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### **PREFACE**

The manual introduces to you basic operation and method of maintenance of this motorcycle. Please read the manual carefully before driving the motorcycle. Proper operation and maintenance of the motorcycle will ensure less trouble and optimum performance and service life. The authorized service dealers at various areas will take their pleasure in providing you with more technical consultations and after-sales services.

The data, instructions, specifications, and pictures demonstrated in the manual are based on the latest design information available at the time of approval for printing. Our company reserves the right to make changes at any time without notice of changed parameters and other information.

Thank you for purchasing motorcycle. Wish you a comfortable and pleasant long trip in the future.

The product is in accordance with QC/T29116-93 standard.

#### **IMPORTANT NOTICE**

The engine of this motorcycle rotates at high speed. In order to make sure that the engine can run normally, prolong its service life and safeguard your interests, please operate the motorcycle according to the following regulations:

- 1. During the first 1,000 km, avoid full throttle and never labor the engine. The rotating speed of the engine should be strictly restricted to less than 6000 rpm
- After the first 300 km, 600 km and 1000km, please clean the engine and change.
   The engine oil in accordance with the requirements of Operation and Maintenance Manual.

Keen both hours on the headichers and both lector the facility while riding

# Special Attention

If you operate the motorcycle without following traffic regulations and instructions in the manual, or under abnormal conditions such as driving on terrible bumps or overloaded, safety accidents or equipment damage may occur.

This manual should be considered a permanent part of the motorcycle and should remain with the motorcycle when resold.

The company reserves all rights of the manual. No part of this publication may be reproduced without written permission of the company, and any violation will be brought to justice.

## MOTORCYCLE SAFETY

#### WARNING

When riding your motorcycle, you must pay attention to traffic safety. Only after you have checked your motorcycle can you drive it.

### SAFE RIDING RULES

Before you start your engine, you must check the motorcycle to prevent accidents or equipment damage. Any motorcycle driver must pass the test and get the license

Before the traffic administration validates one's permit for driving. NEVER lend your motorcycle to any rider without drive license.

Make yourself conspicuous to help avoid the accident that wasn't your fault:

Wear bright-colored clothing. Don't keep extremely close to other motorcycles. Properly use signal devices such as turn signal lights and horn. Lane sharing is prohibited. Strictly obey all local traffic regulations.

Excessive speed is a factor in many accidents. Obey the speed limits, and NEVER travel taster than conditions warrant.

Keep both hands on the handlebars and both feet on the footpegs while riding. A passenger should hold on firmly to the driver's waist with both hands and keep both feet on the passenger footpegs.

## PROTECTIVE APPAREL

A motorcycle rider usually has his/her head injured in an accident. In order to ensure personal safety, the rider should wear a helmet, goggles, boots, gloves etc. The passenger should wear the same right gear.

The temperature of the muffler is very high when the motorcycle is ridden. The passenger should wear boots or shoes high enough to cover his/her ankles to prevent his/her feet from being scalded. The rider should wear close-fitting clothes to prevent loose clothing catching the handlebars, kick starter, footpegs and tyres.

## MODIFICATIONS

#### WARNING

Modification of the motorcycle or change of original equipment may render the motorcycle unsafe of illegal. Obey all traffic regulations stipulated by the local traffic Administration.

If you have any better suggestions, you can inform us through correspondence. It is advisable to modify your motorcycle only after being agreed by us. Otherwise, you will be responsible for all consequences.

## LOADING

#### WARNING

The motorcycle is sensitive to changes in weight distribution. Improper loading of cargo can impair the motorcycle's performance and stability.

Keep cargo weight low and close to the center of the motorcycle. Load weight equally on both sides of the motorcycle to minimize imbalance. As weight is located further from the center of gravity, handling is proportionally affected.

Properly adjust the tire pressure and the spring of the rear shock absorber according to the load weight and road conditions.

Firmly Mount loads on the motorcycle in order to ensure stable handling.

Avoid fastening large or heavy loads to handlebars, front fork or dashboard Otherwise it can adversely affect stability and handling. NEVER exceed the maximum weight limit of 171kg.

### ACCESSORIES

Accessories produced by our company have undergone special design and test, and can render the motorcycle safe. They are optional for users. Users will take responsibility for their selection, installation and use of accessories not produced by our company. Please obey safe riding rules and follow the next points:

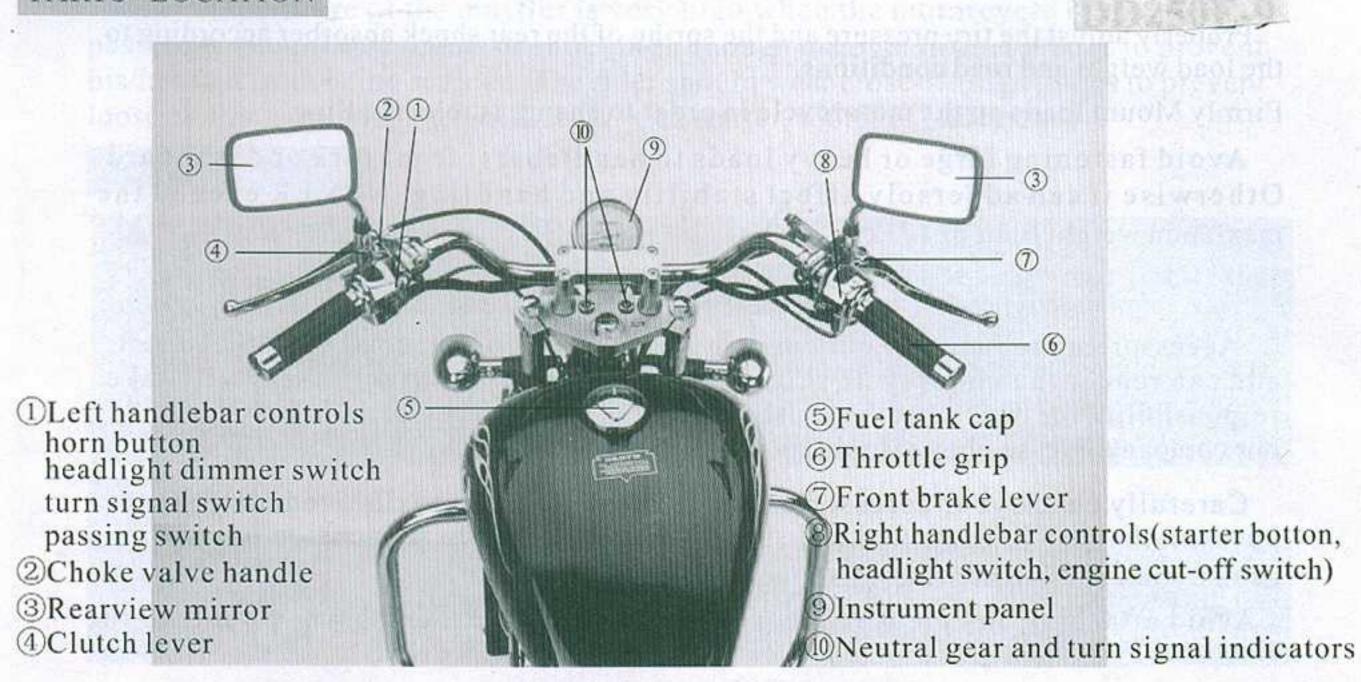
Carefully check your accessories, make them out of sight line, reduce distance between them and the ground and side dip angle, and keep suspension or steering device from moving or affect handling.

Avoid attaching any electrical equipment. Otherwise it can bring trouble to the electrical system.

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## INSTRUCTIONS

### PARTS LOCATION

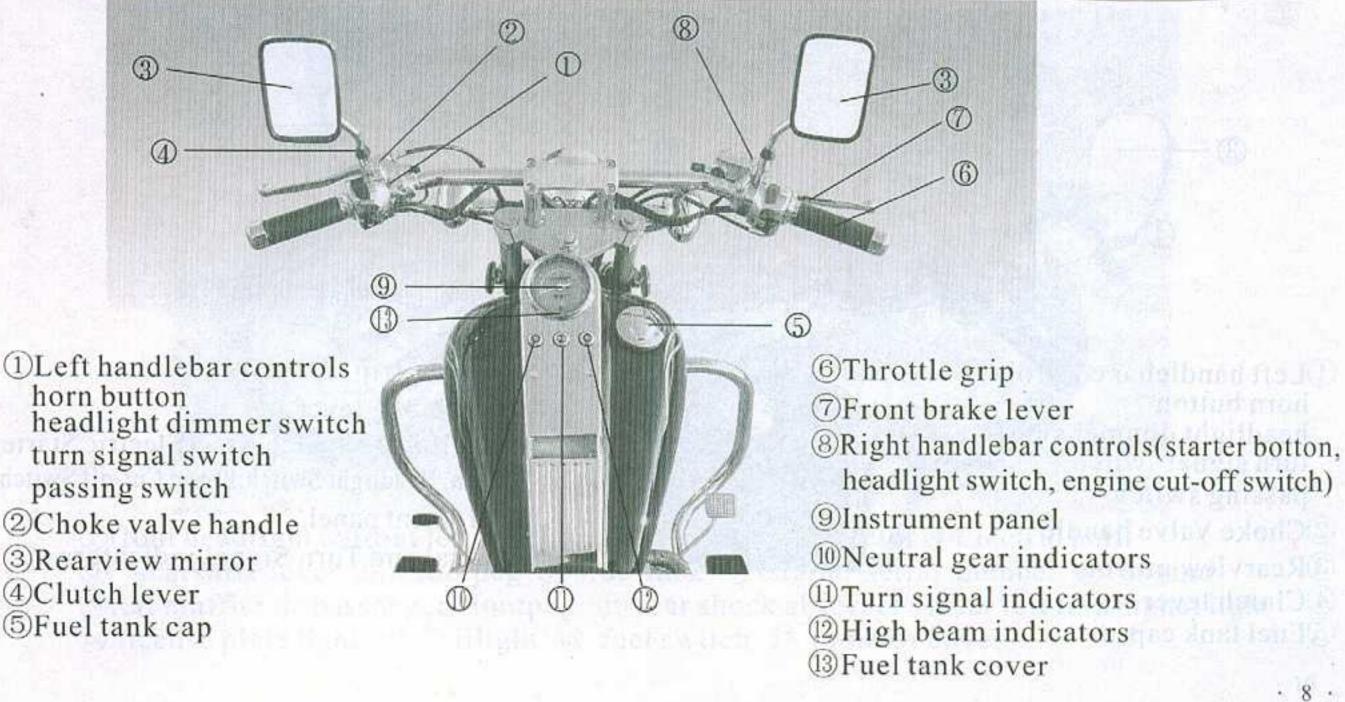


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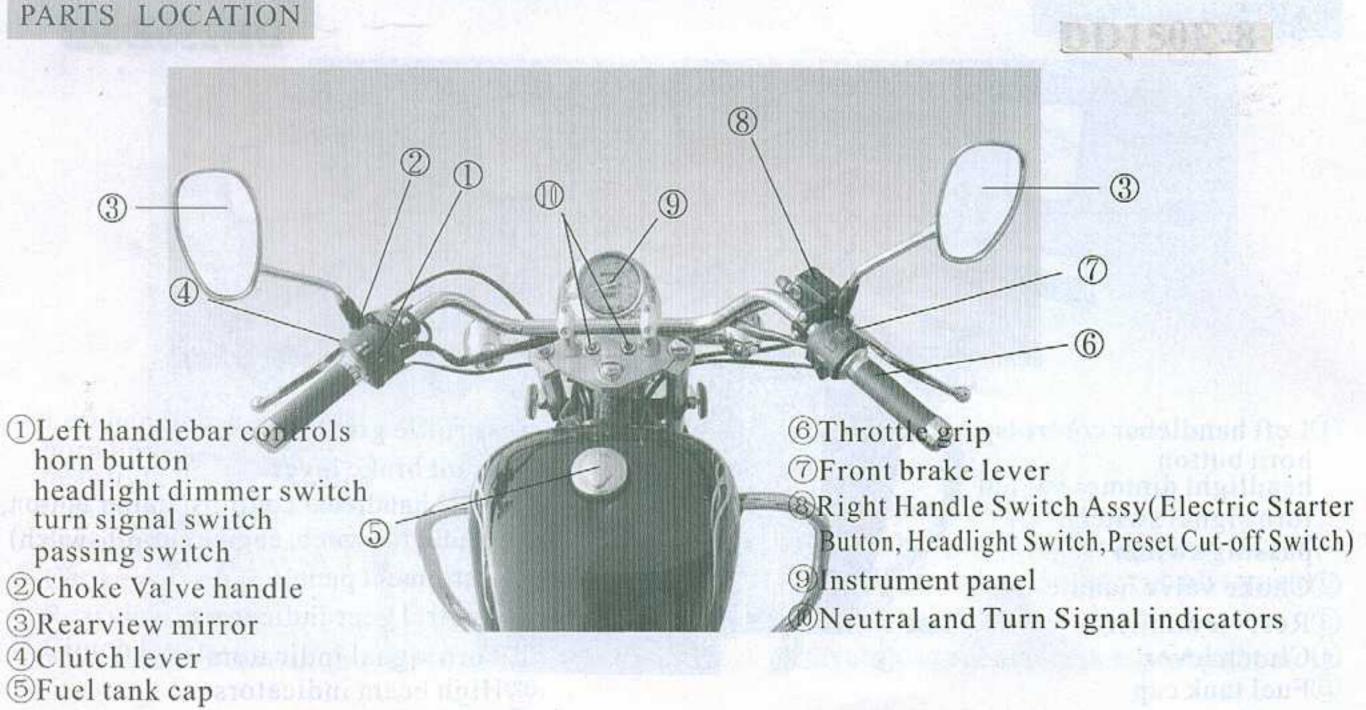
## INSTRUCTIONS

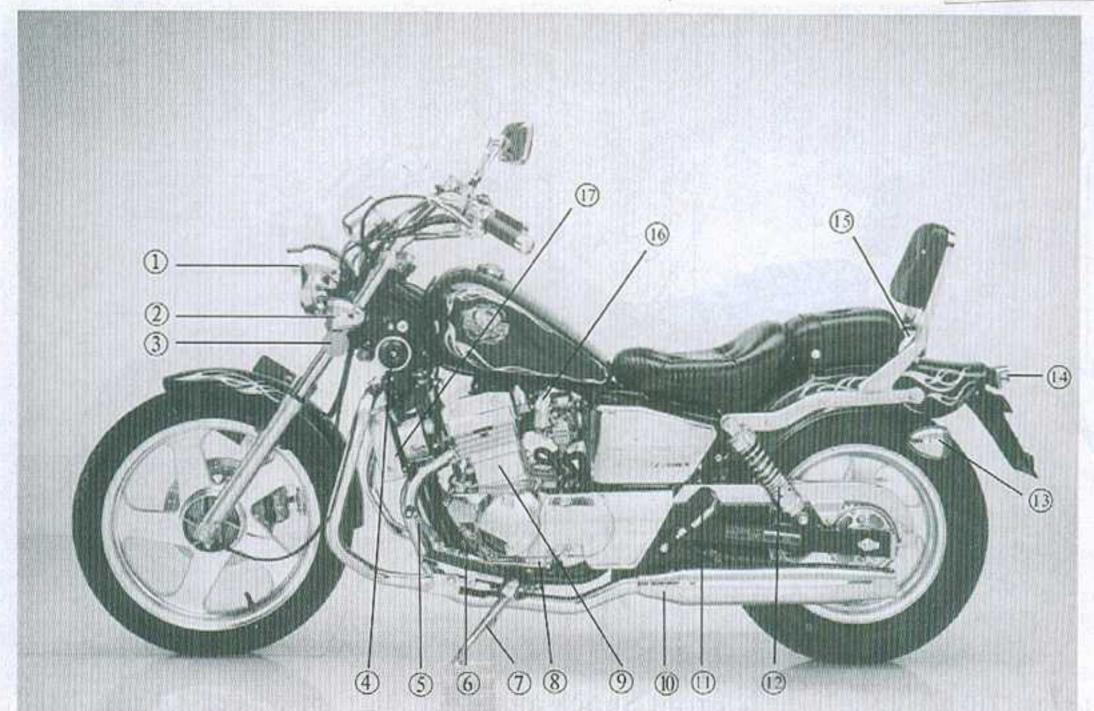
### PARTS LOCATION

MC-51-250

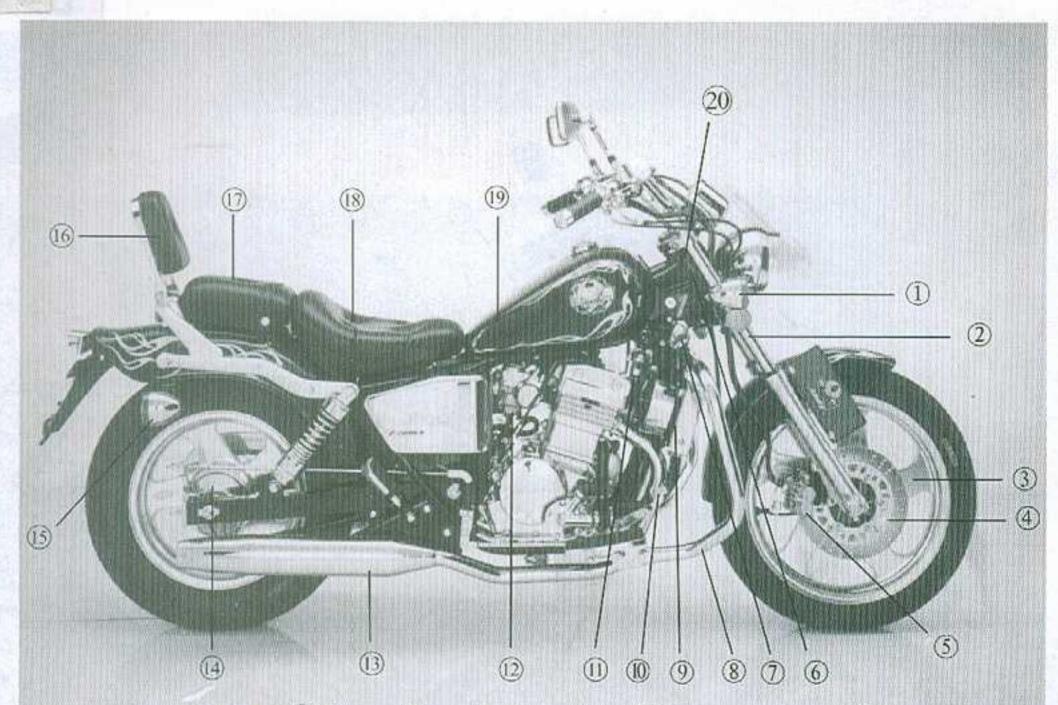


## INSTRUCTIONS





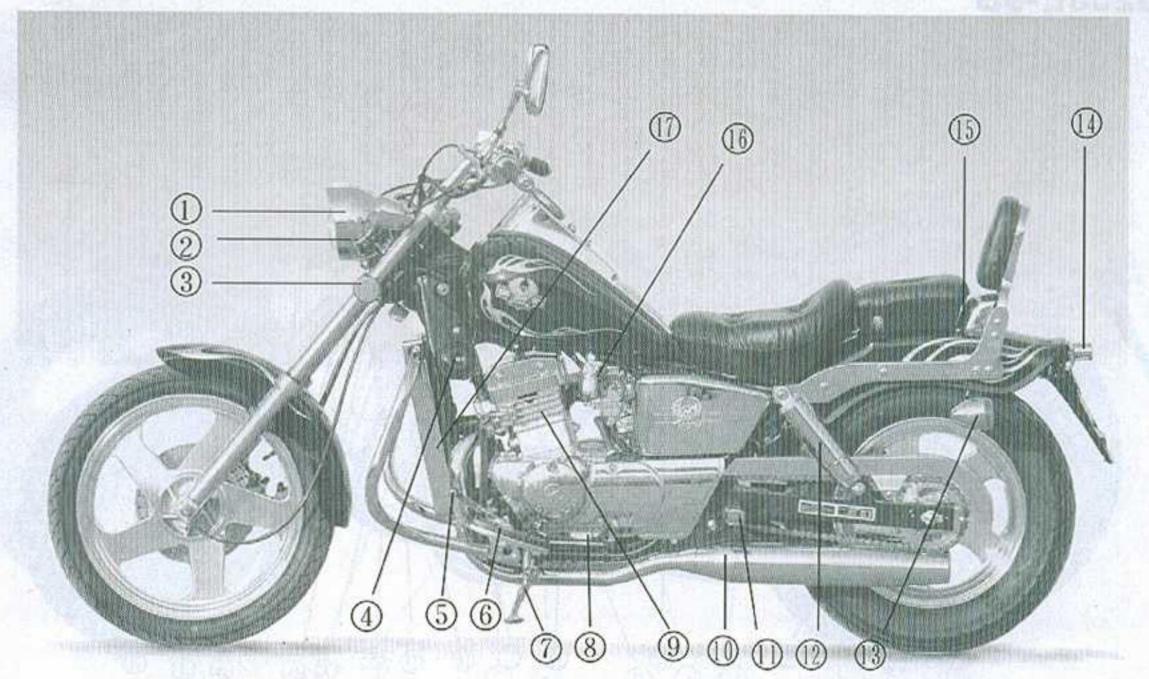
①front headlight ②front left turn signal light ③side reflector ④Electric horn
⑤ gearshift lever ⑥ footpeg ⑦ side rack ⑧ engine serial number ⑨ engine
⑩left muffler ⑪ passenger footpeg ⑫ rear shock absorber ③rear left turn signal light
⑭ license plate light ⑥ Taillight ⑯ fuel switch ⑰ radiator cover



. 10

①front right turn signal light ②Front Shock absorber ③Front wheel ④Front brake disc ⑤Front brake pump ⑥Frame name plate ⑦Ignition switch ⑧Humper ⑨Radiator ⑩Rear Brake padel ⑪sensor ⑫ Carburetor ⒀ Right muffler ⑭ rear brake ⑤ Rear right turn signal light ⑥ backrest ⑰ passenger seat ⑧ seat ⑨ fuel tank

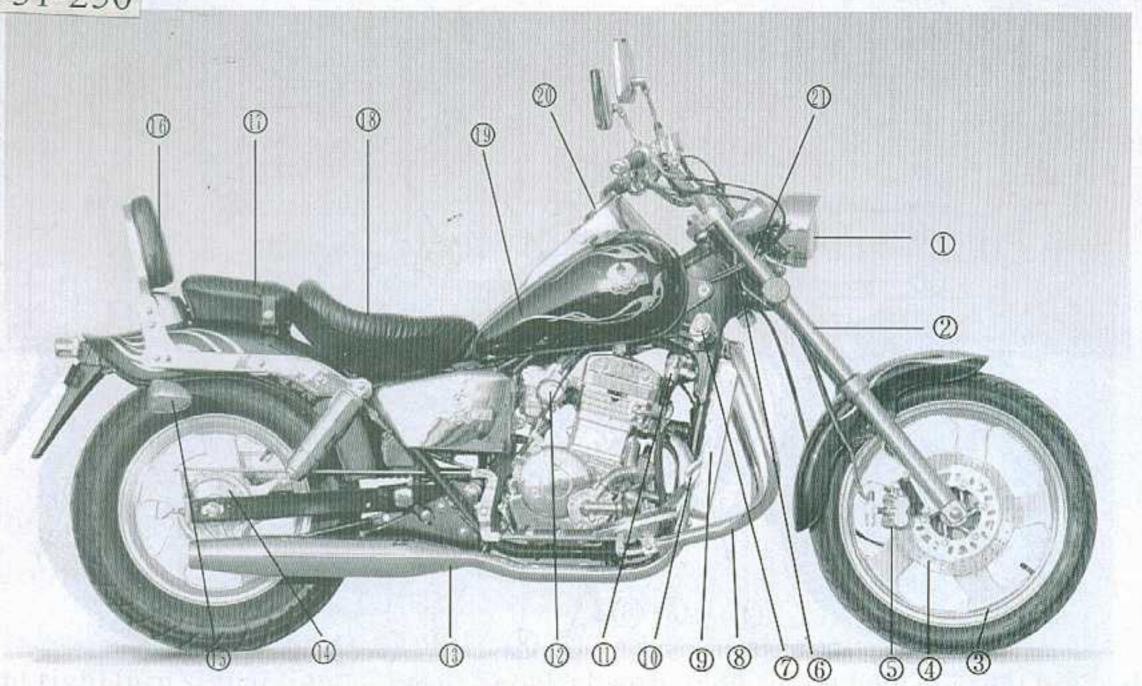
20 Frame serial number of the state of the s



①front headlight ②front left turn signal light ③side reflector ④electric horn ⑤gearshift lever ⑥footpeg ⑦ side rack ⑧ engine serial number ⑨ engine ⑩left muffler ⑪ passenger footpeg ⑫ rear shock absorber ③rear left turn signal light ⑭ license plate light ⑮ Taillight ⑯ fuel switch ⑰ radiator cover

. 12 .

MC-51-250

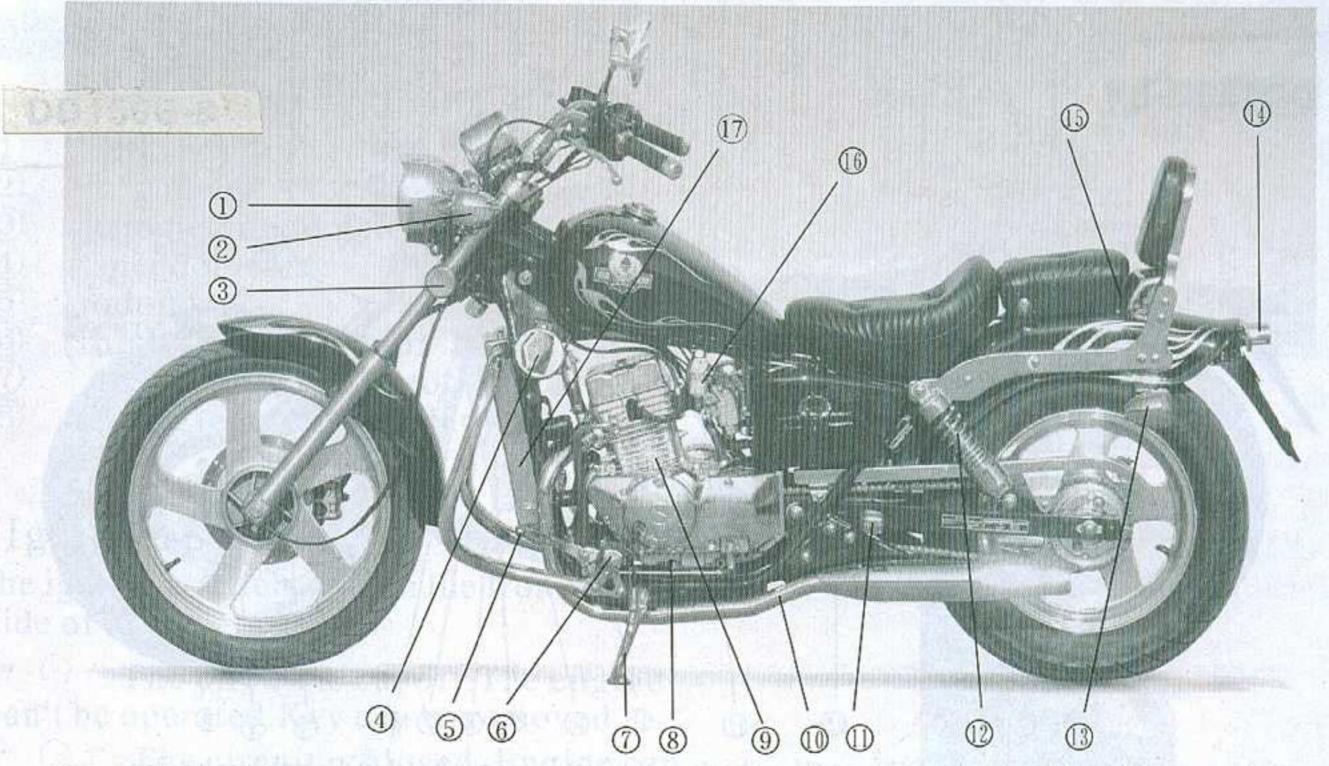


①front left turn signal light ②Front Shock absorber ③Front wheel ④Front brake disc ⑤Front brake compressor ⑥Frame name plate ⑦Ignition switch ⑧Humper

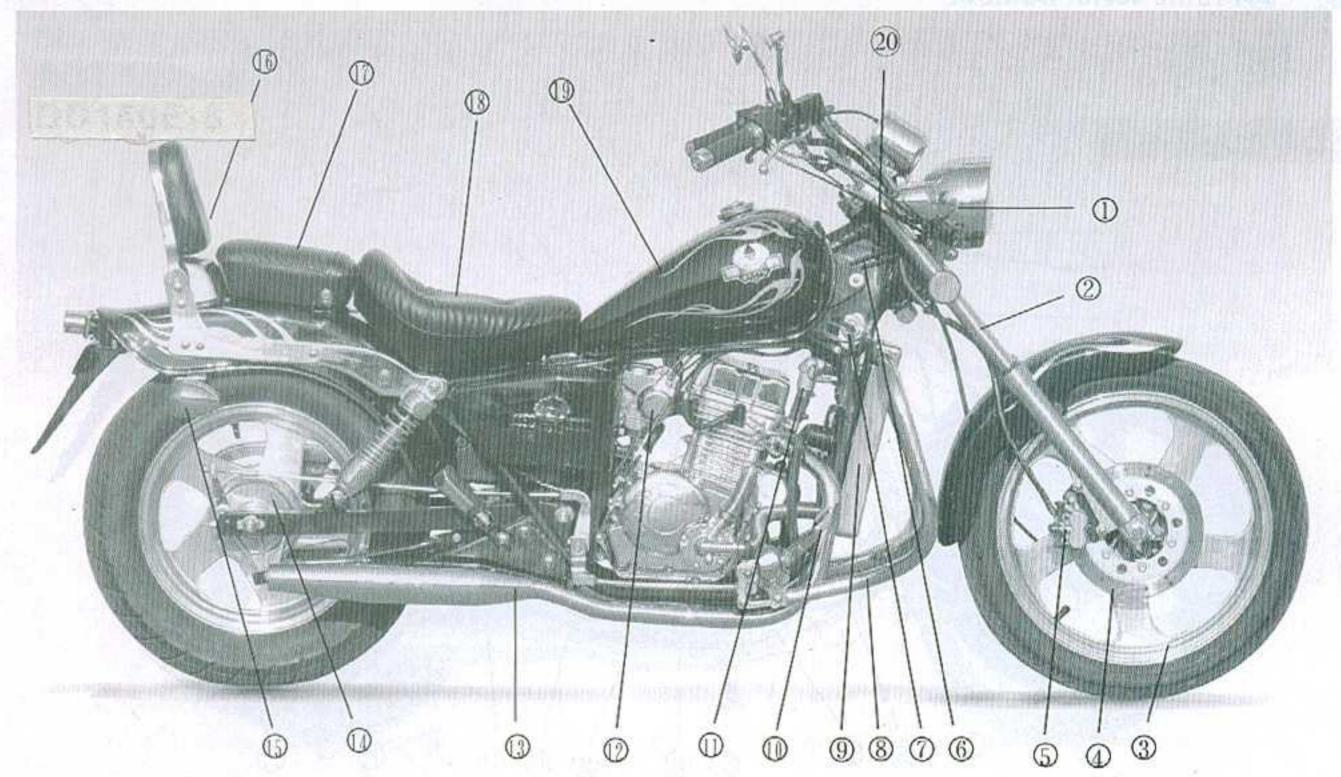
@Radiator @Rear Brake padel @ Sensor @ Carburetor @ Right muffler @ rear brake

(5) Rear right turn signal light (6) rear backrest (7) passenger seat (8) seat (9) fuel tank (20) Tank cover (21) Frame serial number

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①Headlight②front left turn signal ③side reflector ④electric horn ⑤Gearshift lever ⑥Main footrest ⑦Kickstand ⑧ engine number ⑨ engine ⑩left exhaust muffler ⑪ Secondary footrest ⑫ rear shock absorber ③ rear left turn signal ⑭ license light ⑮ Taillight ⑯ fuel switch ⑰ radiator cover



①front left turn signal ②Front Shock absorber ③Front wheel ④Front brake disc ⑤Front braking pump ⑥Frame name plate ⑦Ignition switch ⑧Humper⑨Radiator ⑩Rear Brake padel ⑪ Sensor ⑫ Carburetor ⑬ Right exhaust muffler ⑭ rear brake ⑤Rear right turn signal light ⑥ backrest ⑰ passenger seat ⑱ main seat ⑲ fuel tank ②Frame serial number

## PARTS FUNCTION

# [INSTRUMENTS AND INDICATORS]

left right turn signal indicator

trip meter reset

tripmeter odometer

speedometer

odometer

12345678 high beam indicator

neutral gear indicator

water temperature alarm indicator

# [Ignition Switch]

the ignition switch 1 is on the front right side of the fuel tank

" (x) " The circuit is cut off. The engine can't be operated. Key can be removed.

" O " The circuit is closed. Engine can be operated. When in neutral position, the neutral gear inducator is on and the key can't be removed

## IMC-51-250

## PARTS FUNCTION

# [INSTRUMENTS AND INDICATORS]

left right turn signal indicator

trip meter reset

tripmeter odometer

200456C0 speedometer

odometer

high beam indicator

neutral gear indicator

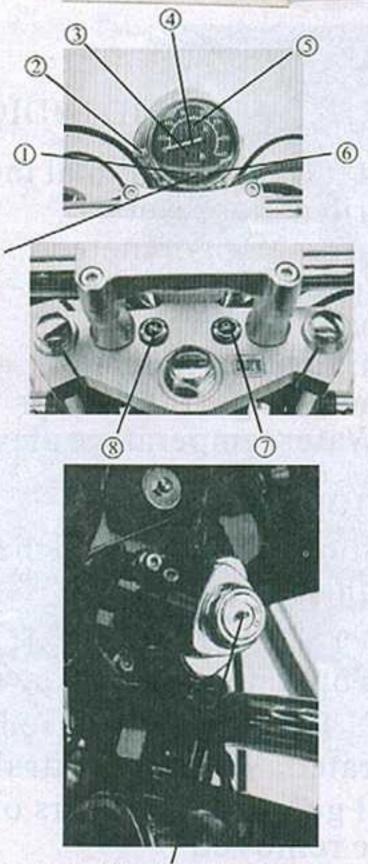
Water temperature alarm indicator

# [Ignition Switch]

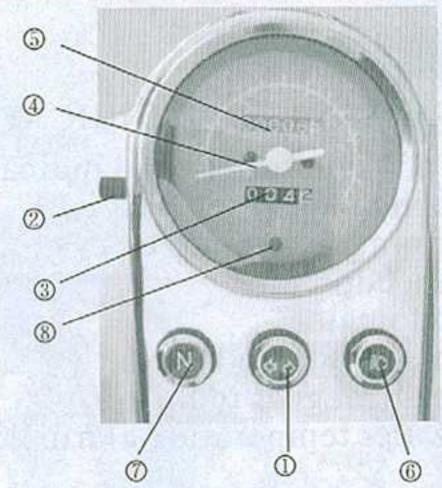
the ignition switch (1) is on the front right side of the fuel tank

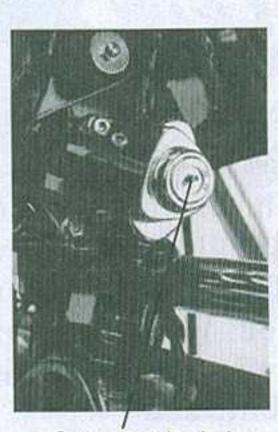
(\*) " The circuit is cut off. The engine can't be operated. Key can be removed.

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(1) Ignition Switch





(1) Ignition Switch

## STEERING LOCK

The lock ① is below the steering stem. To lock the steering, turn the hangdlebars all the way to the left, turn the ignition key clockwise to lock while pushing in, and then remove the key.

Caution: Always lock the steering when the motorcycle is not run.

## LEFT HANDLEBAR CONTROLS

- 1. horn button
- 2. turn signal switch
- 3. passing switch
- 4. headlight dimmer switch
- 5. choke valve handle

## [Horn Button]

Press the horn button 1 to sound the horn if necessary.

[Headlight Dimmer Switch]

select "D" for low beam and "ED" (blue) for high beam.

## [Turn Signal Switch]

The turn signal switch has three positions. Move "to "to signal a left turn with both front and rear left turn signal lights on, and " " to signal a right turn with both front and rear right rurn signal lights on. Press to turn signal off with both signal lights off. The switch will automatically return to mid. Position.

## [Passing Switch]

The passing switch is on the left handlebar.

Select for low beam and press the passing switch, and then both low beam and highbeam lights are on. Release the switch and only low beam light is on

When the motorcycle overtakes at night, use the passing switch instead of constantly turning on and off the headlight dimmer switch. Therefore, the operation becomes so simple to ensure safe riding.

## [Choke valve handle]

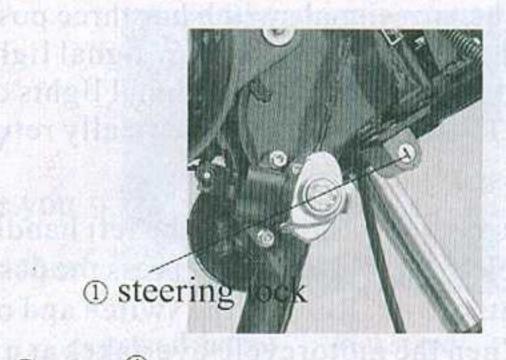
The choke valve handle is on the left handlebar.

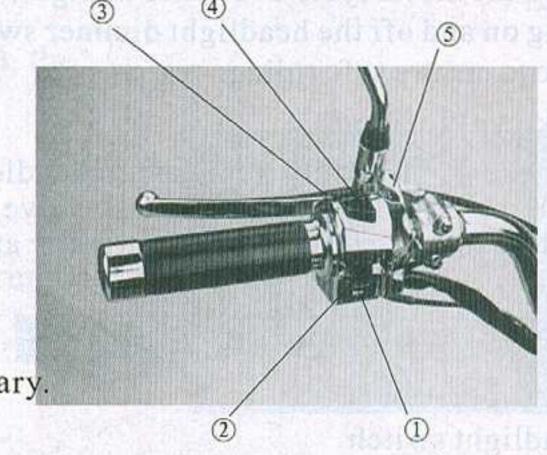
To start a cold engine, turn the choke valve handle downwards to close the choke Valve.

To start a warm engine or ride normally after starting, turn the handle upwards to open the choke valve.

## RIGHT HANDLEBAR CONTROLS

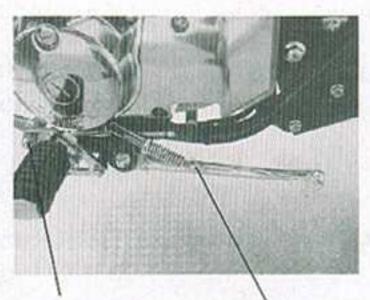
- 1 Electric starter button
- 2Headlight switch
- 3 Engine cut-off switch





### Kickstand cutout

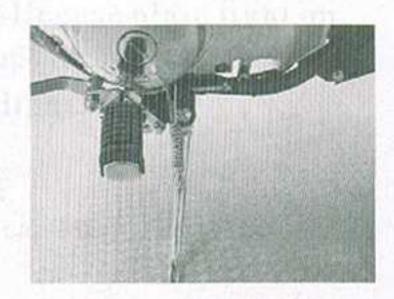
This kickstand cutout is mounted on the kickstand. Before you Start the motorcycle, first kick the stand up (see picture 1), and then press the electric starter.



kickstand cutout kickstand

When you push down the kickstand (see picture 2), the motorcycle will turn off automatically.

Note: After the motorcycle has been started and is running, ensure to beep the kickstand up all the time.



mountain and the second of the

## [Electric Starter Button]

The starter button is one of the right handlebar controls

- 1. Make sure that the gear is shifted to neutral and the fuel switch is in the position of " or grasp the clutch lever to separate the clutch when the motorcycle remains in any other gear.
- 2. Push in the ignition key and turn it to "()"
- 3. Turn the engine cut-off switch to "()" and press the electric starter button "(\$)" At the same time, slightly opening the throttle can crank the engine.

## [Headlight Switch]

The headlight switch has three positions "♣" "P=" " • " and.

" \( \tau \)" headlight, taillight, meter lights and license plate light on.

- "P = " front position light, taillight, meter lights and license plate light on.
- " headlight, taillight, front position light, meter lights and license plate light off.

## Note: Front position light is in the front turn signal light.

## [Engine Cut-off Switch]

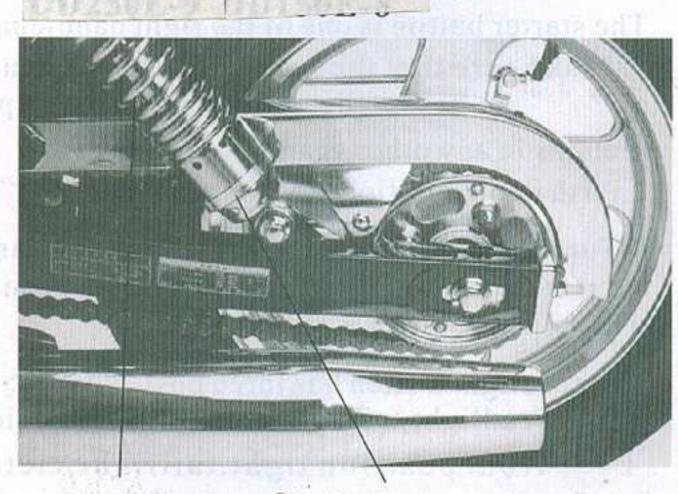
Engine Cut-off Switch is one of the right handlebar controls.

- "(x)" meaning that the whole circuit is cut off, the engine can't be cranked or to stop the running engine.
- "()" meaning that the whole circuit is switching-in, the engine can be cranked. To the engine cut-off switch must be turn to "()".

## [Rear Shock Absorber]

With different road and driving conditions, the rear shock absorber 1 has five adjusting positions 2.

Position 1 is for light loads and even road surface. Positions 2-5 is for heavy loads and uneven road surface with the increase of spring force



① rear shock absorber ②1~5 adjusting position marks

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## FUEL TANK AND CAP

Fuel tank capacity is 14L with 2.7L reserve fuel.

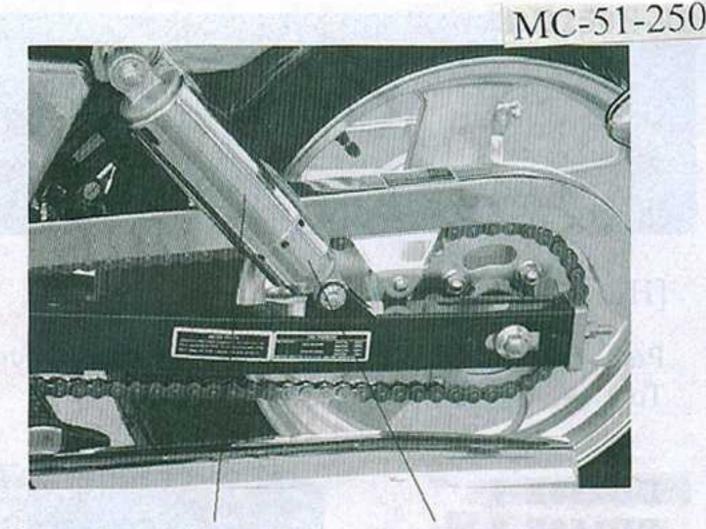
We recommend you use unleaded petrol RQ-93. If this kind of petrol is not available, use low-lead petrol with a research octane number higher than 90.

· 21 ·

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1 rear shock absorber 21~5 adjusting position marks

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### CAUTION

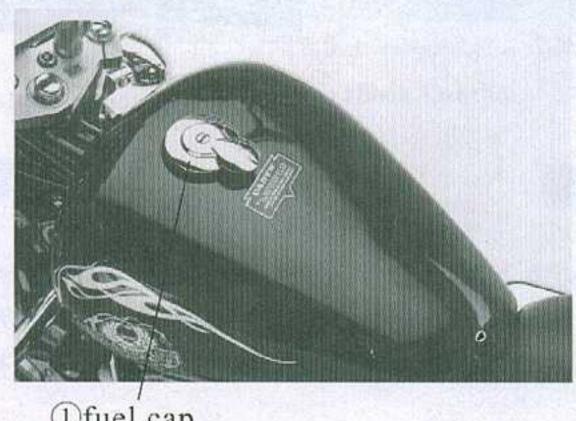
Don't overfill the tank (there should be no fuel in the filler neck). After refueling, After refueling, make sure the fuel cap is closed securely.

While refueling, fuel should he filtered through the filter at the mouth of the tank or specially filtered before.

## [How to Open the Fuel Cap]

Push in the ignition key, turn it to the right by turning 90 degrees and open the cap (1). To close the cap, push the cap down.





①fuel cap

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MC-51-250

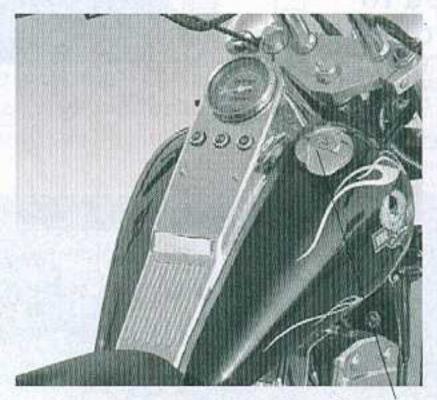
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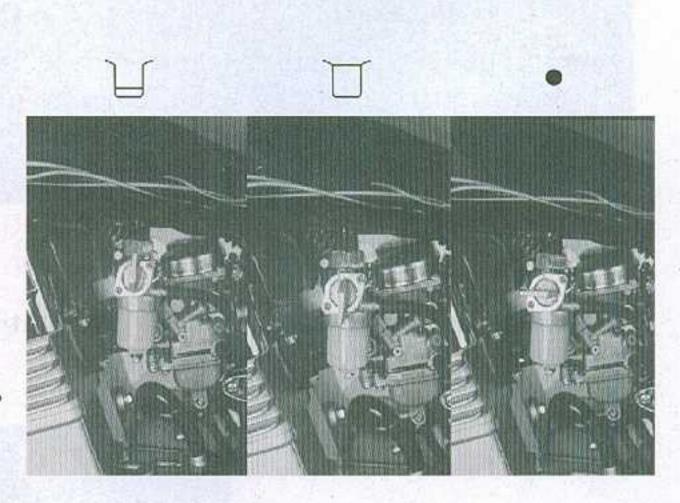


1 fuel cap

### FUEL SWITCH

The fuel switch is below the left side of the fuel tank. Turn the fuel switch handle to " (off), fuel supply is stopped. The handle remains at the position when the motorcycle is not operated. When riding, you should turn the handle to " (on), fuel is supplied normally (fuel flows into the Carburetor).

When the handle is turned to " " reserve fuel is supplied (only when normal fuel runs out). When the handle is turned to " ", please refuel the tank because only 2.7L reserve fule is not enough



### CAUTION

The fuel switch handle should not remain in the position of "\_\_\_\_" when refueling. Otherwise, there is no reserve supply when fuel runs out.

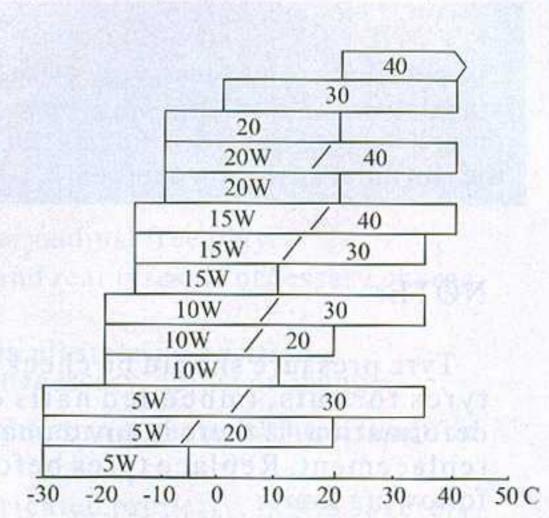
Proper use of the fuel switch can prevent the motorcycle from breaking down because of shortage of fuel.

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## ENGINE OIL

Engine oil quality is the chief factor affecting engine performance and service life. So the engine oil should be selected according to requirements, not superseded by general engine oil, gear oil and vegetable oil.

The motorcycle uses engine oil SAE10W/40 API SG when being sold. If you want to change the oil for other engine oil, use only quality engine oil certified to meet or exceed requirements for service SG. The viscosity grade of engine oil should be based on the atmospheric temperature in your riding area as the picture attached shows. To change engine oil, you should drain existing oil out of crankcase, clean the case with detergent kerosene and then refuel new oil according to the provision.



The selection of viscosity of oil to be sued at various atmospheric temperatures in different areas

#### TUBELESS TYRES

Proper air pressure will provide maximum stability, riding comfort and tyre life

Load	Tyres pressure(kpa)	Tyres pressure(kpa)  Rear:225		
Driver only	Front:225			
Driver and one passenger	Front:225	Rear:250		

#### WARNING

Operation with excessively worn tyres is hazardous and will adversely affect traction, stability and handling. Improper tire inflation will cause abnormal tread wear and create a safety hazard. Underinflation may result in the tyre slipping on or coming off the rim and causing an accident.

### NOTE:

Tyre pressure should be checked before you ride while the tyres are cold. Check tyres for cuts, imbedded nails or other sharp objects. Check tyres for dents or deformation. If there is any damage, see your authorized service dealer for repair or replacement. Replace tyres before tread depth at the center of the tire reaches the following limit:

Mi	nimum tread depth (mm)
Front: 1.5	Rear: 2.0

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## **OPERATION**

### PRE-RIDE INSPECTION

Inspect your motorcycle before you ride it. The items listed here will only take a few minutes to check and can save troubleshooting time while you are driving and ensure your safe riding

Oil level---check the level and if necessary, add oil. And check for oil leaks.

Front and rear brakes---check operation and if necessary, adjust free play.

Tyres---check condition and pressure of both front and rear tyres. If necessary, charge or repair.

Throttle---check for smooth opening and full closing in all steering positions, connection of steering line, and free play of handle. If necessary, adjust or change.

Lights and signals---check that the headlight, taillight, turn signals and horn function properly. If necessary, adjust or repair.

Chain---check that the chain functions and is lubricated properly. If it is severely worn or damaged, change it.

Steering---check the flexibility and stability of steering. If necessary, adjust.

### STARTING THE ENGINE

### WARNING

NEVER run the engine in a narrow area lest the exhaust should not easily diffuse. NEVER start the engine when the engine is in gear, otherwise it will cause equipment damage and an accident.

[Preparing to ride]

Push in the ignition key and turn it to the position of " " turn the fuel switch handle to " " and engine cut-off switch to " " and pull up the choke valve handle to close the valve (not necessary if the engine is warmed up). Shift the gear to the neutral position with neutral gear indicator on (green), or shift to any gear, grasp the clutch lever and start the engine.

(Electric Starting)

Press the electric starter button "(3)" and open the throttle slightly to start the engine.

### NOTE:

- 1. Don't use the electric starter "(3)" for more than 3-5 seconds at a time, otherwise the battery may be discharged quickly.
- 2. Release the starter button immediately after the engine is cranked
- 3. Don't press the starter button while the engin is running, otherwise it may adversely affect the engine.
- 4. Release the starter button for 2 minutes when the engine is not able to start for three consecutive times, otherwise the battery may be discharged quickly and used for a shorter period of time.

## RIDING

. 29 .

[Shifting Gears]

Warm up the engine.

- 1. While the engine is idle, release the clutch, put your foot on the gearshift pedal to shift into a low gear(first gear);
- Gradually accelerate the engine and slowly loose the clutch handle. Coordinate them to start riding steadily.
- 3. When the motorcycle rides steadily, feedback oil enables the engine to slow down, release the clutch again and pull the gearshift pedal up to shift into second gear. It is the same for changing to any other gear.

  Running-in speed table

## RUNNING-IN

During initial running-in of 1000km, avoid full throttle use and never labor the engine by shifting gears. Strictly restrict the engine to less than 6000 rpm. During initial running-in of 500 km, the maximum speed should not be more than 55 km/h and during the first 500-1000 km, no more than 70 km/h. Timely performance of the running-in maintenance will ensure optimum service life and performance form the engine. Running-in speed in every gear is shown in the right table.

Speed		
0-15km/h		
10-30km/h		
20-45km/h		
30-55km/h		
50-70km/h		

· 30 ·

#### WARNING

NEVER shift gears when the clutch is not released and the throttle is not decreased. Otherwise it will bring damage to the engine, the driving chain and other components.

## [Braking]

While slowing the motorcycle down, decrease the throttle first and then apply both front and rear brakes together to slow down or stop.

To apply an emergency brake, close the throttle first, release the clutch and promptly use both front and rear brakes at the same time.

Independent use of only the front or rear brake reduces braking performance. Rapidly applying brakes may cause the front or rear wheel to lock immediately, resulting in loss of control of the motorcycle and bringing about an accident.

When approaching a corner or turn; close the throttle fully, and slow the motorcycle down by applying both front and rear brakes at the same time. Otherwise it may cause loss of control and a skid or overturn.

When riding on wet or loose surfaces, maneuver steadily. Immediately speeding up, rapidly applying brakes and turning may result in a loss of motorcycle control.

## [Stopping]

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Gradually close the throttle, decelerate the motorcycle, and then gently apply both front and rear brakes together to stop steadily, turn off the ignition switch and lock the head. In case of emergency, press the engine cut-off switch to cut off the engine. At last use the center stand to support the motorcycle and turn the fuel switch to "

"

### CHECKING AND CHANGING OF ENGINE OIL, AND CLEANING OF FILTER

[Engine Oil Level Check]

Check the engine oil level each day before riding the motorcycle. There is a dipstick ① behind the left crankcase cap for checking the oil level. The level must be maintained between the upper ② and lower ③ level marks on the dipstick.

Put the motorcycle on the center stand on level ground, remove the dipstick, wipe it clean, and reinsert the dipstick without screwing it in. Remove the dipstick to check the oil Level.

If required, add the oil certified to meet requirements for service SAE10W/40 API SG. up to the upper level mark. Don't overfill. Reinstall the dipstick. Check for oil

Leaks. CAUTION:

Running the engine with insufficient oil can cause serious engine damage.

#### MAINTENANCE

DOE-9

① Dipstick ② Upper level mark ③ Lower level mark

. 32 .

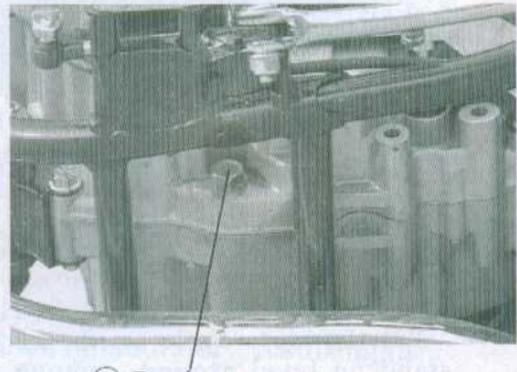
### [Engine oil change and oil filter clean]

Warm up the engine and drain the engine oil after cutting off the engine.

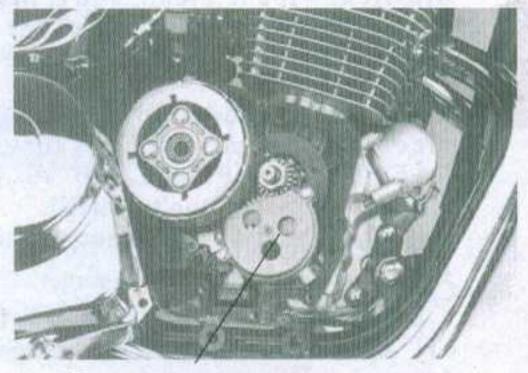
Place an empty container under the engine. Unscrew the drain screw 1) to drain the oil completely and then tighten the drain screw. Add about 1.6L kerosene. After that, cut off the engine, press the starter button for several times to clean the components in the crankcase and then unscrew the drain screw. Tilt the engine for 2 to 3 hours. Add 1.9L new oil after the oil in the case is drained completely. If you go to a specified service dealer, you can require servicemen to open the right crankcase and remove the oil filter screen 2 for cleaning.

NOTE:

When riding on dust road, you should change the engine oil and clean the oil filter more frequently.



1 Drain screw



2 Oil filter screen

### SPARK PLUG SELECTION AND REPLACEMENT

[Spark Plug Selection]

1. When riding usually at low speed or under low temperature in winter, you are recommended to select A5RTC spark

plug of which center electrode is black 2. When riding usually at high speed or under high temperature in summer, you are recommended to select A7RTC spark plug of which center

electrode is gray.

3. You are recommended to select A6RTC (furnished in the factory) under normal

Conditions.

[Spark Plug Inspection and Replacement]

Disconnect the spark plug cap from the spark plug.

Clean any dirt from around the spark plug bases.

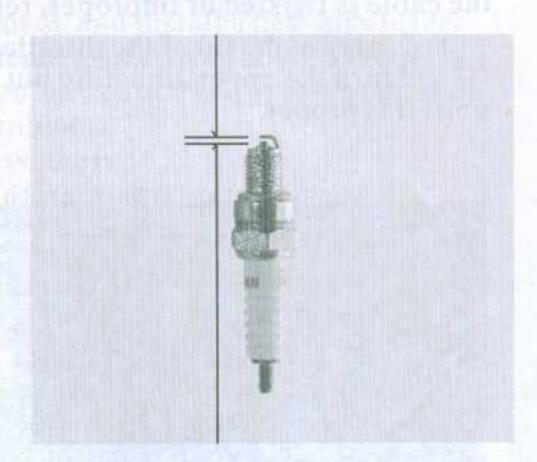
Disassemble the spark plug using the spark plug wrench in the tool kit and clean deposits or carbon fouling with a wire brush. Inspect the electrode and central porcelain for damage or erosion. If the erosion or damage is heavy, replace the plug.

Check the gap of spark plug side electrode using a feeler gauge and adjust the gap to 0.6-0.7mm

Make sure the plug washer is in good condition

Condition
Thread the spark plug in by hand to prevent cross-threading and then tighten it with a spark plug Wrench.

Carburetor Idle Speed Regulation
Start the engine and have it warmed up, then do as follows when the temperature rises.
Turn the idle speed bolt ①(see the picture on the next page) to 1500±150rpm. And turn this bolt clockwise to increase the idle speed, while turn it anticlockwise to reduce the idle speed.



①Side electrode

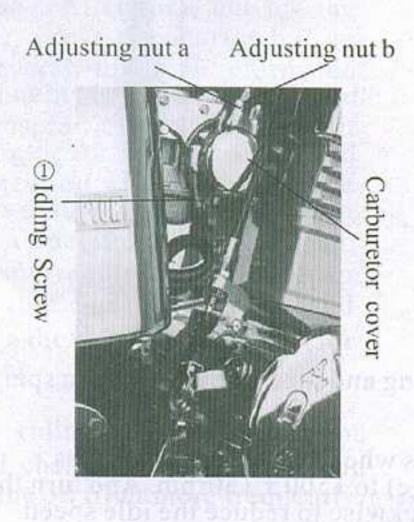
## THROTTLE INSPECTION AND ADJUSTMENT

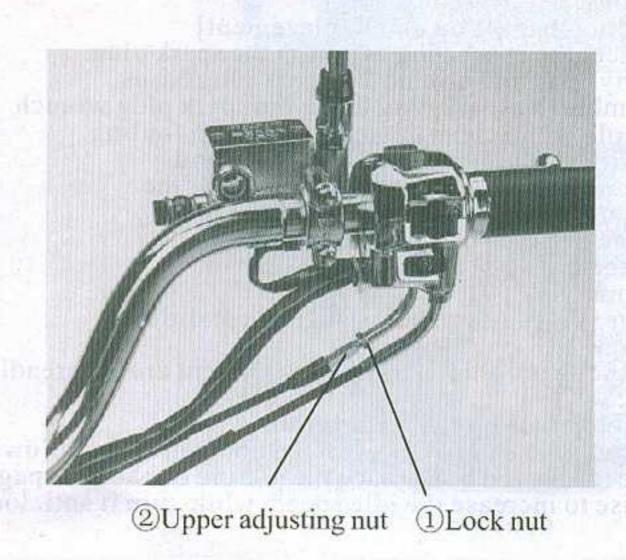
## [Throttle Cable Inspection]

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Check for smooth throttle grip full opening and full closing in all steering positions. Check that the throttle cable between the throttle grip and the carburetor is proper. If the cable is twisted or improper, replace the cable or put it in proper position.

Free play at the tip of the throttle grip is 2 to 6mm. If necessary, unscrew the lock nut ① and turn the upper adjusting nut ②. If not enough, adjust the adjusting nut a and b until it is proper.





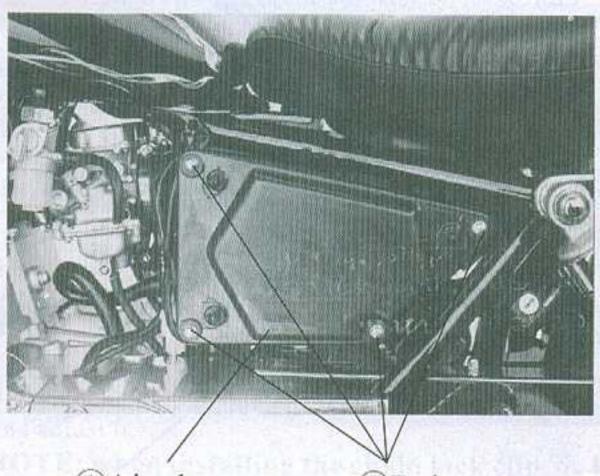
### AID

## AIR CLEANER REPLACEMENT

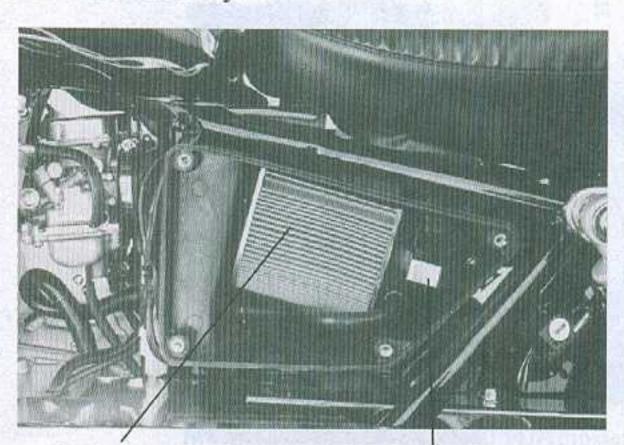
The air cleaner should be serviced at regular intervals. Service more frequently when riding in unusually wet or dust areas.

Remove the frame cover, unscrew all bolts ② and remove the air cleaner cover ①. Take out the locator, remove the air cleaner element ③ and install a new air cleaner element ④. Use new air cleaner or high-quality air cleaner specified for your model in the service manual. Using the wrong air cleaner which is not of equivalent quality may cause premature engine wear or performance problems.

Install the removed parts in the reverse order of disassembly.



①Air cleaner cover ②Bolts



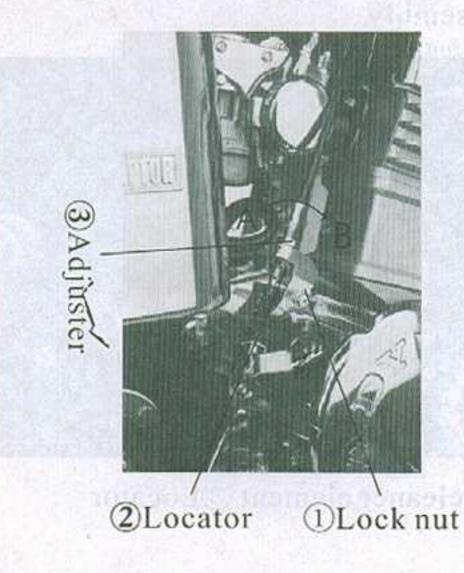
4Air cleaner element 3Locator

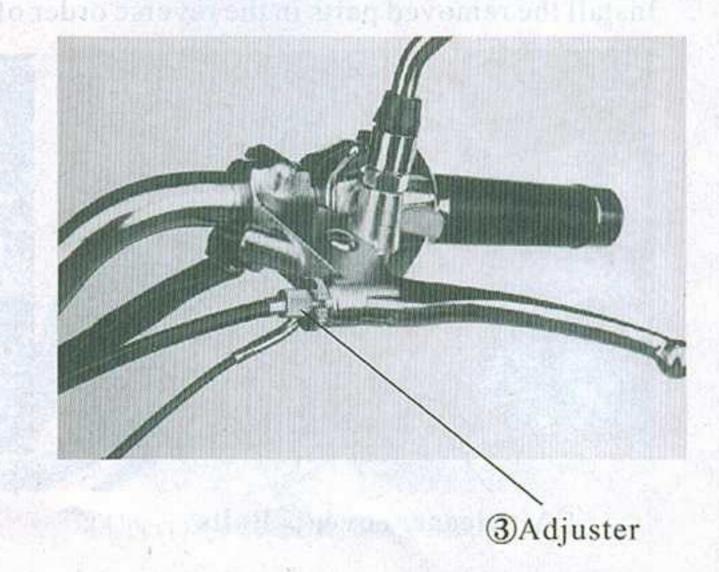
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### CLUTCHADJUSTMENT

Free play at the tip of the left clutch lever is 10 to 20mm. If adjustment is necessary, unscrew the lock nut ① positioning the clutch cable on the locator ② of the crankcase and adjust it. Turn the lever as (A) shows to decrease free play. Turn as (B) shows to increase.

The same for the adjuster 3 on the left clutch lever.





DRIVING CHAIN CHECK, ADJUSTMENT AND LUBRICATION Driving Chain Check

Check for wear of the driving chain. Lubricate it when it is short of oil. Use the center stand to support the motorcycle, and step on the gearshift pedal to shift into neutral. Place your finger between both front and rear wheels, and swing the chain up and down to adjust the chain to  $10\sim20\,\mathrm{mm}$ .

#### [Driving Chain Adjustment]

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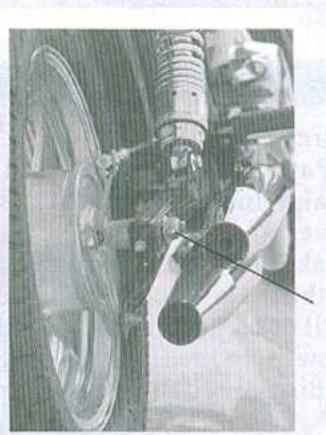
Scerw off the rear wheel axle nut 2 and the lock nut 3 of the driving chain adjuster 4 and turn the adjuster accordingly. Place both left and right adjuster with the same mark 5, check for its tension and then screw the rear wheel axle nut.

After adjusting the driving chain, position the rear wheel again as if will adversely affect the free play of the rear brake pedal.

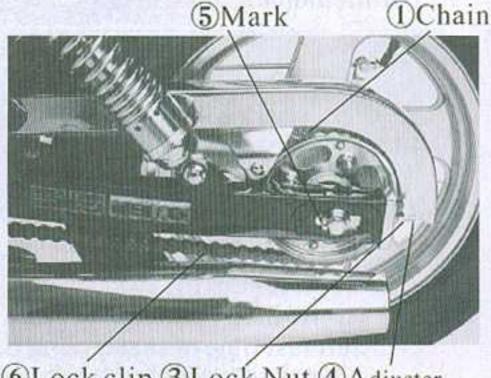
#### [Driving Chain Lubrication]

Remove a chain lock clip 6 with pliers carefully and disassemble the chain. Clean the chain in the detergent solvent and then dry it. Check for wear and damage of every part of the chain. If necessary, replace it.

Lubricate the chain with an appropriate amount of motor oil or chain lubricant oil. Install the driving chain in the reverse order of disassembly and adjust it.



ar Wheel Axle Nut



6 Lock clip 3 Lock Nut 4 Adjuster

NOTE: when installing the chain lock clip (6), keep the mouth of the clip opposite to the normal moving direction.

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#### FRONT FLUID DISC BRAKE

#### [Brake Fluid]

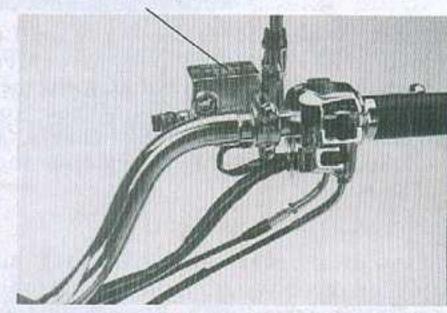
Pay attention to the fluid level in the brake fluid reservoir of the right brake lever. If the level descends, add the brake fluid specified by our company. If the brake shoe wears, the fluid level will descend as the fluid automatically flows into the fluid tube. Checking and adding brake fluid is an important part of fluid disc brake regular maintenance.

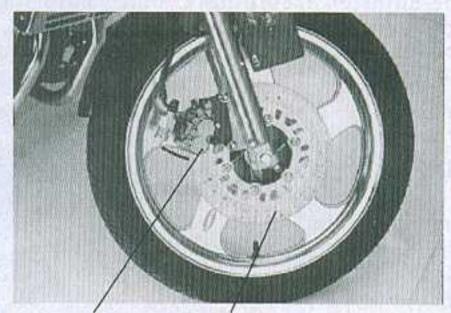
#### WARNING

The brake fluid has strong corrosion. If it is drunken wrongly, force to spit it out. If eyes or skin are contacted with it, clean with plenty of water and see a doctor.

- 1. NEVER use the fluid that has
  been used or that in an open
  container. NEVER use the fluid
  left last time or that having been stored for a long period of time as the fluid has absorbed water from the air.
- The brake fluid is strongly corrosive. NEVER have the fluid spattered on painted or plastic surface.

### Brake fluid reservoir





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#### [Brake Disc]

The brake disc will be worn after being used for a period of time. In order to ensure that the brake system can function properly and reliably, replace the disc when it is extremely worn.

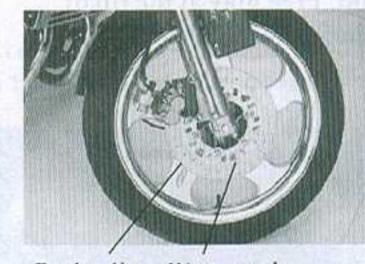
The limit of motorcycle brake disc is 3.5 mm, the same marked on the brake disc.

#### WARNING

Don't ride your motorcycle after you have just replaced the disc with a new one. Grasp and release the front brake lever several times until the brake disc fits the brake calipers well, thus returning the front brake lever to normal free play.

[Brake System]
Pre-ride inspection must be performed every day on the following items:

- a) Check the fluid level in the fluid reservoir;
- b) Check the brake system for fluid leakage;
- c) Check the fluid tube and the reservoir for leaks or cracks;
- d) Check wear of the brake disc;
- e) Ensure the right and
  A. unchanged free play for the front brake lever at any time.



Brake disc Wear mark

#### WARNING

- 1. The fluid disc brake operates under high pressure. To make sure of safe riding, replace the fluid tube, the reservoir and the fluid at the frequency interval no longer than that has been established in the manual.
- If it is necessary to maintain the brake system or the disc, go to your authorized service dealer for the sake of Safety.

#### REAR BRAKE ADJUSTMENT

Use the center stand to support the motorcycle. Measure the distance the rear brake pedal ① moves before the brake starts to take hold. Free play at the tip of the brake pedal should be 20-30mm.

If necessary, turn the rear brake adjusting nut (5) clockwise to decrease free play

Apply the brake several times and check for free wheel rotation after the brake lever is released

#### WARNING

Make sure the cut-out on the adjusting nut is seated on the brake arm pin after making final free play adjustment. If proper adjustment can't be obtained by this method, see your authorized service dealer.

#### REAR BRAKE WEAR INDICATOR

When the brake is applied, an arrow 3 attached to the rear brake arm 4 moves toward a reference mark 2 on the rear brake end housing 1. If the arrow aligns

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5 Adjusting Nut 1 Rear Brake Pedal



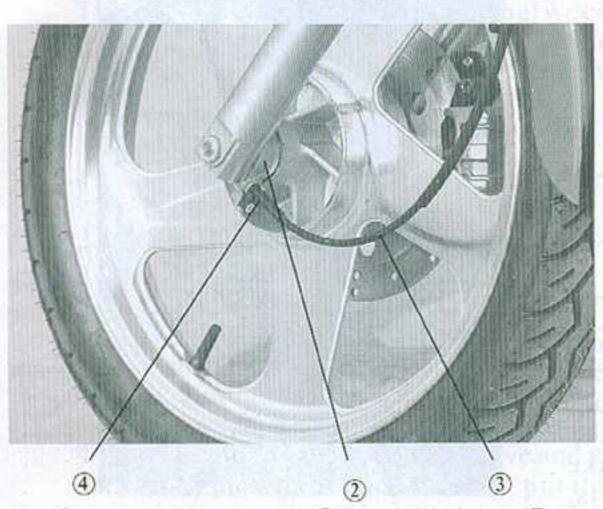
①Rear Brake End Housing

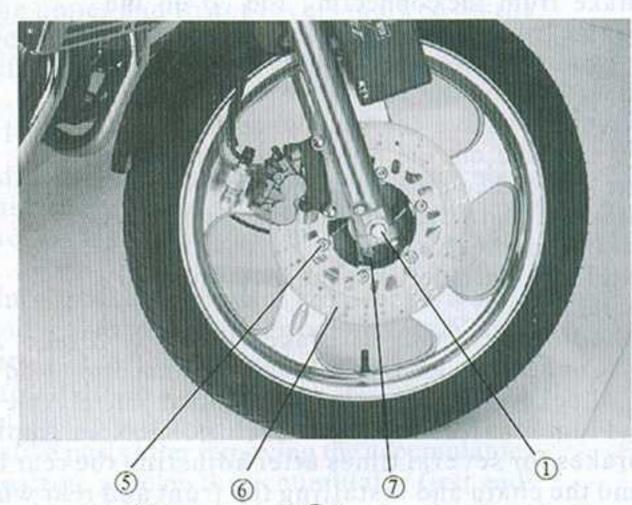
with the reference mark on full application of the brake, the brake shoe must be Replaced.

## FRONT WHEEL DISASSEMBLY AND REPLACEMENT

Screw off the lock bolt 4. Remove the odometer cable 3 and axle nut 7. Remove the front wheel axle 1, the front wheel (involving the brake disc) and the Speedometer 2.

To replace the front wheel or brake disc, unscrew the brake disc lock bolt (5) and remove the brake disc (6). Install a new wheel in the reverse order of disassemble.





①Front wheel axle ②Speedometer ③Odometer cable ④Lock bolt ⑤Brake disc lock bolt ⑥Brake disc ⑦Axle nut

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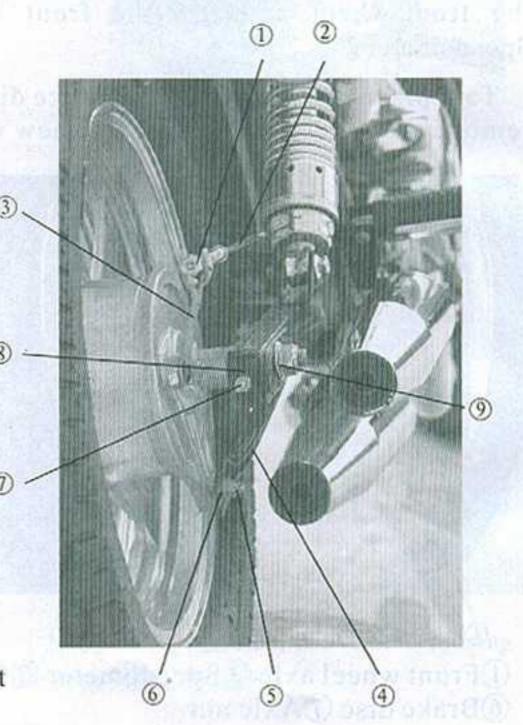
#### REAR WHEEL DISASSEMBLY AND REPLACEMENT

Use a jack to raise the motorcycle's rear wheel off the ground. Unscrew the rear brake adjusting nut 1 and disconnect the brake lever 2 from the brake arm 3 on the rear brake pedal. Remove the forelock (5), connecting rod nut (6) spring washer and flat washer and then disconnect the brake from the connecting rod 4 on the brake drum. Screw off the driving chain lock nut 7 and adjusting nut 8, hitch the other side of the rear wheel axle with a wrench, remove the rear wheel axle nut (9) and take out the rear wheel axle. Move the rear wheel forward and remove the driving chain from the drive gear, thus taking out the rear wheel

NOTE: Installation is in the reverse order of removal

Adjusting Nut ② Brake Lever ③ Brake Arm ③
 Connecting Rod ⑤Forelock ⑥Connecting Rod Nut

Tock Nut (a) Adjusting Nut (a) Rear Wheel Axle Nut Front/rear wheel axle nut torch: 40~50N. m. Apply the brakes for several times after adjusting the rear brake and the chain and installing the front and rear wheels, and then release both front and rear brakes to check that the wheels rotate properly.



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## ACCUMULATOR MAINTENANCE

The motorcycle is supplied with 12V9A.h DC by a lead-acid accumulator.

When riding the motorcycle, insufficient electrolyte in the accumulator will cause sulfuration and damage to its polar plate.

If electrolyte in the accumulator runs out quickly, insufficient electrolyte will lower strength of current thus making it hard to start the engine or bringing other trouble to the electrical system. See the authorized dealer for repair.

Regularly check electrolyte in the accumulator that is under the right side frame cover. The electrolyte level should be between the upper and lower levels marked on the front side face of the accumulator. If the electrolyte is below the lower level, take the accumulator out of the motorcycle, remove its cap and add distilled water carefully up to the upper level.

#### CAUTION

- When checking electrolyte or adding distilled water, make sure that the air tube is well connected with the air outlet of the accumulator.
- Use only distilled water. Tap water will shorten the service life of the accumulator.
- 3. Remove the accumulator from the motorcycle to prevent its discharge and leakage when you are not to use your motorcycle for a long period of time. When removing, take the negative wire apart first. After charging, store the accumulator in a well-ventilated area free of direct sunlight. If you want to store the accumulator in the motorcycle, you should remove the negative wire.
- 4. Regularly clean both positive and negative posts after removing the accumulator. To reinstall the accumulator, put the positive wire on the accumulator first and then negative wire. Make sure that both positive and negative posts are firm.
- Replace with an equivalent specified accumulator.

[The coolant]

The coolant consists of refrigerant and distilled water, has the function of antifreezing, The coolant will prevent engine from overheating produced in neutral rotation or rotating in low speed, It also prevent radiactor from harmful substance.

[inpouring of coolant]

1 Place the motorcycle on flat ground, unfold the side stand.

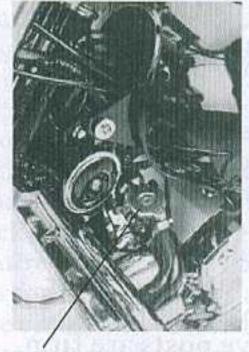
2 Unscrew the temperature control cap, and pour the coolant into the radiator until it is filled.

③ Screw the cover on the radiator tightly.

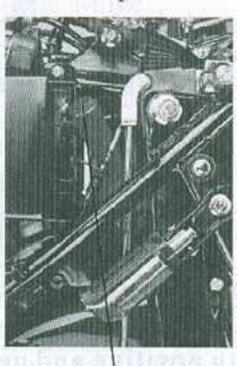
4 Start the motorcycle. When the temperature of the coolant reaches about 80°C, stop the engine for 5 minutes, then open the radiator to pour into the coolant until it is filled, and screw on the cap tightly. Pour the coolant circularly in this way until the radiator is filled. Then the total capacity of coolant will reach 1600ml.

⑤ Open the cap of reserve tank(kettle), and pour 400ml coolant into it. The position of these 2

caps is as indicated in picture 1 and picture 2.



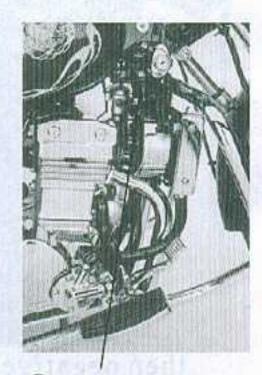
1 temperature control cap



2 kettle cover



3 water pipe



4 sensor

## COOLING SYSTEM

MC-51-250

[The coolant]

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1 temperature control cap



2 kettle cover



3 water pipe



4 sensor

#### [replacement of coolant]

When the motorcycle runs a distance of 12,000km or runs for one year, the coolant should be replaced.

#### Procedures:

- 1 Place the engine on the flat ground and unfold the side stand.
- When the engine is under room temperature, unscrew the temperature control cap, and remove the release-coolant bolt from the cap of water tube. After all the coolant is released, screw on the release-coolant bolt and the cap of radiator back.. the position of water tube is as indicated in picture 3

### [function of sensor]

When the temperature of engine reaches about 125°C, the sensor switch is on, so the coolant temperature alarm lamp in the instrument lights up, showing that the engine needs a rest from work, otherwise the life of the engine will be affected because of overheating. The position of sensor is as indicated in picture 4.

### [caution]

- Please use 3500 antifreezing antirust coolant.
- 2 The coolant is poisonous, so it is unedible.
- 2 It is forbidden to open the cap of radiator when the engine is in a state of high temperature, in case that the hot water with big pressure spurt out to harm anyone.
- 3 When repairing, please release all the coolant first if it is necessary to unscrew the cylinder nut, in case that the coolant comes into the crankcase.

#### [servicing system maintenance]

Check whether it is aleak per 1,000km.

- 1 Check whether there's a leak in the joint of water pump and water tube.
- ② In order to check whether the circulator is damaged and aging, you can press the water tube by hand to see whether it has cracks, so that you can replace it in time. If there's a leak,please feedback to the maintenance man. Don't remove it privately.

### **FUSE REPLACEMENT**

Remove the right guard board by loosening the cross screw on it and open the fuse box(white) to replace the fuse. There are 2 spare fuses for your motorcycle. Reinstall the guard board in the reverse order of removal and fix it after replacement. The specified fuses are 15A.

When frequent fuse failure occurs, it usually indicates a short circuit or an overload in the electrical system. See your authorized service dealer for repair.

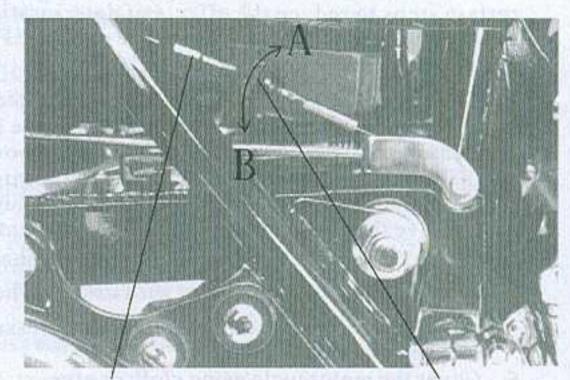
#### CAUTION:

Replace with the specified fuse. Never use other conductive materials for replacement. Turn the ignitin switch off (turn to " $\times$ ") before checking or replacing fuses to prevent accidental short-circuiting. To replace the fuse in the fuse box, remove the fuse box cover. Pull the old fuse out of clips. Push a new fuse into the clips and install the fuse box cover.

#### REAR BRAKE LIGHT SWITCH ADJUSTMENT

The rear brake light switch ① is installed on the right rear side of the motorcycle.

ADJUSTMENT: Turn the adjusting nut ② in the direction of (A) if you want the light to be on later. If earlier, in the direction of (B).



1 Rear brake light switch 2 Adjusting nut

#### CLEANING.

Clean your motorcycle regularly to protect the surface finishes and inspect it for

damage, wear and oil scepage.

CAUTION: ① High pressure water can damage certain parts of the motorcycle. Avoid spraying high Pressure water at the following areas: ignition switch, handlebar switches, instruments, muffler outlet and underseat.

2 Prevent water from flowing into the muffler, spark plug and

#### Accumulator

After cleaning, rinse the motorcycle thoroughly with plenty of clean water. otherwise, these repairs
may be forgotten by the time the motorcycle is removed from

2. Dry the motorcycle thoroughly. Start the engine and let it run for several minutes.

3. Lubricate the driving chain.

 Test the brakes before riding the motorcycle in traffic. Several applications may be necessary to restore normal braking performance.

WARNING: Braking performance may be impaired immediately after washing the Motorcycle.

#### STORAGE GUIDE

Extended storage, such as for winter(exceeding one month), requires that you take certain steps to reduce the effects of deterioration form non-use of the motorycle. In addition, necessary repairs should be made BEFORE storing the motorcycle; Storage.

1 0 11 1

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1. Clean and dry the motorcycle. Wax all painted surface.

2. Drain the fuel tank and carburetor. Spray the inside of the tank with aerosol rust-inhibiting oil.

3. Remove the spark plugs and pour a tablespoon (15-20 ml)of clean engine oil into each cylinder Press. the starter button for several times after turning off the ignition switch to diffuse the engine oil evenly in the cylinders, and then reinstall the spark plugs.

4. Remove the accumulator. Store in a well-ventilated, dry, and cool area protected from direct sunlight.

NOTE: To remove the accumulator, dismantle the negative wire and then positive wire.

When installing, fix the positive wire first and then negative and close the ignition switch

- Inflate the tyres to their recommended pressures. Place the motorcycle on blocks to raise both tyres
  off the ground.
- 6. Cover the motorcycle using cloth or other strongly air-permeable materials and store in a well-ventilated area, free of rain and direct sunlight with a minimum of daily temperature variation.

### REMOVAL FROM STORAGE

1. Uncover and clean the motorcyle.

Check the accumulator voltage. When the voltage is 12.3V below, slowly charge
the accumulator as required. Install the accumulator.

 Drain any rust-inhibiting oil from the fuel tank. Fill the fuel tank with fresh Petrol.

4. perform all pre-ride inspection checks. Test ride the motorcycle in a safe area from traffic. Check that the motorcycle functions properly.

### MAINTENANCE

Clean the motorcycle off dust and mud with dry cloth regularly. Dry the motorcycle when it is wet. Apply a little rust-inhibiting oil on zinc-coated and chrome-coated parts. Wax the painted parts to keep them bright and elegant. Lubricate every moving Part.

Inflate both front and each tyres properly. Measure the pressure with a gauge and make it in accordance with the specified requirements

Check for bolts, nuts and screws to prevent a safety hazard resulting from loosening or falling-off of parts.

Check for both front and rear brakes. Immediately adjust and replace if they are excessively worn or don't function properly.

### MAINTENANCE SCHEDULE

Perform the pre-ride inspection at each scheduled maintenance period. Symbols in the table stand for as follows:

1.INSPECT, CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY C:CLEAN R:REPLACE A:ADJUST L:LUBRICATE I:INSPECT

\* Should be serviced by your authorized service dealer unless the owner has proper tools and parts or is mechanically qualified.

\*\* In the interest of safety, we recommend these items be serviced only by your authorized service dealer

### NOTES

- 1 Service more frequently when riding in unusually dusty areas.
- 2 At higher odometer readings, repeat at the frequency interval established here.
- 3 Adjustment of the timing chain tension and the air valve clearance should be made only by your authorized service dealer for the sake of safety.

	FREQUENCY	CYCLES	ODOMETER READING km(NOTE 2)					
ITEM			1000km	4000km	8000km	12000km	REMARK	
•	FUELLINE		1	1	1	1		
*	THROTTLE OPERATION		I	I	ı	i		
*	CARBURETOR			I	1	i i		
	AIR CLEANER ELEMENT	NOTE I	С	С	G	c		
	SPARK PLUG		1	i		Te i		
	ENGINE OIL	EVERYYEARR	Repla	ce after 500	km and the	n every 300	00km	
*	ENGINE OIL FILTER SCREEN	EVERY YEAR R						
**	TIMING CHAIN TENSION	NOTE 3	A	A	A	A		
**	VALVE CLEARANCE	NOTE 3	I	1	1	ì		

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ITEM		(N/O) 10	ODOMETER READING km (NOTE 2)						
		CYCLES	1000km	4000km	8000km	12000km	REMARK		
	DRIVE CHAIN		I.L	1.1.	1.1.	1.L			
	REAR BRAKE SYSTEM			1	1	1			
	BRAKE SHOE WEAR				ī	1			
4.4	BRAKEFLUIDTUBE	Every 4 years R	i	1	1	T <sub>1</sub>			
**	BRAKE FLUID RESERVOIR		1	i i	1	İ			
80	BRAKEFLUID	Every 2 years R		Ch	ange every 2 yea	irs			
80	FRONT BRAKE SYSTEM		lie r	1	1	r			
*	REAR BRAKE LIGHT SWITCH		i i	1	i	i i			
	FRONT AND REAR LIGHTING	One month	i	1	i	1			
	CLUTCH		1		1 1 1	1			
*	SUSPENSION		г.	i i		1			
	STAND		ı	1	1	i			
¥Ł	NUTS,BOLTS	One month	1	de Ti	i i	i			
**	WHEEL/SPOKE	Three months	ı	T.	1	1			
**	STEERING HANDLE BEARINGS	Six months	1.			1			
*+	COOLAND		Ī	I.R	I.R	1.R			

## DD250E-9 MOTORCYCLE SPECIFICATIONS

Part name	Item	Unit	Model or technical parameters	Part name	Item	Unit	Model or technical parameters
	Overall		2210×900×1080		Model		DD247MJ
	wgeelbase	mm	1465		Туре		Single cylinder 4 stroke, Overhead camshaft
	Kerb weight		160		Displacement	ml	233.7
ompl	Rated load	kg	171		Minimum fuel- consuming ratio	g/kw. h	367
lete	Maximium speed	km/h	2 110		Compression ratio		9.2:1
Complete Vehicle	Front type size and Pressure		90/90-18 225kpa		minimum idle speed	rpm	1500±100
e	Rear type size and Pressure		130/90-15 280kpa		Spark plug gap	mm	0.6~0.7
	Fuel tank		14	Engine	Fuel type	Marie San	RQ-93
	Reserve fuel	1 + 1	2.7		Lubrication type		SAE10W/40APISG
	Ignition		CDI electric ignition		Rated power	Jackson L	12.3
	Headlight		12V35W/35W		Transmission	MATERIAL PROPERTY.	Normally joggled five gear
	Turn signal light Front/Rear		12V10W/3W(12V10W)		Primary drive ratio		3.631
_	Tail/brakelight	CONTRACT OF	12V21/5W		First drive ratio		2.846
Electrical	License plate		12V10W		Second drive ratio		1.777
tric	light				Third drive ratio		1.333
5	Spark plug		A6RTC		Fouth drive ratio		1.083
	Accumulator		12V9A.h		Fifth drive ratio		0.913
	Fuse		15A		Terminal		2.285
	Horn	1	12V 15dB		Fan initial temperature	r	85
				Cooling	Reflector initial temperature	c	125
				system	Coolant capacity	L	1.6
					Coolant type		3500 antifreeze aritirust

## DD250E-9B MOTORCYCLE SPECIFICATIONS

Part name	ltem	Unit	Model or technical parameters	Part name	Item	Unit	Model or technical parameters
	Overall		2280×900×1080	(Translation)	Model		DD253MM
	wgeelbase	mm	1570		Туре		Single cylinder 4 stroke, Overhead camshaft
	Kerb weight		180		Displacement	ml	233.7
Complete Vehicle	Rated load	kg	171		Minimum fuel- consuming ratio	g/kw. h	354
	Maximium speed	km/h	≥110		Compression ratio		10.2:1
	Front type size and Pressure		90/90-18 225kpa		minimum idle speed	rpm	1500 ± 100
o	Rear type size and Pressure		130/90-15 225kpa	Engine	Spark plug gap	mm	0.6-0.7
	Fuel tank		14		Fuel type		RQ-93
	Reserve fuel	L	2.7		Lubrication type		SAE10W/40APISG
	Ignition		CDI electric ignition		Rated power		12.3
	Headlight		12V35W/35W		Transmission		Normally joggled five gears
	Turn signal light Front/Rear		12V10W/3W(12V10W)		Primary drive ratio		3.631
	Tail/brakelight		12V/21/5W		First drive ratio		2.846
Electrical	License plate		iovaov		Second drive ratio		1,777
tric	light		12V10W		Third drive ratio		1.333
2	Spark plug		A6RTC		Fouth drive ratio		1.083
	Accumulator		12V9A.h		Fifth drive ratio		0.913
	Fuse		15A		Terminal		2.143
	Hom		12V 15dB	Cooling system	Fan initial temperature	'C	85
					Reflector initial temperature	'c	125
					Coolant capacity	L	1,6
					Coolant type		3500 antifreeze aritirust

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# MOTORCYCLE SPECIFICATIONS

Part name	Item	Unit	Model or technical parameters	Part name	Item	Unit	Model or technical parameters
	Overall		2280×900×1080		Model	ALC: N	DD247MJ
Complete Vehicle	wgeelbase	mm	1570		Туре		Single cylinder 4 stroke, Overhead camshaft
	Kerb weight		165		Displacement	ml	142.2
	Rated load	kg	160		Minimum fuel- consuming ratio	g/kw. h	367
ic .	Maximium speed	km/h	≥98		Compression ratio		10.2:1
Vehick	Front type size and Pressure		90/90-18 225kpa		minimum idle speed	rpm	1500±100
6	Rear type size and Pressure		130/90-15 225kpa		Spark plug gap	mm	0.6~0.7
	Fuel tank	L	14	Engine	Fuel type		RQ-93
	Reserve fuel		2.7		Lubrication type		SAE10W/40APLSG
Well the said	Ignition		CDI electric ignition		Rated power		9
	Headlight	MALL DE D	12V35W/35W		Transmission		Normally joggled five gear
	Turn signal light Front/Rear		12V10W/3W(12V10W)		Primary drive ratio		3.833
m L	Tail/brakelight		12V21/5W		First drive ratio		2.846
Electrical	License plate		12V10W		Second drive ratio		1.882
rica	light		12V10W		Third drive ratio	Barren in	1.45
	Spark plug	THE REAL PROPERTY.	A6RTC,		Fouth drive ratio		1.083
	Accumulator		12V9A.h		Fifth drive ratio		0.913
	Fuse		15A		Terminal		2.667
	Hom		12V 15dB	Cooling system	Fan initial temperature	С	85
					Reflector initial temperature	T	125
					Coolant capacity	L	1.6
That of					Coolant type	BANCER	3500 antifreeze aritirust