



OWNER'S MANUAL

MOTORCYCLE 100-C





PREFACE

Thank you for choosing the motorcycle. May you enjoy riding all time.

The manual contains the necessary instructions and guidance with respect to the operation and maintenance of the motorcycle, and **BE SURE TO READ IT CAREFULLY BEFORE YOU RIDE THE MOTORCYCLE**. Proper operation and maintenance can guarantee a safe riding to minimize troubles of the motorcycle and keep it in a sound condition, which can extend the engine service life.

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IMPORTANT NOTICES

● Operator and Passenger

100-C motorcycle is designed to carry the operator and one passenger. The maximum load weight of the motorcycle must not exceed 150kg.

● On-road

100-C motorcycle is designed for on-road use.

Pay special attention to statements preceded by the following words:

⚠ WARNING: *Indicates a strong possibility of severe personal injury or death if instructions are not followed.*

⚠ CAUTION: *Indicates a possibility of equipment damage if instructions are not followed.*

NOTE: Gives helpful information.

Environmental Protection (EP) : Indicates special precautions that must be taken to meet environment protection laws and regulations.

Improper use of a motorcycle may cause environment pollution.

If the operator fails to follow safe operating and maintenance practices, the Co. will not take any responsibility to any injury or damage occurred.

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



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MOTORCYCLE SAFE RIDING

SAFE RIDING RULES

WARNING Motorcycle riding requires special efforts on your part to ensure safety. Know these requirements before you ride.

- Always make a pre-ride inspection before you start the engine. You may prevent accident or equipment damage.
- Most countries require a special motorcycle riding test or license. Make sure you are qualified before you ride. NEVER lend your motorcycle to an inexperienced rider.
- Make yourself conspicuous to help avoid the accident that wasn't your fault:
 - Wear bright or reflective clothing.
 - Don't ride in another motorist's "blind spot".
 - Don't speedily cross another's way.
 - Obey all national and local laws and regulations.
 - Obey the speed limits, and NEVER travel faster than conditions warrant.
 - Signal before you make a turn or lane change to draw other motorists' attention.
 - Use extra caution at intersections, parking lot entrances and exits.
 - Always remember to ride with both hands and keep both feet on the rider footrest while the passenger grasps the handrail with both feet on the rear footrest.

PROTECTIVE CLOTHS

- For the safety sake, always wear a helmet, a face shield, dust glasses and protective clothing. Your passenger needs the same protection.
- The exhaust system becomes hot during operation, and it remains hot for a while after stopping the engine. Take care not to touch the exhaust system while it is hot. Wear clothing that fully covers your legs.
- Do not wear loose clothing that could catch on the control levers, wheels, etc.

REFITTING

WARNING Arbitrarily refitting the motorcycle or removing the

original parts may make riding unsafe, and is illegal also. The user must obey all national and local laws and regulations in relation to vehicle and traffic. If you have a good proposal concerning refitting of the motorcycle, please write us. The refitment can be done with permission of the Co. Otherwise, the user will take the consequences.

LOADING

WARNING Addition of accessories and cargo may reduce the motorcycle's stability, performance and safe operating speed.

- Keep cargo and accessory weight lower and close to the center of the motorcycle. Load weight equally on both sides to minimize imbalance. As weight is located further from the motorcycle's center of gravity, handling is proportionally affected.
- Adjust tyre pressure and rear suspension to suit load weight and riding conditions.
- Make sure that cargo is fastened on the vehicle.
- Do not attach items to the handlebars, fork or fender. Otherwise, unstable handling or slow steering response may occur.
- The maximum load weight of the motorcycle is 150kg. Please do not overload.

ACCESSORIES

Genuine accessories of the Motors have been specifically designed and tested on the motorcycle. Because the factory cannot test all other accessories, you are personally re-sponsible for selection, installation and use of accessories not produced by the Co. Always follow Safe Riding Rules and these below:

- Carefully inspect the accessory to make sure that it does not obscure any lights, reduce ground clearance or banking angle, or limit suspension travel, steering travel or control operation.
- Do not install other cooling equipment for the engine.
- Do not add electrical equipment that will exceed the motorcycle's electrical system capacity.



GENERAL INFORMATION

PARTS LOCATION (Fig. 1-2)

Fig. 1 (Left-view)

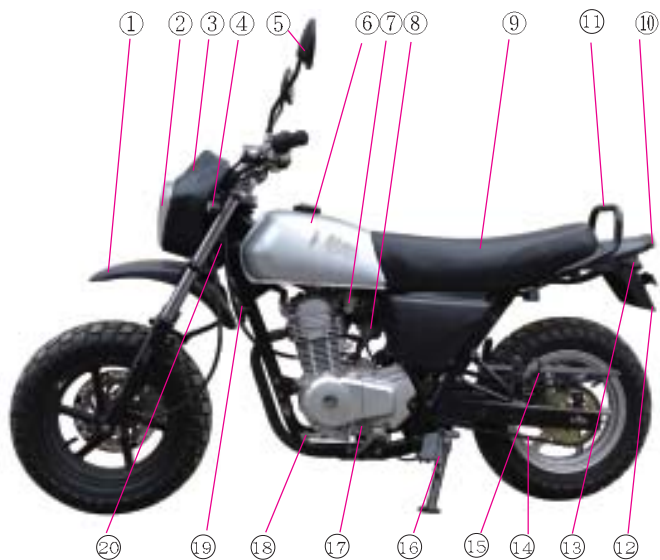


Fig. 2 (Right-view)



- ① Fr. fender ② Headlight ③ Headlight cowl ④ Fr. winker
- ⑤ Rearview mirror ⑥ Fuel tank ⑦ Fuel cock ⑧ Carburetor ⑨ Seat
- ⑩ Taillight ⑪ Rr. rail ⑫ Rr. fender ⑬ Rr. winker ⑭ Chain ⑮ Chaincase
- ⑯ Side stand ⑰ Engine code ⑱ Gearshif pedal ⑲ Horn ⑳ Nameplate

- ① Rr. reflector ② Kick-starter ③ Fuel filler cap ④ Fr. shock absorber
- ⑤ Fr. wheel ⑥ VIN ⑦ Exhaust muffler ⑧ Rr. brake pedal
- ⑨ Main step ⑩ Pillion step ⑪ Rr. brake ⑫ Rr. wheel



VIN RECORD (Fig. 3-5)



Fig. 3 VIN



Fig. 4 Engine code



Fig. 5 Nameplate

VIN: ☆ ☆

Engine Code: ☆ ☆

Please fill the VIN and engine code of your motorcycle in the blank below. They will help order spare parts and find out the vehicle when stolen.

NOTES

- ① The VIN is stamped on the right of the steering stem (Fig. 3).
- ② The engine code is stamped on the bottom-left of the crankcase (Fig. 4).
- ③ The vehicle nameplate is fixed on the front-right plate of frame body (Fig. 5).

FUEL AND ENGINE OIL (EP)

Fuel Selection

Fuel is a key factor in deciding the exhaust emissions from the engine, so selection of fuel must follow the rules below. Selected fuel must be unleaded gasoline with octane No. RQ-93 or higher. Using improper fuel could reduce performance, shorten the engine's service life.

Engine Oil Selection (Fig. 6)

The quality of the engine oil plays a vital role in deciding the engine performance and service.

Engine oil must be selected in accordance with rules below and other oils, such as ordinary engine oil, gear oil and vegetable oil, are forbidden to be used.

The vehicle has been filled with engine oil SAE15W/40-SE before being delivered. The lubricant is only suitable at a temperature range within $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$. If other motor oil is to be used instead, the alternative must be technically equivalent in every respect. Viscosity varies with regions and temperatures, so the lubricant has to be selected according to our recommendation.

If there is no gasoline engine oil SAE15W/40-SE, the engine oil No. HQB-10 (or HQB-6 in regions where the temperature is lower than -10°C) can be used instead.

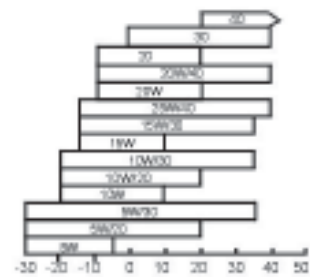


Fig. 6

CONTROLLING PARTS

METER AND INDICATORS (Fig. 7)

- ① Speedometer
- ② LH turn signal indicator, “←”
- ③ Hi-beam indicator, “H”
- ④ RH turn signal indicator, “→”

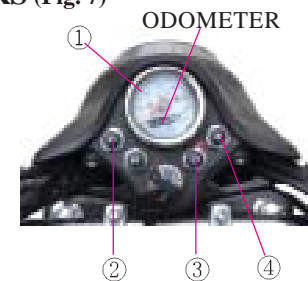



Fig. 7




IGNITION SWITCH AND STEERING LOCK (Fig. 8)

Ignition Switch

The ignition switch is equipped with 2 keys including a spare one.

“” OFF : Engine and lights cannot be operated and the key can be removed.

“” ON: Engine and lights can be operated, neutral light “N” is lit and the key cannot be removed.

Steering Lock




To lock the steering head, turn left or right the steering bar as far as it will go, insert the key into the ignition switch slot, turn to OFF position, then depress and turn counterclockwise to “LOCK”, at last remove the key.

To unlock the steering head, turn the key clockwise.

RIGHT HANDLEBAR CONTROLS (Fig. 9)

Headlight Switch

The 3-position switch functions as follows:

- ①  : The headlight, taillight and meter lights are bright.
- ②  : The parking light, taillight and meter lights are bright.
- ③  : (OFF) The headlight, taillight, parking light and meter lights are off.

Ignition sw. & steering lock

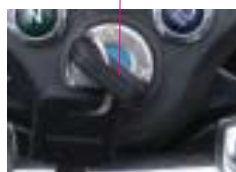


Fig. 8

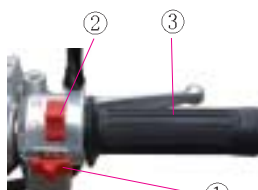




Fig. 9

- ① Headlight sw.
- ② Emergency sw.
- ③ Throttle grip

Emergency Switch


In an emergency, setting the switch to “” will stall the engine at once. In normal riding cases, always set it at “”.

Throttle Grip

The grip is used to control the engine power. Turning toward in the grip will increase fuel supply, while turning toward out it will decrease fuel supply.



LEFT HANDLEBAR CONTROLS (Fig. 10)

Dimmer Switch

① Push the switch to “” to turn on high beam.

② Push the switch to “” to turn on low beam.

Turn Signal Switch

Move the switch to “” to signal a left turn; and to “” to signal a right turn.

Horn Button

Press the button “” to sound the horn.

CHOCK LEVER (Fig. 11)

The choke lever is located in the left-front of the handlebar. The choke set in position A is fully open, in position B half-open and in position C fully closed.

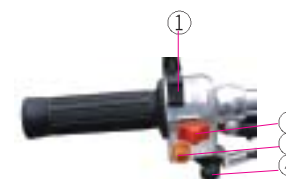


Fig. 10

- ① Dimmer switch
- ② Turn signal switch
- ③ Horn button
- ④ Choke lever



Fig. 11



REFUELING AND FUEL FILLER CAP

Opening of Cap (Fig. 12)

- The fuel filler cap is located on the front of fuel tank. Insert the ignition key.
- Turn the key clockwise by 90° .
- Remove the cap.

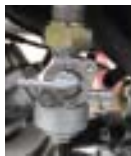
To reinstall the cap, depress it onto the tank inlet in position, then turn and remove the key. The fuel tank capacity is 5.5L including the reserves supply of 1.7 L.

WARNING

- Do not overfill the tank (there should be no fuel in the filler neck). After refueling, make sure the fuel filler cap is closed securely.
- Gasoline is extremely flammable and is explosive under certain conditions. Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the fuel tank is refueled.
- Before refueling, make sure to filter fuel first. Spilled fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.

KEEP OUT OF REACH OF CHILDREN.

FUEL COCK (Fig. 13)



OFF “●”



ON “☰”



RES “☰”

Fig. 13

Fuel filler cap



Fig. 12

- The 3-way fuel cock is on the bottom-left side of the fuel tank. With the fuel cock in the “●” position, fuel cannot flow from the tank to the carburetor. Turn it OFF whenever the motorcycle is not kept in use.
 - With the fuel cock in the “☰” position, fuel will flow from the main fuel supply to the carburetor. With the fuel cock in the “☰” position, fuel flow the reserve fuel supply to the carburetor. Use 1.7 L of reserve fuel only when the main supply is gone. Refuel at the earliest opportunity.
- CAUTION** After refueling, return the fuel cock to ON position. Otherwise, you may run out of fuel with no reserve. Learn how to operate the fuel cock when riding the motorcycle.

GEARSHIFT PEDAL (Fig. 14 & 15)

The motorcycle is equipped with a 4-speed mesh transmission. The gear indicator shows the gear position at present.

The shifting patterns are as shown in the Fig.15.



Fig. 14
Gearshift pedal

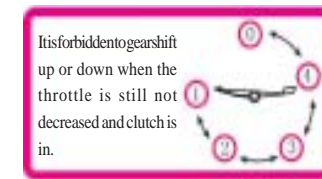


Fig. 15
Non-cyclic 4-speed



REAR BRAKE PEDAL (Fig. 16)

The rear brake will function and the rear stop light will glow when applying the pedal.



Fig. 16 Rear brake

SIDE STAND (Fig. 17)

When parking te vehicle, bring the side stand clockwise along the frame to position. Before driving the vehicle, turn the stand to the initial position.



Fig. 17

OPERATION GUIDE

PRE-RIDE INSPECTION

Inspect your motorcycle every time before you ride it. The items listed here will only take a few minutes to inspect, and in the long run they can save time, expense, and possibly your life.



1. Engine oil level - add engine oil if required. Check for leaks.
2. Fuel level - refuel when necessary. Check for leaks.
3. Front and rear brakes - check operation, and adjust free play if necessary.
4. Tyres - check condition and pressure.
5. Battery electrolyte - check that the electrolyte is suitable.
6. Throttle - check for smooth opening and full closing in all steering positions. Adjust or replace it if necessary.
7. Lights and horn - check that headlight, tail/brake light, wipers, parking light, indicators and horn function properly.
8. Drive chain - check condition and slack. Adjust and lubricate if necessary.
9. Fasteners - check that all nuts, screws and bolts are mounted securely.
10. Steering system - check for its smoothness and reliability.


STARTING THE ENGINE

⚠ WARNING Do not start the engine in a narrow area to prevent accidents. The exhaust contains poisonous carbon monoxide (CO) gas that cause loss of consciousness and lead to death.

Attempting to start the engine with the transmission in gear may result in damage to equipment.

Before starting, confirm the following:

- Make sure the fuel in the tank is enough. Set fuel cock to “” position.
- Insert the ignition switch and turn it to “” position.
- Move the gearshift pedal into NEUTRAL to light up the indicator “N” (green).
- Set the choke lever to the fully closed position if the engine is cold.
- With the throttle slightly open (less than 1/8 of its entire opening), operate the kick-starter so as to start the engine. Then push choke lever to half-open position.
- Warm up the engine entirely at an idle speed of 1200r/min until it works normally, and then push the choke lever to its fully open position.

NOTE Starting up the engine in regions with especially low air temperature, tread the kick-starter pedal several times first to revolve the crankshaft a few turns while the ignition key should be at “”.

BREAKING-IN

Help assure your motorcycle's future reliability and performance by paying extra attention to how you ride the first 1000km. During this period avoid full throttle riding, be sure to drive at a speed no more than 80% of each gear and to continually changing speed. After the break-in period, be sure to conduct maintenance on your vehicle to keep it in a sound condition.

RIDING

- Start the engine and warm up it.
- While the engine idling, pull in the clutch lever and push down the gear-shift pedal to shift into low (1st) gear.






- Slowly release the clutch lever and at the same time gradually increase engine speed by opening the throttle.
- When the motorcycle attains a steady speed, close the throttle, pull in the clutch lever and shift to 2nd gear by treading the gearshift pedal.
This sequence is repeated to progressively shift to higher gears.
- Coordinate the throttle with brakes for smooth deceleration.
- Both front and rear brakes should be used at the same time and should not be applied strongly enough to lock the wheel, or braking effectiveness will be reduced and control of the motorcycle be difficult.

CAUTION

It is forbidden to gearshift up or down when the throttle is still not decreased and the clutch is in. Otherwise, damage to the engine, chain and other parts may occur. Make sure the gearshift pedal is operated gently and exactly. Riding with your foot resting on the brake pedal may suddenly change a speed and/or damage the driving mechanism.

BRAKING AND PARKING

To stop the motorcycle, close the throttle and disengage the clutch by pulling in the clutch lever, then smoothly operate the front and rear brakes until stopping the motorcycle.

Shift the transmission into neutral, turn the emergency switch to “” position. Then set the fuel cock to “” position, support the motorcycle with the center or side stand. After parking, turn the ignition switch to “” position and lock the steeringlock, followed by removing the key.

CAUTION

For parking, gradually apply both the front and rear brakes until stopping the motorcycle, prevent it from side-slipping or falling over. Independent use of only the front or rear brake downgrades stopping performance, and may damage or wear the brake speedily. Be careful to avoid applying an emergency brake when riding on wet surfaces, or at a high speed. Otherwise a traffic accident may happen.

MAINTENANCE

MAINTENANCE SCHEDULE

Maintenance work should be performed in light of Maintenance Schedule.

Letters in the table indicate as follows:

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY

C: CLEAN R: REPLACE A: ADJUST L: LUBRICATE

* The item should be serviced by your dealer, unless the owner has the proper tools and is mechanically qualified. Refer to the manual.

** In the interest of safety, we recommend these items should be serviced only by your dealer.

NOTES: ① Clean more frequently when riding in unusual wet or dusty areas.

② At higher odometer readings, still follow the frequency intervals established in this manual.

I T E M	REGULAR SERVICE	ODOMETER READING, km (Note ②)				Remarks
		First 1,000km	4,000km	8,000km	12,000km	
*	Fuel line system		I	I	I	
*	Fuel filter	C	C	C	C	
*	Throttle operation	I	I	I	I	
*	Carburetor choke		I	I	I	
	Air cleaner element	Note ①	C	C	C	
	Spark plug		I	I	I	
*	Valve clearance		I	I	I	
	Engine oil	Yearly	R	Every 2,000km-R		
	Engine oil strainer	Yearly-R		C		
*	Time chain slack		A	A	A	
*	Engine idle speed		I	I	I	
	Drive chain		I, L	I, L	I, L	
	Battery	Monthly	I	I	I	
	Brake shoes/pad wear			I	I	
	Brake system		I	I	I	
*	Stop light switch		I	I	I	
*	Headlight adjustment		I	I	I	
	Clutch		I	I	I	
	Side stand		I	I	I	
*	Suspension		I	I	I	
*	Nuts, bolts, fasteners		I	I	I	
**	Wheels/spokes		I	I	I	
**	Steering bearings		I		I	



ENGINE OIL (EP)

Check of Engine Oil (Fig. 18)

Check the engine oil level every use.

The dipstick ① is located onto the rear portion of the right crankcase cover. The level must be maintained between upper mark ② and lower mark ③.

● Place the motorcycle on a level ground with the center stand. Remove the dipstick, wipe it clean. Reinsert and screw in the dipstick, then remove it for checking.

● Add engine oil SAE15W/40-SE to upper level mark. Do not overfill.

● Insert the dipstick. Check for leaks.

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

Change of Engine Oil (Fig. 19)

It is better to drain when the engine is still warmed.

● Place an empty container under the engine, unscrew the drain plug.

● Shift the transmission into neutral, operate the starter button several times so as to help empty the oil thoroughly.

● Reinstall the drain plug, and tighten it up.

※ Pour approx. 1L of SAE15W/40-SE into the engine. Restart the engine, keep it idle for a few minutes, and then stall it. Recheck the oil level, and add oil if necessary.

CAUTION When running in very dusty conditions, oil changes should be performed more frequently than specified in the maintenance schedule.

CLEAR AWAY CARBON DEPOSIT (EP)

Clear away carbon deposit around the spark plug and piston ring, on the

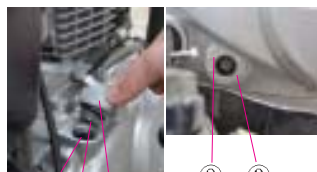


Fig. 18
① Dipstick ② Upper mark
③ Lower mark



Fig. 19 Drain plug

piston top, in the piston ring slot and combustion chamber regularly.

SPARK PLUG (EP) (Fig. 20)

Spark Plug Type: C7HSA

Check and Replace

● Disconnect the spark plug cap from the spark plug.

Clean any dirt from around the spark plug base.

Remove the spark plug by the special wrench.

● Inspect the electrodes and center porcelain for deposits, and clean with a wire brush. If the spark plug is damaged, replace it.

● Check the spark plug gap which should be 0.7 ± 0.1 mm, and adjust by bending the side electrode if necessary.

CAUTION The spark plug must be securely tightened. Improperly tightened plug can become very hot and possibly damage the engine.

AIR CLEANER (EP) (Fig. 21)

The air cleaner must be cleaned and then soaked in clean oil at least once every 4000km's drive. Riding in very dusty area, the job should be done more often. See your dealer for further information.

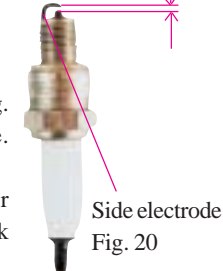
● Remove the right side cover. Loosen off the screws, remove the air cleaner cover and take the filter element out of the air cleaner housing.

● Wash the element in cleansing solvent a

● Soak the element in gasoline engine oil SAE15W/40-SE until saturated, and then squeeze out the excess oil.

● Reassemble the air cleaner in the reverse order of removal.

$C=0.7 \pm 0.1$ mm



Side electrode
Fig. 20



Fig. 21 Air cleaner



VALVE CLEARANCE (Fig. 22)



Check valve clearance when the engine is cold at the specified intervals.

- Remove the view hole cap on the front-left cover, magneto cap and cylinder head cover.
- Rotate the flywheel counterclockwise until mark T on the flywheel aligns with the index mark on the view hole. Check it is in TDC of the compression stroke by moving the rocker arms. If they are free, it means check can be done. Otherwise, rotate the flywheel through 360°.
- Clearance should be 0.05mm for the intake and exhaust valves.
- If it is necessary to make an adjustment, loosen the valve lock nut and turn the adjusting screw so there is a slight resistance when the feeler gauge is inserted. Then tighten up the lock nut, and recheck the clearance.

ADJUSTMENT OF TIMING CHAIN (Fig. 23)

- Start the engine and set its idle speed at 1400r/min.
- Turn the adjusting screw so as to apply a proper tension to the timing chain.



Adjusting screw
Fig. 23

EXHAUST MUFFLER (EP)

Clear away regularly carbon deposit in the exhaust pipe; check the exhaust pipe inside for crack and washer for damage, and repair or replace if necessary

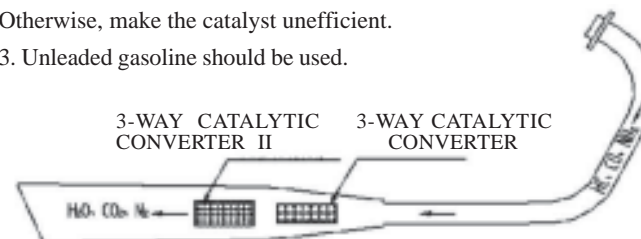
3-WAY CATALYTIC CONVERTER (EP) (Fig. 24)

3-way catalytic converter is mounted on the exhaust system of motorcycle. It is designed to decrease contaminations such as CO, HC, NOx, etc. by redox reaction to catalyst when the exhaust gases flow through the device.

Applying the catalyst controls the pollutant emissions from the motorcycle, i.e. a chemical reaction sets in when exhaust gases pass through the converter that contains a catalyst. The noble metal catalyst is characterised by good adhesiveness, and accelerates a chemical reaction without itself being affected. Its basic principle is as follow: pollutants in the exhaust gases, such as CO, CH, NOx, etc. spread into micro-holes in the catalyst when gases pass through the device, an adsorption reaction happens on the surfaces of catalyst, as a result, converting them into harmless compounds (CO₂, H₂O, N₂, etc.) and entering the air. The purging efficiency of catalyst varies with temperature of, density of and speed of gases.

Attention should be drawn to the following points during service:

1. Handle 3-way catalyst with care, don't knock or squeeze it, and keep away oil and dirt. It should be stored in dry and well-ventilated place.
2. Never let acid liquid or electrolyte infiltrate into the exhaust muffler. Otherwise, make the catalyst inefficient.
3. Unleaded gasoline should be used.





PRINCIPLE OF SECONDARY INLET SYSTEM & CRANKCASE GAS RECIRCULATION SYSTEM (EP)

Secondary Inlet System (Fig. 25)

WORKING PRINCIPLE Lead the fresh air into the exhaust pipe so as to increase oxygen, then re-combust unburnt hydrocarbon (HC) and carbon monoxide (CO) by virtue of exhaust temperature before allowing them to enter air, thus, HC & CO content in the exhaust gas will decrease. The effect of HC & CO decrease in the secondary inlet system depends upon oxygen concentration and temperature in the exhaust passage. As a rule, HC & CO content after re-oxygenated can decrease by 30 - 60 %. So oxidation of HC & CO needs more oxygen, i. e. supply more fresh air into exhaust passage, and temperature must achieve up 400°C (for combusting HC) to 500°C (for combusting CO). The secondary inlet system functions by means of exhaust pressure impulse and a gulp valve.

Secondary gas has an effect on HC & CO, but it is related to A/F of the engine.

NOTE The gulp control valve should be checked periodically. It is recommended that the job is done at least once every 3-month service.

Crankcase Gas Recirculation System

WORKING PRINCIPLE A gas/fuel separator is installed between the crankcase and air cleaner passage. When the engine is running, the separated

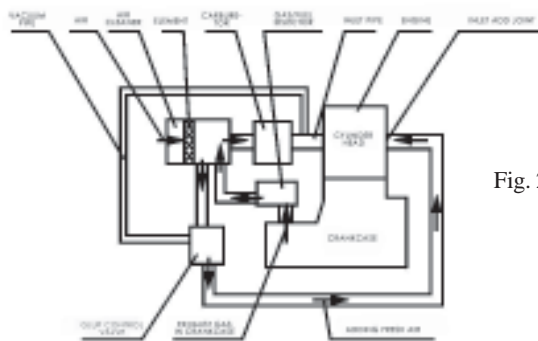


Fig. 25

air enters into the air cleaner and carburetor via the separator, then returns to the combusting chamber, avoid exhaust gas in the crankcase directly coming into air, therefore decrease atmospheric pollution.

NOTE The gas/oil separator should be cleaned periodically. It is recommended that the job is done at least once every 3-month service.

OPERATION OF THROTTLE (Fig. 26)

- Check for smooth rotation of the throttle grip from the fully open to the fully closed position at both full steering position.
- Measure the throttle grip free play at the throttle grip flange. The standard free play should be approx. 2-6mm. To adjust the free play, loosen the lock nut, turn the adjuster. Adjustment over, fasten the lock nut.

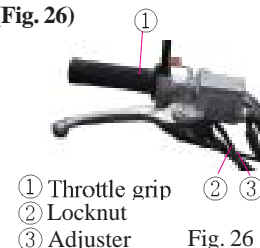


Fig. 26

IDLE SPEED OF CARBURETOR (EP) (Fig. 27)

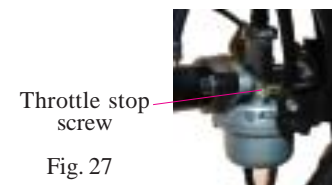
- The carburetor is installed between the engine and air cleaner.

NOTE The carburetor has been set accurately in factory. The user only needs to adjust idle speed after the engine is warmed up.

- Adjust idle speed with the throttle stop screw to set idle speed at about 1500r/min. Turn the screw in direction A will increase idle speed, in direction B decrease idle speed.

- When the engine has no idle speed or runs at a decreased speed, set the throttle stop screw in the middle between the two limit positions to help mix air and fuel.

CAUTION Since the carburetor is a precision apparatus, don't disassemble it without the professional knowledge.



Throttle stop screw

Fig. 27





CHECK LEAKS ALONG AIR SUPPLY LINE (EP)

Check regularly air supply line, specially such as the joint between the muffler and engine, the joint between the air cleaner, carburetor and inlet pipe, etc. for leakage, and repair or replace damaged parts once there are some troubles to assure a normal air supply, and avoid polluting the environment.

ADJUSTMENT OF CLUTCH (Fig. 28)

- The free play should be 10-20mm and the free clearance be 3-4mm. Adjust as follows: loosen the locknut located at the holder of clutch cable.
- Turning in direction A will decrease the free play, in direction B increase the play.

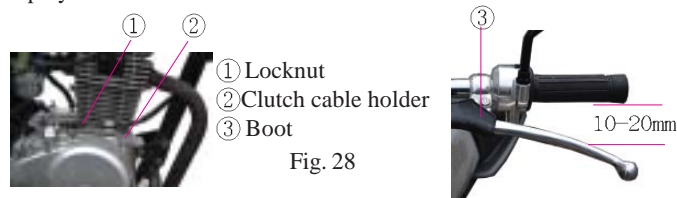


Fig. 28

DRIVE CHAIN (Fig. 29)

Check

Check the drive chain for wear and slack. Lubricate the chain if it seems to be dry.

Slack should be 10-20mm. Support the motorcycle with the center stand, check slack in the lower chain run midway between the sprockets.

Adjustment

Loosen the rear axle nut and lock nut, turn both adjusting bolts until the chain slack meets the standard, and make sure left and right adjusters align with the same index marks.

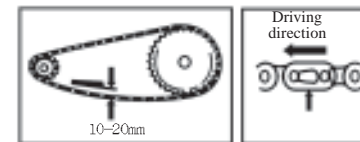
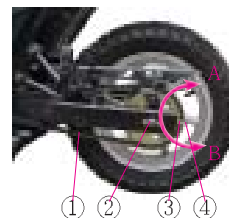


Fig. 29

- ① Chain Chain clip
- ② Locknut
- ③ Adjusting nut
- ④ Adjusting bolt

NOTE: Turning adjusting bolt in clockwise will tighten the chain, and turing it counterclockwise will releas the chain.

After checking, tighten up the rear axle nut with a torque of 50~60N.m.

※ Check the chain for slack.

※ If slack of chain is changed, recheck and readjustment to rear brake should be conducted, because such change will influence the free play of rear brake.

Lubrication

Pull out the chain clip with pliers, remove the joint and chain. Wash the chain in cleansing solution and dry it in the air. Check the chain including link plates, bushings and rollers for damage, cracks, wear-out. Replace if necessary. Lubricate the chain, then reinstall and adjust it.

CAUTION The chain clip shall be so installed as to make sure that its closed end faces the direction of wheel rotation.

FRONT BRAKE

The front brake lever is located at the right handlebar. The distance the front brake lever moves before the brake starts to engage is called free play, which should be 10-20mm (Fig. 30).



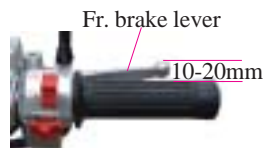
Check (Fig. 30)

The main cylinder is located at the right handlebar.

When operating the brake lever, the pads equipped with caliper will clamp the brake disc. If any pad is worn to its limit depth, replace both pads as a set in no time.



Fig. 30
① Brake main cylinder
② Sight glass
③ Screw
④ Cover
⑤ Brake calliper



Place the motorcycle on the level ground. Check the brake fluid level through the sight glass. If the fluid level is below the LOWER, loosen the cylinder cover screws, remove the cover, add brake fluid up to the UPPER level mark.

Air Bleeding

If the brake lever free play becomes excessive and the brake pads are not worn beyond its minimum depth, there is probably air in the brake system and bleed it as follows:

Pump the front brake lever, then gently loosen the bleed valve while holding the lever. Take care to tighten up the bleed valve as soon as flowing fluid. Repeat above the procedure until the system is completely bled.

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

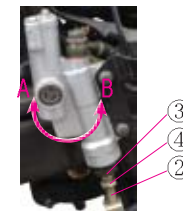
WARNING Apply only specified brake fluid, or braking effectiveness and riding safety will be affected adversely. Do not allow contaminants such as dirt or water to enter the brake fluid tank. Brake fluid may cause irritation. Avoid contact with skin or eyes. In case of contact, flush thoroughly with water.

REAR BRAKE (Fig. 31)



Fig. 31

- ① Rr. brake pedal
- ② Rr. brake arm
- ③ Adjusting nut
- ④ Pin



Support the vehicle on its center stand. Measure the distance the rear brake pedal moves the brake starts to engage. The free play should be 20~30mm. To adjust, turn the rear brake adjusting nut. Turning it in A direction will decrease the free play, and in B direction increase the free play.

※ Apply the several times and check for free wheel rotation after the brake pedal is released.

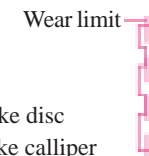
NOTE If any pad is worn to its limit depth, replace both pads as a set in no time. For adjustment of rear brake, refer to adjustment of front brake.

HOW TO CHECK AND REPLACE BRAKE PAD (Fig. 32)

Unscrew 2 bolts M8, remove the brake caliper, check the brake pads for wear. If any pad is worn its limit depth, replace both pads as a set.



Fig. 32
① Front brake disc
② Front brake calliper





FRONT/REAR SHOCK ABSORBER AND SUSPENSION

Support the motorcycle on the center stand, pull in the front brake lever to lock the front wheel, pump the front/rear shock absorber up and down several times to see that it functions well without noise or leakage. Check the rear fork bushing for proper play by pressing the side of the rear wheel. Make sure that all of the fasteners are tightened securely.

TYRE

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

Tyre Pressure		
Rider (kPa)	Front tyre: 175	Rear tyre: 200
Rider & passenger (kPa)	Front tyre: 200	Rear tyre: 225
Tyre size	Front tyre: 120/80-12	Rear tyre: 120-80-12

WARNING Operation with excessively worn tyres is hazardous and will adversely affect traction and handling.

NOTE Tyre pressure should be checked before you ride while the tyres are “cold”. Check the tyres for cuts, embedded nails, or other sharp objects. Check the rims for dents or deformation. See your dealer for change or damaged tyres or punctured inner tubes.

CAUTION Improper tyre inflation will cause abnormal tread wear and create a safety hazard. The tyre pressure less than the rated value may result in slipping wheel on the ground or coming off from the rim.

When the tread depth in the middle section of tyres reached limits below, please replace them.

Tread Depth Limits, mm			
Front tyre	1.6	Rear tyre	2.0

FRONT WHEEL (Fig. 33)

To remove the front wheel, support the motorcycle on the side stand, loosen the lock screw, remove the odometer cable, loosen the nut, extract the front axle, and remove the front wheel.

NOTES

Installation shall be done in the reverse order of removal.

Tightening torque of front axle nut: 55 ~ 65N.m

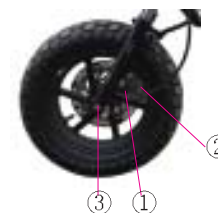


Fig. 33

- ① Lock screw
- ② Odometer cable
- ③ Front axle nut

REAR WHEEL (Fig. 34)

Support the motorcycle on the side stand. Loosen the lock nuts at both sides of the rear wheel, then loosen the rear axle nut. Take out the chain clip by pliers, remove the chain and rear axle nut, retract the rear axle, at last, remove the rear wheel.

NOTES

Installation shall be done in the reverse order of removal.

Tightening torque of rear axle nut: 55 ~ 65N.m

For adjustment of the rear brake and chain, refer to related items prescribed in the manual.



Fig. 34



FUSE (Fig. 35)

The fuse is positioned behind the right cover near the battery stay. The fuse will blow to protect the circuit automatically in the case of troubles such as a short circuit or an overload trouble. After the troubleshooting, fit a new fuse available in the fuse box.

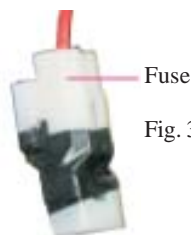


Fig. 35

CAUTION Specially pay attention to specification (15A) of fuse when replace it. Never use other material such as aluminium, iron or copper wire instead. Otherwise the circuit may be burnt.

BATTERY (EP) (Fig. 36)

The battery is located behind the right cover of vehicle. Maintain it in accordance with the Maintenance Schedule in the manual. The battery electrolyte level should be between the UPPER level mark and LOWER level mark. Should the electrolyte be below the LOWER level mark, add proper distilled water to the UPPER level mark. Be careful not to exceed the UPPER mark when adding distilled water, otherwise, overflowing electrolyte may cause corrosion.

Upper level mark



Fig. 36

Lower level mark

CAUTION Be sure not to discard the battery electrolyte or used battery. Handle in accordance with national or local environmental protection rules. Avoid entering water around the battery when washing the vehicle.

WARNING If the battery is to be removed, disconnect the negative lead “-” from the battery terminal first, and then the position lead “+”. Connection should be done in the reverse order of removal. Do not touch the positive lead with the vehicle body to prevent short-circuiting. The leads should be tightened securely, or spark may occur to cause a fire. Make sure that the duct of battery keeps unblocked, or the battery may be explosive under certain conditions. The battery, in addition, should be equipped with an exhaust pipe, otherwise, overflowing electrolyte (sulfuric acid) may erode the vehicle body, main cable, even causing a fire by short-circuiting.


CAUTION The battery contains sulfuric acid (electrolyte). Contacting with skin or eyes may cause severe burns. If such case occurs, flush with water for at least 5 minutes and call a physician immediately. Please wear protective clothing and a face shield. Keep out of reach of children. Do not use a new battery until taking a 30-minute wait after adding liquid. Charge the battery at a rate less than 1A for 10-15 hours if necessary. For further details, refer to Operating Instructions of Battery.




TROUBLESHOOTING AND STORAGE

TROUBLESHOOTING

If the engine fails to start, do checks as follows:

1. Is there enough fuel in the tank?
2. Is fuel reaching the carburetor from the tank cock?
3. Disconnect the fuel line from the carburetor, set the tank cock to “” position, and see if fuel flows out?
4. If OK, check the ignition system.

CAUTION Do not allow fuel to flow at will. Fuel should be collected in the retainer. Do not smoke or allow flames or sparks in the area where the engine is subjected to the check.

5. Remove the spark plug from the cylinder head, and connect it with the spark plug cap.
6. Fix the spark plug on the vehicle body. Turn the ignition switch on, set the emergency switch to “” position. Press the start button, and see if there are sparks at the electrode gap of the spark plug. If there are no sparks, see your dealer for help.

CLEANING AND STORAGE

Cleaning

1. Check if the spark plug and inlets are installed or plugged securely before cleaning the vehicle.
2. Hose the vehicle completely.
3. Dry the motorcycle using a soft cloth or sponge.
4. Lubricate the drive chain immediately after washing and drying to prevent surfaces from getting rusty.
5. Start the engine, and allow it to run for several minutes.

CAUTION High-pressure water can damage certain parts such as wheel bearings, front fork, brakes, seal of transmission, electric equipment, etc. Prevent the muffler from getting in water, the spark plug from being wetted down when washing the vehicle.

Storage

Take some measures as following when subjecting the vehicle to 60-day or more storage.

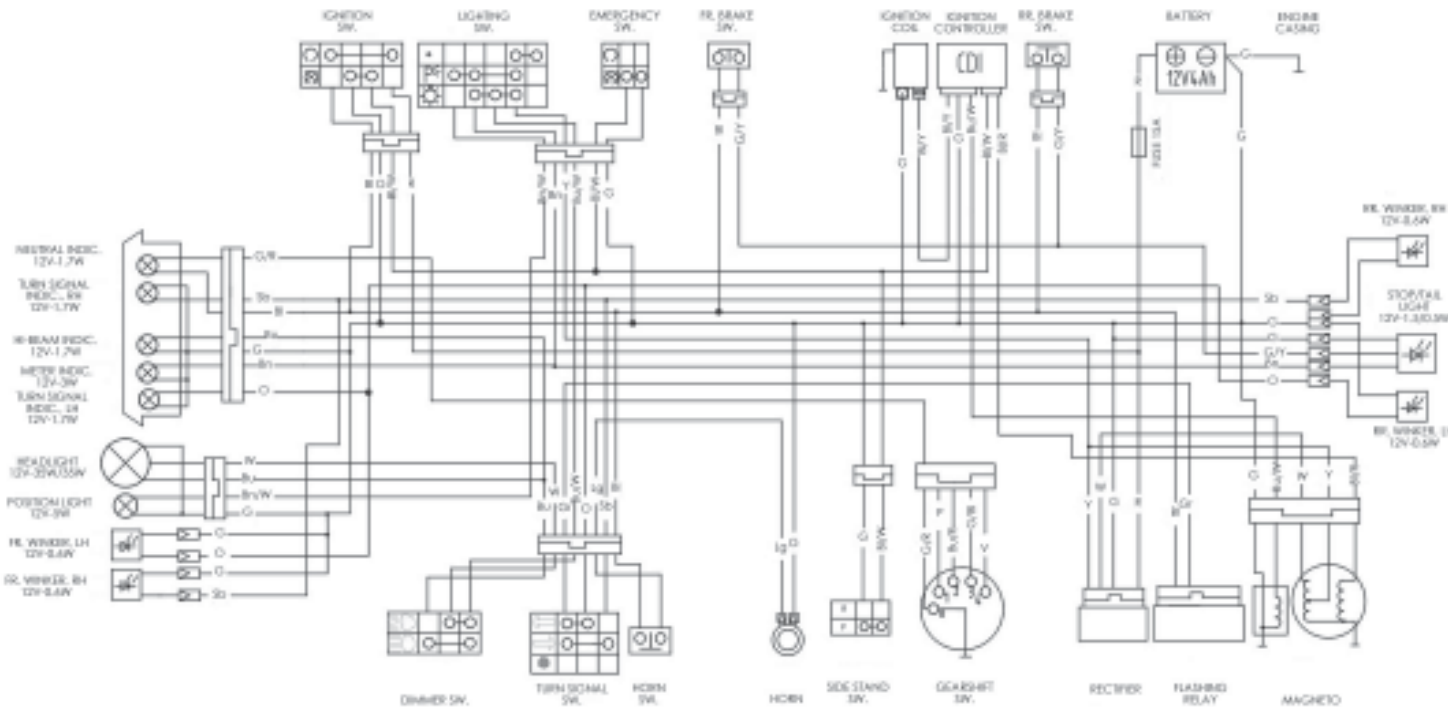
1. Empty fuel inside the fuel tank, carburetor and other pipes.
2. Drive off the spark plug, pour a bit of engine oil SAE15W/40-SE into the engine. Turn off the ignition switch and tread the kick-pedal several times to scatter evenly the oil inside the cylinder.
3. Remove the drive chain, clean and oil it.
4. Lubricate all of the controlling cables.
5. Rise the vehicle frame so that both the wheels clear the ground.
6. Seal the muffler outlet with a plastic bag to prevent the former against moisture.
7. Coat all surfaces of bare metal with a thin layer of rust-resisting oil if the motorcycle is stored in moist and salty regions.
8. Dismantle the battery and store in a dry, cool and well-ventilated place. Charge the battery monthly in course of storage.

REMOVAL FROM STORAGE

After long-term storing the motorcycle, check, adjust and service it according to requirements stated in the manual to make sure the motorcycle functions properly. Try the vehicle at low speed in a safe riding area away from traffic.



ELECTRIC DIAGRAM



SPECIFICATIONS

Vehicle Model 100-C

1. DIMENSIONS & PERFORMANCE

Overall dim. (L × B × H), mm 1690 × 770 × 980

Steering bar angle, ° 42

Ground clearance, mm 155

Turning circle dia., mm 3912

Wheelbase, mm 1200

Kerb weight, kg 94

Max. weight capacity, kg 150

Seat height, mm 730

Top design speed, km/h 80

Economical speed fuel cons., L/100km ≤ 2.3

Grade ability, ° ≥ 20

Front tyre size/pressure 120/80-12 175-200kPa

Rear tyre size/pressure 120/80-12 200-225kPa

Front shock absorber Telescopic type hydraulic drive

Rear shock absorber Coil spring-dampened

Front brake type Disc operated by hand

Rear brake type Disc operated by foot

Fuel tank capacity, L 5.5

2. ENGINE

Model 153FMG

Type Vertical single-cylinder, 4-stroke, air-cooled

Bore × Stroke, mm 53 × 45

Displacement, ml 99

Compression ratio 9.5:1

Starting mode Kick-starter

Ignition system TCI

Max. net power, kW/r/min 5.3/7000

Rated power output, kW/r/min 5.0/7500

Max. torque, N · m/r/min 7.3/6000

Engine oil type SAE15W/40-SE

Engine oil capacity, L 0.9

Lubrication Press/splash

Fuel Unleaded gasoline with RQ-93 or higher

Clutch type Wet multi-plate

Transmission type 4-speed, constant mesh

Primary reduction ratio (IP) 3.476

Gear ratio, 1st (I₁) 3.273

2nd (I₂) 1.895

3rd (I₃) 1.280

4th (I₄) 0.964

3. ELECTRIC EQUIPMENT

Battery 12V5AH

Spark plug C7HSA

Headlight 12V-35W/35W

Winker LED/0.6W

Tail/stop light LED0.5E/1.5W

Horn 12V1.5A

Odometer 12V-3W

Fuse 15A