

**Owner's Manual**  
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**FRAME NO. & ENGINE NO.**

**FORWARD**

Thanks for and congratulations on your reasonable choice of our company's motorcycle. With the delicate and elegant design based upon the adoption of the-state-of-the-art technology, this motorcycle can serve you well and assist you in your daily transportation and exhilarating riding sports through its reliable performance.

The proper maintenance and care that your motorcycle requires are outlined in this manual. The following instructions in detail can guarantee a long trouble-free operating life for your motorcycle. Our company has well-established service network and can make you have access to the best possible service in fittings or spare parts supply and other aspects.

Please contact your authorized dealer or qualified mechanic if any problem occurred to your motorcycle anytime and anywhere all over the world. We are always ready to provide highly coordinated service for you.

All information, illustration photographs and specifications contained in this manual are based on the latest product information available at the time of publication. Due to improvements or other changes, there may be some discrepancies in this manual, our company reserves the right to make changes at any time for your convenient maintenance of this motorcycle. We hope you will have a pleasant experience with our products and thanks again for choosing our motorcycle.

## **SAFE RIDING RECOMMENDATION FOR MOTORCYCLE RIDERS**

### **SAFE DRIVING TIPS**

Motorcycle riding requires that some extra precautions be taken to ensure the safety of the rider and passenger. Before each use, perform daily inspection with the rider.

1. Failure to inspect this motorcycle carefully before each riding may result in damage to the parts and an accident.
2. Do not permit anyone to operate your motorcycle without a license.
3. Make yourself well-identified to avoid collision with other vehicles. Do not follow another vehicle too closely.
4. Obey traffic regulation strictly and ride within your speed limit.
  - Riding this motorcycle at excessive speed increases your chances of losing control of the motorcycle.
  - Always use the signals or horn when you intend to change lanes or make a turn.
5. Keep both hands on the handgrips and both feet on the footrests at all times while riding. Passenger should keep feet on the passenger footrests, or injures resulting from accidents.
6. Balance the load between the left and right side of the motorcycle to ensure safety and stability. Make sure luggage is fastened securely.

### **PROTECTIVE APPAREL**

1. Make sure the rider wears a helmet, eye protection, and protective clothing (gloves, leather or heavy cloth pants, long sleeved shirt or jacket, boots) as well as the passenger.
2. Do not be touched on muffler because it is hot. Make sure to wear protective clothing or boots.
3. Loose fancy clothing can be uncomfortable and unsafe in terms of riding your motorcycle.

### **MODIFICATION TO YOUR MOTORCYCLE**

Tampering with modification to this motorcycle is prohibited.

Modification of the motorcycle, or removal of original equipment may render the vehicle unsafe or illegal.

### **LOADING**

Balance the load between the left and right side of the motorcycle to ensure safety and stability. Carrying a load on the motorcycle, mount it as low as possible and as close as possible to the machine. An improperly mounted load can create a high center of gravity, which is very dangerous and creates serious stability problems and reduces safety factors.

### **Frame No. & Engine No.**

The frame and/or engine serial numbers are used to register the motorcycle. They are also to assist your dealer in terms of ordering parts or referring to special service information.

The frame number is stamped on the left upside of the steering head tub (see Fig. 1).

The engine serial number is stamped on the left upside of the crankcase assembly (see Fig. 2)

Please write down the serial numbers for your future reference.



Frame No.

Fig.1



Engine Number

Fig.2

**1. NAME OF EACH PARTS**

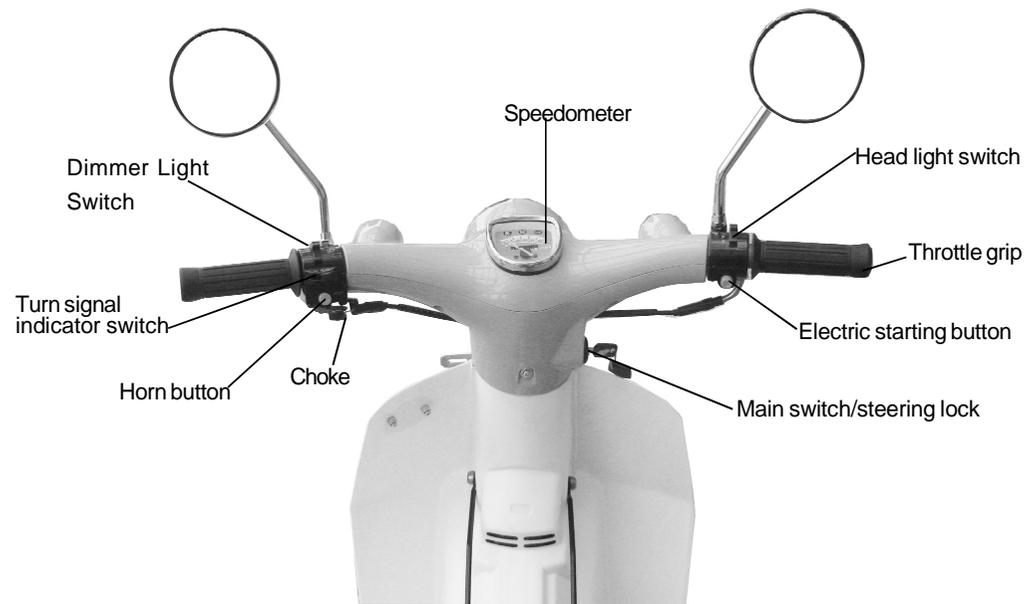


Fig. 3

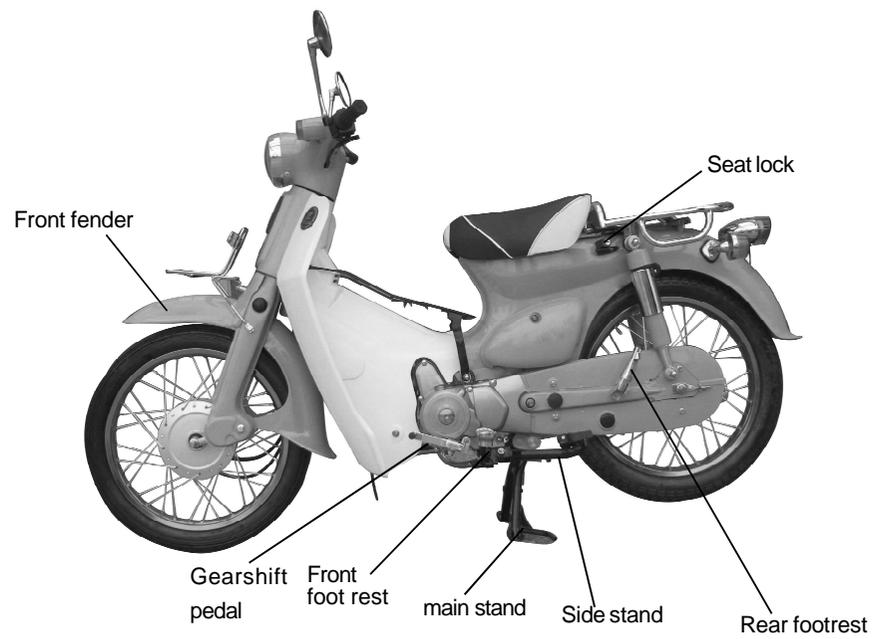


Fig. 4  
-5-

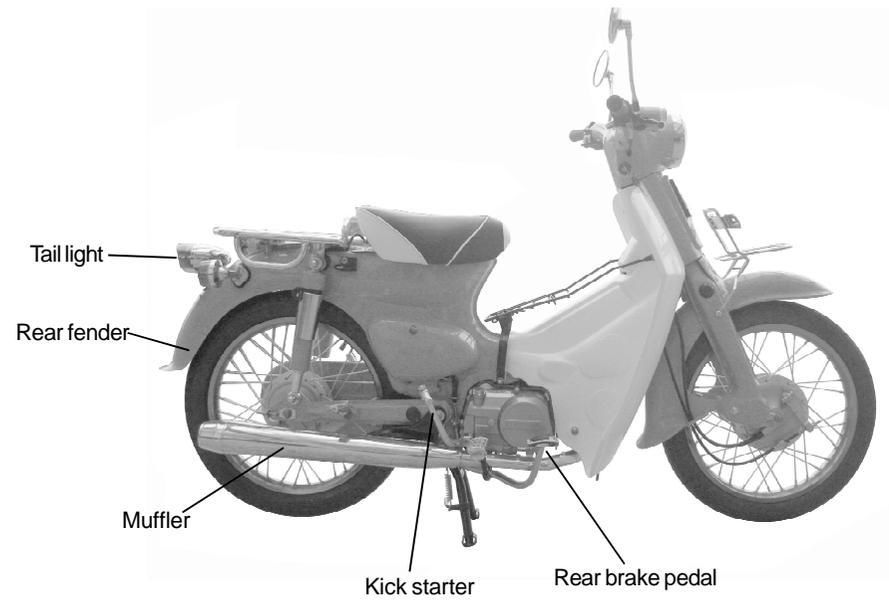


Fig 5

## 2.SERIAL NUMBER LOCATION



① Frame number  
Fig6



② Engine number  
Fig7



③ Frame plate  
Fig8

### IDENTIFICATION NUMBERS

① Vehicle Identification Number (VIN):

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② Engine Serial Number:

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① Frame number (Vin number) is on the frame behind the tool box;

② Engine number is printed on the engine crank cover;

③ The frame plate is fixed on the frame behind the tool box.

Please write down the Vehicle Identification Number (VIN) and Engine Serial Number in the box provided above for your future reference. They are also to assist your dealer in terms of ordering parts or referring to special service information.

### 3. OPERATING CONTROLS

#### Instrument panel

The Instrument panel can display the working status of the motorcycle.



Fig.9

No.	Description	Function
1	Speedometer	It indicates the road speed in kilometers and miles per hour.
2	Neutral indicator lamp	The neutral indicator lamp will come on when the transmission is in neutral. The lamp will go out when you shift into any gear other than
3	Gearshifting indicator lamp	neutral.
4	Left turn signal indicator lamp	The lamps will be lit when the engine is in each gear. When the turn signal is being operated to the left, the left indicator
5	High beam indicator lamp	will flash at the same time with sound of clicks. The high beam indicator lamp will come on when the headlamp high
6	Fuel meter	beam is turned on: the switch is on HI position.
7	Odometer	It indicates the remaining fuel amount in the fuel tank.

It registers the total distance that the motorcycle has been ridden.

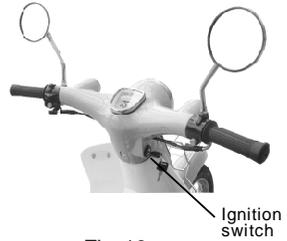


Fig. 10



Fig.11



Fig.12

## OPERATING CONTROLS

### Ignition Switch

Ignition switch controls the action of the engine, the ON or OFF status of the electrical circuits and the LOCK or UNLOCK status of the steering bar. The ignition switch can be turned to the following three positions:

#### ⊙ “OFF” POSITION

All electrical circuits are cut off.

The engine will not start. The key can be removed.

#### ⊙ “ON” POSITION

The ignition circuit is completed and the engine can be started in this status. The key cannot be removed from the ignition switch in this position.

#### ⊙ “LOCK” POSITION

To lock the steering, turn the steering bar to left by 40°, push down the key along the direction to the “OFF” position until it point to “OFF”, and then turn it to the “LOCK” position and remove the key.

All electrical circuits are disconnected and the steering is locked.



Fig.13

**It indicates the speed of different gear.**

### SWITCHES ON STEERING BAR

#### 1. Dimmer Light Switch (1)

When the dimmer switch is in the "D" position, the headlamp high beam and high beam indicator lamp on the instrument panel come on. When the dimmer switch is in the "H" position, the headlamp low beam comes on and the high beam lamp is off.

#### 2. Turn Signal Indicator Lamp (2)

When the turn signals are being operated either to the right or to the left, the indicator will flash at the same time with sound of clicks.

#### 3. Horn switch (3)

Press the switch to operate the horn.

#### 4. Head Light Switch (4)

"O" position: The headlamp, front parking lights and tail lamp come on.

"P" position: The front parking lights, and tail lamp come on.

"●" position: All lamps go off.

#### 5. Electric Starter Button (5)

To start the engine, turn the ignition switch to ON position. Apply tightly the front or rear lever and press the electric starter button.

#### WARNING

If the engine can not be started within 5 seconds by normal operating means, please restart it 10 seconds later after the battery voltage restored.

#### SEAT

To open the seat, insert the ignition key into the lock and hold the rear lower part of the seat and lift. To lock the seat, put the seat down.

#### WARNING

Don't leave the ignition switch key in tool box, otherwise you can not take out the key if the seat is put down.

- (1) Dimmer Light Switch
- (2) Turn signal indicator switch
- (3) Horn
- (4) Head Light Switch
- (5) Electric starting button

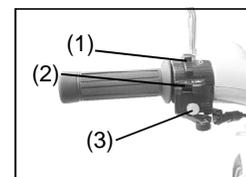


Fig.14

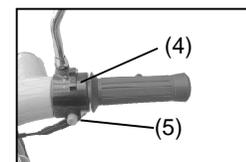


Fig.15



Fig.16

### Helmet Hanger

Open the seat lock with ignition key and lift the seat. Hang the helmet on the hanger and lock the seat.

### WARNING

Don't hang the helmet on the steering bar when driving the motorcycle, which may obstruct operation, resulting in damage of parts and causing accidents.

### FUEL TANK

The fuel gauge indicates the remaining amount whenever the ignition switch is "ON" or "OFF".

For checking the remaining amount of fuel, hold the motorcycle vertically and set the ignition switch "ON".

Refilling fuel is required when the gauge indicates in "E" position.

### WARNING

·Spilling gasoline can damage the pointed surfaces.

·Be careful not to spill any fuel when filling the fuel tank. Wipe spilled gasoline up immediately.

• Make sure to stop the engine when refueling.

• Keep away from fires, sparks and other fire sources as it could create a fire disaster.

Recommended fuel: **Gasoline No.90**

### ENGINE OIL LEVEL

Long engine life depends much on the selection of quality oil and the periodic changing of the oil.

Daily oil level checks and periodic changes are two of the most important maintenances to be performed.

Refuel with oil if the engine oil level is below the Lower line mark. Never operate the motorcycle if the engine oil level is below the Lower line mark in the engine oil level lens. Never fill the engine oil above the Upper line mark.



Fig.17

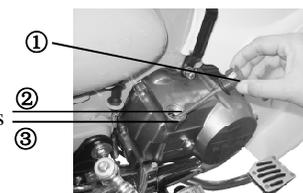


Fig.18

**WARNING**

1. When refilling oil, stop the engine and turn the ignition key to OFF position to switch off power so as to avoid fire.
2. Engine oil and exhaust pipes can be hot enough to burn you. Don't put cloth strips around the oil tank to prevent fire caused by hot engine.

Recommended oil: APA10w-30

**FUEL COCK**

There are two positions in the fuel cock:

- (1) ON position: when the fuel cock lever is in the "ON" position, fuel can flow in carburetor and the engine can be started.
- (2) OFF position: when the fuel cock lever is in the "OFF" position, fuel cannot flow in carburetor, the engine cannot be started.

**BRAKES**

**FRONT DISC BRAKE**

This motorcycle is equipped with front disc brake . Properly operating the brake systems are vital to safe riding. Be sure to perform the brake inspection requirements as schedules. The brakes should be inspected at periodic inspection by qualified dealer. Be sure to check the brake fluid level in the master cylinder. If the level was found to be lower than the lower mark while holding the motorcycle upright, replenish with the proper brake fluid that meets our company's requirements.

As the brake pads wear, the fluid level will drop to compensate for the new position of brake pads.

Replenishing the master cylinder to considered normal periodic maintenance.

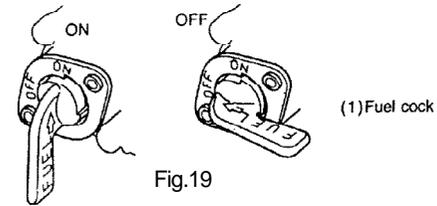
Inspect the brake pads regularly and make sure there is no wear on the pads.

- (1) Front Brake Lever

The front brake lever is located on the right handlebar, pull it towards the handlebar to activate the front brake.

- (2) Rear Brake

The rear brake pedal is located on the right side of motorcycle. Depress the pedal to apply the rear brake.



**CAUTION**

Properly operation of the brake system is vital to safe riding. Be sure to perform the brake inspection requirements as schedules. Make sure the play in the brake and pedal should be correct. Adjust the clearance by screwing in or out the brake adjusting nut.

**4. PRE-OPERATING CHECKS**

Read the Traffic safety regulation carefully and thoroughly before starting to drive your motorcycle.

1. Warm up the engine fully to run it evenly.
2. Make sure the transmission should be non-circulation system.
3. When the engine is at idling speed, depress the front of the shifting lever to select the first gear.
4. When the motorcycle operates smoothly and stably, slow down the engine, re-depress the front of the shifting lever to select the second gear. To select the higher gears according to the same procedure.
5. When the fourth gear is selected, slow down the engine, depress the rear of the shifting lever to change to the third gear. To select the lower gears according to the same procedure.
6. Operate the throttle and brakes smoothly.
7. Apply the front and rear brakes evenly and at the same time. Never apply brakes strongly to lock the wheel, or the braking effectiveness will be decreased and will lose of control.



Fig.21 (1) Front adjustable nut  
(2) Front brake cam shaft

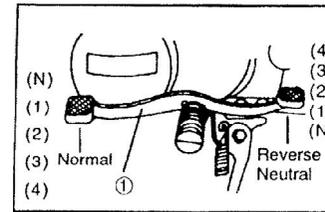


Fig.22

### (1) KICK STARTER

This motorcycle is equipped with electric starter and kick starter. Applying the kick-starter, start the engine by depressing starter lightly away from the engine until teeth engage. You can start the engine in any gear when the clutch disengages. It is advisable that the transmission be in neutral before starting the engine.

### (2) ELECTRIC STARTER

Press the Start button with right hand, the engine will be started in seconds.

### ENGINE BREAK-IN

Operate your motorcycle to achieve maximum life and engine power performance from your new motorcycle during the engine break-in period.

The table below shows the maximum engine speed recommendation during the break-in period.

0-160km	Below 35km/h
160-800km	Below 45km/h
800-1600km	Below 55km/h

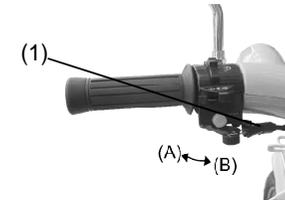
### THROTTLE

Turn the throttle grip to check the operation and correct slack of throttle: 2-6mm. Make sure that the throttle snaps closed when released. Adjust the throttle if necessary. Loosen the lock nut.

Adjust the cable slack by cable adjuster in or out to obtain the correct slack 2~6mm.

After adjusting the slack, tighten the lock nut.

Turn the throttle grip to see if it operates properly and the play is normal. Make certain the throttle snaps closed when released. Free travel of the grip is 2-6mm. If adjustment is required, loosen the nut first, turn the adjusting threaded



(1) Chock

(A) ON

(B) OFF

Fig.23

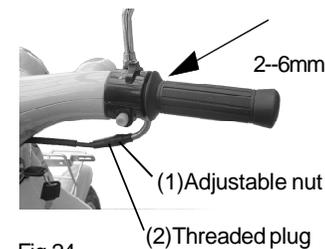
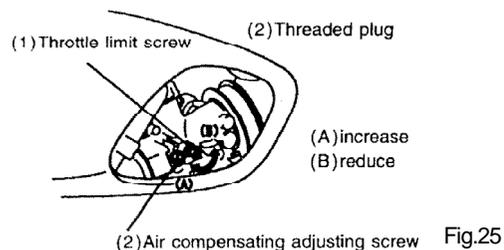


Fig.24

pipe, then tighten the nut when it is satisfactory.

### CARBURETOR IDLE ADJUSTMENT



1. Start up the engine and let the engine run for 2-3 minutes to warm up fully.
2. After engine has warmed up, turn the adjusting screw (2) properly. Unscrew the screw by one and a half turn.
3. Turn the throttle limit screw to keep the engine running at the speed of  $1400 \pm 100$  rpm.
4. Turn the screw to A or B position to increase or reduce the idling speed.

### DRIVE CHAIN

The chain may require more frequent adjustment than it is with periodic maintenance depending upon your riding conditions.

Check the tension condition of the drive chain (See the Fig. 22) with both tires touching the ground. The correct drive

chain slack should be 15-20mm. Adjust if necessary.



Fig.26

### BATTERY

Check the electrolyte level and make sure there is proper amount of electrolyte in the battery. Replenish with distilled water only. Do not overfill electrolyte over the UPPER LEVEL. Do not allow contaminants and dirt into the battery when refilling.

#### WARNING

Electrolyte may be harmful as it contains sulfate if swallowed or if it comes in contact with skin, eyes and clothes. If electrolyte is swallowed, drink plenty of water or milk and contact your doctor immediately.

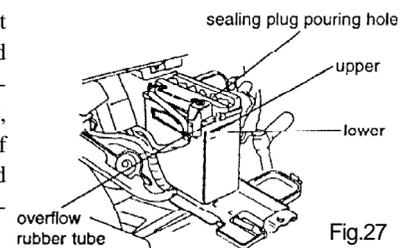


Fig.27

### SPARK PLUG

Remove the carbon deposits periodically from the spark plug with a piece of hard wire or pin.

Readjust the spark plug gap to 0.6-0.7mm by using a spark plug gap thickness gauge. Replace with a new

specified spark plug: A77C and readjust to correct spark plug gap.

### CLEAN AIR CLEANER ELEMENT

If the air cleaner element is polluted, will occur to starting go out, output insufficiency and combustion efficiency decline.

1. Remove the screws on the air cleaner.
2. Pull up the air cleaner cover, and the air cleaner element(See Fig.29).

Clean the air cleaner element for the following:

- 1) Clean with specified cleaning oil. Immerse the element into engine oil(SEA80-90).
- 2) Take out the oiled element and squeeze the excessive oil to dry it.
- 3) Reinstall the element into the air cleaner.

### NOTE:

Carefully examine the air cleaner element for tears during cleaning. Replace it with a new one if it is torn.

Assemble the element completely or damage severely the engine.

Be careful not to allow water to go inside the air cleaner element.

### TIRES

Inspect the tire pressure and the tire thread depth periodically.

Inspect frequently the tire pressure for the safety and the tire life.

Insufficient air pressure in the tires not only hasten tire wear but

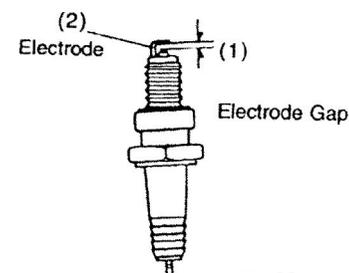


Fig.28

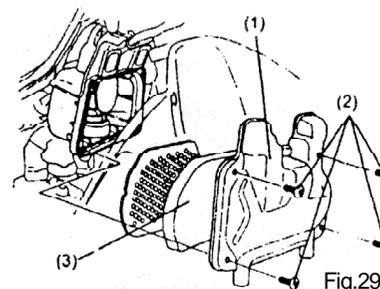


Fig.29

also seriously affects the stability of the motorcycle.

Under-inflated tires make smooth cornering difficult and over-inflated tires decrease the amount of tire in contact with the ground which can lead to skids and loss of control. Be sure that the tire pressure is within the specified limits at all times.

Make sure there is no cracks, cuts, nails or any damages on the tires. Replace with new tires if necessary.

Tire size:

Front: 2.25-17

Rear: 2.50-17

Frong: 200 kpa Rear: 225 kpa

#### **5. DAILY INSPECTION BEFORE EACH RIDING**

Be sure to inspect the following items before each riding:	
ITEM	INSPECTION
Brakes	Inspect operation and adjust if necessary.
Fuel tank	Inspect the oil level. Replenish if necessary.
Transmission	Make sure transmission is in normal operation.
Drive chain	Inspect its alignment. Adjust and lubricate if necessary.
Throttle	Inspect its normal operation and adjust to the correct play.
Wheels and tires	Inspect tire pressure and tighten axle nuts.
Fittings/fasteners	Tighten if necessary.
Lights/signals	Make sruue its normal operation.

### TOOL KIT

To assist you in the performance of periodic maintenance, a tool kit is supplied. The tool kit consists of the following items.

- Spanner 8\*10mm
- Compose driver
- Spanner 12\*14mm
- Driver handle
- Cross screwdriver
- Spark plug spanner

### 6. PERIODIC MAINTENANCE

Item	Month					
	1	4	6	8	12	18
Oil pipe		I	I	I	I	I
Throttle		C	C	C	C	C
Choke		I	I	I	I	I
Air cleaner		C	C	R	R	R
Spark plug		I	R	R	I	I
Transmission oil		R	R	R	R	R
Idling speed	I	I	I	I	I	I

## SPECIFICATIONS

Specification Item	Model KB110	Specification Item	Model KB110	
L*W*H(mm)	1845 × 675 × 1110	Spark plug(mm)	0.6-0.7	
wheelbase(mm)	1200	Valve clearance(in/exhaust)mm	0.03~0.05	
Ground clearance(mm)	130	Start mode	Elec/kick start	
Braking distance	≤ 7m/30km/h	Clutch type	Oil multi-plate type	
Start time(S)	≤ 15S	Lubricating method	Pressure splash	
Dry mass(kg)	81	Lubricating oil capacity(L)	0.9	
Max loading(kg)	150	Tire size ( front/rear)	2.25-17/2.50-17	
Max speed(km/h)	75	Handle bar turning angle lietype	≤ 48°	
Minfuelconsumption(L/100Km)	≤ 1.453	Climbling capacity	≤ 22°	
Brake (front/rear)	drum/drum	Transmission type	Primary ratio	3.722
Fuel tank capacity(L)	3.8		1 st gear	3.273
Fuel	90#		2 nd gear	1.938
Model of engine	150FMG		3 rd gear	1.350
Engine type	4-Stroke/single cylinder/air cooled		4 th gear	1.043
Bore * stroke (mm)	50.0 × 49.5	Spark plug	A77C	
Compression ratio	8.5:1	ignition	C. D. I	
Displacement (ml)	97	headlamp	12V/35W. 35W	
Max power(kw/r/min)	4.0/7500			
Max torque N • m(r/min)	5.6/6500			

# ELECTRICAL CIRCUIT DIAGRAM

