

### 3. INSPECTION/ADJUSTMENT

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#### SERVICE INFORMATION

##### GENERAL



##### WARNING

- Before running the engine, make sure that the working area is well-ventilated. Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas which may cause death to people.
- Gasoline is extremely flammable and is explosive under some conditions. The working area must be well-ventilated and do not smoke or allow flames or sparks near the working area or fuel storage area.

#### SPECIFICATIONS

##### ENGINE

Throttle grip free play	: 2_ 6mm
Spark plug gap	: 0.6_ 0.7mm
Spark plug: Standard	: NGK: C7HSA (C6HSA C8HSA)
Valve clearance	: IN: 0.12mm EX: 0.12mm
Idle speed	: 1700±100rpm
Engine oil capacity:	
At disassembly	: 0.9 liter
At change	: 0.75 liter
Gear oil capacity	:
At disassembly	: 110cc
At change	: 90cc

### 3. INSPECTION/ADJUSTMENT

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Cylinder compression : 12.8kg/cm<sup>2</sup>-570rpm

Ignition timing : BTDC 13±3°/1700±100rpm

#### CHASSIS

Front brake free play: 10\_ 20mm

Rear brake free play: 10\_ 20mm

#### TIRE PRESSURE

	1 Rider	2 Riders
Front	1.75kg/cm <sup>2</sup>	1.75kg/cm <sup>2</sup>
Rear	2.00kg/cm <sup>2</sup>	2.25kg/cm <sup>2</sup>

#### TIRE SIZE:

Front : 100-90-10

Rear : 100-90-10

#### TORQUE VALUES

Front axle nut 6.0kg-m

Rear axle nut 11.0kg-m

### 3. INSPECTION/ADJUSTMENT

#### MAINTENANCE SCHEDULE

Perform the periodic maintenance at each scheduled maintenance period.

I: Inspect, and Clean, Adjust, Lubricate or Replace if necessary.

A: Adjust C: Clean R: Replace T : Tighten

Item \ Frequency	Whichever comes first ⇨ ↓	Regular Service Mileage (km)											
		1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
Engine oil		R New motorcycle 300km	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter screen					C				C				
Fuel filter screen											R		
Gear oil	Note 3	R New motorcycle 300km				R					R		
Valve clearance			A		A				A				A
Carburetor					I				I				C
Air Cleaner	Note 2,3	Replace at every 3000km											
Spark plug		Clean at every 3000km and replace if necessary											
Brake system		I	I	I	I	I	I	I	I	I	I	I	I
Drive belt									I				
Suspension					I				I				I
Nut, bolt, fastener									I				
Tire					I				I				I
Steering head bearing		I					I						I

- In the interest of safety, we recommend these items should be serviced only by an authorized KYMCO motorcycle dealer.

Note: 1. For higher odometer readings, repeat at the frequency interval established here.

2. Service more frequently when riding in dusty or rainy areas.

3. Service more frequently when riding in rain or at full throttle.

### 3. INSPECTION/ADJUSTMENT

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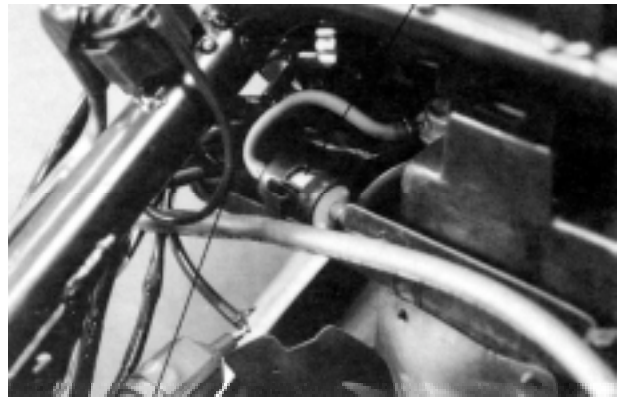
#### FUEL LINE

Remove the met-in box. (⇒2-3)

Check the fuel lines and replace any parts which show signs of deterioration, damage or leakage.

\* Do not smoke or allow flames or sparks in your working area.

Fuel Filter



Fuel Line

2-6mm

#### THROTTLE OPERATION

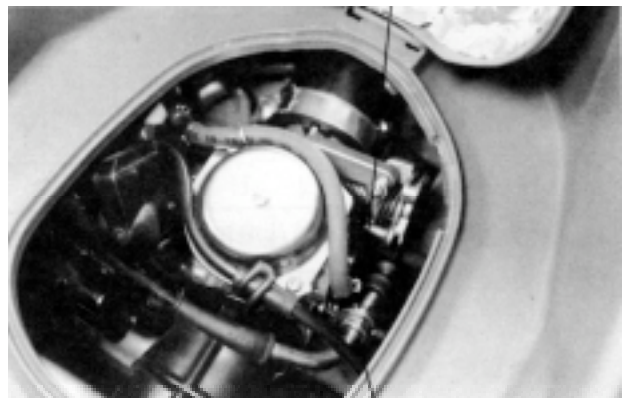
Check the throttle grip for smooth movement.  
Measure the throttle grip free play.

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



Major adjustment of the throttle grip free play is made at the carburetor side.  
Adjust by loosening the lock nut and turning the adjusting nut.

Lock Nut



Adjusting Nut

Minor adjustment is made with the adjusting nut at the throttle grip side.  
Slide the rubber cover out and adjust by loosening the lock nut and turning the adjusting nut.



Adjusting Nut

Lock Nut

### 3. INSPECTION/ADJUSTMENT

#### AIR CLEANER

##### AIR CLEANER REPLACEMENT

Remove the rear side covers. (⇒2-2)

Remove the five air cleaner case cover screws and the cover.

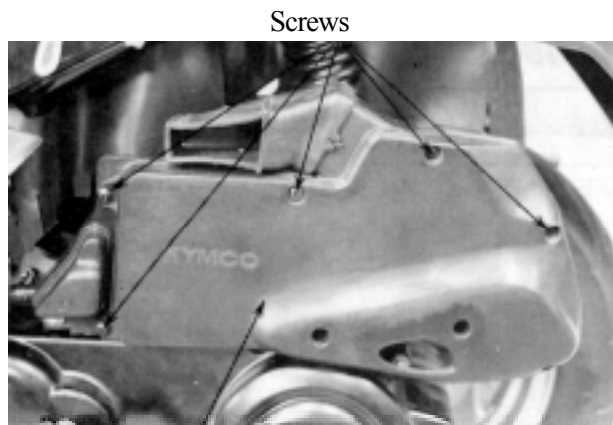
Remove the air cleaner element by removing the two screws.

Check the element and replace it if it is excessively dirty or damaged.

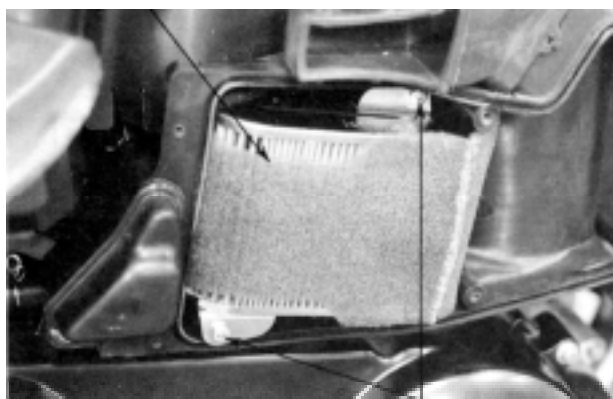
##### CHANGE INTERVAL

More frequent replacement is required when riding in unusually dusty or rainy areas.

- \*
  - The air cleaner element has a viscous type paper element. Do not clean it with compressed air.
  - Be sure to install the air cleaner element and cover securely.



Air Cleaner Case Cover  
Air Cleaner Element



Screws

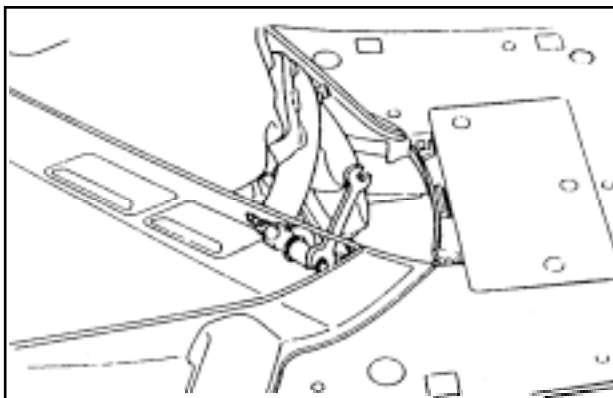
#### SPARK PLUG

Remove the spark plug.

Check the spark plug for wear and fouling deposits.

Clean any fouling deposits with a spark plug cleaner or a wire brush.

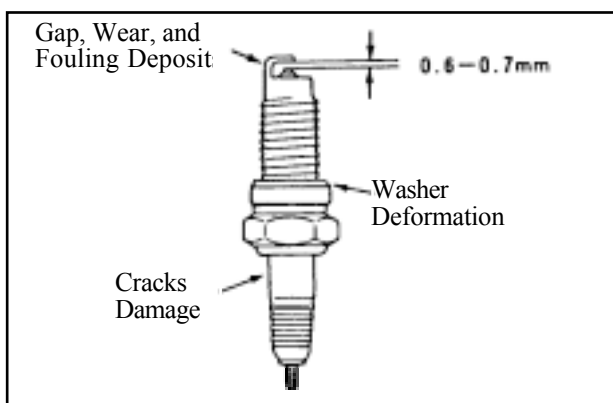
**Specified Spark Plug:** NGK: C7HSA  
(C6HSA, C8HSA)



Measure the spark plug gap.

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

- \* When installing, first screw in the spark plug by hand and then tighten it with a spark plug wrench.



### 3. INSPECTION/ADJUSTMENT

#### VALVE CLEARANCE

- \* Inspect and adjust valve clearance while the engine is cold (below 35°C ).

Remove the center cover. (⇒2-4)

Remove the cylinder head cover. (⇒7-3)

Turn the flywheel counterclockwise so that the “T” mark on the flywheel aligns with the index mark on the crankcase to bring the round hole on the camshaft gear facing up to the top dead center on the compression stroke.

Inspect and adjust the valve clearance.

**Valve Clearance:** IN: 0.12mm  
EX: 0.12mm

Loosen the lock nut and adjust by turning the adjusting nut

**Special**

Valve Wrench

- \* Check the valve clearance again after the lock nut is tightened.

#### CARBURETOR IDLE SPEED

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

Remove the inspection cover.

Warm up the engine before this operation.

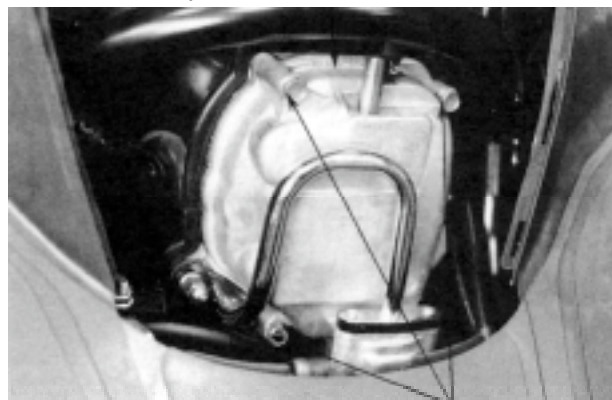
Start the engine and connect a tachometer.

Turn the throttle stop screw to obtain the specified idle speed.

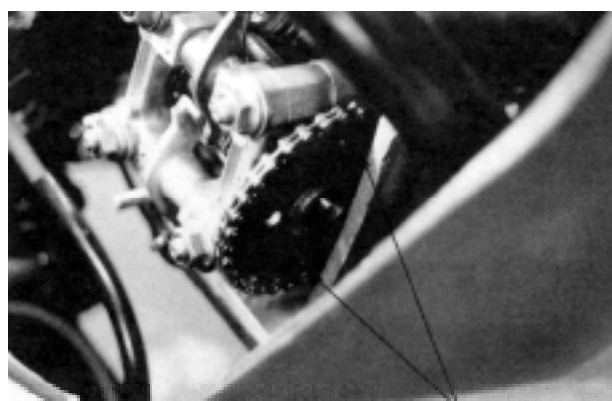
**Idle Speed:** 1700±100rpm

When the engine misses or run erratic, adjust the pilot screw.

Cylinder Head Cover



Bolts

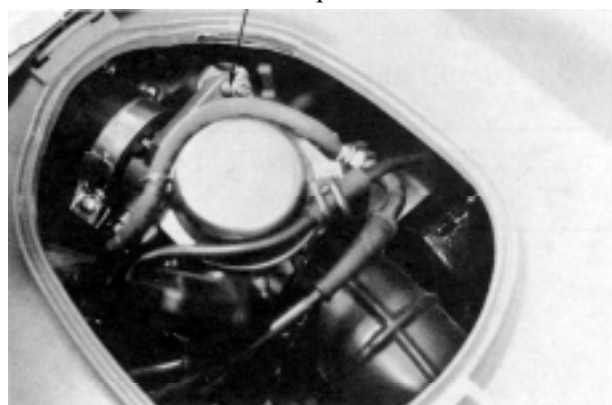


Punch Marks

Valve Wrench



Throttle Stop Screw





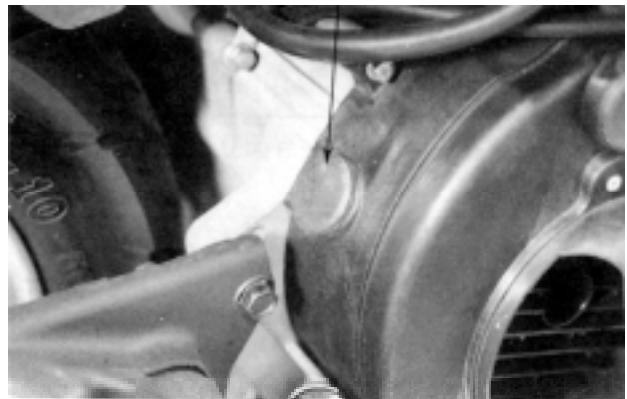
### 3. INSPECTION/ADJUSTMENT

#### IGNITION TIMING

\* The CDI unit is not adjustable. If the ignition timing is incorrect, check the ignition system. (⇒15-6)

Remove the rear right side cover. (⇒2-2)  
Remove the timing hole cap.

Timing Hole Cap



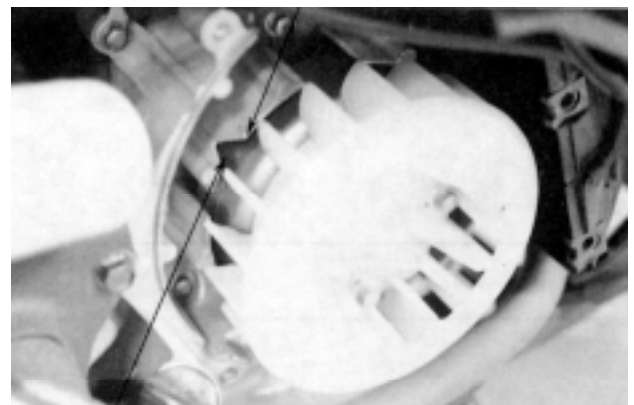
Check the ignition timing with a timing light. When the engine is running at idle speed, the ignition timing is correct if the “F” mark on the flywheel aligns with the index mark on the crankcase.

Timing Light



Also use a timing light to check the advance. Raise the engine speed to 5,000rpm and the index mark on the crankcase should be aligned with the advance mark on the flywheel.

Advance Mark



“F” Mark

#### CYLINDER COMPRESSION

Warm up the engine before compression test. Remove the met-in box and frame center cover. (⇒2-3)  
Remove the spark plug .  
Insert a compression gauge.  
Open the throttle valve fully and push the starter button to test the compression.

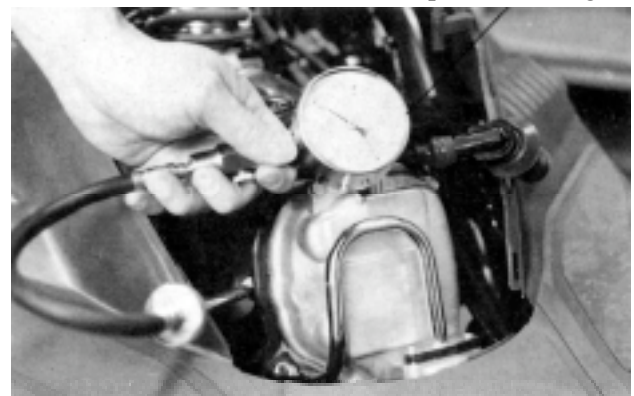
**Compression:** 12.8kg/cm<sup>2</sup>-570rpm

If the compression is low, check for the following:

- Leaky valves
- Valve clearance too small
- Leaking cylinder head gasket
- Worn piston rings
- Worn piston/cylinder

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

Compression Gauge



### 3. INSPECTION/ADJUSTMENT

#### FINAL REDUCTION GEAR OIL OIL LEVEL CHECK

- \* Place the motorcycle on its main stand on level ground for oil level check.

Stop the engine and remove the oil check bolt. The oil level shall be at the oil check bolt hole. If the oil level is low, add the recommended oil to the proper level.

**Recommended Oil:** GEAR OIL SAE90#

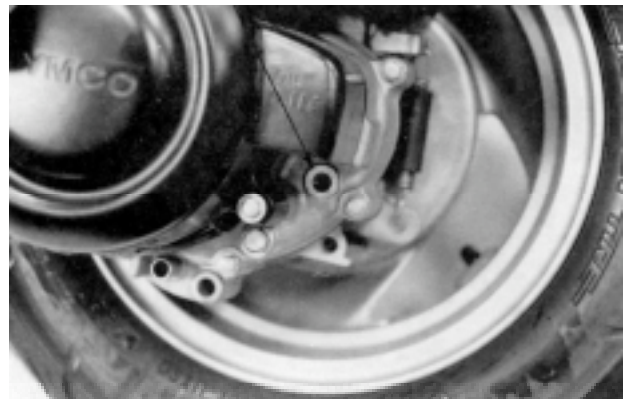
Install the oil check bolt.

- \* Make sure that the sealing washer is in good condition.

Oil Check Bolt/Sealing Washer



Oil Check Bolt Hole



#### OIL CHANGE

Remove the oil check bolt.  
Remove the oil drain bolt and drain the oil thoroughly.

Install the oil drain bolt.

**Torque:** 1.0kg-m

- \* Make sure that the sealing washer is in good condition.

Fill with the recommended oil.

**Oil Capacity:** At disassembly : 110cc  
At change : 90cc

Reinstall the oil check bolt and check for oil leaks.

**Torque:** 1.2kg-m

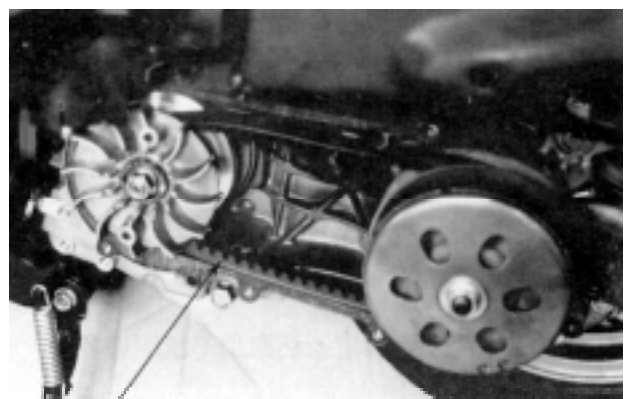
#### DRIVE BELT

Remove the left crankcase cover. (⇒9-2)  
Inspect the drive belt for cracks or excessive wear.

Replace the drive belt with a new one if necessary and in accordance with the Maintenance Schedule.



Oil Drain Bolt Sealing Washer



Drive Belt

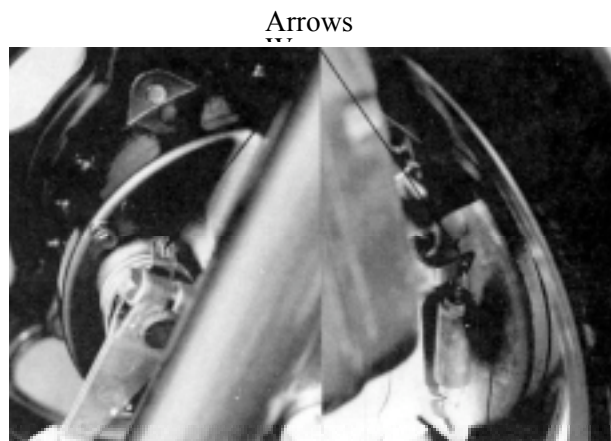


### 3. INSPECTION/ADJUSTMENT

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#### BRAKE SHOE

Replace the brake shoes if the arrow on the wear indicator plate aligns with the punch mark on the brake panel when the brake is fully applied.  
Refer to page 13-3 for brake shoe replacement.



Punch Mark

#### BRAKE SYSTEM

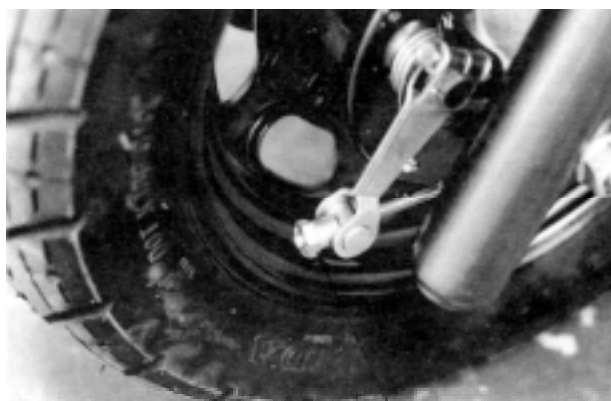
##### FRONT BRAKE

Measure the front brake lever free play.

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



If the free play do not fall within the limit, adjust by turning the adjusting nut.

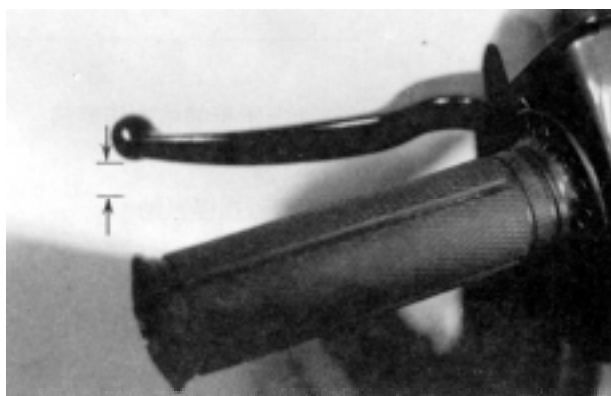


Adjusting Nut

##### REAR BRAKE

Measure the rear brake lever free play.

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



### 3. INSPECTION/ADJUSTMENT

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If the free play do not fall within the limit, adjust by turning the adjusting nut.

Adjusting Nut

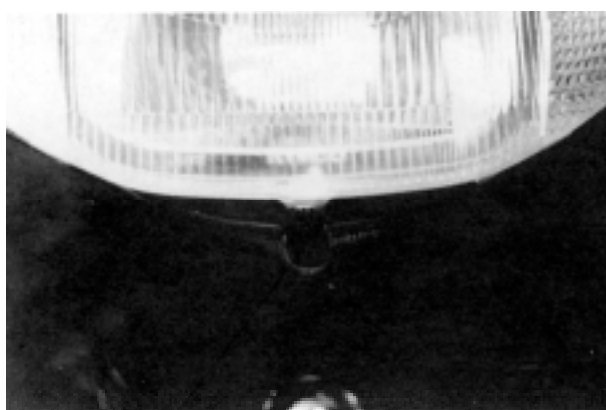


#### HEADLIGHT AIM

Turn the ignition switch ON and start the engine.

Turn on the headlight switch.

Adjust the headlight aim by turning the headlight aim adjusting screw.



Adjusting Screw

#### CLUTCH SHOE WEAR

Start the engine and check the clutch operation by increasing the engine speed gradually.

If the motorcycle tends to creep, or the engine stalls, check the clutch shoes for wear and replace if necessary. (⇒9-14)

#### SUSPENSION

##### FRONT

Fully apply the front brake lever and check the action of the front shock absorbers by compressing them several times.

Check the entire shock absorber assembly for oil leaks, looseness or damage.



### 3. INSPECTION/ADJUSTMENT

#### REAR

Check the action of the rear shock absorber by compressing it several times.  
Check the entire shock absorber assembly for oil leaks, looseness or damage.  
Jack the rear wheel off the ground and move the rear wheel sideways with force to see if the engine hanger bushings are worn.



#### NUTS/BOLTS/FASTENERS

Check all important chassis nuts and bolts for looseness.  
Tighten them to their specified torque values if any looseness is found. (⇒ 1-11)



#### WHEELS/TIRES

Check the tires for cuts, imbedded nails or other damages.

Check the tire pressure.

\* Tire pressure should be checked when tires are cold.

#### TIRE PRESSURE

	1 Rider	2 Riders
Front	1.75kg/cm <sup>2</sup>	1.75kg/cm <sup>2</sup>
Rear	2.00kg/cm <sup>2</sup>	2.25kg/cm <sup>2</sup>

#### TIRE SIZE

**Front** : 100-90-10

**Rear** : 100-90-10

Check the front axle nut for looseness.  
Check the rear axle nut for looseness.  
If the axle nuts are loose, tighten them to the specified torques.

**Torques: Front** : 6.0kg-m

**Rear** : 11.0kg-m



Front Axle Nut

### 3. INSPECTION/ADJUSTMENT

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#### STEERING HANDLEBAR

Raise the front wheel off the ground and check that the steering handlebar rotates freely.

If the handlebar moves unevenly, binds, or has vertical movement, adjust the steering head bearing. (⇒ 12-20)

