# PERIODIC MAINTENANCE

## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERIODIC MAINTENANCE SCHEDULE</td>
<td>2-1</td>
</tr>
<tr>
<td>PERIODIC MAINTENANCE CHART</td>
<td>2-1</td>
</tr>
<tr>
<td>LUBRICATION POINTS</td>
<td>2-2</td>
</tr>
<tr>
<td>MAINTENANCE PROCEDURES</td>
<td>2-3</td>
</tr>
<tr>
<td>VALVE CLEARANCE</td>
<td>2-3</td>
</tr>
<tr>
<td>SPARK PLUG</td>
<td>2-5</td>
</tr>
<tr>
<td>EXHAUST PIPE NUTS AND MUFFLER MOUNTING BOLTS</td>
<td>2-6</td>
</tr>
<tr>
<td>AIR CLEANER</td>
<td>2-6</td>
</tr>
<tr>
<td>CARBURETOR</td>
<td>2-8</td>
</tr>
<tr>
<td>FUEL HOSE</td>
<td>2-8</td>
</tr>
<tr>
<td>CLUTCH</td>
<td>2-9</td>
</tr>
<tr>
<td>ENGINE OIL</td>
<td>2-9</td>
</tr>
<tr>
<td>ENGINE OIL FILTER</td>
<td>2-11</td>
</tr>
<tr>
<td>DRIVE CHAIN</td>
<td>2-12</td>
</tr>
<tr>
<td>BRAKE SYSTEM</td>
<td>2-14</td>
</tr>
<tr>
<td>STEERING</td>
<td>2-18</td>
</tr>
<tr>
<td>FRONT FORK</td>
<td>2-18</td>
</tr>
<tr>
<td>REAR SUSPENSION</td>
<td>2-18</td>
</tr>
<tr>
<td>TIRE</td>
<td>2-19</td>
</tr>
<tr>
<td>CHASSIS BOLTS AND NUTS</td>
<td>2-19</td>
</tr>
<tr>
<td>COMPRESSION PRESSURE</td>
<td>2-20</td>
</tr>
<tr>
<td>OIL PRESSURE</td>
<td>2-21</td>
</tr>
</tbody>
</table>
## PERIODIC MAINTENANCE SCHEDULE

The chart below lists the recommended intervals for all the required periodic service work necessary to keep the motorcycle operating at peak performance and economy.

### PERIODIC MAINTENANCE CHART

#### ENGINE

<table>
<thead>
<tr>
<th>Item</th>
<th>Interval</th>
<th>Initial 1,000 km</th>
<th>Every 4,000 km</th>
<th>Every 8,000 km</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air cleaner element</td>
<td>Clean every 3,000 km · Replace every 12,000 km</td>
<td>2-6</td>
<td>2-6</td>
<td>2-6</td>
<td></td>
</tr>
<tr>
<td>Exhaust pipe nuts and muffler mounting bolts</td>
<td>Tighten</td>
<td>2-6</td>
<td>2-6</td>
<td>2-6</td>
<td></td>
</tr>
<tr>
<td>Valve clearance adjust</td>
<td>Inspect</td>
<td>2-3</td>
<td>2-3</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>Spark plug</td>
<td>Clean</td>
<td>2-5</td>
<td>2-5</td>
<td>2-5</td>
<td></td>
</tr>
<tr>
<td>Fuel hose</td>
<td>Inspect</td>
<td>2-8</td>
<td>2-8</td>
<td>2-8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Replace every 4 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine oil filter</td>
<td>Replace</td>
<td>2-11</td>
<td>2-11</td>
<td>2-11</td>
<td></td>
</tr>
<tr>
<td>Engine oil</td>
<td>Replace</td>
<td>2-9</td>
<td>2-9</td>
<td>2-9</td>
<td></td>
</tr>
<tr>
<td>Throttle cable</td>
<td>Inspect</td>
<td>2-8</td>
<td>2-8</td>
<td>2-8</td>
<td></td>
</tr>
<tr>
<td>Idle speed</td>
<td>Inspect</td>
<td>2-8</td>
<td>2-8</td>
<td>2-8</td>
<td></td>
</tr>
<tr>
<td>Clutch</td>
<td>Inspect</td>
<td>2-9</td>
<td>2-9</td>
<td>2-9</td>
<td></td>
</tr>
</tbody>
</table>

#### CHASSIS

<table>
<thead>
<tr>
<th>Item</th>
<th>Interval</th>
<th>Initial 1,000 km</th>
<th>Every 4,000 km</th>
<th>Every 8,000 km</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive chain</td>
<td>Clean and lubricate every 1,000 km</td>
<td>2-12</td>
<td>2-12</td>
<td>2-12</td>
<td></td>
</tr>
<tr>
<td>Brake</td>
<td>Inspect</td>
<td>2-14</td>
<td>2-14</td>
<td>2-14</td>
<td></td>
</tr>
<tr>
<td>Brake hose</td>
<td>Inspect</td>
<td>2-14</td>
<td>2-14</td>
<td>2-14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Replace every 4 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake fluid</td>
<td>Inspect</td>
<td>2-14</td>
<td>2-14</td>
<td>2-14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Replace every 2 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tires</td>
<td>Inspect</td>
<td>2-19</td>
<td>2-19</td>
<td>2-19</td>
<td></td>
</tr>
<tr>
<td>Steering</td>
<td>Inspect</td>
<td>2-18</td>
<td>2-18</td>
<td>2-18</td>
<td></td>
</tr>
<tr>
<td>Front forks</td>
<td>—</td>
<td>2-18</td>
<td>2-18</td>
<td>2-18</td>
<td></td>
</tr>
<tr>
<td>Rear suspension</td>
<td>—</td>
<td>2-18</td>
<td>2-18</td>
<td>2-18</td>
<td></td>
</tr>
<tr>
<td>Chassis bolts and nuts</td>
<td>Tighten</td>
<td>2-19</td>
<td>2-19</td>
<td>2-19</td>
<td></td>
</tr>
</tbody>
</table>

### CAUTION

More frequent servicing should be performed on motorcycles that are used under severe conditions.

Using poor quality replacement parts can cause your motorcycle to wear more quickly and shorten its useful life. Use only genuine Hyoung replacement parts or their equivalent.
LUBRICATION POINT
Proper lubrication is important for smooth operation and long life of each working part of the motorcycle. Major lubrication points are indicated below.

① Clutch lever holder  ④ Brake lever holder
② Drive chain  ⑤ Brake pedal pivot
③ Side stand pivot and spring hook

NOTE:
❖ Before lubricating each part, clean off any rusty spots and wipe off any grease, oil, dirt or grime.
❖ Lubricate exposed parts which are subject to rust, with either motor oil or grease whenever the motorcycle has been operated under wet or rainy condition.
MAINTENANCE PROCEDURE

This section describes the service procedure for each section of the periodic maintenance.

VALVE CLEARANCE

**NOTE:**
Inspect Initial 1,000 km and Every 4,000 km.

---

**CAUTION**

The clearance specification is for COLD state.

The valve clearance specification is different for intake and exhaust valves. Valve clearance adjustment must be checked and adjusted, 1) at the time of periodic inspection, 2) when the valve mechanism is serviced, and 3) when the camshaft is disturbed by removing it for servicing.

- Remove the spark plug. (Refer to page 2-5)
- Remove the right air cleaner box.
- Remove the fuel tank. (Refer to page 4-1)

- Remove the cylinder head cover ① and ②.

- Remove the magneto cover plug ③ and the timing inspection plug ④.
● Rotate the magneto rotor to set the front cylinder’s piston at TDC (Top Dead Center) of the compression stroke.
  (Rotate the rotor until “|” line on the rotor is aligned with the center of hole on the crankcase.)
● To inspect the front cylinder’s valve clearance, insert the thickness gauge to the clearance between the camshaft and the tappet.

| Valve clearance (when cold) | IN. | 0.1 ~ 0.2 mm | EX. | 0.2 ~ 0.3 mm |

**Thickness gauge : 09900-20806**

● If the clearance is out of specification, first remove the cam chain tensioner, camshaft housing, camshaft.
  To install the tappet shim at original position, record the shim NO. and clearance with “A”, “B”, “C”, “D” mark on the cylinder head as the illustration.

Select the tappet that agree with tappet clearance (vertical line) and shim NO. (horizontal line) as refer to the tappet shim selection chart. (Refer to page 7-25 ∙ 26)

Adjust valve timing, install the camshaft housing and the tensioner.
After the crankshaft rotate about 10 times, measure the valve clearance.
If the clearance be not agree, adjust the standard clearance as the same manner above.
● In case that valve adjustment which there is no the tappet shim selection chart, please follow instructions of example in the below.
  For example, the intake clearance is 0.4 and the shim is 170 (1.70 mm), select 195 (1.95 mm) of the shim which 170 (1.70 mm) of the shim add up the excess clearance 0.25 mm when adjust with the standard 0.15 as the intake standard clearance 0.1 ~ 0.2 mm.

**CAUTION**

- Valve clearance should be checked when the engine is cold.
- If you don't rotate the crankshaft about 10 times before measuring the valve clearance, there is no meaning of valve clearance.
2-5 PERIODIC MAINTENANCE

● Rotate the magneto rotor to set the rear cylinder’s piston at TDC (Top Dead Center) of the compression stroke.
  (Rotate the rotor 285° counter-clockwise from the “F” line, and until the “R” line on the rotor is aligned with the center of hole on the crankcase.)

● Inspect the rear cylinder’s valve clearance with the same manner of the front cylinder.

SPARK PLUG

NOTE:
Clean Initial 1,000 km and Every 4,000 km,
Replace Every 8,000 km.

● Disconnect the spark plug caps.
● Remove the spark plugs.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>SPARK PLUG SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot type</td>
<td>CR7E</td>
</tr>
<tr>
<td>Standard type</td>
<td>CR8E</td>
</tr>
<tr>
<td>Cold type</td>
<td>CR9E</td>
</tr>
</tbody>
</table>

Remove the carbon deposite with wire or pin and adjust the spark plug gap to 0.7 ~ 0.8 mm, measuring with a thickness gauge.

Spark plug gap | 0.7 ~ 0.8 mm

Thickness gauge : 09900-20806

Check to see the worn or burnt condition of the electrodes.
If it is extremely worn or burnt, replace the plug.
And also replace the plug if it has a broken insulator, damaged thread, etc.
● Install the spark plug, and then tighten it to specified torque.

Spark plug : 20~25 N · m (2.0~2.5 kg · m)
EXHAUSE PIPE NUTS AND MUFLER MOUNTING BOLTS

NOTE:
Tighten Initial 1,000 km and Every 4,000 km.

- Tighten the exhaust pipe nuts ①, and muffler mounting bolts ② to the specified torque.

Exhaust pipe nut: 18~28 N・m (1.8~2.8 kg・m)
Muffler mounting bolt: 20~30 N・m (2.0~3.0 kg・m)

AIR CLEANER

NOTE:
Clean Every 3,000 km,
Replace Every 12,000 km.

- Remove the air cleaner case cover ③.
2-7 PERIODIC MAINTENANCE

- With the three of air cleaner cap mounting bolts removed, remove the air cleaner cap ①.

- Remove the air cleaner element ②.

Clean the air cleaner element for the following:
- When the air cleaner element clean with the air gun, necessarily blow at the inside by compressed air.
- Carefully examine the air cleaner element for tears during cleaning. Replace it with a new one if it is torn.
- Assemble the element completely or damage severely the engine.
- Be careful not to allow water to go inside the air cleaner element.

**CAUTION**

More frequent servicing may be performed on motorcycles that are used under severe conditions, also clean the air cleaner element when replacing the oil to prevent damage of the engine.
CARBURETOR

NOTE:
Inspect Initial 1,000 km and Every 4,000 km.

● IDLE SPEED

⚠️ CAUTION
Make this inspection when the engine is hot.

Connect an engine tachometer to the high tension cord.
Start up the engine and set its speed at anywhere 1,450 and 1,550 rpm by turning throttle stop screw ①.

<table>
<thead>
<tr>
<th>Engine idle speed</th>
<th>1,450～1,550 rpm</th>
</tr>
</thead>
</table>

Engine tachometer : 09900-26006

● THROTTLE CABLE PLAY
There should be 0.5～1.0 mm play on the throttle cable.
To adjust the throttle cable play.
● Tug on the throttle cable to check the amount of play.
● Loosen the lock nut ② and turn the adjuster ③ in or out until the specified play is obtained.
● Secure the lock nuts while holding the adjuster in place.

<table>
<thead>
<tr>
<th>Throttle cable play A</th>
<th>0.5～1.0 mm</th>
</tr>
</thead>
</table>

FUEL HOSE

NOTE:
Inspect Initial 1,000 km and Every 4,000 km,
Replace every 4 years.

● Remove the left frame cover. (Refer to page 6-3)
Inspect the fuel hoses for damage and fuel leakage. If any defects are found, the fuel hoses must be replaced.
2-9 PERIODIC MAINTENANCE

CLUTCH

NOTE:
Inspect Initial 1,000 km and Every 4,000 km.

Clutch play should be 4 mm as measured at the clutch lever holder before the clutch begins to disengage. If the play in the clutch is incorrect, adjust it in the following way:
● Loosen the lock nut ① and screw the adjuster ② on the clutch lever holder all the way in.
● Loosen clutch cable adjuster lock nut ③.
● Turn the clutch cable adjuster ④ in or out to acquire the specified play.
● Tighten lock nut while holding the adjuster in position.
● The clutch cable should be lubricated with a light weight oil whenever it is adjusted.

| Clutch cable play ⑥ | 4 mm |

GEARSHIFT LEVER HEIGHT ADJUSTMENT

● Loosen the lock nut ⑤.
● With the link rod ⑥ turned, adjust the gearshift lever height.

ENGINE OIL

NOTE:
Replace Initial 1,000 km and Every 4,000 km.

<table>
<thead>
<tr>
<th>Necessary amount of engine oil</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil change</td>
<td>1,450 ml</td>
</tr>
<tr>
<td>Filter change</td>
<td>1,500 ml</td>
</tr>
<tr>
<td>Overhaul engine</td>
<td>1,800 ml</td>
</tr>
<tr>
<td>Engine oil type</td>
<td>SAE 10W40 API SF or SG</td>
</tr>
</tbody>
</table>
Oil should be changed while the engine is warm. Oil filter replacement at the above intervals, should be together with the engine oil change.

- Keep the motorcycle upright.
- Place an oil pan below the engine, and drain the oil by removing the filter cap ① and drain plug ②.
- Tighten the drain plug ② to the specified torque, and pour fresh oil through the oil filter. Use an API classification of SF or SG oil with SAE 10W40 viscosity.

**Oil drain plug : 18~20 N·m (1.8~2.0 kg·m)**

- Start up the engine and allow it to run for several minutes at idling speed.
- Turn off the engine and wait about three minutes, then check the oil level through the inspection window. If the level is below mark “F”, add oil to “F” level. If the level is above mark “F”, drain oil to “F” level.

**CAUTION**

Never operate the motorcycle if the engine oil level is below the Lower line mark(L) in the engine oil level gauge. Never fill the engine oil above the Upper line mark(F).

Engine oil level being most suitable about 1mm under the Upper line mark(F) of the engine oil lens. In case of the engine oil pouring in excessively, the engine output being made insufficient. Be careful not to pouring in the engine oil excessively.

**CAUTION**

Necessarily, confirm and clean the oil strainer ③ when replace the Engine oil (specially, when first replacement).

**CAUTION**

More frequent servicing may be performed on motorcycles that are used under severe conditions.
ENGINE OIL FILTER

NOTE:
Replace Initial 1,000 km and Every 4,000 km.

- Drain the engine oil as described in the engine oil replacement procedure.
- Remove the oil filter cap ①.
- Remove the oil filter.
- Install the new O-ring ②.

- Install the new oil filter.
- Install the new O-ring ③ and spring ④ to the oil filter cap.
- Install the oil filter cap.

NOTE:
Before installing the oil filter cap, apply engine oil lightly to the new O-ring ③.

● OIL FILTER INSTALLATION

⚠️ CAUTION
When install the oil filter, necessarily, HYOSUNG character and 16510H05240 part s NO. install toward the outside, otherwise can damage the engine.

⚠️ WARNING
Engine oil and exhaust pipes can be hot enough to burn you. Wait until the oil drain plug and exhaust pipes are cool enough to touch with bare hands before draining oil.
PERIODIC MAINTENANCE  2-12

- Add new engine oil and check the oil level as described in the engine oil replacement procedure.

**CAUTION**

Use HYOSUNG MOTORCYCLE GENUINE OIL FILTER only, since the other make's genuine filters and after-market parts may differ filtering performance and durability, which could cause engine damage or oil leaks. Hyosung motors genuine oil filter is also not usable for the motocycles.

DRIVE CHAIN

**NOTE:**

Clean and Lubricate Every 1,000 km.

Visually check the drive chain for the possible defects listed below. (Support the motorcycle by the jack or block, turn the rear wheel slowly by hand with the transmission shifted to Neutral.)

- Loose pins
- Excessive wear
- Damaged rollers
- Improper chain adjustment
- Dry or rusted links
- Kinked or binding links

If any defects are found, the drive chain must be replaced.

**NOTE:**

When replacing the drive chain, replace the drive chain and sprocket as a set.

- Loose the axle nut ①.

- Tense the drive chain fully by turning both chain adjusters ②, ③.
- Count out 21 pins (20 pitches) on the chain and measure the distance between the two points. If the distance exceeds the service limit, the chain must be replaced.

<table>
<thead>
<tr>
<th>Drive chain 20-pitch length</th>
<th>Service limit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>319.4 mm</td>
</tr>
</tbody>
</table>

- Loosen or tighten both chain adjusters ①, ② until the chain has 20 ~ 30 mm of slack in the middle between the engine and rear sprockets. The marks ③, ④ on both chain adjusters must be at the same position on the scale to ensure that the front and rear wheels are correctly aligned.

| Drive chain slack | 20 ~ 30 mm |

- Place the motorcycle on jack or block for accurate adjustment.
- After adjusting the drive chain, tighten the axle nut to the specified torque.
- Tighten both chain adjusters ①, ② securely.

   **Rear axle nut**: 90~140 N · m (9.0~14.0 kg · m)

- Recheck the drive chain slack after tightening the axle nut.
PERIODIC MAINTENANCE 2-14

● Wash the drive chain with kerosine. If the drive chain tends to rust quickly, the intervals must be shortened.
● After washing and drying the chain, oil it with a engine oil.

⚠️ CAUTION

❖ The standard drive chain is a RK-520DS Hyosung recommends that this standard drive chain should be used for the replacement.

BRAKE SYSTEM

NOTE:
[ BRAKE ]
Inspect Initial 1,000 km and Every 4,000 km.

[ BRAKE HOSE & BRAKE FLUID ]
Inspect Initial 1,000 km and Every 4,000 km.
Replace the brake hoses Every 4 years,
Replace the brake fluid Every 2 years.

❖ BRAKE FLUID LEVEL CHECK
● Keep the motorcycle upright and place the handlebars straight.
● Check the brake fluid level by observing the lower limit line (LOWER) on the front brake fluid reservoir.
● When the level is below the lower limit line (LOWER), replenish with brake fluid that meets the following specification.

げる Specification and Classification : DOT 3 or DOT 4

⚠️ CAUTION

The brake system of this motorcycle is filled with a glycol-based brake fluid. Do not use or mix different types of fluid such as silicone-based or petroleum-based. Do not use any brake fluid taken from old, used or unsealed containers. Never re-use brake fluid left over from the last servicing or stored for a long period.

⚠️ CAUTION

Brake fluid, if it leaks, will interfere with safe running and immediately discolor painted surfaces. Check the brake hoses and hose joints for cracks and oil leakage before riding.
BRAKE PAD WEAR
The extend of brake pad wear can be checked by observing the grooved limit A on the pad. When the wear exceeds the grooved limit, replace the pads with new ones.

CAUTION
Replace the brake pad as a set, otherwise braking performance will be adversely affected.

FRONT BRAKE PAD REPLACEMENT
● Remove the brake caliper.
● Remove the brake pads.
● To reassemble, reverse the above sequence.
● Brake caliper mounting bolt
  : 18~28 N \cdot m (1.8~2.8 \text{ kg} \cdot \text{m})

FRONT BRAKE FLUID REPLACEMENT
● Place the motorcycle on a level surface and keep the handlebars straight.
● Remove the master cylinder reservoir cap and diaphragm.
● Suck up the old brake fluid as much as possible.
● Fill the reservoir with new brake fluid.

Specification and Classification
  : DOT 3 or DOT 4
● Connect a clear hose ① to the air bleeder valve and insert the other end of the hose into a receptacle.
Loosen the air bleeder valve and pump the brake lever until the old brake fluid is completely out of the brake system.

Close the air bleeder valve and disconnect the clear hose. Fill the reservoir with new brake fluid to the upper line.

Front brake caliper air bleeder valve

$6 \sim 9 \, \text{N} \cdot \text{m} \ (0.6 \sim 0.9 \, \text{kg} \cdot \text{m})$

**AIR BLEEDING OF THE BRAKE FLUID CIRCUIT**

Air trapped in the brake fluid circuit acts like a cushion to absorb a large proportion of the pressure developed by the master cylinder and thus interferes with the full braking performance of the brake caliper. The presence of air is indicated by "sponginess" of the brake lever and also by lack of braking force. Considering the danger to which such trapped air exposes the machine and rider, it is essential that, after remounting the brake and restoring the brake system to the normal condition, the brake fluid circuit be purged of air in the following manner:

- Fill the master cylinder reservoir to top of the inspection window. Replace the reservoir cap to prevent dirt from entering it.
- Attach a hose to the air bleeder valve, and insert the free end of the hose into a receptacle.
- Bleed air from the brake system.
- Squeeze and release the brake lever several times in rapid succession and squeeze the lever fully without releasing it. Loosen the bleeder valve by turning it a quarter of a turn so that the brake fluid runs into the receptacle, this will remove the tension of the brake lever causing it to touch the handlebar grip. Then, close the air bleeder valve, pump and squeeze the brake lever, and open the valve. Repeat this process until the fluid flowing into the receptacle no longer contains air bubbles.
NOTE:
While bleeding the brake system, replenish the brake fluid in the reservoir as necessary. Make sure that there is always some fluid visible in the reservoir.

- Close the air bleeder valve, and disconnect the hose.
- Fill the reservoir with brake fluid to the upper line.

Front brake caliper air bleeder valve
: 6~9 N·m (0.6~0.9 kg·m)

CAUTION
Handle brake fluid with care: the fluid reacts chemically with paint, plastics, rubber materials, etc.

REAR BRAKE PEDAL HEIGHT
- Loosen the lock nut.
- Adjust the brake pedal height \( A \) by turning the adjuster \( 1 \).

<table>
<thead>
<tr>
<th>Rear brake pedal height ( A )</th>
<th>310 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>(When one person riding at the ground)</td>
<td></td>
</tr>
</tbody>
</table>

REAR BRAKE ADJUSTING
- Adjust the free travel \( B \) to 20~30 mm by turning the adjusting nut \( 2 \).

| Rear brake pedal free travel \( B \) | 20~30 mm |

REAR BRAKE SHOE WEAR
This motorcycle is equipped with brake lining wear limit indicator on the rear brake.
To check brake lining wear, perform the following steps.
- Make sure that the rear brake is properly adjusted.
- Depress the rear brake pedal. Make sure that the extension line \( 3 \) from the index mark is within the range \( 4 \) embossed on the brake panel.
- If the extension line \( 3 \) goes beyond the range, the brake shoe assembly should be replaced with a new set of shoes.(Refer to page 6-39)
STEERING

NOTE:
Inspect Initial 1,000 km and Every 4,000 km.

Steering should be adjusted properly for smooth turning of handlebars and safe running. Overtight steering prevents smooth turning of the handlebars and too loose steering will cause poor stability. Check that there is no play in the steering stem while grasping the lower fork tubes by supporting the machine so that the front wheel is off the ground, with the wheel straight ahead, and pull forward. If play is found, perform steering bearing adjustment as described in page 6-30 of this manual.

FRONT FORK

NOTE:
Inspect Every 4,000 km.

Inspect the front forks for oil leakage, scoring or scratches on the outer surface of the inner tubes. Replace any defective parts, if necessary.

REAR SUSPENSION

NOTE:
Inspect Every 4,000 km.

Inspect the rear shock absorber for oil leakage and mounting rubbers including engine mounting for wear and damage. Replace any defective parts, if necessary. (Refer to page 6-43)
TIRE

NOTE:
Inspect Initial 1,000 km and Every 4,000 km.

◉ TIRE TREAD CONDITION
Operating the motorcycle with excessively worn tires will decrease riding stability and can lead to loss of control.
- Inspect storage of tire thread’s depth by the ＃tire wear indicator＃.
- Replace the front and rear tires at once when appear the ＃tire wear indicator＃.

◉ TIRE PRESSURE
If the tire pressure is too high or too low, steering will be adversely affected and tire wear increased. Therefore, maintain the correct tire pressure for good roadability or shorter tire life will result. Cold inflation tire pressure is as follows.

<table>
<thead>
<tr>
<th>COLD INFLATION TIRE PRESSURE</th>
<th>SOLD RIDING</th>
<th>DUAL RIDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>172 KPa</td>
<td>25 psi</td>
</tr>
<tr>
<td></td>
<td>1.75 kgf/cm</td>
<td>25 psi</td>
</tr>
<tr>
<td>Rear</td>
<td>196 KPa</td>
<td>29 psi</td>
</tr>
<tr>
<td></td>
<td>2.00 kgf/cm</td>
<td>29 psi</td>
</tr>
</tbody>
</table>

⚠️ CAUTION
The standard tire on Aquila 150 is 110/90-16 59S for front and 150/80-15M/C 70S for rear.
The use of tires other than those specified may cause instability. It is highly recommended to use a HYOSUNG Genuine Tire.

CHASSIS BOLTS AND NUTS

NOTE:
Tighten Initial 1,000 km and Every 4,000 km.

Check that all chassis bolts and nuts are tightened to their specified torque.(Refer to page 7-12)
**PERIODIC MAINTENANCE** 2-20

**COMPRESSION PRESSURE**

The compression of a cylinder is a good indicator of its internal condition. The decision to overhaul the cylinder is often based on the results of a compression test. Periodic maintenance records kept at your dealership should include compression reading for each maintenance service.

<table>
<thead>
<tr>
<th>Compression pressure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>14~16 kg/cm² (at 600 rpm)</td>
</tr>
<tr>
<td>Service limit</td>
<td>12 kg/cm² (at 600 rpm)</td>
</tr>
</tbody>
</table>

Low compression pressure can indicate any of the following conditions:
- Excessively worn cylinder wall
- Worn-down piston or piston rings
- Piston rings stuck in grooves
- Poor seating of valves
- Ruptured or otherwise defective cylinder head gasket

**COMPRESSION TEST PROCEDURE**

**NOTE:**
- **Before testing the engine for compression pressure, make sure that the cylinder head bolts are tightened to the specified torque values and valves are properly adjusted.**
- **Have the engine warmed up by idling before testing.**
- **Be sure that the battery used is in fully-charged condition.**

Remove the parts concerned and test the compression pressure in the following manner:
- Loosen the oil cooler mounting bolts from the frame.
- Remove all the spark plug.
- Fit the compression gauge in one of the plug holes, while taking care that the connection is tight.
- Keep the throttle grip in full-open position.
- Crank the engine a few seconds with the starter, and record the maximum gauge reading as the compression of that cylinder.

Compression gauge : 09915-64510
2-21 PERIODIC MAINTENANCE

OIL PRESSURE
Check the oil pressure periodically. This will give a good indication of the condition of the moving parts.

<table>
<thead>
<tr>
<th>Oil pressure</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.3 ± 0.2 kg/cm²</td>
</tr>
<tr>
<td></td>
<td>(at 60 °C · 4,000 rpm)</td>
</tr>
</tbody>
</table>

If the oil pressure is lower or higher than the specification, the following causes may be considered.

◉ LOW OIL PRESSURE
● Oil leakage from the oil passage
● Damaged O-ring
● Defective oil pump
● Combination of above items

◉ HIGH OIL PRESSURE
● Engine oil viscosity is too high
● Clogged oil passage
● Combination of the above items

◉ OIL PRESSURE TEST PROCEDURE
Check the oil pressure in the following manner.
● Remove the oil check plug and install the adapter of oil pressure gauge at the removed position.
● Connect an engine tachometer.
● Warm up the engine as follows:
  Summer 10 min. at 2,000 rpm.
  Winter 20 min. at 2,000 rpm.
● After warming up, increase the engine speed to 4,000 rpm. (with the engine tachometer), and read the oil pressure gauge.

Oil pressure gauge : 09915-74510
Engine tachometer : 09900-26006