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## **THE ARTICLES MENTIONED BELOW ARE APPLICABLE ONLY FOR THE UNITED STATES AND CANADA.**

### **1. NOISE EMISSION WARRANTY**

SANYANG INDUSTRY CO.,LTD. warrants that this exhaust system, at the time of sale, meets all applicable U.S. EPA Federal noise standards. This warranty extends to the first person who buys this exhaust system for purposes other than resale, and to all subsequent buyers. Warranty claims should be directed to:  
3, chung-Hua Road, Hukou, Hsin-Chu Taiwan, R.O.C  
Tel:+886 35981911 Fax:+886 35981844

### **2. TAMPERING WARNING**

Tampering with noise control system prohibited. Federal law prohibits the following acts or causing thereof:

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

Among those acts presumed to constitute tampering are the acts listed below.

- (1) Removal of or puncturing the muffler, baffles, header pipes or any other component which conducts exhaust gases.
- (2) Removal or puncturing of any part of the intake system.
- (3) Lack of proper maintenance.

Replacing any moving part of the vehicle, or parts of the exhaust or intake system, with parts other than those specified by the manufacturer .

### **3. SAFETY INFORMATION**

- Always wear your helmet (dot approved) correctly fastened. Do not carry loose items and always wear suitable protective clothes, and protective eyewear.
- Good psychophysical conditions are very important for safe operation.
- Do not operate under the influence of drugs and/or alcohol.
- Do not operate in state of physical fatigue or drowsiness.
- Slow down on slippery surfaces, unfamiliar terrain and when visibility is reduced.
- Be alert when operating this vehicle.
- Do not exceed weight capacity.
- The safety, stability and handling of this scooter may be adversely affected by the addition of accessories or luggage.
- Do not install accessory or replacement parts not approved by sym.
- Failure to follow these warnings could lead to an accident, serious injuries or death.
- Use unleaded fuel octane rating (R+M)/2 method of between 87&92.
- Read owners manual carefully before operating this scooter.
- Obey posted speed limit and other traffic signs and signals.

## 4. SAFETY DEFECT REPORT

**SANYANG INDUSTRY CO., Ltd.**

NO. 3, chung-Hua Road  
Hukou Shiang  
Hsin-Chu County, 303  
Taiwan, R.O.C  
Reporting Safety Defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Sanyang Industry Co., Ltd.

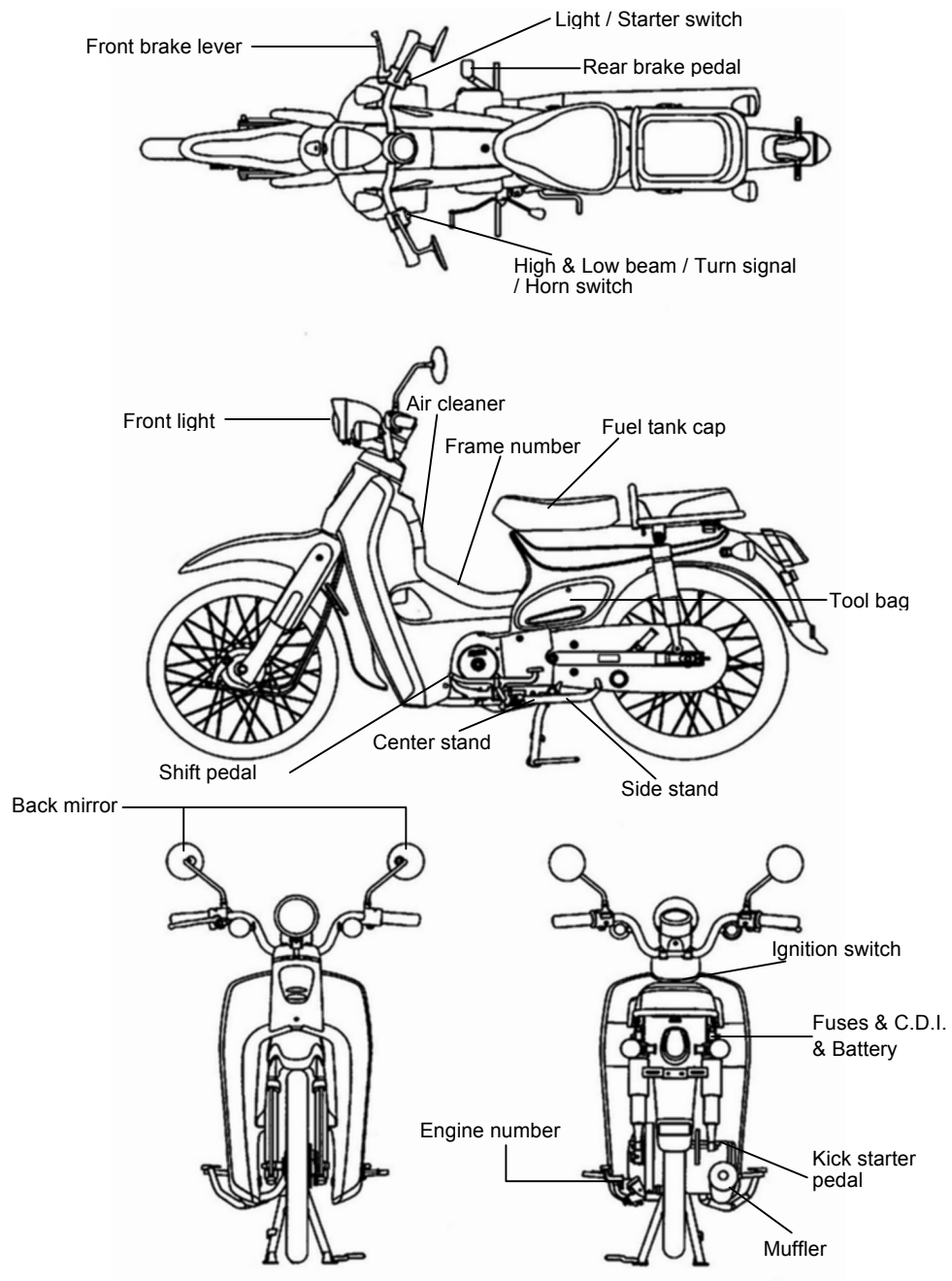
If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in and individual problems between you, your dealer, or Sanyang Industry Co., Ltd.

To contact NHTSA you may call the Auto Safety Hotline toll-free within the United States on 1-800-424-9393 or write to:  
NHTSA, 1200 New Jersey Avenue SE W43-488, Washington, DC 20590

You can also obtain other information about motor vehicle safety from  
<http://www.safercar.gov>.

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This manual describes the correct usage of the SYMBA including: inspection and safe riding techniques. For a safe and enjoyable ride, please read this manual carefully.

For your benefit, please ask your SYM dealer for the operating manual and carefully read the following:

- Correct use of the SYMBA.
- Pre-delivery inspection and maintenance.

**Thank you very much for your patronage**

In order to maximize your SYMBA's performance, periodical inspection and maintenance should be completely carried out.

We recommend that after riding your new SYMBA for the first 200 miles, you should take your SYMBA to the original dealer for an initial inspection, and to have your SYMBA inspected periodically every 620 miles thereafter.

- In case the SYMBA's specifications and construction are modified and different from the photos and diagrams on the owner's manual / catalogues, the specifications and construction of the actual SYMBA shall prevail.

#### 4. SAFE RIDING

It is very important to be relaxed and clothed properly when driving, observe traffic regulations, do not rush, always drive carefully and relaxed. **Relax and have FUN!!**

Usually, most people would ride their newly bought SYMBA very carefully, but after they became familiar with their SYMBA, they tended to become reckless which may result in an accident.

**To remind you:**

- Please wear a safety helmet, and properly tighten the chin strap when riding your SYMBA.
- Clothes with open or loose cuffs may be blown by the wind and cause the cuffs to get caught on the handlebar and thus affects riding safety.
- Hold the handlebar with both hands when riding. Never ride with only one hand.
- Observe the speed limit.
- Wear suitable low-heel shoes.
- **Perform periodical maintenance and inspection in accordance with the schedule. (Page 23)**

 **WARNING!!**

- Only one operator is allowed, no passenger.
- After running, the exhaust pipe is very hot, be careful not to get burned when conducting an inspection or maintenance.
- After running, the exhaust pipe is very hot; select a suitable location to park your scooter to avoid others getting burned by the exhaust pipe.

 **WARNING:**

Modifying the scooter will affect its structure or performance, and cause poor engine operation or exhaust noise, which will result in shortening the scooter's service life.

Besides, modification is illegal and does not conform to the original design and specifications.

A modified scooter will not be covered by the warranty; therefore, do not modify your scooter at will.

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Keep the related parts of your body (arms, palms, lumbar, and toes) relaxed and ride with the most comfortable posture in order to be able to react quickly whenever it is necessary.

- Rider's posture will greatly affect riding safety. Always keep your body's weight in the center of the saddle, if your body's weight is on the rear part of saddle, the front wheel load will be reduced, and this will cause the handlebar to shake.
- It will be much easier to make a turn if rider leans his body inward when turning.
- The SYMBA is hard to control on bumpy, unlevel, or unpaved roads. Try to know the road conditions in advance. Slow down and use your shoulder's force to control the handlebar.
- Suggestion: Do not load objects on the front pedals unnecessarily to avoid affecting the ride safety and the operation of the handlebars.



**WARNING:**

The rider's control on the handlebar is slightly different with a load or without a load. Overload may cause the handlebar to swing and affects riding safety. Therefore, do not overload your scooter.



**WARNING:**

- Do not place flammable materials such as rags between the body side cover and engine to avoid components damaged by fire.
- Do not load objects on areas not specified for loading to avoid damage.

**SUGGESTION**

To maximize the scooter's performance and prolong its service life:  
The first month or first 620 miles is the break-in period for the engine and components.  
Avoid rapid acceleration, and keep the speed below 40mph.

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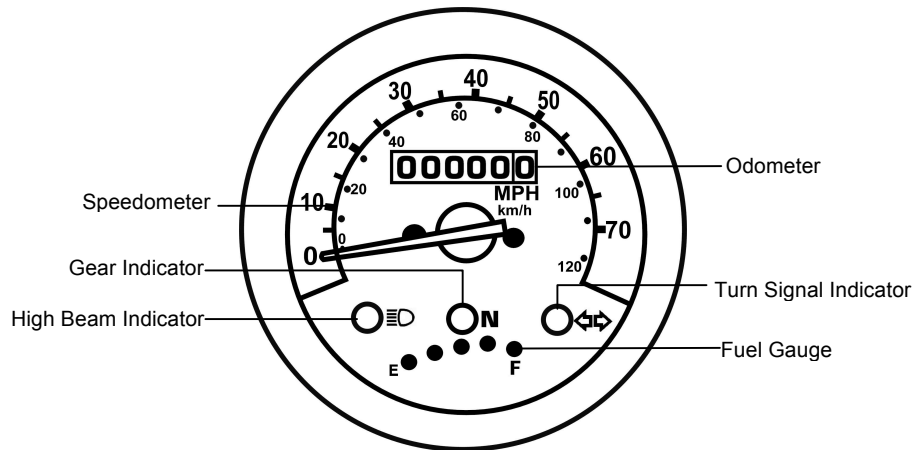
## 6. USE GENUINE SPARE PARTS

In order to maintain the SYMBA's best performance, each part's quality, material, and machined precision must conform to the design requirements. **"SYM Genuine Spare Parts"** were made from the same high quality materials used for the original scooter. No parts are sold in the market until they meet the designed specifications through sophisticated engineering and stringent quality control. Therefore, it is necessary to purchase **"SYM Genuine Spare Parts"** from **"SYM Authorized Dealers or Franchised Dealers"** when replacing spare parts. If you buy cheap or fake substitute parts from the market, no guarantee can be provided either for the quality or durability. Also, it may result in unexpected troubles and lower the SYMBA's performance.

- Always use **SYM Genuine Spare Parts** to keep your scooters pure blood and to ensure its long service life.

The following is SYM's 4 stroke air cooled 101.4c.c. SYMBA. Please refer to page 24 of this manual for specific specifications.

## GAUGES



### Speedometer :

This shows your speed in miles per hour (outer-mpH) and in kilometer per hour (km/h-inner).

### ● Odometer :

Indicates total accumulated distance traveled.

The measurement unit of odometer for **U.S.** model (MB10A7-A) is **mile**.

The measurement unit of odometer for **Canadian** model (MB10A7-C) is **kilometer**.

### ● Gear Indicator :

This indicator comes on with the main switch ON. It shows which gear the bike is in. The indicator varies when the gear shifted. It should be noted that it should not shift from any gear to N gear when the bike is moving.

### ● High Beam Indicator( blue) :

This indicator comes on with high beam headlight is turned on.

### ● Turn Signal Indicator(orange) :

The left or right Indicator light will be flashing according to the direction of the turn signal light switch when it is turned on.

### ● Fuel Gauge :

When the meter needle reaches to the first point of the "E" band refill the tank as soon as possible.

Capacity of the "E" band is about .25 gallon.



## OPERATION OF IGNITION SWITCH

### ON

“Start” position

- Engine can be started in this position.
- Ignition switch key can not be removed.

### OFF

“Stop” position

- Engine is shut off and can not be started in this position.
- Ignition switch key can be removed.

### LOCK

“Handlebar lock” position

- Turn the handlebar to left and press the ignition switch key down and then lightly turn it to left to the “LOCK” position.
- The handlebar is locked in this position.
- Ignition switch key can be removed.
- When unlocking, simply turn the key from “LOCK” to “OFF.”

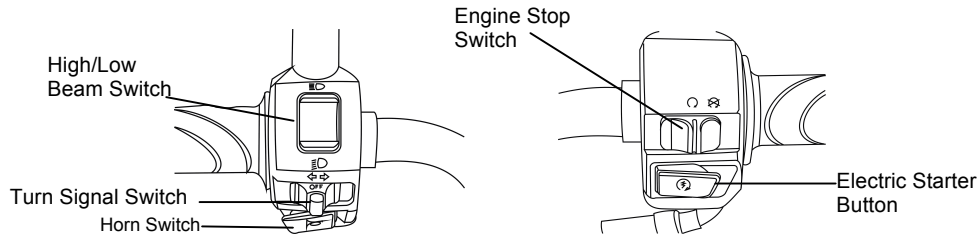
## IGNITION SWITCH




### WARNING:


- Never operate the ignition switch key when the scooter is running. To turn the ignition switch to “OFF” and “LOCK,” will shut off the electrical system and that may result in a dangerous accident. Therefore, the ignition switch can only be turned off after the scooter has been completely stopped.
- Always remove the key and be sure to take the key away with you after locking the handlebar before leaving your scooter.
- If ignition switch remains in the “ON” position for a prolonged period after the engine has been stopped, the battery’s capacity will be reduced and this may affect the engine’s start ability.

## USE OF BUTTONS



### ● Engine Stop Switch

 Switch to this position to turn off the engine when a state of emergency exists.

 Switch to this position and the engine can be started.

- **Electrical Starter Button**



This is the electric start button (switch) for starting the engine.  
With the main switch "ON", pressing this button while holding the front or rear brake lever will start the engine.



**CAUTION:**

- Release this button immediately after the engine has been started and don't press the button again to avoid damaging the engine.
- This mechanism is a safety design. The engine can only be started after the front or rear brake lever (pedal) has been applied.
- Do not use the light system. Turn headlight and turn signal lights to the "OFF" position when the engine is being started.

- **High/Low Beam Switch**

This is the high and low beam of headlight switch. Press this switch to change between high and low beams.



This is for high beam.



This is for low beam. (Please turn to low beam when riding in the city)

- **Horn Switch**



Press this button down with ignition switch is in the "ON" position, the horn will sound.



**CAUTION:**

Do not press this button when you are in the area where there's no honking.

- **Turn Signal Switch**

Turn signal lights are used when turning left/right or changing lane.

Turn ignition switch to "ON" and slide the turn signal switch to left or right. Then the turn signal lights will flash.

To release, simply return the turn signal light button to the original position.



Right-side turn signal light flashing means you intend to make a right turn.



Left-side turn signal light flashing means you intend to make a left turn.

## FUEL TANK CAP 【Fuel refilling】

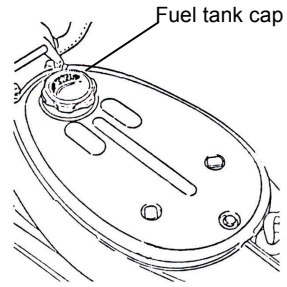
Fuel capacity: 1.08 Gal

When refueling, raise the seat and turn the fuel filler cap counter-clockwise.

Use unleaded gasoline.

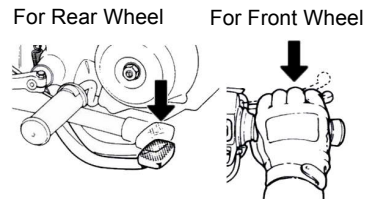
### **⚠ DANGER:**

- Center stand should be put down on the ground, engine should be shut off and flames should be strictly prohibited to ensure safety when refueling.
- Do not fill above fuel upper limit when refueling. Otherwise, fuel will flow out through a hole on the cap that may damage the body's paint, in serious cases; it may cause a fire to burn down the scooter.
- Make sure the cap has been tightened properly.



## BRAKE

- Avoid unnecessary sudden braking.
- Use front and rear wheel brakes simultaneously when braking.
- Avoid brake continuously for a long period of time because that may overheat the brakes and reduce its braking efficiency.
- Slow down and brake early when riding in rainy days on slippery roads. Never apply the brakes suddenly to prevent skidding and falling.
- Using only the front brake or the rear brake increases the risk of falling because the scooter tends to be pulled to one side.



### 《Engine Brake》

Return the throttle valve handle back to its original position, and apply engine brake.

It is necessary to apply both brake and engine brake intermittently when riding on a long or stiff slope.

## THE REAR SHOCK ABSORBER ADJUSTMENT

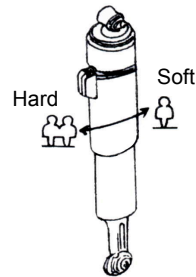
There are two stages of hardness to adjustment the rear shocks.



Adjust to this position to make the cushion hard. Adjust to carry cargo or bad road condition.



Adjust to this position to make the cushion soft, in fitting with the general road condition.



### **⚠ CAUTION:**

- Adjust both shocks to the same position.



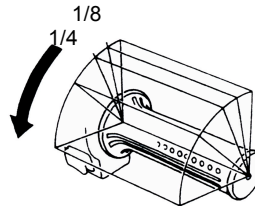
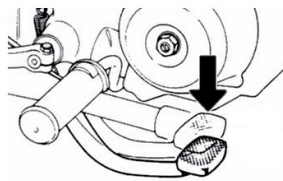
**CAUTION:**

- Check the engine oil and fuel levels before starting the engine.
- To start engine, the main parking stand be in the down position. The rear brake lever must be depressed and the rear brake applied before the engine will start. This safety feature ensures that the scooter will not surge forward when started.



1. Turn the ignition switch key to the "ON" position.

2. Shift the transmission into neutral. The indicator (N) should come on.



3. Apply foot (rear) wheel brake.

4. Do not accelerate, press starter button when the brake is applied.

**[We care for your safety! Before driving off, keep the foot brake applied on the rear wheel.]**



**WARNING:**

- If the engine can not be started after 3 to 5 seconds, turn the throttle handle 1/8 to 1/4 turn, and then press the starter button again for an easier start.
- In order to avoid damaging the starter motor, do not press the starter button continuously over 15 seconds. The starter may overheat and fail.
- If the engine still can not be started after pressing starter button for 15 seconds, stop and wait 10 seconds before trying again.
- It is harder to get the engine started if the scooter has been left unriden for a long time, or if the fuel tank has been emptied. It will be necessary to press the starter button several times, and keep the throttle handle at the closed position to start the engine.
- The engine may need several minutes to warm up engine.
- Exhaust contains harmful gases (CO), therefore please start the engine in a well ventilated place.

**【When starting engine with Kick starter pedal】**

- After step 1 is completed, push the kick starter lever forcefully by foot with the throttle handle at the closed position.
- If the engine is difficult to start with the kick starter lever when the engine is cold, try rotating the throttle handle 1/8 to 1/4 turn to make starting easier.
- Put the kick starter lever back to its original position after the engine has been started.



**CAUTION:**

- Firmly support the scooter with the main parking stand before starting the engine with the starting lever.
- Start engine with the kick starter lever occasionally to insure its proper operation.

**9. THE BEST WAY TO OPERATE YOUR SYMBA**

**BREAK-IN PROCEDURE**

During the first 1,000 km (600 miles), operate your new scooter so the engine neither pulls laboriously nor exceeds 80% of the maximum speed in the respective gears. Avoid full throttle operation, and select your gear change to spare the engine undue stress. Careful break-in operation during the initial mileage period will measurably extend the service life of the engine.

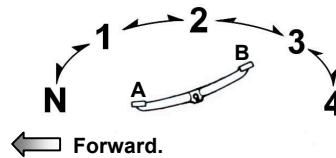


**CAUTION : SAFETY DEVICE IN THE GEAR BOX**

- You cannot shift from 4<sup>th</sup> gear to N gear, nor can you shift from Neutral gear to 4<sup>th</sup> gear.

**GEAR OPERATION**

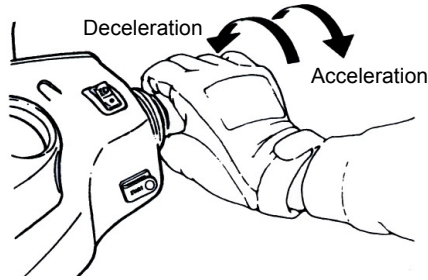
- When you try to shift from N to 1st gear ,stepping on the “B” end of shift pedal.
- The gearbox is left foot operated. It is a four gear rotary, constant mesh gear box. When you ride in heavy traffic, go up a hill, or turn, please shift down before the engine lugs. When going down a hill, please use the low gear to apply the engine brakes, to keep a safe speed and prevent the brake from overheating.
- When shifting, please close the throttle and operate the gear shift pedal to the proper gear.
- Do not operate the gear shift pedal when the engine is not running.
- Do not depress the gear shift pedal forcefully, to prevent damage to the gear box.
- When passing, please shift into a lower gear and accelerate to overtake the vehicle in front of you. Check the proper speed range in the table.
- When riding at a high speed, do not accelerate rapidly. The engine might over rev and decrease the engine’s life.
- Use the turn signal before turning, and make sure traffic is clear, especially from behind.



SPEED	20	40	60	80	100	120	140
1st Gear	0-20	20-40	40-60	60-80	80-100	100-120	120-140
2nd Gear	0-20	20-40	40-60	60-80	80-100	100-120	120-140
3rd Gear	0-20	20-40	40-60	60-80	80-100	100-120	120-140
4th Gear	0-20	20-40	40-60	60-80	80-100	100-120	120-140

- 8. Important points and cautions for starting engine
- 9. The best way to operate your SYMBA

## THE CONTROL OF THROTTLE VALVE HANDLE



**Acceleration:** To increase speed when riding on an inclined road, turn the throttle handle slowly to allow the engine to increase its power.

**Deceleration:** To decrease speed.

## PARKING METHOD

- When parking your scooter you should:
  1. Always park in a safe area. Observe all traffic laws.
  2. Return the throttle valve handle back to its original position, and apply brakes early (the brake light comes on when braking to warn drivers behind you.)
- When stop completely:
  3. Remember to turn off your turn signal. Turn the ignition switch key to the "OFF" position to shut off the engine.
  4. Get off the scooter from left side after the engine after it has been cut off. Put down the scooter's main parking stand.
  5. To put down the main parking stand, hold the steering handle with your left hand, then hold down the back end of saddle or hold the parking handle on the lower-left side of saddle with your right hand. Press the main parking stand with your right foot and push the main parking stand firmly on the ground.

**As a reminder:**

Lock the steering handle and remove the key after parking to prevent the scooter from being stolen.



**CAUTION:**

- Park your scooter at a safe place where it will not interfere with traffic.

## ROUTINE INSPECTION

(Please refer to the components location diagram for the following components.)

Check Items		Check Key Points
Engine Oil		Is there enough engine oil?
Fuel		Is it enough? Is it Octane 90 or above
Brake	Front	Braking condition? (Brake lever free play: 10~20mm)
	Rear	Braking condition? (Brake lever free play: 20~30mm)
Clutch		Clutch condition? (Change panel free play : 10~20mm)
tires	Front	Is tire pressure normal? Standard: 25 PSI
	Rear	Is tire pressure normal? Standard: 28 PSI for 1 person,
Steering Handle		Does the handle vibrate abnormally or difficult to turn?
Speedometer, lights, and rearview mirror		Is it operated properly? Do lights come on? Can the scooter be seen clearly from behind?
Tightness of Main Components		Are screws, nuts loose?
Abnormal Points		Do the previous troubles still exist?



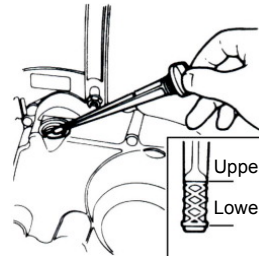
### CAUTION:

- If any problem is found during routine inspection, correct the problem before using the scooter again. Have your scooter checked and repaired by an authorized “**SYM dealer or authorized service personnel**” if necessary.

## ENGINE OIL INSPECTION AND CHANGE

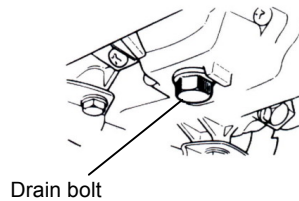
### INSPECTION:

1. Use the main parking stand to support the scooter on level ground. Remove the dipstick after the engine is stopped for 3~5 minutes. Wipe oil off the dipstick and then insert it into the guide tube again (Do not rotate it.)
2. Remove the dipstick and check whether oil level is in between the upper and lower marks.
  - Add oil to upper limit if oil is under the lower limit. (Check cylinder, crankcase...etc for leakage.)



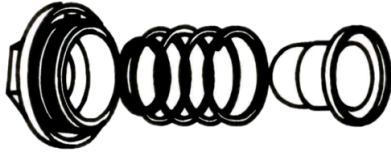
### OIL CHANGE:

- Change engine oil after the first 200 miles, and change the engine oil every 600 miles thereafter. Change oil filter's paper element every 3,100 miles.
- In order to maintain the engine's maximum performance, check the engine oil every 300 miles. Add oil to upper limit if the engine oil is found to be low.
- Engine Oil: Use API SH, SAE 10w-40 grade or better engine oil. Damage caused by improper oil will not be covered by warranty.



※Recommended Oil: **SYM Genuine EXTRA 4X OIL.**

- Oil Capacity : 1.0 Liter (0.8 liters for routine change), oil filter change: 0.8 liters.



**【Oil Filter Cleaning】**

Open the filter nut assembly of the element, and remove the element. Remove the foreign materials from the element by using a gasoline or air pressure.

**⚠ WARNING:**

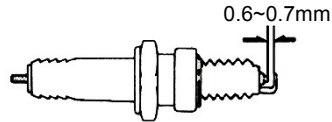
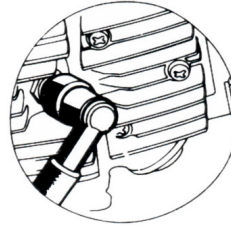
- Oil level will not be correct when checking the oil level with the scooter parked on an unlevel ground or immediately after the engine is stopped.
- Engine and exhaust pipe are hot right after engine is stopped. Pay special attention and do not get burned when checking or replacing engine oil. The engine should be warm, but not hot.

**FUEL INSPECTION**

- Turn main switch key to "ON" position, and check fuel gauge's needle to make sure there is enough fuel in the fuel tank.
- This scooter's engine is designed to use unleaded fuel, Octane 90 or above.
- Use the main stand and shut off the engine when refueling. Keep flames away from the scooter when refueling.
- Do not fill above fuel upper limit level when refueling.
- Make sure the fuel tank cap has been tighten properly.
- "Ethanol in gasoline can not be more than 10%."

**CHECKING THE SPARK PLUG**

- Remove the cap of spark plug cable (remove the spark plug using the spark plug wrench in the tool kit).
- Check the electrode to see if it is dirty or fouled by carbon deposits.
- Remove the carbon deposits on the electrode with steel wire, clean the spark plug, and wipe dry with a rag.
- Check the electrode, and adjust its gap to 0.6~0.7 mm. (Check it with a feeler gauge)
- Hand tighten the spark plug as far as it will go and then tighten it another 1/2~3/4 turns with a wrench.



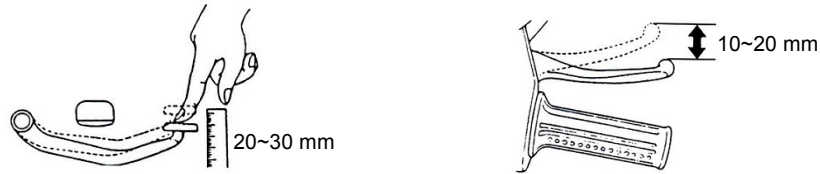


## INSPECTION AND ADJUSTMENT OF BRAKE FREE PLAY

**INSPECTION:** (Brake lever free play must be checked with the engine shut off.)

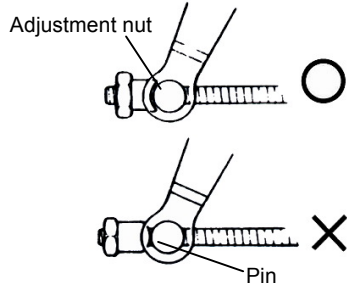
- Brake lever free play for front and rear wheels:

Check the hand-brake lever for front and rear wheels. Its free play (the stroke of hand-brake lever from no braking to initial braking) should be 10~20mm. Foot brake panel should be 20~30mm. It is abnormal if the feeling is spongy when holding the hand-brake lever or foot brake panel firmly.



### Adjustment:

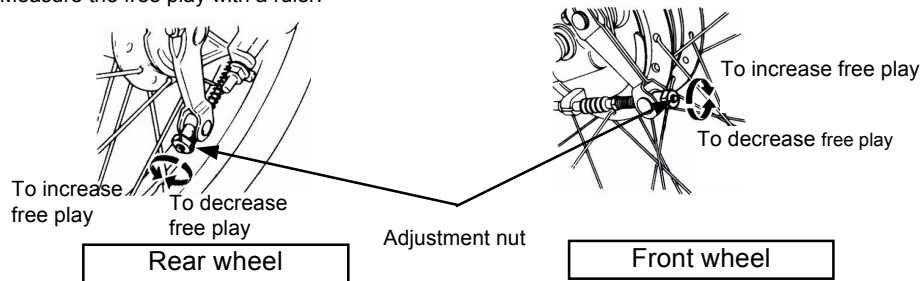
- The indentation of brake adjustment nut must be aligned with the pin. (see below figure)



### ⚠ CAUTION:

When free play is between 10~20 mm, check brake indicators of front and rear wheels. If the arrow on the brake arm is aligned with the "△" marked on the brake disk, that means the brake lining has been excessively worn, and must be replaced immediately.

- Turn the adjustment nut on brake arm of front and rear wheels to adjust the free play of hand-brake lever.
- Hold the hand-brake levers after adjusting with both hands until there is an effective brake feeling.
- Measure the free play with a ruler.

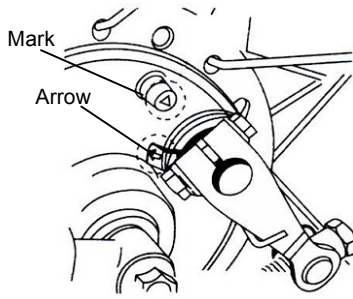


### ⚠ CAUTION:

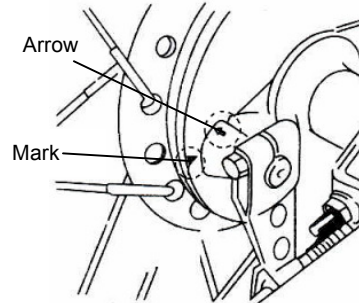
- Please drive your scooter on a dry road surface slowly and test the operation of the front and rear brakes in order to find out if there is any malfunction. Insure the scooter is braking at its optimum condition and safe to ride.

**Brake shoe check:**

Apply both the front and rear brake. If the arrow aligns with the reference mark on full application of the brake, the brake shoes will need to be replaced by your authorized SYM dealer.



**Front wheel**



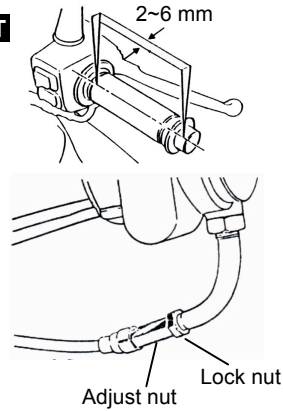
**Rear wheel**

**THROTTLE VALVE HANDLE CLEARANCE ADJUSTMENT**

- Correct clearance allows the throttle handle to rotate 2~6mm.
- Loosen the lock nut first, then turn the adjusting nut to adjust. Tighten the lock nut securely when finished.

**Check Items:**

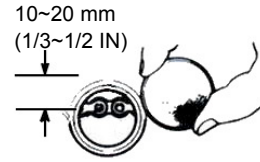
1. Check the throttle valve cable (throttle cable) to see if it can be moved smoothly from a closed position to a wide open position.
2. Rotate handle bar from side to side to check to see if the throttle valve cable is free in all positions.
3. Check to see if the throttle valve cable is obstructed by other cables, preventing it from being operated smoothly.



## DRIVE CHAIN ADJUSTMENT

**Check the drive chain for wear and tension. If it appears dry, apply a lubricant.**

- Place the scooter on the main stand. Shift the transmission into neutral.
- Move the chain up with your fingers at a point midway between the sprockets. Adjust slack so that it is approx. 10~20 mm (1/2~1/3 in).

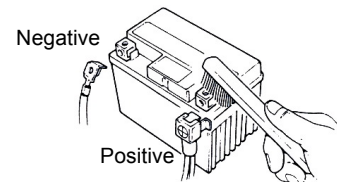
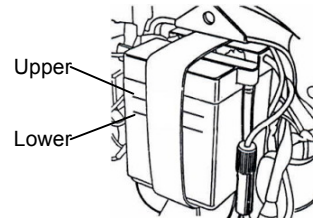


## INSPECTION AND MAINTENANCE OF BATTERY

- Inspecting and maintenance of the electrolyte level should be performed at the mileage intervals indicated in the maintenance schedule. For pre-riding inspection, the electrolyte level must be maintained between the upper and lower level marks. If low, add distilled water to raise the levels. Use a syringe or plastic funnel. The battery is accessible by removing the side cover.

### **⚠ CAUTION:**

- When installing the battery, route the battery breather tube as shown in the figure and be careful not to bend or twist the tube.
- Battery specification: 12 V 5 Ah.



### **Cleaning of battery terminals**

Remove the battery terminals and clean if there is dirt and corrosion present.

Battery removal procedures are as follows:

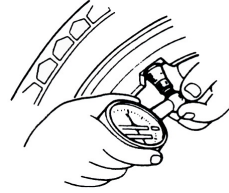
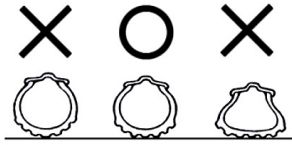
Turn ignition switch "OFF", then open the battery cabinet door, then remove negative cable screw first and disconnect the negative cable. Then remove positive cable screw and positive cable.

### **⚠ NOTICE:**

- Clean the battery posts with warm water if the posts are corroded and have some white powder on them.
- If there is obvious corrosion on the terminals, then disconnect the cables, clean the corrosion off with a steel brush or a piece of sandpaper.
- Install battery cable after cleaning and apply a thin coat of grease on the terminals.
- Install battery in reverse order of removal.

### TIRE INSPECTION

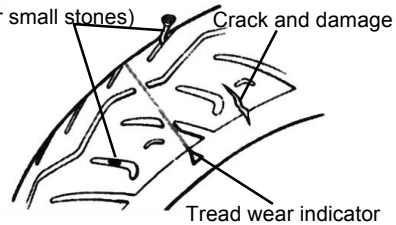
- Tires should be checked and inflated with the engine shut off.
- If a tire's ground contacting curve is abnormal, check it with an air pressure gauge and inflate it to the specified pressure.
- Tires pressure must be checked with an air pressure gauge when cold.



### PLEASE REFER TO SPECIFICATIONS FOR STANDARD TIRE PRESSURE

- Visually check tires thoroughly for cracks or damage.
- Visually check tires for any nails or small stones wedged in the tread.
- Check the "tread wear indicator" condition to see if tread groove depth is sufficient.
- A tire with a wear bar showing is worn out and should be replaced immediately.

Foreign materials  
(Nails or small stones)

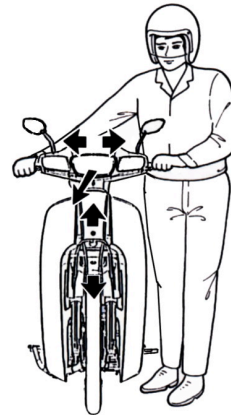


#### CAUTION:

- Abnormal tire pressures, wear, flat tires, or cracks to the tires are the most common causes for loss of control of the scooter.

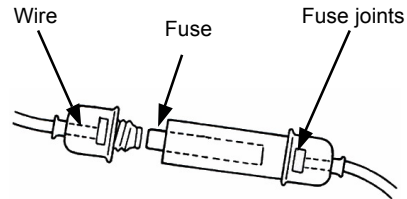
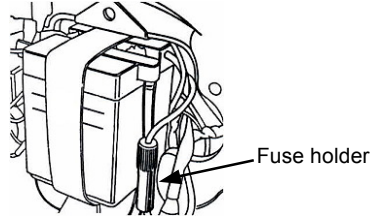
### STEERING HANDLE FRONT SHOCK ABSORBERS INSPECTION

- Perform this check with engine shut off and ignition switch key removed.
- Visually check front shock absorbers for damage.
- Operate steering handle up and down and check front shock absorbers for noises due to bends or damage.
- Check the bolts and nuts of the front shock absorbers with wrenches to insure tightness.
- Shake steering handle up & down, left & right, and front & rear to check for play, or has too much resistance, or pulls to one side.
- Check the steering handle to see if it is being pulled too tightly by the brake cables.
- Take your scooter to an SYM Authorized Dealer for service if any abnormal conditions are found.



### CHECKING AND CHANGING FUSES

- Turn the ignition switch "OFF". Remove the left side cover.
- The fuse is installed in the fuse holder, located near the battery.
- Open the fuse holder and lift out the clips with the fuse. Slide the clip off of the end of the fuse.
- If the fuse is burnt out, replace it with the recommended fuse. **DO NOT** use bronze or ferrous wire to replace fuse.
- If the new fuse burns out quickly again, please check for the reason for failure. Do this before the fuse is replaced again.
- Fuse specification : 7A



### CHECKING THE TURN SIGNAL LIGHTS AND HORN

- Turn the ignition switch key to the "ON" position.
- Turn on the turn signal light switch, and make sure that the front & rear signal lights flash. Check both sides. Also check to see if the warning buzzer sounds.
- Check turn signal light covers to see if they are dirty, cracked, or loose.
- Press horn button to see if it works.



#### CAUTION:

- Use only specified bulbs for turn signal lights. Otherwise, the normal operation of the turn signal light will be affected.
- Turn on the turn signal light before turning or switching lanes to warn drivers of vehicles behind you.
- Turn off the turn signal light immediately after making your turn. Otherwise, the flashing of the signal lights may confuse the drivers of vehicles around you.

### CHECKING THE FRONT AND REAR LIGHTS

- Start engine and turn on the head lamp switch. Check to see if the head lamp and rear lamp come on.
- Check the brightness and direction of front head light by shining it against a wall to see if it is correct.
- Check the head lamp cover to see if it is dirty, cracked, or loose.

### CHECKING THE BRAKE LIGHT

- Turn the ignition switch key to the "ON" position. Hold the hand-brake levers for front and rear wheels. Check to see if the brake lights come on.
- Check the brake light cover to see if it is dirty, cracked, or loose.

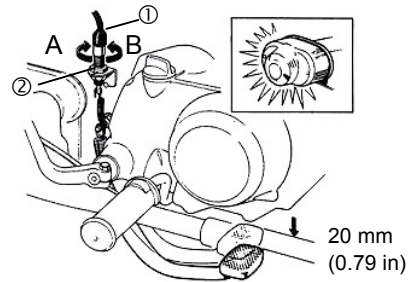
### Rear brake light adjustment:

Check the operation of the brake light switch ① at the right side behind the engine from time to time. Adjustment is done by turning the adjusting nut ②. Turn the nut in the direction (A) if the switch operates too late and in direction (B) if the switch operates too soon.



#### WARNING:

- Use only the specified bulbs. Do not use bulbs with different specifications in order to avoid damaging the electrical system, or blowing additional bulbs, or discharging the battery.
- Do not modify or add other electrical components. Do so could cause a short circuit, which may result in a fire.



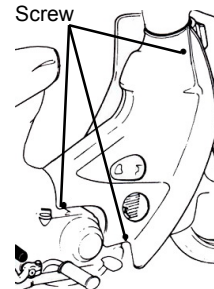
### CHECKING FOR FUEL LEAKAGE

- Check the fuel tank, fuel cup, fuel hoses, and carburetor for leakage.

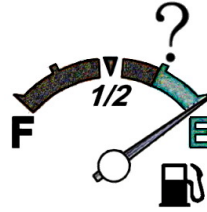
### CHECKING THE AIR CLEANER

《DISASSEMBLY PROCEDURE》

1. Remove screw from front cover.
2. Remove bolt from air cleaner cover.
3. Remove the air cleaner cover, then remove filter element.
4. Take the element out and clean it. (Refer to maintenance schedule).

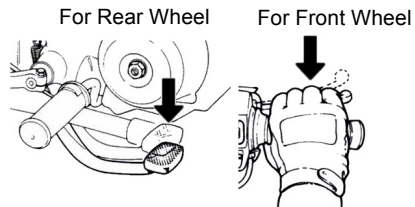


## DIAGNOSIS WHEN ENGINE DOES NOT START



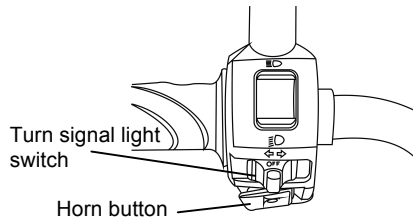
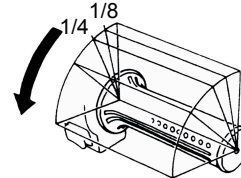
(1). Has the ignition switch key been turned to "ON" position?

(2). Is there enough fuel in the fuel tank?



(3). Are the rear or front wheel brakes applied when pressing starting button?

(4). Are you rotating the throttle handle while pressing the starter button?



(5). Turn the ignition switch key "ON", and press horn button down. If the horn does not sound, the fuse may have been blown.

**【Have your scooter checked by an SYM authorized dealer immediately if there are no problems with the above items and the engine still can not be started.】**

The charge and discharge principle of a condenser is adopted for the C.D.I system to supply electrical energy created by generator's coil, to the ignition coil in accordance with specified ignition timing so that the spark plug may generate sparks as required

### 13. SUGGESTIONS ON ENGINE FUEL

- This scooter is designed to use UNLEADED gasoline of Octane No. 90 or higher.
- If the scooter is operated in high altitude (where the atmosphere pressure is lower), it is suggested that the air/fuel ratio be readjusted to maximize the engine's performance.

### 14. CAUTIONS FOR RIDING SCOOTER

1. Raise the scooter with the main stand and sit on the saddle.  
Push the scooter forwarding to raise the main parking stand.



**CAUTION:**

- Never twist the throttle handle recklessly to increase the engine RPM.

2. Get on the scooter from the left side, and sit on the saddle properly. Keep your feet firmly on the ground to prevent the scooter from falling.



**CAUTION:**

- Apply brake on the rear wheel before driving off.

3. Rotate the throttle valve handle slowly. The scooter will begin to move.



**WARNING:**

- Rapidly twisting the throttle handle may cause the scooter to lurch forward suddenly and place driver and others in danger.
- Make sure the side parking stand is in the up position completely before driving off.

**[ Do not use the brake suddenly and make a sharp turn ]**

- Rapid braking or sharp turning will make the scooter unstable and could cause an accident.
- Rapid braking or sharp turning will cause sliding or an accident particularly on wet or gravel roads.

**[ Drive with extreme caution during rainy days ]**

- The braking distance on rainy days or on a wet road will be longer than that on a dry road. Therefore, slow down and be prepared to apply the brake earlier.
- The throttle should be decreased, and the brakes applied properly when going down a hill or slope. Watch your speed closely.

12. C.D.I. electrical ignition system

13. Suggestions on engine fuel

14. Cautions for riding scooter



Item	Check Items	Maintenance kilometer	300km	Every 1,000km	Every 3,000km	Every 6,000km	Every 12,000km	Remarks
		Maintenance kilometer	300km	Every 1,000km	Every 3,000km	Every 6,000km	Every 12,000km	
		Maintenance Interval	NEW	1 Month	3 Months	6 Months	1 Year	
1	Air cleaner element (Remark)		I	C	C	R	R	
2	Oil filter(Screen)		C			C		
3	Engine oil		R	I	Replacement for every 3,000KM			
4	Tire, pressure		I	I				
5	Battery		I	I				
6	Spark plug		I		I		R	
7	Carburetor(idle speed)		I			I		
8	Steering bearing and handles		I		I			
9	Check crankcase for leakage		I	I				
10	Fuel tank switch and lines		I		I			
11	Throttle valve operation and cable		I	I				
12	Engine bolts and nuts		I		I			
13	Cylinder head, cylinder, and					I		
14	Exhaust system/cleaning carbon					I		
15	Cam Chain/ignition time		I		I			
16	Valve clearance		I			I		
17	Lights / meters / electrical		I	I	I	I	I	
18	Shock absorbers		I			I		
19	Front/rear suspension		I			I		
20	Main/side stands		I			I/L		
21	Crankcase Blow-by system(PCV)		I		I			
22	Clutch		I		I			
23	Drive Chain		I/L	I/L				
24	Brake mechanism/brake lining (pad)		I	I				
25	Bolts/nuts for each components		I	I				

☆The above maintenance schedule is established by figuring a usage of 1000 miles per month. Please use the above information as a reference. Your personal riding may vary.

※Have your scooter checked and adjusted periodically by your SYM Authorized Dealer to maintain the scooter at the optimum performance and condition.

Code: I ~ Inspection, cleaning, and adjustment R ~ Replacement

C ~ Cleaning (replaced if necessary) L ~ Lubrication

Remark: 1. Clean or replace the air cleaner element more often when the scooter is operated on dusty roads or in a heavily- polluted environment.

2. Maintenance should be performed more often if the scooter is frequently operated at high speed, and after the scooter has accumulated higher mileage.

【Notes in the remarks are used to indicate the applicable models.】

Item	Model Specification	SYMBA 110 MB10A7 SERIES
Length/ Width / Height		1,910 mm(75.2 in) / 690 mm(27.2 in) / 1,055 mm(41.5 in)
Seat height		760 mm(29.9 in)
Wheel base		1,225 mm(48.2 in)
Net Weight		95 kg(209 lb)
maximum load		170 kg (374 lb)
Type		4- stroke single cylinders engine
Fuel		UNLEADED(OCTANE 90 OR HIGHER)
Cooling type		Air - cooled
Displacement		101.4 cc
Compression ratio		9.2 : 1
Max. HP / Max. torque		6.8 PS(5.0kw) / 8,500 rpm / 0.69 kg-m(6.8Nm) / 6,000 rpm
Engine idle		1,500 ± 100 rpm
Starting methods		Electrical & foot type
Front shock absorber		TELESCOPE
Rear shock absorber		UNIT SWING
Clutch		Wet multi-plate type, auto centrifugal clutch
Transmission		4 – speed gear change
Front tire / Rear tire		2.50 – 17 – 38L / 2.50 – 17 – 38L
Wheel		Steel
Tire pressure Psi (kg/cm <sup>2</sup> )		Front: STD 25(1.75) ,Rear: STD 28(2.0) for 1 person
Front brake / free play		Drum type (Ø 130 mm) / 10~20 mm
Rear brake / free play		Drum type (Ø 110 mm) / 20~30 mm
Drive chain free play		10~20 mm
Front light bulb(high, low)		12V 35W / 35W
Brake light bulb(tail light)		12V 5W / 21W
Turn signal light bulb		12V 10W
Speedometer light bulb		12V 1.7W
Engine oil capacity		1.0 L (0.8 L for change)
Fuel tank capacity		4.1 L
Fuse		15A
Spark plug		C6HSA
Battery capacity		12V 5Ah
Air cleaner		Paper type
Front light		General type (single lamp)