil filler cap /dipstick
- 6、Adjusting nut (drive chain)
- 7、Rear brake pedal
- 8、Engine oil drain bolt(under engine)
- 9、Steering head
- 10、Front suspension

~12~

## Componet Location



- 11、 Rear wheel axle
- 12、 Fuel tank
- 13、 Rear suspension
- 14、 Front brake cable
- 15、 Front disc rotor
- 16、 Front wheel axle
- 17、 Front brake caliper
- 18、 Carburetor
- 19、 Air cleaner
- 20、 Drive chain

## Key Components

### Fuel Valve

This component controls the fuel flow from the fuel tank to the carburetor.



**OFF**



**NO**

OFF

When you finish riding,turn the valve to the OFF position,which prevents the flow of fuel from the fuel tank to the carburetor.

NO

IN order to start the engine,you must first turn NO the fuel valve,which allows fuel to flow from the fuel tank to the carburetor.

### **Warning**

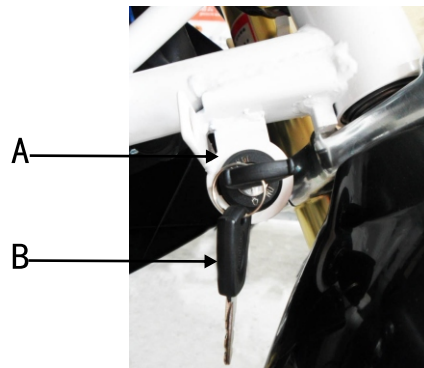
It is imperative that you refuel as soon as possible to avoid running out of fuel,once you have refueled your machine turn the lever back to the NO switch.

## Key Components

### Ignition Switch

The ignition switch serves as a security system for your motorcycle, as it is required to start the engine. Please maintain a watchful eye on your motorcycle key, so that unauthorized use will not occur.

- (A) ignition switch
- (B) key

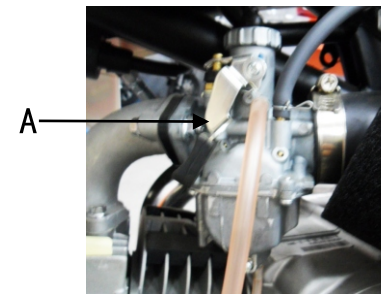


1. Before riding, insert the key and turn it to the right for the NO position.
2. Your motorcycle is now ready to start.
3. Once finished riding, turn the key back to the OFF position and remove key. Make sure to guard key with extreme caution to prevent theft or unauthorized use.

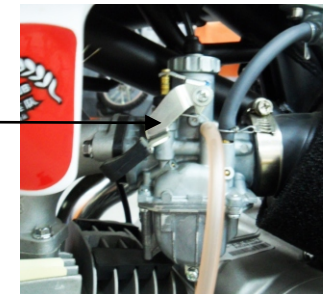
## Key Components

### Choke Lever

The choke lever is used to increase the fuel to air ratio and helps to start your motorcycle when it is cold.



B



C

- (A) choke lever
- (B) choke lever OFF position
- (C) choke lever ON position

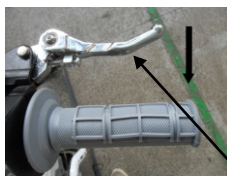
Please see page 42 for specific details on proper choke usage.

## Key Components

Please carefully review the Key Components listed below and become familiar with the procedures necessary to successfully operate your motorcycle:



A





B



C

### (A) Engine Stop Button

The Engine Stop Button is used in the normal riding conditions. turning switch to (  ), the engine stops, turning switch to (  ), the engine could start.

### (B) Front Brake Lever

The Front Brake Lever is used for slowing down or braking when riding the motorcycle. When you do this, you need to operate by your left hand per the direction of arrow shown in the picture. Do not operate with excessive force, because it could lead to rollover, cause dangers.

### (C) Throttle Turning Lever

The Throttle Turning Lever is the component used for controlling the engine revolution speed. If you'd like to add the engine revolution speed, please rotate the handgrip inward per the direction of arrow shown in the picture. If you'd like to reduce the engine revolution speed, please rotate the handgrip against the direction of arrow shown in the picture.

## Key Components

Please carefully review the Key Components listed below and become familiar with the procedures necessary to successfully operate your motorcycle:



A

### (A) Clutch Lever

The clutch lever is used to ensure a smooth change of gears. Pull the clutch lever in with your left hand each time you want to shift your motorcycle



B

### (B) Gear Shift

The Gear Shift Lever is used for shifting between the high-speed gear and the low-speed gear. Pulling the Gear Shift Lever upward (throttling back at the same time) can shift to high-speed gear, pushing the Gear Shift Lever can shift to the low-speed gear.



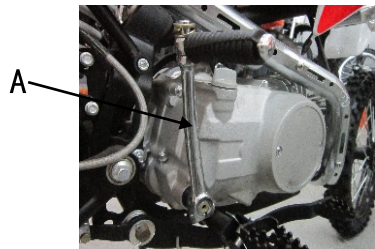
C

### (C) Gear Shift

The rear brake pedal is used to slow or stop your motorcycle with your right foot. Press down slowly and methodically to reduce speed.

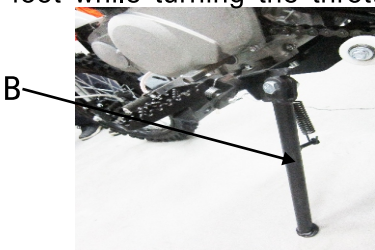
## Key Components

Please carefully review the Key Components listed below and become familiar with the procedures necessary to successfully operate your motorcycle:



(A) Kickstarter

The kickstarter is the lever on the right side of your machine that actually starts the motorcycle. Turn the kickstarter out and depress it with your right foot while turning the throttle. Press all the way down and let pop back up to position.



(B) Sidestand

The sidestand is used to keep your motorcycle upright while parked. If seated on the motorcycle, use your left foot to lower the stand. Once it is secure on the ground you may release the motorcycle from your grip.

## Preparing To Ride

Preparing to ride your motorcycle for the first time requires ample time to review all of the items listed in manual. In addition, it is recommended that you are completely clear on all of the safety Features, operational controls and in general possess a thorough understanding of how to operate your new motorcycle.

**Failure to review all the information outlined in this manual can result in serious injury and even death.**

Safety Gear

Proper safety gear is a necessity while riding your motorcycle. It is recommended that you wear an approved helmet, eye protection, long-sleeve shirt, gloves, long pants and rugged boots while operating your motorcycle.

### **Warning**

In the event of an accident, failure to wear an approved helmet can lead to serious injury or even death. Please make sure you wear an approved helmet and appropriate safety gear each time you operate your motorcycle.

## ***Preparing Your Motorcycle***

Off-road riding can be abusive on your machine. It is imperative that you inspect your motorcycle prior to riding it, ensuring that it will operate in a safe manner, Please review the following information so that you can avoid disaster.

### **Warning**

Proper maintenance is key to safe riding. Failure to properly maintain and inspect your motorcycle may lead to accidents that can cause severe injury or even death. Thoroughly examine your motorcycle prior to each ride, ensuring proper working condition on all parts.

### **Pre-ride inspection**

Visually inspect the following items before riding your motorcycle:

- Fuel** Open the cap to visually inspect the fuel level. Add fuel as needed. Also make sure the fuel fill cap is securely fastened.
- Leaks** Inspect the under side of the motorcycle to look for fuel or oil leaks.
- Engine Oil** Observe the oil level and add as needed.
- Spark Plug & Cap** Ensure that the cap is secure and spark plug is fastened tightly.
- Tires** Thoroughly examine tires for excessive wear and use tire gauge to check pressure. If pressure is low, in flate to required pressure.
- Spokes & Rims** Examine spokes to ensure tightness. Inspect rims for damage.
- Drive chain** Visually inspect chain slack and adjust as needed. The chain slider may also require replacement if showing signs of wear.
- Cables** Thoroughly inspect cable and housings. Replace or tighten as needed.
- Nuts & Bolts** Utilize appropriate wrenches to make sure all fasteners, nuts and bolts are secured.

## ***Preparing Your Motorcycle***

Once on your motorcycle it is beneficial to inspect the following items prior to riding. If you discover any problems, do not ride the motorcycle. Take to an authorized dealer immediately for inspection and repair.

- Throttle** Review the freeplay and adjust if necessary. Twist the throttle to make sure it moves smoothly without sticking, and snaps back quickly when it is released.
- Brakes** Engage both the front and rear brakes to ensure performance. Adjust as needed.
- Shocks** Squeeze the front brake lever and press down on the front end, compressing the front fork. Repeat to ensure the front fork is operating smoothly.

## ***Starting the Engine***

Please adhere to the following guidelines when starting your machine.

### **Starting the Motorcycle**

- 1、 Shift the transmission into neutral so that the motorcycle rolls freely
- 2、 Turn the fuel tap lever to the ON position.
- 3、 Turn the key to the RUN position
- 4、 If the engine is cold, pull up the CHOKE lever to engage the choke.
- 5、 Kick the engine over, leaving the throttle closed. Kick from the top of the stroke through to the bottom with a quick movement.
- 6、 Once engine is warm, pushing the choke lever down back into the closed position.
- 7、 If the engine is warm or on a hot day, do not use the choke knob. Twist the throttle while kicking the motorcycle over.

Please Note:

Over-use of choke may harm engine and cylinder.

## ***Starting and Stopping Your Motorcycle***

Please follow the following guidelines to ride your motorcycle:

### **Taking Off**

Make sure that the sidestand is in the upright position.

Pull in clutch lever with your left hand.

Shift into first gear with your left foot.

Release clutch slowly and twist throttle to move machine.

### **Shifting Gears**

Pull in clutch with your left hand.

Release throttle with right hand.

Move shifter into next higher or lower gear.

Release the clutch slowly, twist throttle slowly to move machine forward.

### **Stopping Your Motorcycle**

For effective,braking apply both brakes simultaneously and release pressure on the throttle.

Make sure you pull in the clutch lever with your left hand before coming to a complete stop.

Shift into lower gears to aid in breaking by utilizing engine compression to assist with a reduction in speed.

AS you approach a corner, make every effort to apply breaks and reduce your speed PRIOR to reaching the corner, as applying the brakes while in the corner may be unsafe and you could have an accident.

If you are riding your motorcycle on loose or in wet condition, use extra caution when reducing speeds ad your traction may be impaired by these conditions.

### **Stopping the Engine**

To stop the engine,shift into neutral, turn the engine stop switch to OFF.

### **Parking**

Lower the sidestand with your left foot and turn the ignition switch to the OFF position.

If you have finished riding for the day then turn the gas valve to the OFF positon.

## Transporting Your Motorcycle

For safe transportation of your motorcycle, please adhere to the following guidelines:

- 1、 Use an approved motorcycle loading ramp.
- 2、 Ensure that the motorcycle engine is not running, the key is off and the fuel valve is closed. Always utilize approved motorcycle tie-down straps. DO not use standard rope as rope can loosen and cause the motorcycle to shift or even fall out of the truck or trailer. This could cause an accident.
- 3、 Make sure that the motorcycle is secure by bracing the front wheel against the front of the truck bed or trailer wall. Attach the lower end of the two straps to the tie-down hooks on your vehicle. Attach the upper ends of the straps to the each side of the handlebar.
- 4、 Tighten both straps equally until the front suspension pushes into down position half-way.
- 5、 Ensure that the rear end of motorcycle is secure with a tie-down strap.

## Motorcycle Storage

### Storage Procedures

When you are planning to store your motorcycle for a minimum of one month please adhere to the following guidelines:

- 1、 Thoroughly clean the motorcycle.
- 2、 Lubricate the drive chain as well as the cable systems.
- 3、 Start motorcycle and run for approximately five minutes. Turn off engine and drain engine oil.
- 4、 Refill engine oil with new oil.

### Warning

Engine oil is a toxic substance. Contact your local authorities regarding legal engine oil disposal options in your area.

- 5、 Empty the fuel tank along with the carburetor float bowl. This prevents the fuel from deteriorating.
- 6、 Drain the fuel from the carburetor into an approved gasoline container (check with local authorities regarding used fuel disposal).
- 7、 Remove the spark plug. Spray fogging oil into the cylinder and kick the engine over a few times so that the cylinder gets coated. Re-install the spark plug.
- 8、 Place the motorcycle on a workstand or on a box so that the tires do not touch the floor. If you do not have a means by which to prop up the motorcycle then place wooden boards beneath the tires.
- 9、 Prevent moisture from entering the exhaust system place a plastic bag over the tailpipe.
- 10、 Finally, cover the motorcycle to keep dust and grime away from it. Use a cotton bed sheet, not plastic. Plastic will prevent air from circulating beneath the cover and enable dirt to accumulate as well.

### Warning

Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel. Never smoke any version of tobacco products when near your motorcycle. Make sure that you only operate your motorcycle in a well ventilated area. Secure gas cap tightly after refueling and if you spill any gasoline, wipe it up immediately. Contact your local authorities regarding legal fuel disposal options in your area.

## ***Motorcycle Storage***

### **Removing Your Motorcycle From Storage**

After your motorcycle has been stored for any length of time it is imperative to follow these guidelines to ensure proper reactivation into working condition:

1. Remove the cover.Clean your motorcycle.Depending on storage conditions you may be able to wipe down the motorcycle with a damp cloth to remove the dust.
2. Change the engine oil.
3. Fill fuel tank.
4. Lubricate the drive china.
5. Perform a test ride at low speeds to ensure all components are functioning properly.

## ***Section II Maintenance Program***

This section addresses the key topics to help ensure that you can perform basic maintenance operations on your motorcycle.Proper maintenance will prolong the life of your motorcycle and help keep it in good working condition.

While some of the advanced service and repair must be performed by a qualified technician at an authorized dealer,you can tackle the basics and keep your machine in top working order.

It is imperative that you perform the recommended service items according to the Maintenance Schedule.This will prevent major repairs due to neglect.Keeping accurate records is also key,so that you can track your maintenance efforts so that nothing falls through the cracks.

In addition to the maintenance guidelines,this section also provides adjustment procedures.You will be able to perform these adjustments to ensure the safe operations of motorcycle.Overall you will become well-versed in the functionality of your machine.

## Break In Period

### Breaking in your Motorcycle

The new motorcycle's throttle maximum opening contrast table during the breaking-in period is as follows:

First 8000 kilometers	The maximum opening is 1/2 of the total mileage
16000 kilometers	2/3 of the maximum opening

### The engine revolving speed during the breaking-in period:

1. For the engine, do not maintain the same speed or change the speed frequently, which can keep fit balance among engine's components, be helpful for cooling the engine, and be good for engine's operation. During the breaking-in period, please pay attention to the mutual coordinate among components, do not overload use.

2. If the engine is used in the low gear for a long time, it would cause engine components be tired and mismatching. Please operate different speeds in the engine's proper gear, however, please do not exceed the highest speed of the breaking-in period. Before breaking-in reaching 1000KM, please don't ride the motorcycle with the full-throttle.

### Lubrication before riding:

After the heat engine or the cold engine starts, please speed up slowly, and working for some time at the unloaded condition, in this way, it can make the lubricating oil in the engine lubricate all of the components sufficiently.

### Warning

Failure to properly break in your motorcycle may detrimentally affect the engine and significantly reduce its lifespan.

## General Maintenance and Service

Performing routine maintenance, service and adjustments is essential to safe motorcycle riding.

Please follow the guideline outlined in this manual for procedures that will enhance your motorcycle experience and make your motorcycle perform better, thereby reducing the risk of maintenance-related accidents

Please allocate the necessary time for maintenance your safety is at stake! Don't take shortcuts on maintaining your machine, as the results may cause you injury or even death.

### Warning

Proper maintenance is imperative on this motorcycle. Failure to perform routine maintenance items as outlined in this manual can result in serious injury or even death.

## General Maintenance and Service

### Pre-Maintenance Safety Measures

Do not attempt any maintenance tasks while the motorcycle engine is running.

Do not start the motorcycle indoors. Ensure proper ventilation to avoid carbon monoxide inhalation.

Do not perform any maintenance efforts on your motorcycle while the engine is hot or warm. Allow it to completely cool before performing any maintenance tasks.

Unless instructed otherwise by this manual, do not perform any maintenance while the motorcycle is running, as your hands or clothing may get caught in the moving parts.

Use a level work area. Do not perform the required maintenance on a hillside as it could result in a serious accident. Injury or death could result.

Please ensure that when cleaning parts you use a cleaner such as kerosene to avoid highly flammable cleaning agents.

We have designed a comprehensive maintenance schedule to assist you with keeping your motorcycle in top shape.

Our expert technicians have designed a maintenance program that will keep your machine in good working condition and help you avoid major repairs that were preventable. You must, however, be committed to following the plan or breakdown may occur. Improper maintenance may result in accident that could lead to severe injury or even death.

If you have adequate mechanical skills you can perform the routine maintenance yourself. If you are not mechanically inclined it is best if you transport your motorcycle to the nearest dealer so that they can perform the required service items. They are experts in motorcycle repair if there is any question - take your machine to them.

## Maintenance Schedule

ITEM		FREQUENT			Review
		Initial 3 Hours	Maintenance Interval		Page
			30 Hours	60 Hours	
MOTOR	Air Filter	IN	IN	IN	49
	Clutch System	IN	IN	IN	50
	Front Sprocket		IN	IN	NA
	Fuel Line and Connections		IN	IN	NA
	Fuel Tap Inspect		IN	IN	41-44
	Oil Change	IN	IN	IN	51
	Spark Arrester		IN	IN	48
	Spark Plug, Clean	IN	IN	IN	48
	Spark Plug, Gap		IN	IN	48
	Throttle Grip/Freeplay	IN	IN	IN	48

### Key:

**D=Recommend having authorized Dealer perform this operation**

**IN=Perform inspection, adjust, replace, lubricate and/or re-torque as needed**

## Maintenance Schedule

ITEM		FREQUENT	Initial	Maintenance Interval		Review
			3 Hours	30 Hours	60 Hours	Page
<b>MOTOR</b>	Brake Cables		IN	IN	IN	
	Brake Pads/Rotors		IN	IN	IN	54-56
	Drive Chain Wear			IN	IN	64-66
	Front Fork			IN	IN	52
	Nuts,Bolts and Fasteners			IN	IN	NA
	Overall Lubrication			IN	IN	NA
	Rear Monoshock			IN	IN	53
	Rear Sprocket			IN	IN	NA
	Sidestand			IN	IN	62
	Steering Head Bearing			IN	IN	NA
	Swingarm Bearing			IN	IN	53
	Tires, Rims and Spokes			IN	IN	57-61

**Key:**

D=Recommend having authorized Dealer perform this operation

IN=Perform inspection, adjust, replace,lubricate and/or re-torque as needed



## Specifications

The total vehicle dimension	1380×670×850mm	Engine Type	Single cylinder, natural air cooling, four-stroke, horizontal, OHC(overhead camshaft)
Seat height	595mm	Cylinder diameter ×distance	47×49.5mm
Tail height	665mm	Actual displacement	86ml
Height of the fuel tank mouth	680mm	Maximum power	4.3KW/8000r/min
Minimum ground clearance	170mm	Maximum torque	5.6N.m/6000r/min
Front fork travel	90mm	Primary transmission ratio	3.722
Rear shock travel	50mm	Starting mode	Kick starter
Tire specification	Front2.50/10 Rear2.50/10	Fuel grade	AboveRQ-93
Dry weight	50kg	Oil grade	15W/40SE
Wheel base	980mm	Oil amount	900ml



## Specifications

The total vehicle dimension	1600×670×1000mm	Engine Type	Four-stroke, air cooling, single cylinder, self-shifting clutch, horizontal
Seat height	725mm	Cylinder diameter×distance	52.4×49.5mm
Tail height	770mm	Actual displacement	106.7ml
Height of the fuel tank mouth	770mm	Maximum power	5.2KW/8000r/min
Minimum ground clearance	245mm	Maximum torque	6.9N.m/6000r/min
Front fork travel	110mm	Primary transmission ratio	4.059
Rear shock travel	30mm	Starting mode	Kick starter/electric starter
Tire specification	Front60/100-14 Rear80/100-12	Fuel grade	AboveRQ-93
Dry weight	69.2kg	Oil grade	15W/40SE
Wheel base	1090mm	Oil amount	900ml



## Specifications

The total vehicle dimension	1700×735×1090mm	Engine Type	Single cylinder, four-stroke, oil cooling, inclined horizontal 10°, overhead
Seat height	825mm	Cylinder diameter×distance	60×55mm
Tail height	875mm	Actual displacement	155.5ml
Height of the fuel tank mouth	870mm	Maximum power	10.5KW/9500r/min
Minimum ground clearance	305mm	Maximum torque	11.5N.m/8000r/min
Front fork travel	170mm	Primary transmission ratio	4.085
Rear shock travel	75mm	Starting mode	Kick starter
Tire specification	Front70/100-14 Rear80/100-12	Fuel grade	AboveRQ-93
Dry weight	73kg	Oil grade	15W/40SE
Wheel base	1200mm	Oil amount	1000ml

## Torque Table

NO	Description	Unit (N. m)	Unit (BF. FT)
1	Nut For Front Axle	55-70	41-52
2	Swingarm Shaft	50-60	37-44
3	Nut For Rear Axel	55-70	41-52
4	Tightening Nut For Engine With Frame	25-30	18-22
5	Tightening Nut For Front Shock Absorber M8(top triple clamp)	25-30	18-22
6	Tightening Nut For Rear Shock Absorber	25-30	18-22
7	Tightening Nut For Handle Bar	20-25	15-18
8	Tightening Nut For Muffler	25-30	18-22
9	Nut For Brake Disk	28-35	21-26
10	Sprocket	25-30	18-22
11	Chain Guard	15-20	11-15
12	Footpeg	18-25	13-18
13	Sidestand	28-35	21-26
14	Front Brake Caliper	20-25	15-18
15	Front Brake Reservoir	8-12	6-9
16	Lock Nut For Steering Stem	45-55	33-41
17	Tightening Nut For Front Shock Absorber M6(lower triple clamp)	8-12	6-9
18	Lower Handle Bar Clamp	30-35	22-26
19	Oil Drain Bolt	20-25	15-18
20	Foot Peg Engine Mount Bolt	20-25	15-18

## Throttle Grip/Freepaly

### Throttle Freeplay Adjustment

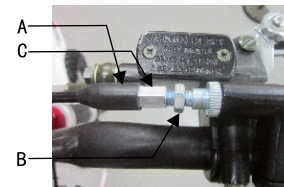
Throttle grip controls the inlet oil of the carburetor, speeding up or slowing down the running vehicle. Due to that the throttle grip has been adjusted to the best condition before the vehicle delivery, the throttle grip's free travel in the throttle perch will be bigger during working and influence the vehicle's acceleration performance. Please do some adjustment according to the instructions as follows:

#### Picture at right:

A: Dust seal

B: Locknut

C: Adjuster



#### The procedure of adjusting the throttle grip:

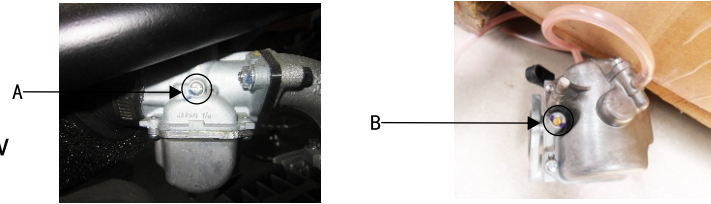
- 1、Sliding the dust seal on the top of the throttle cable A, loosening the locknut on the top of the throttle cable B, turning the adjuster C.
- 2、Rotating C outward, at the same time, rotating the throttle grip back and forth. When the distance between the grip and the throttle perch is 5-7mm, stop rotating C, then screwing B to the direction of C and locking, and putting A on.
- 3、Ensuring that the throttle cable and the perch is not worn down and in good condition. When rotating the throttle perch, the grip should be rotated quite smoothly. If it is jammed, please add a balanced amount of lubrication oil in the joint between the throttle cable core and the throttle grip.

#### **Warning**

Riding your motorcycle with an improperly adjusted or damaged throttle cable can result in unsafe operating conditions that may lead to injury or death.

## Carburetor Adjustments

Please perform the following operation whenever the idel speed appears to be irregular either when the motorcycle stalls when idling or when it races when idling.



- (A) idling adjusting screw  
(B) air screw

### Proper Idle Adjustment Procedure:

1. Start the engine before adjusting, preheating it fully.
2. Adjust the engine to the neutral position, loosen the throttle grip, allow the engine to be idle running.
3. Adjust (A), when screwing in clockwise, the bolt rise up in idling speed, when screwing out in anticlockwise, the bolt lower down in idling speed. Adjusting carefully so that the engine idling maintains 1500 r/min.

### **Warning**

1. The carburetor has been set into the most standard position before delivery. If you change it at your will, it would influence the engine performance, add the exhaust emission.
2. Do not adjust it in the airless circumstance, which may lead to carbon monoxide poisoning and endanger your life safety.
3. For the inexperienced users, please find the professional maintenance staff to adjust.

## Engine Oil

The major elements of your motorcycle 's engine,the transmission and clutch system,require oil function at optimal levels. You must change the oil and oil filter in accordance with the Maintenance Schedule or your engine will become damaged. Adherence to the required maintenance schedule will prolong the life of your motor and reduce wear and tear .

### Recommended oli

Type:                   APISE,SF or SG  
                              API SH or SJ with JASO MA

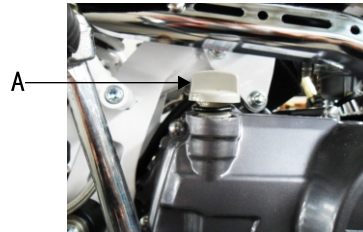
Viscosity:  
SAE 10W-40

### **Warning**

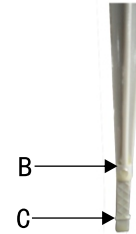
The safe operation of your motorcycle will be impaired if proper engine oil maintenane is not carried out according to the Maintenance Schedule.Utilizing dirty or contaminated oil may result in engine or transmission seizure.This may lead to an accident that could cause serious injury or death.

**Oil Level Inspection**  
**IMAGE RIGHT SIDE**

- (A) oil filler cap with dipstick
- (B) upper oil boundary mark
- (C) lower oil boundary mark



## Engine Oil

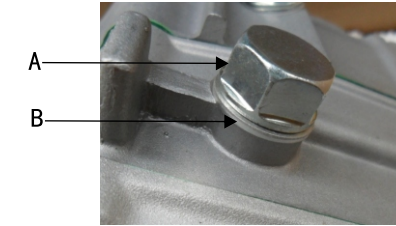


**Oil Maintenance Procedure:**

- 1、 Put the motorcycle on the flat ground.
- 2、 Start the engine, and make the engine maintain idle running for 2~3 minutes, then stop the engine, wait for several minutes so that the oil returns to the calm state.
- 3、 Unscrew and take out A), and wipe clean the oil on A.
- 4、 Replace A) back, but don't screw tightly.
- 5、 Open the oil level gauge and check the oil level. If the oil is at the upper oil level mark B or near the position, then you don't need to add oil. If it below the oil level mark C or near the position, it is advised to add the oil, keeping the oil level be at the upper oil level mark B. Please pay attention not to exceeding the upper oil level mark B when adding oil.
- 6、 Put the oil level gauge back and screw tightly.

**Changing Engine Oil**  
**IMAGE RIGHT SIDE**

- (A) oil drain bolt
- (B) sealing washer



**Proper Engine Oil Changing Procedure:**

- 1、 Warm up engine thoroughly, and then let sit for three minutes so engine oil can settle.
- 2、 Place motorcycle on flat work area.
- 3、 Place oil drainage pan beneath the motorcycle.
- 4、 Remove the engine oil drain bolt (A) and allow the oil to drain. Tilt the motorcycle from side to side to ensure complete drainage.
- 5、 Place new sealing washer (B) on oil drain bolt and tighten to specified torque: 16 BEFT.
- 6、 Pour in new engine oil, The required amount is: 06 US QT.
- 7、 Re-install the oil filler cap/dipstick.
- 8、 Start engine and let run for five minutes, then stop engine and let sit for three minutes.
- 9、 Re-check oil level and add if necessary.
- 10、 Inspect all affected areas for leakage.

**Warning**

Motorcycle engine oil is toxic and must be disposed properly. Contact your local refuse authorities to determine legal disposal options. Do not place used engine oil in your trash or garbage receptacle.

## Engine Oil

<b>API Classification</b>	<b>SF or SG</b>
<b>Viscosity (Weight)</b>	<b>SAE 10W-40*</b>
<b>Suggest oil</b>	<b>4-stroke oil(USE&amp;Canada) or an equivalent**</b>

Your vehicle doesn't need any additives. Please choose the lubrication brand we recommend or the lubrication of the correct specification according to the temperature at your area.

Please use the common lubrication, do not use the lubrication brand containing graphite and molybdenum additives, which may cause counteractive effect.

In order to maintain the engine be in the good performance state, you need to use the high-quality lubrication and change the lubrication brand regularly. It would be good for engine if you can check the oil amount everyday and replace the new lubrication regularly.

The specific fuel for your motorcycle can be found below under the "Fuel Requirement" section. The fuel tank has a capacity .6 gallons in the main tank and .2 gallons on the Reserve withhc. It is not recommended that you use a lower octane (below 94), as engine knocking may occur. It is also highly recommended that you use unleaded gasoline, as it is a cleaner burning fuel than leaded versions.

In addition, do not use oil/gasoline mixtures.

### Fuel Requirements

It is imperative that your motorcycle only receives clean, unleaded gasoline with a minimum Pump Octane Number of 94 or higher. You can find this number posted on pumps at every service station in America. This number represents the fuel's resistance to detonation, which is commonly known as knocking. Don't use gas that is less than this or your machine will knock and have no power.

### Oxygenated Fuels

The alcohol blends listed below are commonly used in lieu of standard gasoline. Please check with your authorized dealer prior to using anything other than standard gasoline.

- **Ethanol**
- **Mtbe**
- **Methanol**

## Fuel

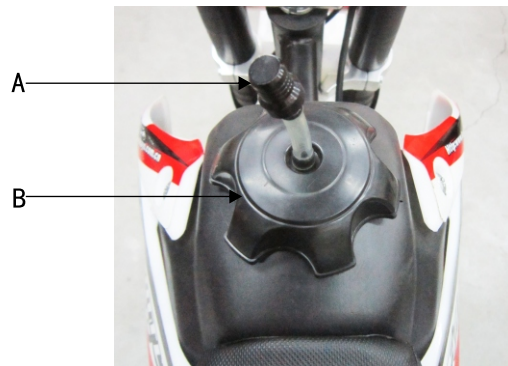
### Refueling Procedure

Fuel Tank Capacity,including reserve: 0.6 US gal

Reserve Capacity: 0.20 US gal

(A) fuel cap

(B) breather tube



### Refueling Procedure

- 1、 Open the fuel tank cover, rotate the fuel tank anti-clockwise and take down the cover.
- 2、 The refueling amount is subject to the bottom of the fuel tank cover, please don't exceed this boundary.
- 3、 Screw the cover tightly in clockwise after refueling.
- 4、 Check the vent valve to see whether it is installed firmly or not.

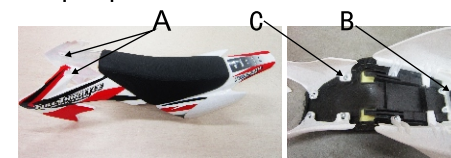
### Warning

Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel. Never smoke any version of tobacco products when near your motorcycle. Make sure that you only operate your motorcycle in a well ventilated area. Secure gas cap tightly after refueling and if you spill any gasoline, wipe it up immediately

## Modular Seat System Removal

Your motorcycle comes standard with a simple Modular Seat System, to make maintenance simple.

This system includes the machine's seat, shrouds, rear number plates and rear fender all in one simple piece!



CRF50

Operating steps:

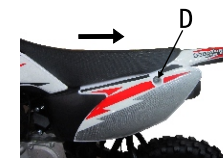
- 1、 Remove the plastic and fuel tank A (4 pieces) with screwdriver and wrench, cushion and sub-frame fixing bolts B (2 pieces).
- 2、 Then you can take down the whole cushion device. If the cushion needs maintaining separately, you need to remove C (9 pieces) cushion and plastic's fixing bolt.

### Installation

- 1、 Place Modular Saddle System back on motorcycle and line up screw and bolt programs.
- 2、 Reverse removal procedure and ensure all screws and bolts are secure.

### Warning

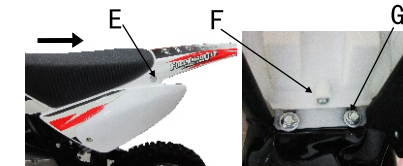
Tighten and secure all screws and bolts on the Modular Saddle System. Failure to install this system properly may result in an accident. Injury or death may occur.



TTR

Operating steps:

- 1、 Screw out rear left/right shock fender and cushion frame bolt D (2 pieces).
- 2、 Take out the cushion backward according to the direction of arrow.



CRF70

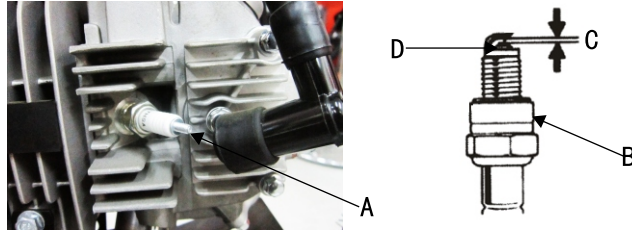
Operating steps:

- 1、 Remove rear central shock fender and rear sub-frame fixing bolt E (2 pieces) with screwdriver.
- 2、 Remove cushion and sub-frame fixing bolt G (2 pieces) with wrench.
- 3、 Take out cushion and rear central shock fender backward according to the direction of arrow. If the cushion needs maintaining separately, you need to remove 1 piece of F.

## Spark Plug

Spark plug maintenance should be conducted according to the Master Maintenance Schedule. Once you have removed the spark plug (instructions below), examine it for carbon or oil residue. Use a wire brush and kerosene to scrub it thoroughly. If the visual inspection uncovers corroded electrodes or any cracks, replace the spark plug immediately.

- (A) spark plug cap
- (B) spark plug
- (C) gap
- (D) center electrode



### General Maintenance

- 1、 Remove the spark plug cap(A).
- 2、 Place spark plug wrench on spark plug (B).
- 3、 First loosen then remove the spark plug.
- 4、 Inspect the spark plug electrode (D) for wear. There should be no chips or cracking whatsoever.
- 5、 In addition, check the gap(C) using a wire-type feeler gauge. The proper gap should be: 0.024-0.028 in. (0.60-0.70mm)
- 6、 When re-installing the spark plug place it into the socket and tighten to specification.
- 7、 Connect the spark plug cap.

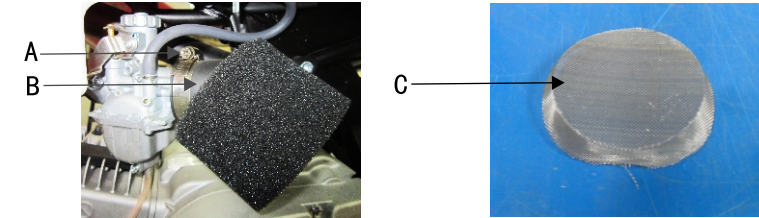
### Warning

DO not try to remove the spark plug while the engine is running. Let the engine completely cool before removing the spark plug or serious injury and burns may occur.

## Air Cleaner

A dirty or clogged air cleaner causes a plethora of problems including poor air intake, low engine power, increased fuel usage and increased incidence of fouled spark plugs.

- (A) clamp screw
- (B) air cleaner
- (C) fireproof cover



Please observe the operating instructions for cleaning and maintaining the air cleaner as follows:

- 1、 Unscrew fixing bolt A, remove B and C.
- 2、 Wash B and C with washing-up liquid, wipe off the drop of water, then ensure to make it be dry for 24 hours before resetting.
- 3、 Check whether B and C are destroyed or not with the naked eyes, please replace if necessary.
- 4、 After drying out, coat the oil used on air cleaner on the surface of the air cleaner, wipe off the extra oil.
- 5、 Assemble B and C back, then lock A tightly.

### Warning

A clogged air cleaner may enable dirt and other residue to enter the carburetor and negatively affect the throttle. A malfunctioning throttle may cause injury and even death.

## Clutch System

When shifting gears the clutch should engage easily and provide smooth shifting from gear to gear. There should not be any "slipping" during the shifting process.

- (A) clutch lever
- (B) locknut
- (C) adjuster



### Clutch Adjustment

1. Check the clutch lever for freeplay. If it is beyond 0.054 inch (1/2inch) then adjustment is necessary.
2. Loosen the locknut (B).
3. Turn the adjuster (C) until the freeplay fits within the specified range.
4. Tighten locknut (B).

## Spark Arrester

The spark arrester prevents sparks from exiting the exhaust system which could harm environment.

### **Warning**

Any time you work on the exhaust system please make sure that the engine is cold or you may risk severe burns. Once the engine is started it heats rapidly. Use caution when maintaining the exhaust system.



### **Warning**

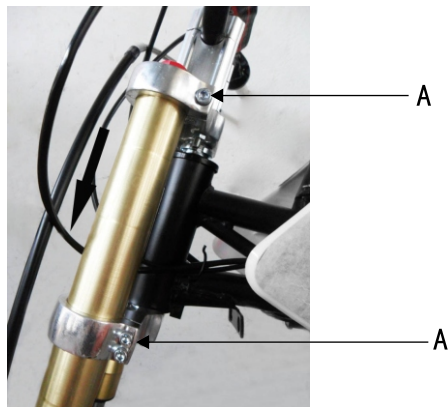
Do not under any circumstances start the engine without the spark arrester properly installed to the motorcycle. A fire is likely which could lead to severe burns or even death.

## Suspension

### Front Suspension Inspection

Proper functionality of your motorcycle's front and rear suspension is integral to maintaining a safe vehicle. If your visual inspection indicates that some suspension parts may be worn or damaged, have your local dealer evaluate your motorcycle to determine if replacement parts are necessary.

(A) mounting bolts



### Front Suspension Inspection

1. Pull the front brake in and hold it. Move the front end up and down to activate the fork. It should be smooth and the rebound should be swift.
2. Visually inspect all mounting nuts and bolts. If you notice anything that seems damaged have your authorized dealer examine further to determine next steps.

### Rear Suspension Inspection

- (A) swingarm bearing
- (B) shock absorber attachment points



1. After placing your motorcycle on a maintenance stand, push hard against the side of the rear wheel and feel for any freeplay, indicating worn swingarm bearings.
2. Make sure the bolts that secure the shock absorber are fastened correctly.
3. If you suspect any problems such as leaks or damage, have your authorized dealer examine your motorcycle.

### Warning

Do not disassemble the rear shock absorber as it contains flammable, high-pressure gas. Keep clear of flame and extreme heat.

## Suspension

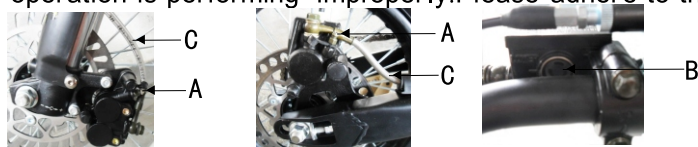
## Brakes

Your motorcycle is equipped with state -of-the-art disc brakes both front and rear.The only procedure that you will need to execute is bleeding and replacing the pads.Proper maintenance (according to Maintenance Schedule) will ensure safe conditions for your brakes by following these guidelines:

### Brake Bleeding(Front and Rear)

Your disc brakes require "bleeding" if the brake system has been disassembled,the brake hose has been serviced,the brake fluid is low or brake operation is performing improperly.Please adhere to the following guidelines to bleed the brakes:

- (A) caliper bleed screw
- (B) brake fluid reservoir
- (C) brake fluid hose



1. Loosen caliper bleed screw(A) to remove oil.Place small bucket beneath to catch oil.
2. Refasten bleed screw.Fill reservoir(B) with approved brake fluid.
3. Connect clear plastic tube to caliper bleed screw and place other end in a container.
4. Slowly engage brake lever or pedal.
5. Pull in the lever or push down the pedal.Continue to hold the lever or pedal in engaged position.
6. Loosen the caliper bleed screw,then allow the lever or pedal to reach its limit.
7. Finally,tighten the caliper bleed screw after fully engaging the lever or pedal,then release the lever or pedal.
8. Repeat steps 5-8 as needed until all bubbles have been removed from the brake system.

### ⚠ Warning

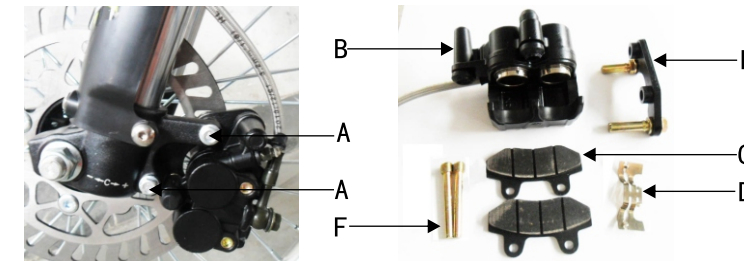
Maintaining proper brake adjustment is crucial to safe operation of your motorcycle. A dangerous loss of braking performance may occur if the brake system in not properly bleed.Improper adjustment may result in brake assembly damage and cause an accident.An accident may cause serious injury or death.

## Brakes

### Front Brake Pad Replacement

To change the front disc brake pads on your motorcycle please adhere to following guidelines:

- (A) brake caliper-mounting bolts
- (B) caliper assembly
- (C) brake pad
- (D) brake pad installation fastener.
- (E) disc brake bracket
- (F) brake pad fixing bolt



The procedures of replacing brake pad for front disc brake lower pump casing:

1. Remove the lower pump casing mounting bolt (A) from the left front fork.
2. Take down the lower pump casing, remove the brake pad mounting bolt (F) with socket head wrench.
3. Replace the new brake pad (C). Pay attention to placing installation fastener correctly. Push the brake pad down by hand after the pump casing being placed, then make the brake pad mounting bolt go through the brake pad (C) via pump casing, and screw the bolt tightly.
4. After installing, fix the disc brake lower pump casing on the left front fork with (A). Please pay attention that the disc brake plate should be between the two brake pads.

### ⚠ Warning

Maintaining proper brake adjustment is crucial to safe operation of your motorcycle. Improper adjustment may result in brake assembly damage and cause an accident.An accident may cause serious injury or death.

## Brakes

### Rear Brake Pad Replacement

To change the rear disc brake pads on your motorcycle please adhere to following guidelines:

- (A)Rear disc brake pad
- (B)Brake pad fixing bolt
- (C)Rear brake pump casing assy
- (D)Rear brake installation fastener



### Rear Brake Pad Replacement Procedure:

1. Remove the rear wheel tires assy, take down the rear disc brake pump casing (C).
2. Remove brake pad fixing bolt (B)
3. Replace the new brake pad (A), Pay attention to placing installation fastener correctly. Push the brake pad down by hand after the pump casing being placed, then make the brake pad mounting bolt go through the brake pad (C) via pump casing, and screw the bolt tightly.
4. After installing, fix the disc brake lower pump casing on one side of the rear wheel disc brake.  
(Please pay attention that the disc brake plate should be between the two brake pads.)

### Warning

Maintaining proper brake adjustment is crucial to safe operation of your motorcycle. Improper adjustment may result in brake assembly damage and cause an accident. An accident may cause serious injury or death.

## Tires & Tubes

Your tires are an essential factor in your motorcycle's safety. They must be properly inflated and free from excessive tread wear, ensuring adequate traction and longevity.

### Air Pressure and Inspection Items

Correct tire pressure is the single most important item that you can maintain on your tires. By adhering to proper air pressure, your tire will be far less prone to damage from rocks and other obstacles that are encountered during off-road riding.

It is imperative that the tire pressure is measured when the tires are "cold" Failure to do so will result in inaccurate tire pressure readings.

### Recommended Tire Pressure

Front 18 psi (125kPa, 1.25kgf/cm<sup>2</sup>)

Rear 22 psi (150kPa, 1.50kgf/cm<sup>2</sup>)

In addition, be sure to examine the tire tread depth, The tire should be replaced when the tread depth at the center reaches .12 inches or when you notice less than favorable traction, Another important inspection element are valve stems. See your authorized dealer if you discover a tilted valve stem. This could cause a blowout which could lead to an accident.

Examine your tires prior to each ride and look for cracks, rocks and other embedded objects. Remove these objects before riding.

### Warning

Proper tire inflation is paramount to maintaining a safe motorcycle . Do not ride your motorcycle with under inflated tires and worn tires. Failure to comply with these safety standards may result in an accident that may cause injury or death.

## Tires & Tubes

### Tube Replacement

We strongly recommend taking your motorcycle to an authorized dealer if you discover a punctured tube. It requires a skilled technician to replace a tube.

### Tire Replacement

When your tires have worn out or become damaged, it's time to change them out with new tires. Please make sure to use approved tires for your motorcycle only.

It is also recommended that you use a new tube whenever you install a new tire as well.

After replacing a tire it is highly recommended that the wheel be balanced. Please see your authorized dealer for balancing.

### Warning

Utilizing the proper tires on your motorcycle is imperative for safety purposes. Placing non-recommended tires on your motorcycle may cause an accident that may in turn cause serious injury or death. Use this owner's manual as a guideline for proper tire selection.

## Wheels

Proper wheel maintenance ensures a safer motorcycle, as the wheels provide the stability and serve as the contact points to the dirt. Your new motorcycle's wheel will "seat" during the initial riding period, which lasts approximately 80-120 miles depending on the terrain. It is imperative to monitor your wheels and inspect them for loose spokes.

Uneven or loose spokes will likely cause the rim to warp and lead to nipple failure. Ultimately the spokes will break or wiggle and the wheel will become unstable, which may lead to an accident.

### Rims and Spokes

(A) rim

(B) spoke



### Wheel Truing Examination

1. Spin the wheel, ensuring "trueness".
2. Tighten any loose spokes.
3. If you determine that the wheel does not roll smoothly and is out of "true", then contact your authorized dealer for service.

## Wheels

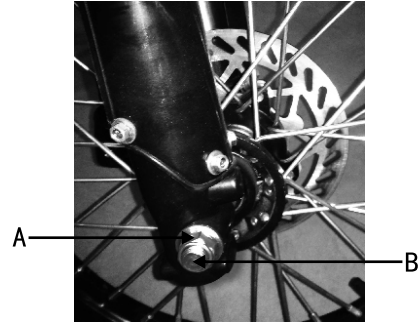
### FRONT WHEEL REMOVAL

It is strongly recommended that you do not remove the wheels from your motorcycle. It is recommended that if you determine a problem with one of the wheels that you contact an authorized for service.

If, however, you are an experienced motorcycle mechanic, you may utilize the following guidelines to remove the wheels:

#### Front Wheel

- (A) front axle nut
- (B) front axle



#### Front Wheel Removal

- 1、 Place the motorcycle on a maintenance stand and ensure stability.
- 2、 Remove front axle nut (A) and front axle (B).
- 3、 Remove the wheel.

#### Front Wheel Installation

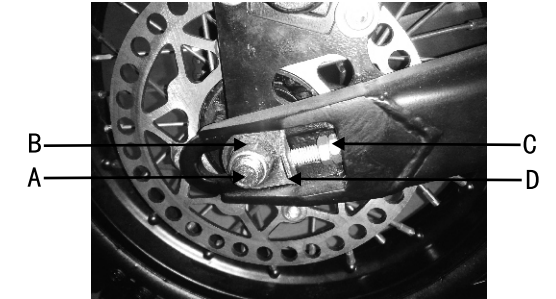
- 1、 Follow the removal procedure in reverse order
- 2、 Torque the axle to: 41 lbf-ft(55 N-m,5.5kgf.m)
- 3、 Check front brake adjustment

## Wheels

### Rear Wheel Removal

To remove the rear wheel please follow the steps outlined below:

- (A) axle bolt
- (B) axle nut
- (C) chain-adjusting nut
- (D) chain adjuster



#### Rear Wheel Removal Procedure

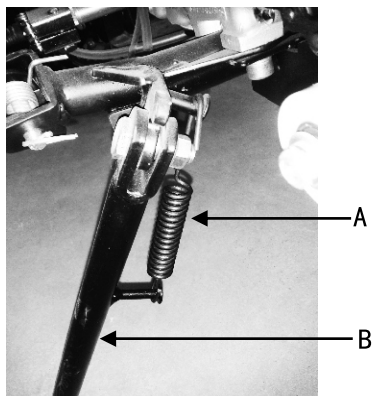
- 1、 Place the motorcycle on a maintenance stand and ensure stability.
- 2、 Remove rear axle nut (B) and axle bolt (A).
- 3、 Slide wheel forward and disengage chain.
- 4、 Remove wheel.

#### Rear Wheel Installation

- 1、 Reverse the above procedure.
- 2、 Torque the axle nut to 41 lbf-ft.
- 3、 Spin the wheel to ensure proper installation.
- 4、 Press rear brake to ensure proper adjustment. Adjust as needed
- 5、 Ensure proper drive chain adjustment. Adjust as needed.

## Sidestand

The sidestand enables you to keep your motorcycle upright while parked.



(A) sidestand spring

(B) sidestand

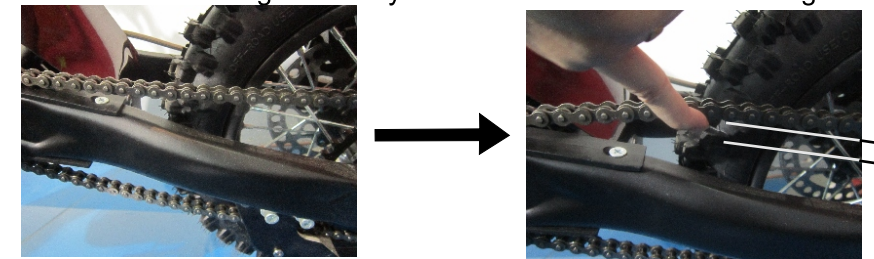
1. Check the sidestand spring (A) for structural integrity and tension of spring
2. Inspect the sidestand for proper range of motion.

If you ride in muddy or dry, sandy conditions it is beneficial to clean the pivot area and lubricate the pivot bolt with clean engine oil.

## Drive Chain

### Drive Chain Inspection

It is imperative that proper maintenance of your motorcycle's drive train is conducted on a regular basis (see Maintenance Schedule). This will ensure longer life of your drive train and avoid damage to the sprockets and other parts



### Visual Inspection

1. Place the motorcycle on its sidestand or on a sturdy workstand.
2. Due to uneven wear you must rotate the rear wheel to identify the position where the chain is tightest. Then measure the chain slack by pulling the chain up (mid-way between the front sprocket and the rear sprocket).
3. Slack is determined by the vertical movement of the bottom part of the chain. Proper slack is 20-30mm from bottom of chain to top of swingarm with tension wheel disengaged. Measure from rear edge of chain slider.

### **Warning**

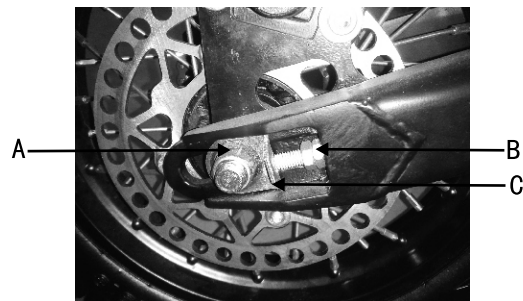
Never service the drive train while the motorcycle is running. Severe injury or death may occur. Make sure that the motorcycle is off while performing drive chain service.

## Drive Chain

### Drive Chain Adjustment

If the inspection reveals an unacceptable amount of chain slack, then adjustment is necessary to either tighten or loosen the drive chain. Please adhere to the following guidelines to adjust accordingly:

- (A) axle nut
- (B) lock nut
- (C) chain adjuster



### Chain Slack Adjustment

1. Loosen axle nut (A).
2. Loosen lock nut (B) on both sides of motorcycle.
3. Turn the chain adjuster nuts (C) on both sides an equal number of turns to increase or decrease chain slack.
4. Tighten locknuts on both sides of motorcycle
5. Recheck chain slack.

### **Warning**

A worn chain can lead to an accident by coming off the sprockets and hanging up on moving parts. Serious injury or death may occur.

## Drive Chain

Checking your drive chain and associated parts is essential for proper maintenance. Please review the following information to ensure compliance with the Maintenance Schedule"

1. It is imperative to release the chain if it stretches by 2% of its original length. The most effective means by which to measure the chain is by examining part of it (20 links).
2. Make sure the chain is tight using the chain adjusters.
3. Then measure 20 links. Take your measurement from the center of the first pin to the center of the 21st pin. If this measurement exceeds the service limit then it's time to replace the chain.

### DIAGRAM OF CHAIN ADJUSTMENT



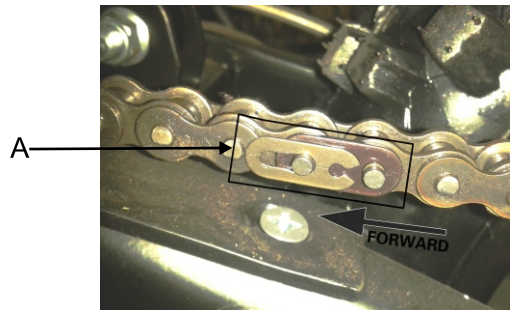
Measure a span of 21 pins  
New Chain: 10.0 inches (254mm)  
Service Limit: 10.2 inches (259mm)

4. Examine the front and rear sprockets as well. If the chain is worn then replace the sprockets as needed.
5. Also inspect the roller for wear replace as needed.
6. Lubricate the chain thoroughly with each service using recommended Chain Lube, SAE 80 or 90 gear oil.

## Drive Chain

### Drive Chain Removal And Cleaning

Chain removal and cleaning can be accomplished by utilizing the following guidelines:



(A) master link retaining clip

### Drive Chain Removal Process

- 1、 When the drive chain becomes extremely dirty from muddy or sandy conditions, it should be removed and cleaned to prolong life.
- 2、 Remove the master link retaining clip (A) with pliers. Be sure not to damage the clip. Remove the master link. Remove the drive chain.
- 3、 Thoroughly clean the chain with kerosene. Then allow it to dry.
- 4、 Visually examine the drive chain to inspect for damage. If damaged, replace.
- 5、 Lubricate the drive chain, including the rollers and bushings.
- 6、 Thread the chain over the sprockets. Then connect the ends of the chain with the master link. For ease of assembly, hold the chain ends against adjacent rear sprocket teeth while inserting the master link. Install the master link retaining clip so that the closed end of the retaining clip will face the direction of forward wheel rotation.

## Cleaning

### Keeping Your Motorcycle Clean

Maintaining your motorcycle's appearance will enhance its longevity, give you a sense of pride and keep your machine looking new. By keeping your motorcycle clean you will be able to detect leaks, cracks and other problems before they become major issues which can lead to accidents.

### Cleaning Recommendations

- 1、 Only wash a "cool" motorcycle. If you have been riding, allow it to thoroughly cool before washing.
  - 2、 Plug tailpipe with sponge or rag so that water does not enter.
  - 3、 Cover air cleaner with plastic bag. Secure with rubber band to prevent water from coming in contact with the air cleaner.
  - 4、 Rinse your motorcycle with cool water from your household hose.
  - 5、 Use a mild soap (designed for motorcycle use\*\*) and scrub down motorcycle with a sponge.
  - 6、 Use a mild degreaser as needed for dirt and greasy build-ups.
  - 7、 Rinse thoroughly.
  - 8、 Utilize a soft cloth or chamois to dry off your motorcycle.
  - 9、 Lubricate the drive chain.
  - 10、 Start the engine and keep it running for five minutes.
  - 11、 As a precautionary measure, ride at a slow speed and apply the brakes several times. This will dry out the various moving parts and help ensure proper working conditions for the moving parts.
- \*\* Avoid cleaners that contain harsh detergents or chemical solvents. These cleaners may damage various parts of your motorcycle.

## **Section III**

### **Thoubleshooting Basics**

Your ability to determine the cause for some malfunctions is known as "troubleshooting".It is a good idea to review this section as a refresher prior riding your motorcycle.It provides common areas that you can investigate to solve some basic, everyday issues.

Once again,the more familiar you are with the motorcycle and its operations,the better equipped you will become to solve problems as they arise.Please continue to review this section frequently so that your abilities will remain keen on these types of issues.

## **Troubleshooting Basics**

### **Difficulty Starting Your Motorcycle**

One of the most common problems that can occur with your motorcycle is the inability to get it started.This can be from a variety of reasons,including the following:

- Engine "stop" switch set to "off" position
- Key on "off" position
- Gas tank empty
- Fuel valve on "off" position
- Spark plug lose or faulty
- Engine "flooded"

### **Poor Braking**

Unsatisfactory braking may be caused by the following elements:

- Improper adjustment
- Brakes low on or devoid fluid
- Brakes have not been "bled" properly
- Pads and/or rotors worn

### **Clutch Malfunctions**

Some area of concern that may lead to poor clutch performance are the following:

- Improper cable adjustment
- Friction plates damaged and/or worn out
- Clutch plates damaged and/or worn out
- Engine oil worn out,dirty or too viscous

## ***Section IV Miscellaneous Information***

This section concludes the owner's manual with various topics that will further help you understand your responsibilities as a new motorcycle owner. It is imperative that you adhere to the guidelines detailed in this manual, as your safety-as the protection of the environment are at stake here.

Also note that it is your responsibility as a motorcycle owner to utilize the correct fuel products,as outlined in this section .Failure to do so can result in harm to the environment and your motorcycle.

## ***Environmental Protection***

Please do your part to protect Mother Nature by strictly adhering to the following guidelines:

**Ride Only In Approved Riding Areas:** Ride your motorcycle in areas that have been designated for off-road use.DO not ride on city streets or in wildlife refuge areas. You don't want to person who ruins it for everyone by riding in an unauthorized areas!!

**Use Appropriate Cleaners:** Only use biodegradable detergents to clean your motorcycle.

**Liquid Waste Disposal:** Please contact your local public works or environmental services to find a recycling center in your area and get instructions on how to dispose of non-recyclable wastes.Do not place used engine oil or fuel in your garbage-this is illegal and can be very harmful to the environment.

## ***Emission Control Information General***

We have utilized two systems within your motorcycle to facilitate compliance with regulations. Crankcase emission control system and exhaust emission control system are outlined below:

### **Exhaust Emission Control System**

The fuel and ignition systems on your motorcycle have been designed to provide lean carburetion and efficient use of fuel, thereby reducing pollution into the atmosphere.

### **Crankcase Emission Control System**

The crankcase system on the motorcycle is closed, preventing crankcase emissions from entering the atmosphere. A closed system draws the vapors into the combustion chamber. The vapors are then burned with the air and fuel supplied by the carburetor.

## ***Emission Control Information Emission Control System***

### **TAMPERING WITH THE EMISSION CONTROL SYSTEM IS PROHIBITED:**

Do not take the following acts or the causing thereof:

- 1、 The removal or rendering inoperative by any person, other than for the purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new motorcycle for the purpose of emission control prior to its sale or delivery to the ultimate purchaser or while it is in use; or
- 2、 The use of the motorcycle after such device or element of design has been removed or rendered inoperative by any person.

### **AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW:**

Do not tamper with the original emission related parts:

- 1、 Air cleaner element
- 2、 Carburetor and internal parts
- 3、 Magneto ignition system
- 4、 Spark plug

## ***Emission Control Information Noise Control System***

### **TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED:**

Do not take the following acts or the causing thereof:

- 1、 The removal or rendering inoperative by any person, other than for the purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or
- 2、 The use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

### **AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW:**

- 1、 Removal of the muffler, baffles, or any other internal or external component of exhaust system.
- 2、 Modification of the muffler, baffles or any other internal or external component of exhaust system that may result in increased noise levels.
- 3、 Removal of the air box and/or air box cover.
- 4、 Replacing the original exhaust system or muffler with a component not in compliance with laws.

## ***Vehicle Identification Numbers***

There are two numbers that are important: (1) the frame number, which may be found on the front of the frame. (2) the engine number which may be found on the right side of the engine right below the flywheel cover.

Please write these numbers in the Maintenance Record on page 76.



