

### 3. INSPECTION/ADJUSTMENT

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### INSPECTION/ADJUSTMENT

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INSPECTION AND MAINTENANCE SCHEDULE..... 3- 1

BRAKE SYSTEM ..... 3- 4

MOVING DEVICE..... 3- 6

DAMPING DEVICE..... 3- 7

POWER DRIVE SYSTEM ..... 3- 7

ELECTRICAL EQUIPMENT..... 3- 8

ENGINE..... 3- 9

OTHERS ..... 3-12

### 3. INSPECTION/ADJUSTMENT

#### INSPECTION AND MAINTENANCE SCHEDULE

(Note) 1. ○ means time for inspection.

2. ☆ means regular replacement for the specified parts.

This inspection and maintenance schedule is based upon average riding conditions.

Machines subjected to serve use, or ridden in unusually dusty areas, require more frequent servicing.

Inspection & Maintenance Item			Frequency				Judgment Standards	Remarks									
			Preride	1st month	Every 6 months	Every 12 months											
Suspension	Steering handlebar	Check for looseness and vertical play				○											
		Operating performance	○			○											
		Right/left turning angle				○											
	Front fork	Damage			○	○											
		Check for front fork pivot installation			○	○		Check steering stem									
		Check front fork pivot for looseness and abnormal noise				○		Check steering stem									
Brake System	Brake Lever	Front/rear brake lever free play			○	○	Free play: 10_ 20mm										
		Brake lever operation	○														
		Brake performance		○	○	○											
	Lever/ Cable	Looseness, abnormal noise and damage		○		○											
	Brake drum/ shoe	Drum-to-lining clearance			○	○											
		Brake shoe and lining wear				☆		Indicator type									
		Brake drum wear and damage				○	Standard: Front: 110 mm Rear : 110 mm Service Limits: Front: 111 mm Rear : 111 mm										
Moving Device	Tire	Tire pressure	○		○	○	<table><tr><td></td><td>Front</td><td>Rear</td></tr><tr><td>1 rider</td><td>1.75 kg/cm</td><td>2.25 kg/cm</td></tr><tr><td>Tire Size</td><td>110/70-12</td><td>130/70-12</td></tr></table>		Front	Rear	1 rider	1.75 kg/cm	2.25 kg/cm	Tire Size	110/70-12	130/70-12	
	Front	Rear															
1 rider	1.75 kg/cm	2.25 kg/cm															
Tire Size	110/70-12	130/70-12															

### 3. INSPECTION/ADJUSTMENT

Inspection & Maintenance Item			Frequency				Judgment Standards	Remarks
			Per ride	1st month	Every 6 months	Every 12 months		
Moving Device	Motor-cycle	Tire crack and damage	○		○	○		
		Tire groove and abnormal wear	○		○	○	Groove Depth: Front: 0.8mm Rear : 0.8mm	
		Imbedded objects, gravel, etc.	○		○	○		
		Axle nut looseness			○	○	Torque Values: Front axle nut 5.0_ 7.0kg-m Rear axle nut 11.0_ 13.0kg-m	Axle nut torque
		Check wheel rim, rim edge and spoke plate for damage		○		○	Rim runout at rim end: Front: Axial 2.0mm Radial 2.0mm Rear: Axial 2.0mm Radial 2.0mm	
		Check front wheel bearing for excessive play and abnormal noise				○		
		Check front wheel bearing for excessive play and abnormal noise				○		
Damping Device	Frame Spring	Damage						Shock spring free length
	Suspension arm	Connecting parts loose-ness and arm damage				○		
	Shock absorber	Oil leakage and damage				○		
		Assembly parts loose-ness abnormal noise				○		
Power Drive System	Clutch	Operation		○	○	○		
	Transmission case	Oil leakage and oil level			○	○	Oil level: Oil check bolt hole at lower hole edge	Rear wheel transmission case
Electrical Equipment	Ignition device	Spark plug condition			○	○	Plug gap: 0.6_ 0.7mm	
	Battery	Terminal connection				○		
	Wires	Loose connection and damage				○		

### 3. INSPECTION/ADJUSTMENT

Inspection & Maintenance Item			Frequency				Judgment Standards	Remarks
			Preride	1st month	Every 6 months	Every 12 months		
Engine	Body	Performance and abnormal noise			○	○		
		Conditions at low and high speeds		○	○	○		
		Exhaust smoke			○	○		
		Air cleaner			○	○		
	Lubrication system	Oil quality and quantity			○	○	☐ Oil level indicator Indicator light comes on when oil is insufficient	
		Oil leakage			○	○		
		Oil level	○					
		Check oil filter for clogging				○		
	Fuel System	Fuel leakage						
		Carburetor, throttle valve and auto bystarter				○		
		Check fuel filter for clogging				○		
		Fuel level	○					
		Fuel tube replacement					☆ Every 4 years	
Lights & Winker	Operation							
	Winking action, dirt and damage		○					
Buzzer & Steering Lock	Operation					○		
Rearview Mirror & Reflector	Rearview mirror position		○					Rearview Mirror
Reflector & License Plate	Dirt and damage		○					
Counter	Operation					○		
Exhaust Muffler	Joint looseness and damage					○		
	Exhaust muffler performance					○		
Body & Frame	Looseness and damage					○		
Abnormal Conditions Happened Last Time	Check if the abnormal conditions occur again		○					
Others	Lubrication points				○	○		
	Remove carbon deposits on combustion chamber, breather hole and exhaust muffler					○		

### 3. INSPECTION/ADJUSTMENT

#### BRAKE SYSTEM

##### BRAKE LEVER

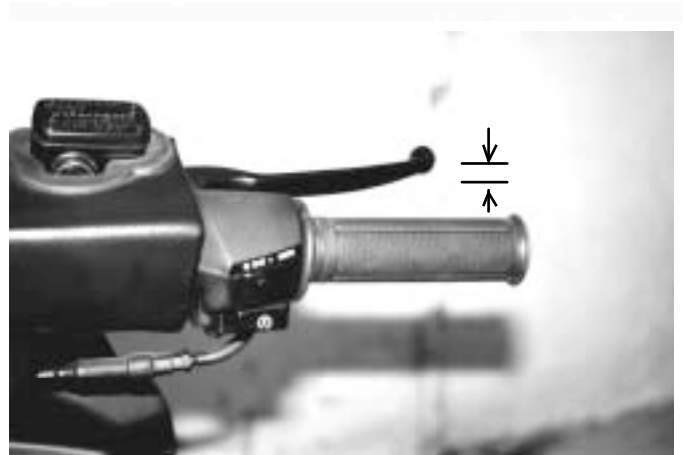
##### 《 Free Play 》

Measure the front and rear brake lever free plays.

**Free Play:** Front: 10\_ 20mm

Rear: 10\_ 20mm

Front 10\_ 20mm

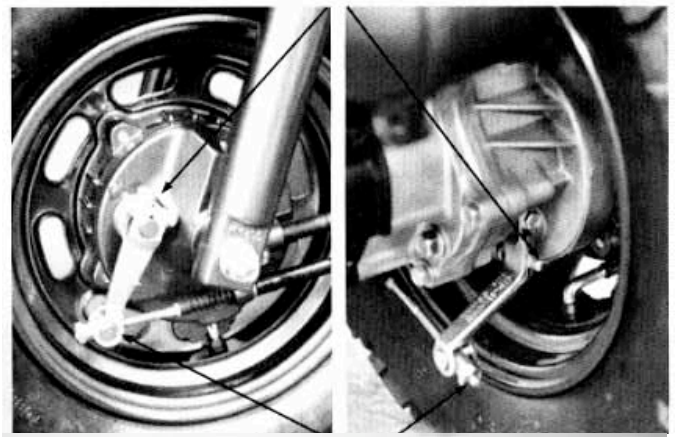


Rear 10\_ 20mm



If the free plays do not fall within the limits, turn the right and left adjusting nuts for adjustment.

<Front> “Δ” Marks <Rear>



Adjusting Nuts

### 3.INSPECTION/ADJUSTMENT

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#### BRAKE DRUM/SHOE

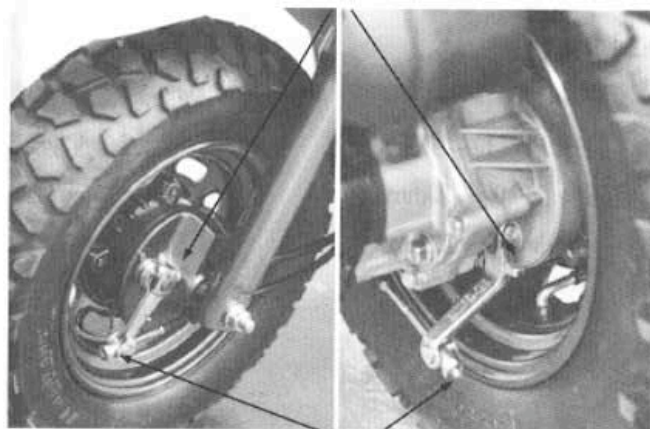
##### 《 Brake Shoe Wear》

Replace the brake shoes if the arrow on the brake arm aligns with reference mark“Δ ” on the brake panel when the brake is fully applied.

##### 《 Brake Drum Wear/Damage》

Check the brake drum appearance for damage. Check if the brake lining wear is within the specified service limit. Check the brake operation for abnormal noise and brake drum inside for wear or damage.

<Front> “Δ ” Marks <Rear>



Adjusting Nuts

#### BRAKE DISK/LINING

##### 《 Brake Disk Surface and Brake Pad Wear》

Check the brake disk surface for scratch. Check if the brake pad wear is within the specified service limit.

##### 《 Brake Disk Runout Inspection》

Jack the motorcycle wheels off the ground and check if the brake disk runout is within the specified service limit.



Brake Lining Service Limit Mark

Brake Disk

#### BRAKE FLUID LEVEL INSPECTION

##### 《 Brake Master Cylinder Fluid Level Inspection》

Turn the steering handlebar upright and check if the front brake fluid level is within the specified limits through the front brake master cylinder check hole.



Brake Master Cylinder

### 3. INSPECTION/ADJUSTMENT

#### MOVING DEVICE

##### TIRES

###### 《 Tire Pressure》

Check the tire pressure.

\*

Tire pressure should be checked when tires are cold.

Tire Pressure (one rider)

**Front:** 1.75 kg/cm<sub>2</sub>

**Rear:** 2.25 kg/cm<sub>2</sub>

Tire Size

	Cross-country Tire	
Front	110/70 - 12	
Rear	130/70 - 12	

###### 《 Axle Nut/Axle Shaft Looseness》

Check the front and rear axle nuts for looseness.

If the axle nuts are loose, tighten them to the specified torques.

Torques:

**Front:** 5.0\_ 7.0kg-m

**Rear:** 11.0\_ 13.0kg-m

###### 《 Wheel Rim/Spoke Plate Damage》

Check the wheel rim and spoke plate for wear or damage and measure the rim runout.

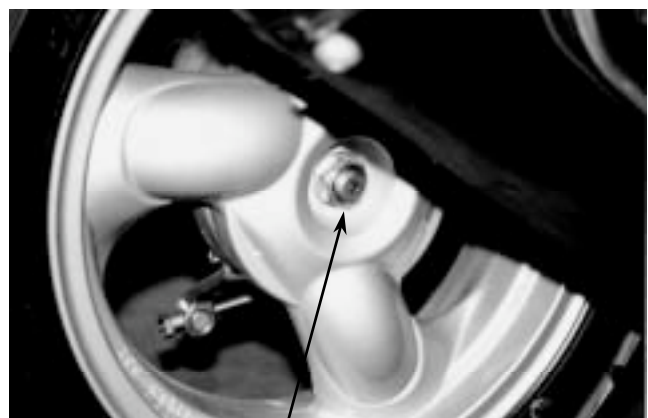


Front Wheel



Axle Nut

Rear Wheel



Axle Nut



### 3.INSPECTION/ADJUSTMENT

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#### DAMPING DEVICE

##### SHOCK ABSORBERS

###### 《 Oil Leak/Damage》

Fully apply the front brake and check the action of the front shock absorber by compressing it several times.

Check the entire shock absorber assembly for looseness or damage.

Check the action of the rear shock absorber by compressing it several times.

Check the entire shock absorber assembly for looseness or damage.



#### POWER DRIVE SYSTEM

##### TRANSMISSION CASE

Check the rear wheel transmission case surrounding area for oil leaks.

Stop the engine and remove the oil check bolt.

\*

Place the motorcycle on its main stand on level ground.

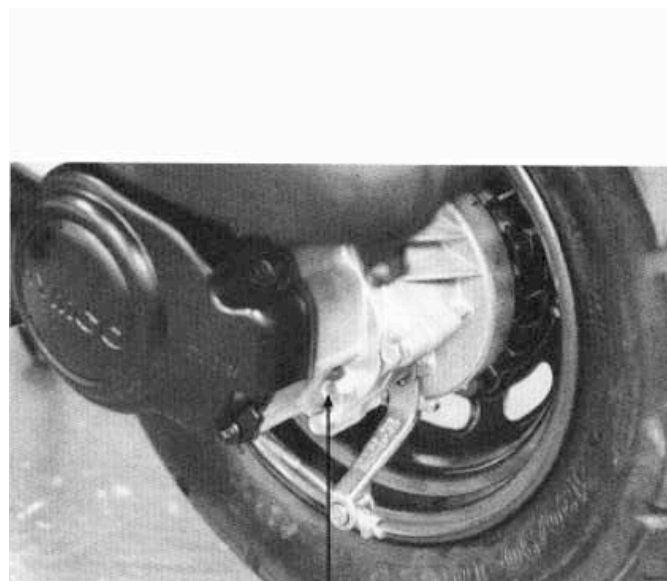
The gear oil level shall be at the oil check bolt hole. If the oil level is low, add the specified oil to the proper level.

**Specified Gear Oil:** SAE10W90#

Install and tighten the oil check bolt.

**Torque:** 1.0\_ 1.5kg-m

Start the engine and check for oil leaks.



Oil Check Bolt



### 3. INSPECTION/ADJUSTMENT

#### ELECTRICAL EQUIPMENT

##### IGNITION APPARATUS

###### 《 Spark Plug》

Remove the frame center cover.  
Remove the spark plug cap and spark plug.  
Check the spark plug for wear, fouling and carbon deposits.  
Remove the fouling and carbon deposits with a spark plug cleaner or wire brush.

###### Specified Spark Plug

NGK	
SH10AA.	SH10BA.
BR6HSA	BR8HSA

**Spark Plug Gap:** 0.6\_ 0.7mm

###### 《 Ignition Apparatus》

- \* The CDI ignition timing is not adjustable. If the timing is incorrect, check the CDI unit, ignition coil and A.C. generator and replace any faulty parts.

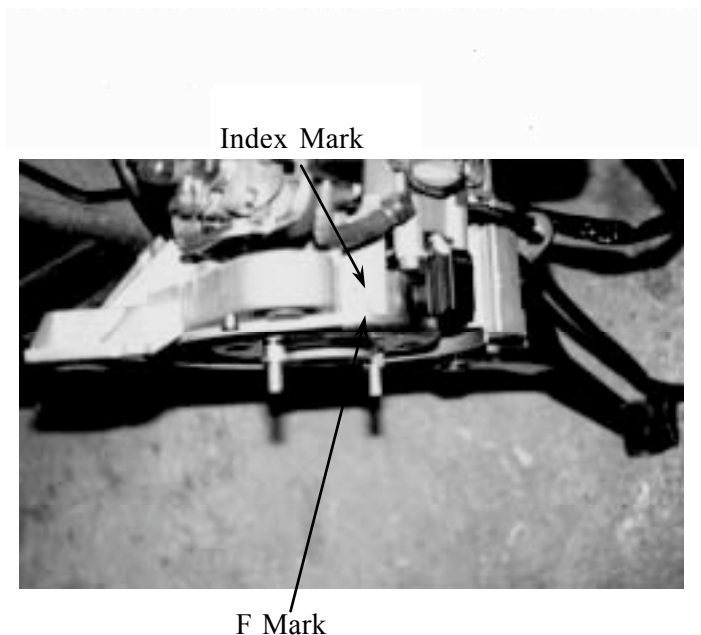
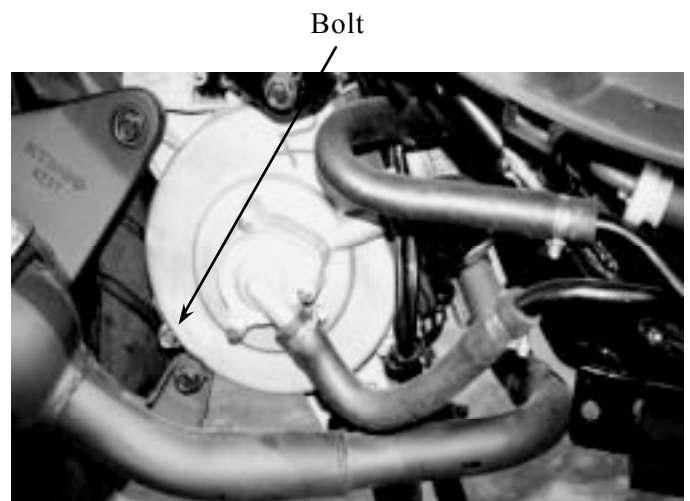
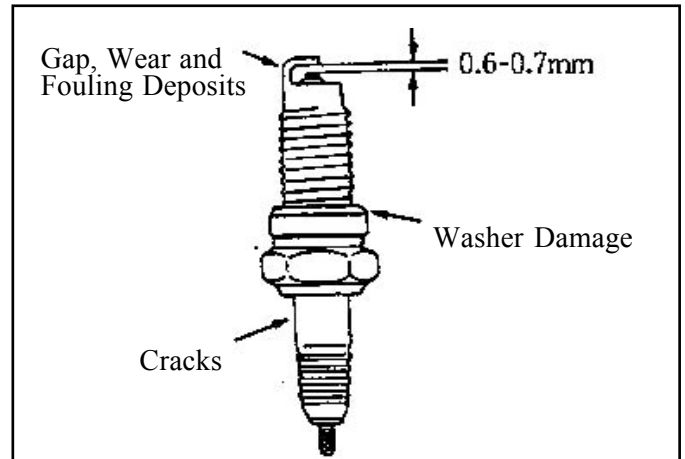
Remove the right side rail. (⇒2-4)  
Remove the three bolts attaching the right crankcase cover and the cover.

When the engine is running at the specified rpm, the ignition timing is correct if the “F” mark on the flywheel aligns with the index mark on the crankcase within  $\pm 2^\circ$ .

###### Ignition Timing:

SH10BA.:  $13.5^\circ \pm 2^\circ$  BTDC/2000rpm

SH10AA.:  $13.5^\circ \pm 2^\circ$  BTDC/2000rpm



### 3.INSPECTION/ADJUSTMENT

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#### ENGINE

#### BODY

#### 《 At High and Low Speeds》

\* The engine must be warm for accurate idle speed adjustment.

Adjust the idle speed to the specified range by turning the throttle stop screw and air screw.

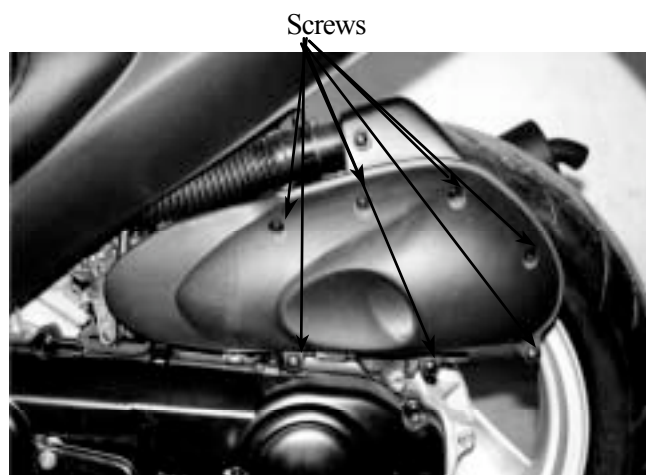
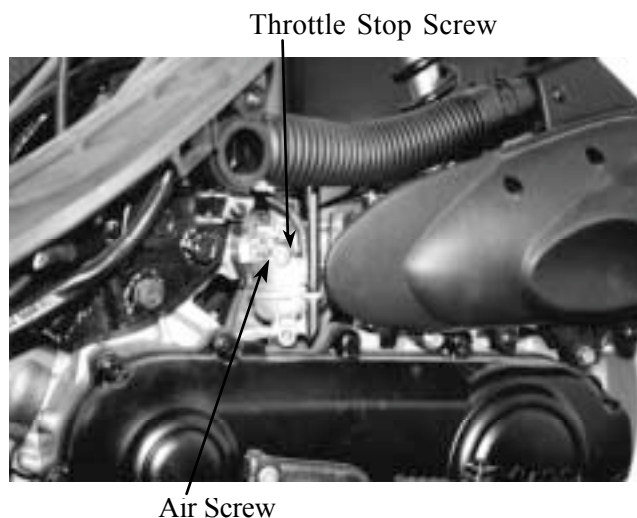
#### Idle Speed:

SH10BA: 2000 $\pm$  100 rpm

SH10AA: 2000 $\pm$  100 rpm

#### 《 Air Cleaner》

Remove the air cleaner cover by removing the seven air cleaner cover screws.  
Remove the air cleaner element.



### 3. INSPECTION/ADJUSTMENT

Wash the air cleaner element in detergent oil, squeeze out and allow to dry.

- \* Never use gasoline or organic vaporable oil with acid or alkali for washing.

After washing, soak the element in clean engine oil SAE 15W-40# and squeeze out excess oil. Reinstall the element.

#### 《 Cylinder Compression 》

- \* Warm up the engine before compression test.

Remove the spark plug and insert a compression gauge. Open the throttle valve fully and push the starter button for 7\_ 8 seconds to test the compression.

#### Compression:

SH10BA: 11.8kg/cm\_

SH10AA: 11.8kg/cm\_

If the compression is low, check for the following:

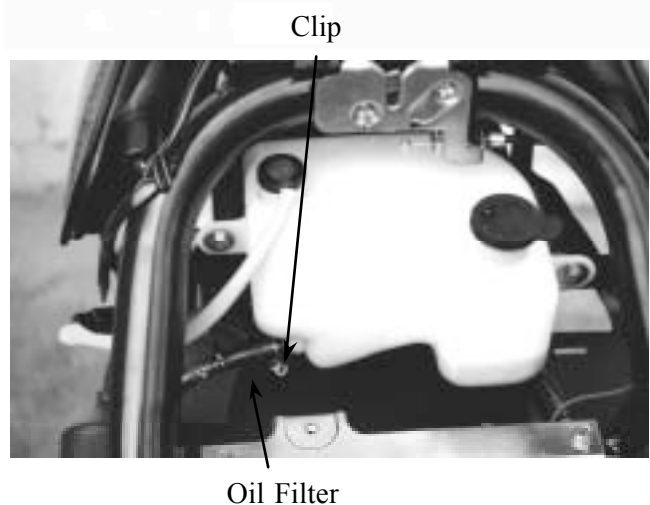
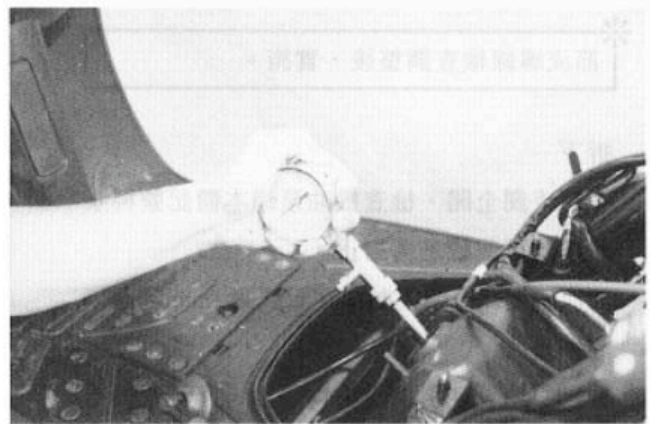
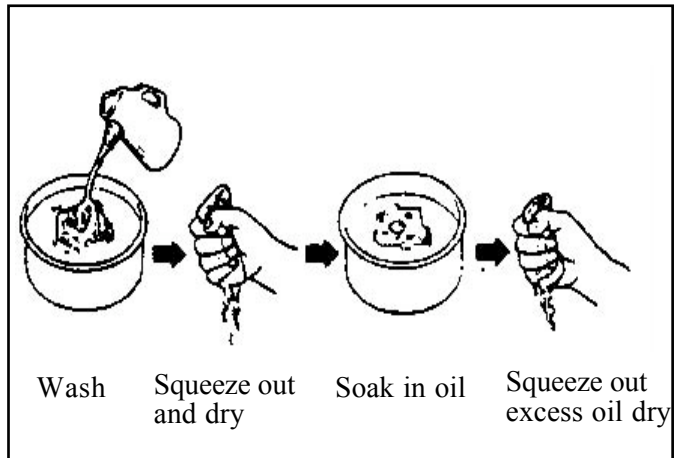
- Leaking cylinder head gasket
- Worn piston/cylinder

If the compression is high, it indicates that carbon deposits have accumulated on the combustion chamber and the piston head.

#### LUBRICATION SYSTEM

##### 《 Oil Filter Cleaning 》

Disconnect the oil tube at the oil pump side and allow oil to drain into a clean container. Remove the tube clip at the oil tank side and disconnect the oil tube. Remove the oil filter.



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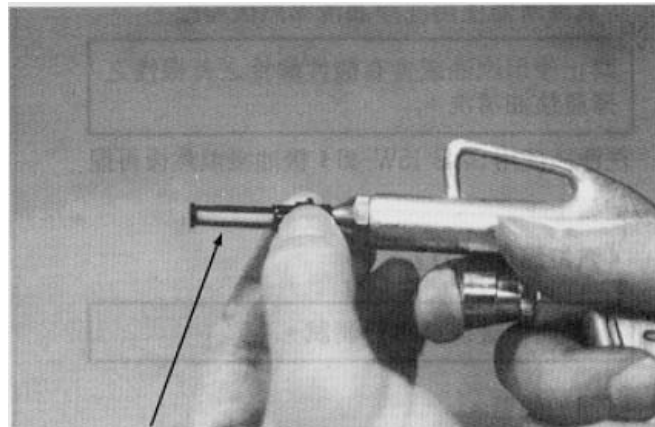
Clean the oil filter screen with compressed air.

Install the oil filter in the reverse order of removal and fill the oil tank with specified oil up to the proper level.

Bleed air from the oil pump and oil lines.

\*

- Connect the oil tubes securely.
- Install the tube clip at the oil tank side and also install the clip to the lower oil tube that goes to the oil pump.
- Check for oil leaks.



Filter Screen

#### 《 Oil Pump Condition》

\*

Adjust oil pump control cable after the throttle grip free play is adjusted.

Open the throttle valve fully and check that the index mark on the pump body aligns with the aligning mark on the oil pump control lever.

Reference tip alignment within 1mm of index mark on open side is acceptable.

Start and idle the engine, then slowly open the throttle to increase engine rpm and check the operation of the oil pump control lever.

If adjustment is necessary, adjust the oil pump control cable by loosening the control cable lock nut and turning the adjusting nut. After adjustment, tighten the lock nut.

\*

Reference tip alignment within 1mm of index mark on open side is acceptable. However, the aligning mark on the control lever must never be on the closed side of the index mark, otherwise engine damage will occur because of insufficient lubrication.

Control Lever Aligning Mark



Pump Body Index Mark Lock Nut Adjusting Nut

If the oil pump is not synchronized properly, the following will occur:

- Excessive white smoke or hard starting due to pump control lever excessively open
- Seized piston due to pump control lever insufficiently open



### 3. INSPECTION/ADJUSTMENT

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#### FUEL SYSTEM

##### 《 Throttle Grip Free Play》

Measure the throttle grip free play.

**Free Play:** 2\_ 6mm

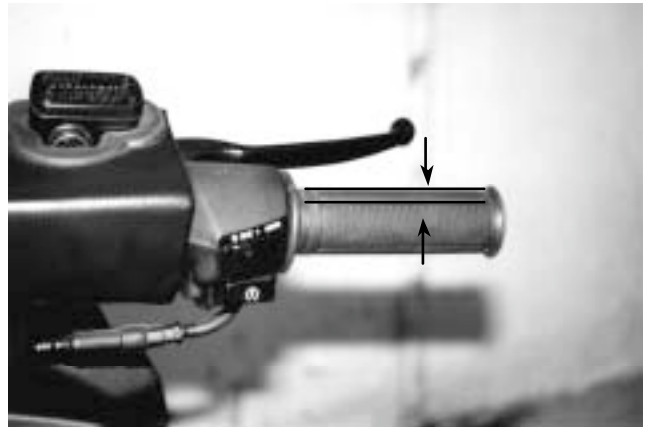
If the throttle grip free play does not fall within the specified range, adjust by loosening the lock nut and turning the adjusting nut.

#### OTHERS

#### LIGHTS

##### 《 Headlight》

Adjust the headlight beam by loosening the headlight adjusting bolt and moving the adjusting bolt forward and backward to a proper position. Tighten the adjusting bolt.



#### COOLING SYSTEM

##### COOLANT LEVEL INSPECTION

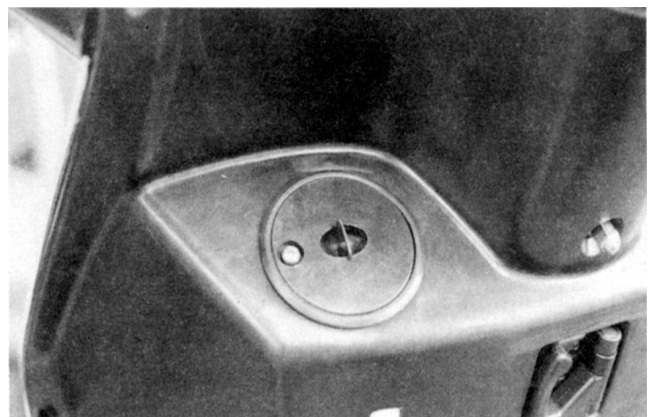
Place the motorcycle on its main stand on level ground.

Check the coolant level of the reserve tank and the level should be between the upper and lower level lines.

If necessary, fill the reserve tank with recommended coolant to the “F” level line.

**Recommended Coolant:** SIGMA Coolant  
(Standard Concentration 30%)

- \* The coolant level does not change no matter the engine is warm or cold. Fill to the “F” (upper) line.



##### COOLANT REPLACEMENT

- \* Perform this operation when the engine is cold.

Remove the front cover.

Remove the radiator cap.

Remove the water hose to drain the coolant and tilt the motorcycle to the right and the coolant will drain more easily.

Drain the coolant in the reserve tank.

Reinstall the water hose.

Fill the radiator with the specified coolant.

- \* The coolant freezing point should be 5°C lower than the temperature of the riding area.

