USER MANUAL

125 GP2

Important Cautions

About running-in of a motorcycle

The first 1000 km operation is very important in the entire service life of a motorcycle. A correct running-in can guarantee both the longest service life and the best performance of the vehicle. Running-in can polish machined surfaces and form smooth engagement.

Careful and patient running-in can make the motorcycle stable in driving and give a full play to its excellent performance. It is important not to do any operation that may cause overheat to engine components.

For specific running-in method, please refer to "Running-in of a new vehicle".

Please carefully read the manual and strictly observe all instructions or descriptions.

Special attention shall be paid to the contents emphasized with the terms of " ⚠ WARNING ""**caution**"and"**note**",etc.

⚠ WARNING**……**It concerns with personal safety. Ignoring it may result in accident.

Precaution……It refers to operational methods that must be followed or measures that should be taken, so as to prevent damage.

Note……It refers to special explanations to make maintenance or important descriptions more explicit.

The operation manual shall be deemed as a permanent document of the motorcycle. When transfer the vehicle to others, the instruction manual shall also be transferred to the new owner.

The series includes the following models:

TR125

Foreword

Thank you for your choosing our motorcycle. In design, development and manufacture of the series motorcycle, our company applies the latest advanced technology and equipment to provide you with a motorcycle that is reliable in performance, novel in design and elegant in appearance. Motorcycle driving is one of the most exciting sports. The motorcycle is an ideal means of transport. It can give you infinite driving pleasure. Before driving your motorcycle, please be familiar with all stipulations and requirements mentioned in the instruction manual.

The instruction manual deals in the correct use, maintenance and maintenance of the motorcycle. Observing the following stipulations will provide a guarantee to your motorcycle for a long time use without trouble. The distributor has skillful and well trained technical professionals to provide the best maintenance and service to your motorcycle.

ZheJiang Chuangtai Motorcycle Co. Ltd.

Contents

Chapter 1 User Instructions

Instructions on safe driving of motorcycle

There should be a condition for the motorcycle to serve your well. The condition is paying attention to safety at any time. Therefore, you must observe the traffic laws and follow the six points below.

Wear safety helmet

Safe driving starts from wearing a safety helmet. This is an important factor in motorcycle driving. A high-quality safety helmet is the first thing of personal protection in motorcycle driving. The most serious traffic accident is head injury. Therefore, be sure to wear a safety helmet to drive a motorcycle, and wear a pair of proper protective glasses.

Please be familiar with the vehicle structure

Your driving technique and your understanding of mechanical knowledge are the basis of safe driving. Make exercises in a spacious place without other vehicle and make yourself fully familiar with your motorcycle and control method. Be sure to keep in mind that, skill comes from practice.

Understand the limit of your safe speed

Driving speed depends on road surface conditions, your skills and the weather. Understanding the limit may prevent accident. At any time, accident may be prevented as long as driving in the range of your skill.

Wear well-fitting dress

Loose and fancy dress may make you uncomfortable and unsafe in your driving. Riding on the cradle, a well-fitting dress may give you freedom for activities of your arms and legs. Gloves, boots and safety helmet will show that you are qualified driver. High quality and tight dress shall be your selection.

Pay more attention to safety during driving in rainy weather

Please note that, in rainy days, the braking distance is two times as much as that in fine weather. Get away from any manhole cover, paint mark or oil stain surface to prevent slipping, wet roads are dangerous. Avoid abrupt steering during acceleration. Be careful when drive over railways and bridges and keep a safe distance with any vehicle in front.

Inspection before driving

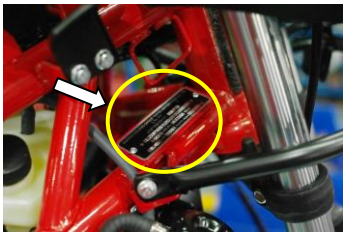
Please carefully read all instructions in "inspection before driving" of the manual to guarantee the safety of you and passengers.

Position of serial numbers

VIN code

Engine number

Position of metal nameplate



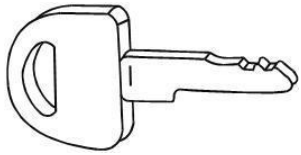
VIN code and engine number is necessary for registration of your motorcycle. Such numbers are needed with order components or service, to allow the distributor to provide you with better service.

VIN code is on the riser pipe of frame. Engine number is on the left side of crankcase. Metal nameplate is on the right pipe of frame, showing the main technical parameters, manufacturer and date of production of the motorcycle.

Chapter 2 Installation Position of Parts

Chapter 3 Control Part

Key



Two keys are provided. Please use one key and put the other in a safe place for future use.

Instrument panel

High beam indicator lamp①

When the head light is in high beam, the indicator is lit

Turning signal lamp②

When left turning signal lamp is ON, the left turning signal indicator on the panel " ⇦ " and turning signal lamp will flash.

When right turning signal lamp is ON, the right turning signal indicator on the panel " ⇨ " and turning signal lamp will flash.

Engine trouble warning lamp③

This warning lamp flashes or stays on if the engine is not working correctly. If this occurs, have a dealer check the self-diagnosis system.

Fuel empty warning lamp④

The fuel meter indicates the amount of fuel in the fuel tank. When the last fuel meter segment starts flashing, refuel as soon as possible.

Neutral indicator lamp ⑤

This indicator lamp comes on when the transmission is in the neutral position.

Odometer⑥

Records the total distance(km) that the motorcycle has traveled since it was used.

Tachometer ⑦

It shows the engine rotation speed in number of revolutions per minute.

Speedometer⑧

Shows the driving speed in km per hour.

Ignition switch

"⊗" (OFF) position

All circuits are disconnected and the key can be removed.

"○" (ON) position

All igniting circuits are ON and the engine can be started. The key cannot be removed in this position.

"□" （LOCK）Position

In order to lock the handlebar.
turn the bar to the left, then insert the key. Rotate it clockwise to full stop for locking the handlebar.

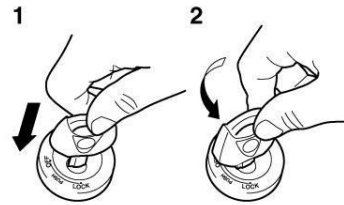
⚠ WARNING

If the handlebar is locked, the motorcycle is never pushed any longer; otherwise you will lose balance.

⚠ WARNING

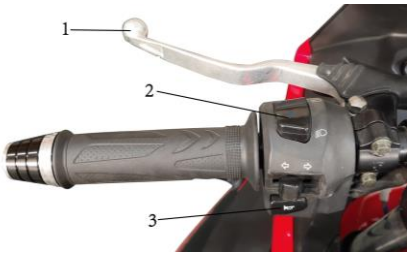
Never turn the key to "OFF" or "LOCK" while the vehicle is moving. Otherwise the electrical systems will be switched off, which may result in loss of control or an accident.

To lock the steering:



1.Turn the handlebars all the way to the left.
2.Push the key in from the "OFF" position , and then turn it to "LOCK" while still pushing it .
3.Remove the key.

Left handlebar control system



Clutch grip ①

To start the engine or make a gear shifting, press the grip to release the drive system and cut off the clutch.

Dimmer switch ②

When dimmer switch is turned up to " " (high beam) position, the head light is in high beam and the high beam indicator lamp on the instrument panel is lit. On contrary, when it is turned down to " " (low beam) position, the low beam is lit.

Turning signal operation. When the switch is turned to left " " position, the left turning signal lamp is lit and the indicator lamp on instrument panel flashes. When the switch is turned to right " " position, the right turning signal lamp is lit and the indicator lamp on instrument panel flashes.

Horn button ③

Press " " button and the horn will sound.

Right handlebar control system

Engine shutdown switch ①

When the **switch** is pressed in" " start position, the engine can be started.

If the switch is pressed in " " position, the starting circuit is completely cut off and the starter motor cannot be started. Do not put the switch in this position during driving.

Front brake grip ②

To apply front wheel brake, slowly press the brake grip on the right handlebar. As the motorcycle adopts hydraulic braking , donot press it abruptly or forcefully.

When the brake grip is pressed, the brake light will be lit automatically.

Electric start button ③

Press "⏻" button to turn on the start motor circuit. During starting, put in Neutral gear position to cut off transmission and guarantee safety.

⚠ WARNING

The starter motor shall be operated not more than 5 seconds. Heavy discharge may cause overheat to circuit and starter motor. If starting is failed after several attempts, stop to check the fuel supply system and starting circuit.

Lighting switch④

" ☼ " ON position When the switch is turned to this position, the head light, front position light, instrument panel light and rear tail light will be lit.

"≡D" parking light position When the switch is turned to this position, the front position light, instrument panel light and rear tail light will be lit.

"●" OFF position All the head light, front position light, instrument panel light and rear tail light go OFF.

Accelerator grip⑤

Accelerator grip is used to control the engine speed. To accelerate, turn the grip towards yourself. To decelerate, turn the grip away from yourself.

Fuel tank cap

To open fuel tank cap, insert the key and turn it clockwise. Then, the fuel tank cap can be removed together with the key. To replace the cap, align the arrow on the cap and press the cap, together with the key, into the fuel tank cap hole until a click sound is heard. Then, remove the key.

⚠ WARNING

Make sure that the fuel tank cap is properly installed before riding. Leaking fuel is a fire hazard.

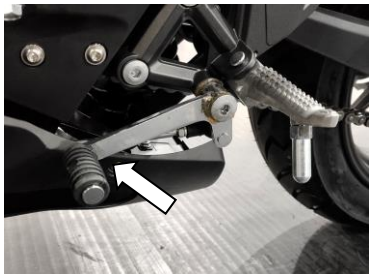
⚠ WARNING

Do not fill the tank excessively. Never splash fuel to hot engine. No fuel shall be left on the upper part of the filler, or the fuel may overflow when fuel temperature rises and expands, causing hazard.

During fuel refilling, shutdown the engine and turn the key to OFF position.

Smoking or lighting fire is strictly forbidden during fuel refilling.

Gear lever



The motorcycle is provided with a 5-speed gear transmission. The gear lever connects to a ratchet mechanism in the transmission. After selecting a gear, the gear lever returns to the home position，so that the next gear can be selected. The neutral gear is between the low gear and two speed gear. From neutral position, press downs the gear lever to engage a low gear. Raise the gear lever one step to move forward a gear. Owing to the ratchet mechanism ，it cannot move two or more gears up or down in one operation. To shift from 2-speed gear to low gear, or from low gear to 2-speed gear, it passes the neutral position but not stays there. To engage to neutral gear，stop it in the middle of moving from low gear to 2-speed gear.

Precaution：

When the transmission is in neutral position, the neutral indicator lamp is lit on the instrument board.

Despite the lamp is lit, be careful to release the clutch grip slowly to make sure if the transmission is really in neutral position.

When engaging into a low gear during high speed driving, the engagement of clutch may make a sudden increase in engine speed. Before engaging a low gear, slow down the motorcycle to prevent unnecessary wear of components in transmission system.

Rear brake pedal

Press down this pedal to apply rear wheel brake, and the brake indicator light is lit.

Stand

The vehicle is provided with a side stand on the left side.

To support the motorcycle with the side stand, put your foot on the tip of side stand and press it forcefully, until the stand rotates fully and is blocked by the stopper.

Precaution:

When parking the motorcycle on a slope, make sure the motorcycle is headed toward upper slope to avoid sliding of the side stand. It is also advisable to engage the first gear to prevent the side stand from sliding.

Warning:

Before starting, check if the side stand is retracted to normal position, without loosing.

For motorcycles with engine-stop-switch on side stand, please read following description carefully:

When the side stand is opened to stand on ground, and the gear shifting is on neutral, the motorcycle can be started, if gear shifting is on other gears, can't be started. After the side stand is drewn back, the motorcycle can be started normally.

The exhaust system

This vehicle is equipped with catalytic converters in the exhaust system.

WARNING

The exhaust system is hot after operation. To prevent a fire hazard or burns:

◎Do not park the vehicle near possible fire hazards such as grass or other materials that easily burn.

◎Park the vehicle in a place where pedestrians or children are not likely to touch the hot exhaust system.

◎Make sure that the exhaust system has cooled down before doing any maintenance work.

◎Do not allow the engine to idle more than a few minutes. Long idling can cause a build-up of heat.

Chapter 4 Fuel and lubrication system

Section 1. Fuel

WARNING

Gasoline is inflammable and explosive. When handling gasoline, attention should be paid to prevent burnt or accident.

◎In places where gasoline is stored or handled, shutdown the engine, do not smoke, and keep away from naked flame or spark.

◎Refueling shall be made in a well ventilated place. After refueling, immediately clean off any gasoline outside the fuel tank.

Please #92 or #95 unleaded gasoline. This may prolong the service life of spark plug.

Note!

If the engine produces ping noise, it may be caused by using of improper fuel. Replace with correct fuel.

WARNING

The use of improper gasoline will cause severe damage to internal engine parts, such as the valves and piston rings, as well as to the exhaust system.

Gasoline is poisonous and can cause injury or death. Handle gasoline with care. Never siphon gasoline by mouth. If you should swallow some gasoline or inhale a lot of gasoline or inhale a lot of gasoline vapor, or get some gasoline in your eyes, see your doctor immediately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your clothing, change your clothes.

Section 2 . Lubricant

(Please refer to Regular Maintenance Table)

Use high quality 4-stroke engine oil to prolong engine life. Engine oil shall be SG or SJ product in API classification. Engine oil of proper viscosity shall be used according to local air temperature. There are three viscosity levels suitable for the engine, namely, SAE15W-40, SAE10W-30 and SAE5W-30.

SG or SJ level SAE10W-40 4-stroke lubricant is recommended.

Note:

Lubricant shall be replaced at 1000km or about one month for the first time, every 3000km thereafter. Oil volume is 850ml for replacement or 1300ml after overhaul.

The quality of engine oil is a major factor affecting the service life of engine. Replace engine oil according to the maintenance period stated in maintenance table. When driving in dusty area, engine oil shall be replaced more frequently than the stipulations in the maintenance table.
Explanation:

During cold weather, it is advisable for user to use high quality low temperature lubricating oil. SG 10W-30 or SF 5W-30 is recommended. For temperature below -35°C, the following use time, API SG or higher class 5W-30 lubricant of notable brand is recommended. Warning:

Inferior lubricant may cause irretrievable loss to the engine and seriously shorten the service life of engine.

Section 3: Electronic Fuel Injection System

Electronic fuel injection system(hereinafter referred to as EFI system)

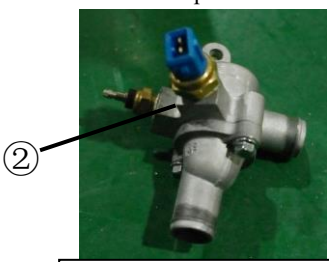
Ⅰ.Introduction of EFI system

components 1. ECU

According to received information, ECU① calculates necessary fuel injection quantity in programming mapping way, and sends operation signal of output section to fuel injector.

2. Temperature sensor of cylinder wall

Temperature sensor② of cylinder head provides engine with engine temperature signal for correcting ignition angle and fuel injection quantity during startup, idling and normal operation.
When engine temperature is low, injection quantity increases.
Thermistor resistance increases when engine temperature decreases, and decreases when temperature increases.



Temperature sensor

Oxygen sensor

3. Oxygen sensor

Made of zirconia element (platinum sheet), oxygen sensor ③ changes output voltage based on different oxygen concentration of internal and external surfaces.
Change of voltage relies on oxygen concentr- -ation.
Terminal voltage decreases when oxygen concentration is high; terminal voltage increases when oxygen concentration is low.

4. Fuel pump assembly

Placed in fuel tank, **Fuel pump**④is powered by battery.
By controlling power supply, ECU manages fuel pump action to provide fuel injector with high pressure fuel.

5. Fuel injector

Fuel injector⑤, uses pressurized fuel. Pressure piston controlled by ECU injects necessary amount of fuel at optimal timing during engine operation.

6. Air inlet elbow

Connecting to fuel injector, air inlet elbow ⑥is the access for fuel and air to enter cylinder.

7. Throttle valve

Throttle valve ⑦ is a controlable valve to control air to enter engine. After entering air inlet pipe, air will mix with gasoline to form combustible mixture for combusting and working.

Ⅱ.Fault diagnosis and maintenance of EFI system

1. Output electric characteristics of fault indicator light

Fault indicator light is on dial of vehicle odometer.

2.Fault code diagnosis list

Item Name	DTC Number	Fault Description
Pressure sensor of airinlet	P0107	Low voltage of pressure sensor
	P0108	High voltage of pressure sensor
	P0112	Low voltage of temperature sensor of air inlet
	P0113	Low voltage of temperature sensor of cylinder
Temperature sensor of cylinder wall	P0117	Low voltage of temperature sensor of cylinder
	P0118	High voltage of temperature sensor of cylinder
Position sensor of throttle valve	P0122	Low voltage of position sensor of throttle valve
	P0123	High voltage of position sensor of throttle valve
Oxygen sensor	P0131	Low voltage of oxygen sensor
	P0132	High voltage of oxygen sensor
	P0031	High voltage of oxygen sensor heating
	P0032	Low voltage of oxygen sensor heating
Fuel injector	P0201	Fuel injector fault
Fuel pump assembly	P0230	Low voltage of fuel pump
	P0232	High voltage of fuel pump
Position sensor of crank	P0336	Signal of crank sensor is interrupted
	P0337	Crank sensor has no signal
Ignition coi	P0351	Ignition coil faults

Idling control system	P0505	Idling control faults
System voltage	P0562	Low system voltage
	P0563	High system voltage
Fault light	P0650	Fault light faults
Speed-meter	P1693	Low voltage of speed-meter
	P1694	High voltage of speed-meter
Speed meter	P0500	Speed sensor has no signal

Ⅲ.Regular maintenance schedule

Item Name		Regular Maintenance 1	Regular Maintenance 2	Regular Maintenance 3	Regular Maintenance 4	Regular Maintenance 5	……
Travelled mileage		5000km	10000km	15000km	20000 km	25000km	……
Major operation contents	Fuel system	Check fuel pipe; Change it, if necessary	Check fuel pipe& injector, change pipe or clean injector, if necessary	Check fuel pipe& injector, change pipe or clean injector, if necessary	Check fuel pipe& injector, change pipe or clean injector, if necessary	Check fuel pipe; Change it, if necessary	……
	Filtration system	Check air filter; clean it, if necessary. Check gasoline filter, change it ,if necessary. Every regular Maintenance					…… ……
	Air inlet system		Check throttle if necessary		Check throttle if necessary		
	Ignition		Check spark it, if necessary		Check spark it , if necessary		

Note: 1. When driving it in area with excessive moisture or dust, maintenance should be conducted more frequently.
2. After driving it in rainy days, maintenance should be conducted more frequently.
3. After driving it in the field, maintenance should he conducted more frequently.

Ⅳ.Restore factory settings

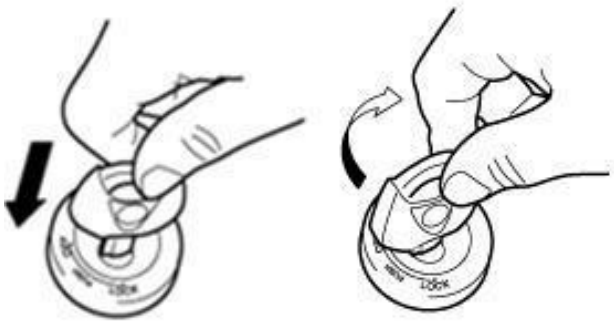
Instruction:

in case of the following circumstance, operation of 〖Restore factory settings〗 should be conducted:

1.After changing stepping motor.
2.After changing fuel injector.
3.After changing or maintaining valve assembly.

Operation method:

open/close ignition lock rapidly for 5 times (about 0.5s of interval) and keep closing ignition lock for above 15s to complete reset.



Chapter 5 Running-in of new motorcycle

The importance of correct new vehicle running-in was mentioned in Foreword. The correct running-in method is as follows.

Maximum speed

The maximum speed during running-in period is shown in the table.

First 800 km	<5000 rpm
At 1600 km	<7500 rpm
After 1600 km	<10000 rpm

Changes of engine speed

Do not drive at a constant engine speed for a long time. For a better running-in, properly increase and reduce the throttle opening. Change engine speed from time to time to let various engine parts get "bearing" pressure. When the pressure is "unloaded", the engine parts will cool down, helping the fitting of different parts. During running-in period, engine load may be properly increased. Apply some load to engine parts to guarantee good fitting. This is every important, but do not apply excessive load to the engine. Avoid driving at a low speed

Running at a certain low engine speed (with light load) can only polish the parts but cannot get a good running-in. So long as the upper limit of recommended throttle opening is not exceeded, drive the vehicle in various gears with proper acceleration. However, never drive at the maximum acceleration during the first 1600 km. Make oil circulating before driving

After starting of warm or cold engine and before applying load or driving, let the engine run at idle speed for an adequate time. This allows lubricant to flow to all import engine parts, so as to reduce wearing and increase the service life. This also helps the engine to warm-up sufficiently.

First maintenance inspection

The maintenance of the first 1000 km is the most important. During running-in period, all engine parts have been run-in and other parts engaged. Then, all parts shall be adjusted, all fasteners be tightened, contaminated engine oil be replaced and filter element be replaced.

Timely making 1000 km maintenance can guarantee a long engine life and the best engine performance.

Precaution：

1000 km maintenance shall be carried out according to the "Troubleshooting" in the manual. Pay special attention to the "precaution" and "warning" in the section.

Chapter 6 Inspection before Driving

Before driving, make sure to carefully check the following items. Never ignore the importance of the inspection.

Contents	Purpose
Steering handlebar	1、 Smooth 2、Free steering 3、No loose
Lighting	Operate all lamps -- head light, tail light, brake light, instrument board lighting lamp, turning signal lamps
Transmission oil	Proper oil level
Brake	1、 Adjust clearance of rear brake pedal and front brake grip 2、 No "spongy" feeling 3、 No leakage
Indicators	Neutral gear, gear position, oil level indicators (or turning signal indicators)
Accelerator	1、 Proper free play in accelerator wire 2、Free fuel flow and reliable accelerator throttle valve returning to closed position
Tires	1、 Correct air pressure 2、 Proper tread pattern depth 3、 No injury or cut
Horn	Correct function
Clutch	1、 Proper free play in clutch wire 2、 Smooth operation and full releasing.
Fuel	Adequate fuel for the distance to drive.
Driving chain	1、 Proper tightness 2、 Proper lubrication

Chapter 7 Essentials of Driving

⚠ WARNING

If it is the first time for you to drive this type of motorcycle, you are advised to practice on a road away from highways, until you have completely been familiar with the control and operation of the vehicle.

Before driving, make sure that the side stand is returned to the uplift position.

Do not make gear shifting or deceleration in course of turning. Slow down to a safe speed before turning.

Do not shift into a low gear during turning.

It is dangerous to drive a motorcycle with a single hand. During driving, take a firm hold to the handlebar with both hands and put your feet on the foot board. In any event, never free your both hands from the handlebar.

On a wet road, the friction force is low and so is the brake force and turning capability. Therefore, decelerate in advance.

Observe the traffic laws and speed limit.

Engine starting

Make sure the fuel is enough and the engine shutdown switch in "  " position. Insert the ignition key in ignition switch and turn it to ON position. If the transmission is in neutral position, the neutral indicator lamp is lit.

⚠ WARNING

Make it a habit that, engage the neutral gear and firmly press

the clutch grip before starting the engine. This can prevent dash forward in case of mistaking gear engagement.

Press the electric starting button for ignition. Never rotate the accelerator grip when pressing the starting button.

Note:

After engine ignition, immediately release the starting button, to avoid adverse effects to the engine.

If the engine is not started after 5 seconds, wait for 10 seconds before making another attempt to prevent damaging the battery.

A motorcycle not used for a long time and poor atomizing fuel may result in starting difficulty. In this case, do not rotate the accelerator grip, but repeat starting.

⚠ WARNING

Never start the engine in a room with poor or no ventilation. It is because carbon monoxide gas is poisonous. Never leave the motorcycle unattended with a running engine.

Precaution:

Do not allow the engine run for a long time without driving, or the engine may get overheat causing damage to internal parts or chrome plating of exhaust system.

Start driving the motorcycle

Precaution:

Start the engine with the transmission in neutral position, the clutch engaged and driver riding in normal driving position.

Firmly press the clutch grip, wait a little moment, press down the gear lever to engage the first gear, rotate the accelerator grip slowly to you and smoothly and slowly release the clutch grip. When the clutch is engaged, the motorcycle will move forward.

To change into a higher speed gear, firstly decelerate a little, release the accelerator and, at the same time, press the clutch grip, shift the gear lever to the next higher speed gear position and release the clutch grip, slightly rotate the accelerator. In this way, the highest gear can be engaged gradually.

Note:

For high speed driving, always avoid releasing the accelerator suddenly. it is advised to wait a moment when the engine is running at 3000-5000rpm before fully releasing the accelerator. This can prevent the engine from shutdown due to abnormal combustion.

Use of transformation device

Transformation device is able to allow the engine running smoothly within normal range of operation. The transmission gear ratio is carefully selected for the engine performance. Driver shall select gears suitable to general conditions but shall not use the clutch for the purpose of speed control. To decelerate, shift to a low gear to allow the engine running in a normal speed range.

Precaution:

①The engine speed shall not be in the red range of the tachometer in any gear.

Driving on a slope

②To shift from a high gear to a low gear, control the speed in a safe speed range before gear shifting. Otherwise, abrupt deceleration (sudden rise of engine speed) may happen, causing gear impacts, sever parts wearing, or overbalance of the vehicle. It is dangerous.

Slope climbing:

● When going up a steep slope, the motorcycle may decelerate due to insufficient power. Then, immediately shift to a low gear to allow the engine running a normal power range. Pay attention that, gear shifting shall be made quickly to keep adequate forward momentum of the motorcycle.

● When going down a slope, use the engine for braking, by shifting into a lower gear.

● Be sure to keep in mind that, never drive too fast down a slope! Never allow the engine to run a very high speed for a long time.

Use of brake and parking method

Rotate the accelerator grip outward to fully close the throttle.

At the same time, apply the front and rear brakes with even forces.

Use gear shifting to slow down.

Before the motorcycle is stopped, firmly press the clutch grip, shift into neutral gear and observe the neutral indicator to make sure the neutral gear is engaged.

⚠ WARNING

The faster the vehicle is driven, the longer the braking distance will be. Be sure to make correct estimation of the distance between you and the vehicle or object in front of you for adequate braking performance.

An inexperienced driver always uses the rear brake only. This will cause premature wearing and too long a braking distance.

It is dangerous to use front brake only. This may cause slipping and out of control. On wet highway or other dull road surface and during turning, be extremely careful to apply the brake gently. Hard braking on rough or dull road surface is very dangerous.

The motorcycle shall be parked on stable and flat ground.

To park your motorcycle on a gentle slope by using the side stand, engage the first gear to prevent sliding off the side stand. Remember to shift to neutral gear before starting the engine.

Turn the ignition switch to OFF position to shutdown the engine.

Remove the key from ignition switch.

Lock the steering bar for safety.

Chapter 8 Inspection and Maintenance

The following table shows the interval of regular maintenance in travel distance or number of months. At the end of an interval, be sure to carry out the specified inspection, lubrication and maintenance. If your motorcycle is used with heavy loads, such as high power driving in a dusty environment, the maintenance shall be carried out more frequently. Your distributor can give your further guide. The parts of steering gear, shock absorber, bearings and wheels are critical components, and require professional skills to repair. In the light of safety, it is advisable to the inspection and maintenance done by your distributor or qualified maintenance staff.

Precaution:

In regular maintenance, it may be necessary to replace one or more parts. For part replacement, it is advisable to use genuine parts or equivalent products. No matter if you are experienced in vehicle maintenance or not, the items with * mark shall be handled by your distributor or qualified maintenance staff. For the items without such mark, you can do it by yourself according to the instructions.

⚠ WARNING

After correct running-in of 1000 km, maintenance is mandatory to ensure the safety of your motorcycle and give it a full play of its performance.

Be sure to make regular maintenance thoroughly according to the instructions in the manual.

List of Regular Maintenance

Interval: based on odometer reading or number of months	**km**	**1000**	**4000**	**8000**
	Number of months	**5**	**20**	**40**
*Battery (specific gravity of electrolyte)		I	I	I
Spark plug		I	C	R
Clutch		I	I	I
*Valve clearance		I	I	I
Air filter		-	C	C
*Fuel hose		I	I	I
		Replace every 4 years		
Engine oil and oil filter		R	R	R
Oil filter screen		C	C	C
*Chassis bolt and nut		T	T	T
Transmission oil		R	R	R
*Brake		I	I	I
Front fork		-	I	I
Tyres		I	I	I
Driving chain		I	I	I
		Clean and lubricate every 1000 km		
*Steering gear		I	I	I
*Rear shock absorber		-	I	I
*Cylinder head nut and exhaust pipe bolt		T	T	T

Note: Inspection: I, Tightening: T, Cleaning: C, Replace: R

Lubrication Table

Interval / Item	Every 6000 km or 6 months	Every 12000 km or 12 months
Accelerator wire	Engine oil	-
Clutch wire	Engine oil	-
Driving chain	Lubricate every 1000 km	
Brake wire	Brake oil	-
Speedometer gear and wheel bearing	-	Grease
Brake pedal	Grease or engine oil	-
*Steering gear	Lubricate every two years or every 20000 km	

Special note:

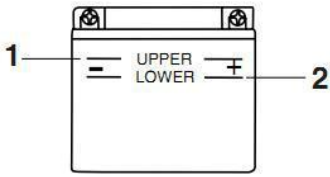
To secure your ride please conduct termly check according to the following sheet at local distributor or professional maintenance shop.

item	mileage（Km）					
	500	1500	3000	5000	8000	Every 3000 hereafter
check	√	√	√	√	√	√
tighten/change	√	√	√	√	√	√

Battery

Battery is normally stored inside the guard board on the middle of the frame. The battery for the model is maintenance-free type.

Direction for use of conventional type battery:



1.Maximum level mark
2.Minimum level mark

Before using, fill electrolyte to a level between the upper and lower limits. During using, the fluid level must be kept between the upper limit and lower limit.

Precaution：

The polarity of battery wiring shall be always correct. Connect the red wire to positive (+)and the green wire to negative (-). Wrong connection may damage the charging system and battery.

Spark plug

After the first 1000 km and every 3000 km thereafter, clean off any carbon deposit from spark plug by using a small steel wire brush or a spark plug cleaner. Readjust the spark plug gap with a thickness feeler to keep it between 0.6 - 0.7 mm. Replace spark plug every 6000 km.

Precaution：

Spark plug shall not be over tightened to prevent the threads of cylinder head from being damaged. When spark plug is removed, prevent any impurities from getting into the engine through spark plug hole. Standard spark plug for the motorcycle is carefully selected and suitable for most operations. If the color of spark plug is found different from standard spark plug, it is advisable to contact your distributor before replacing with spark plug in a different heat resisting range.

An improper spark plug may cause serious damage to the engine. A spark plug of other brand may result in operational difficulties. Therefore, consult with your distributor before selecting other brand spark plug.

Engine oil

A long service life of the engine depends on using high quality engine oil and regular oil replacement. Oil level check and regular oil replacement are very important tasks.

Precaution:

Engine oil window shows the oil level. When oil level is low, never start the engine. Fill oil until the oil level is just below the upper limit of oil window.

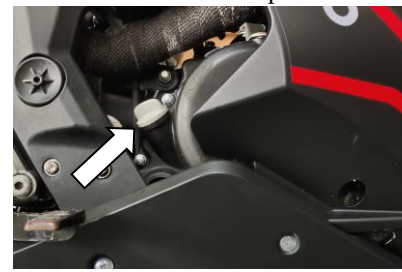
Replacement of engine oil and oil filter

Replace engine oil and oil strainer after the first 1000 km and every 3000 km thereafter.

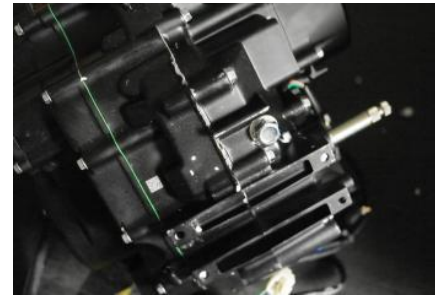
Oil replacement shall be carried out when the engine is still warm, so as to thoroughly drain old oil from the engine. The method is as follows:

1、Park the motorcycle by using the central stand.

2、Remove oil filler cap.

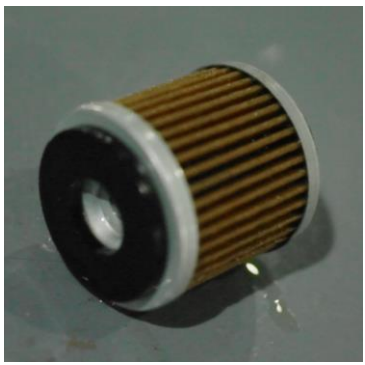


3、Remove drain plug from strainer cover on the engine bottom to drain oil.



4、Remove three screws from filter element cover.

5、Remove filter element cover, pull out oil filter element and replace it with a new one.



Precaution：

Insert the opening part of oil filter element in the engine and check if the element is installed firmly.

6、Before reinstalling the filter element cover, check for any mistake in installation of the spring and gasket of oil filter element.

7、Install the filter element cover and screw on the nut. Do not fasten the nut excessively tight.

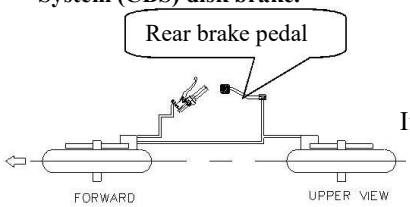
8、Tighten the oil drain ring and fill fresh engine oil about right amount into the oil filler, before gently tightening the top cover.

9 、 Start the engine and allow it running idle speed for several seconds.

10 、 Shutdown the engine and wait for a minute before checking the oil level from engine oil window.The oil shall be kept on "F" (full) line. If the oil level is below "F" line, replenish until it reaches the "F".

Brake

There are Combination Braking System (CBS) disk brake.



If The Combination Braking System(CBS) means that when you step the Rear brake pedal, rear brake and front brake will work at the same time. This set let the rider who be used only rear brake more safety. Of course, in case of an emergency case ,you must be used rear and f ront brake both together , so that ensures enough braking force . Check the brake after first 1000 km and every 3000 km thereafter.

Correct braking operation is very important to safe driving. Be sure to carry out regular inspection of brake system by qualified distributor.

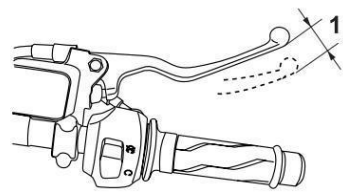
⚠ WARNING

Brake is related to personal safely and shall be kept in good order.

Front brake

For the brake, the distance from natural status to braking action is known as "free play".

The front brake is a disk brake, the free play of brake lever measured at lever bracket shall be 2-5.0mm (0.08-0.10in).



1. Brake lever free play

Hydraulic brake system shall be checked everyday, as follows:

1、Check for leakage in the front wheel brake system.

2、Check for any leakage or crack in oil pressure pipe.

3、The front brake lever shall have a certain back spring force.

4、Check wearing conditions of front wheel brake lining.

Brake fluid

⚠ WARNING

It is harmful if brake fluid is drunk by mistake or contacts the eyes or skin. If it is drunk by mistake, spit it out by force. If it contacts skin or eyes, wash with plenty of clear water and go to hospital.

The essential of checking the front wheel brake lining is to see if the lining is worn to the limit mark. If wearing exceeds the mark, the brake lining shall be replaced with a new one.

Rear brake

Adjustment of rear-wheel brake

The rear brake is disk brake, refer to the paragraphs for front brake disk brake for maintenance.

The brake pedal free play should measure 3.5-6 mm (0.14-0.24 in) as shown. Periodically check the brake pedal free play and, if necessary, have a dealer adjust it.

Silencer

Please keep away from the motorcycle silencer after a long time driving, to avoid being burnt.

Fuse

The fuse box is located inside the guard board of the rear part of motorcycle. A fuse is provided for all the electrical system. In case of any trouble to electrical system, check the fuse first. If the fuse is blown out, replace it with the spare fuse (15A) in the fuse box.

Air filter

If the air filter element is clogged by dust, the output power may reduce and the intake resistance may increase; The fuel consumption will also increase. Therefore, the air filter element shall be checked and cleaned every 3000 km, as follows.

Precaution:

If the motorcycle is working in dusty conditions, the air filter shall be checked and cleaned more frequently before schedule.

1、Remove the left side guard board.

2、Unscrew the air filter outer cover screw and take out the air filter sleeve.

3、Take out the air filter foamed plastic sleeve shell.

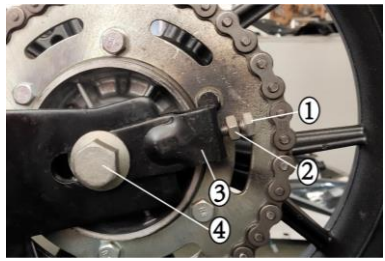
4、Separate the foamed plastic from the outer frame.

Precaution:

●During cleaning the filter element, check for any damage to the filter element and replace when necessary.

● Never start the engine without the filter element installed.

Adjustment of driving chain



①Adjusting bolt ②Locking nut ③Mark ④Rear wheel shaft nut

To adjust:

1、Park the motorcycle with the rear wheel stand.

2、Loosen rear wheel shaft nut.

3、Loosen the locking nut.

4、Rotate the adjusting bolt left and right to adjust the chain.

Note:

When a new chain is installed, it is necessary to check both chain wheels. Replace if necessary.

The tension of driving chain shall be adjusted every 1000 km, to keep a removable distance of 20 - 30 in the midpoint of the two chain wheels.

Precaution:

The open end of driving chain connection clip shall point away from the direction of rotation.

Cleaning and lubrication of driving chain

Dirt on driving chain may intensify the wearing of driving chain and chain wheels. Therefore, clean the driving chain every 1000 km with cleaning solvent, and lubricate it with special chain lubricant or engine oil.

Tires

Check the tire air pressure and tread pattern after first 1000 km and every 3000 km thereafter. Besides regular check, make it habit to check the tire air pressure from time to time, to ensure maximal safety and long life.

Tire pressure

A low tire pressure may intensify tire wearing and badly affect the driving stability, causing difficulties in turning.

But, a too high tire pressure may reduce the contact area between tires and road surface, causing wheel-slip and even out of control. It is necessary to always keep the tire pressure within specified limit. Tire pressure adjustment shall be made when the tire is cold.

Tread pattern

When driving a motorcycle with over-worn tires, the driving stability is low and it may get out of control. When the depth of front wheel tread pattern is reduced to 1.6 mm or less, it is advisable to replace the cover tire. When the tread pattern of rear wheel is reduced to 2 mm or less, replace the tire with a new one.

Chapter 9
Troubleshooting

If the engine cannot be started, check the following items to locate the cause.

1、 If there is fuel in fuel tank.

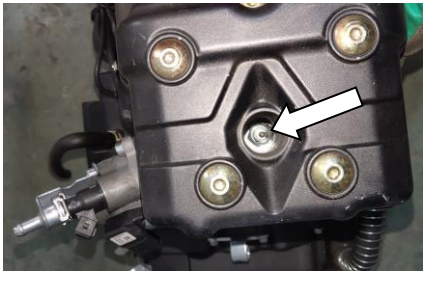
2、If fuel pump has no fuel outlet.

3、If it is confirmed that fuel pump has fuel outlet, take the next step to check the ignition system.

WARNING

Never allow fuel to flow everywhere. Collect it in a vessel. Keep fuel away from hot engine and exhaust pipe. During the operation, keep away from any flame or heat source.

Smoking is strictly prohibited during fuel system checking. Carry out the work in a spacious place.



1、 Remove spark plug and connect it with the high voltage cable.

2、Pull out plug-in of fuel pump

3、Turn the ignition switch to ON position and the engine shutdown switch to " " position. Place the spark plug near the engine, and start the engine. If the ignition system is in working order, there shall be blue sparks jumping over the spark plug gap; If there is no spark, contact your distributor for repair.

WARNING

Do not make the above check with the spark plug fixed near fuel injector to avoid fire hazard by igniting the vaporizing fuel in cylinder.

To avoid electric shock, it is advisable to put the metal part of spark-plug in contact to a metal part without paint on the vehicle body. To avoid disaster by electric shock, any person suffering from heart diseases shall not do the check.

Engine shutdown

1、Check the fuel volume in fuel tank.

2、Check sparks of ignition system.

3、Check no-load operation of the engine.

Table of Engine Troubleshooting

Trouble		Cause	Remedy
Engine start failure or flames out easily after its startup		**See from Ⅱ.2 Diagnosis and troubleshooting of fault without fault code of Section 3: Electronic Fuel Injection System, Chapter4**	
Abnormal engine operation	Abnormal noise from engine	1、Serious worn out cylinder and piston 2、Serious worn out needle bearings in small and big ends of connecting rod 3、Premature ignition 4、Excessive carbon deposit in combustion chamber 5、Overheated spark plug	1、Replace cylinder body and piston 2、Replace bearing and relate parts 3、Adjust ignition time 4、Clean out carbon deposit 5、Replace spark plug
	Unstable engine operation	1、Water or dirt in carburetor 2、Clogged fuel passage 3、Leaking crankcase 4、Leaking connection between Throttle and engine **5、** Over-rich or over-thin gas mixture	**1、Clean the carburetor** **2、Clean or replace fuel pipe** **3、Replace sealing** **4、Tighten screw** **5、Adjust carburetor**
	Overheat engine	**1、Low gear driving over a long time** **2、Over loaded driving or heavy load** **3、Unqualified engine oil or insufficient transmission oil** **4、Slipping clutch** **5、Too tight chain** **6. Unreleased brake**	1、Change gear position and control time 2、Control load-carrying and cooling 3、Replace with qualified engine oil and fill oil to transmission case 4、Adjust free play or replace clutch , friction lining and spring 5、Adjust tension 6.Adjust brake clearance

Chapter 10 Parameter List

Model	TR125	
Dimensional parameters		
Overall dimension (L ×W ×H) mm	1961*738*1077	
Wheelbase mm	1313	
Minimum ground clearance mm	150	
Steering handlebar turning angle (°) (left / right)	45	
Mass/volume		
Overall mass kg	230	
Max. loading mass kg	155	
Fuel tank capacity L	10	
Engine		
Model	158MI-2P	
Type	Single cylinder, 4-stroke, liquid cooling	
Cylinder bore×stroke mm	ϕ58 *47	
Total displacement ml	124.2	
Compression ratio	12：1	
Max. power and corresponding speed kW/(r/min)	8.8/8700	
Max. torque and corresponding speed N. m/ (r/min)	10.0Nm /8300r/min	
Min. fuel consumption g/kW·h	340	
Min. stable idle speed r/min	1450±100	
Ignition mode	ECU	
Starting mode	Electric	
Lubrication mode	Pressure and splashing	
Lubricant	SJ-10W/40	
Fuel	#92 or higher unleaded gasoline	
Air filter type	Paper filter core	
Gas distribution mode	Overhead cam valve	
Transmission device		
Clutch type	Manual, Wet, Multi-Plate	
Transmission type	Foot operated 6-gear transmission	
Primary reduction ratio	3.333	
Final stage reduction ratio	2.846	
Transmission ratio 1st gear	3.083	
2_{nd} gear	2.068	
3^{rd} gear	1.450	
4^{th} gear	1.130	
5^{th} gear	0.957	
6^{th} gear	0.815	

Model	TR125
Dimensional parameters	
Tire size Front/ Rear	F110/70-16 /R 140/70-17
Tire pressure kPa (front/ rear)	280/280
Brake type Front	Disk
Rear	Disk
Brake control mode (front/ rear)	Hand brake/foot brake
Shock absorber type Front	Spring oil damping
Rear	Spring oil damping
Electric system	
Spark plug model	CPR8EA-9
Fuse size	15A
Battery	12V 7Ah
Horn model	DL128
Model or type of speedometer	GP2 Electronic
Radio jamming suppression type	Non-shielded spark plug ignition suppresser +throttled spark plug

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