

# PERIODIC MAINTENANCE

2

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## PERIODIC MAINTENANCE SCHEDULE

**IMPORTANT:** The periodic maintenance intervals and service requirements have been established in accordance with EPA regulations. Following these instructions will ensure that the motorcycle will not exceed emission standards and it will also ensure the reliability and performance of the motorcycle.

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. Maintenance intervals are expressed in terms of kilometers, miles and months, and are dependant on whichever comes first.

**NOTE:**

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

### PERIODIC MAINTENANCE CHART

Interval	Item	km	1 000	6 000	12 000	18 000	24 000
		miles	600	4 000	7 500	11 000	15 000
		months	1	6	12	18	24
	Spark plugs		—	I	R	I	R
	Air cleaner		—	I	I	R	I
	Engine oil		R	R	R	R	R
	Engine oil filter		R	—	—	R	—
	Fuel hose		—	I	I	I	I
			Replace every 4 years.				
	Fuel strainer		—	—	I	—	I
	Engine idle speed		I	I	I	I	I
	Automatic de-compression cable		I	I	I	I	I
	Throttle cable play		I	I	I	I	I
	Carburetor synchronization		I (E-33 only)	—	I	—	I
	Evaporative emission control system (E-33 only)		—	—	I	—	I
			Replace vapor hose every 4 years.				
	PAIR (air supply) system (E-33 only)		—	—	I	—	I
	Clutch hose		—	I	I	I	I
			Replace every 4 years.				
	Clutch fluid		—	I	I	I	I
			Replace every 2 years.				
	Brakes		I	I	I	I	I
	Brake hose		—	I	I	I	I
			Replace every 4 years.				
	Brake fluid		—	I	I	I	I
			Replace every 2 years.				
	Final gear oil		R	—	I	—	I
	Tires		—	I	I	I	I
	Steering		I	—	I	—	I
	Front forks		—	—	I	—	I
	Rear suspension		—	—	I	—	I
	Exhaust pipe bolts and muffler bolts		T	—	T	—	T
	Chassis bolts and nuts		T	T	T	T	T

NOTE: I=Inspect and clean, adjust, replace or lubricate as necessary;

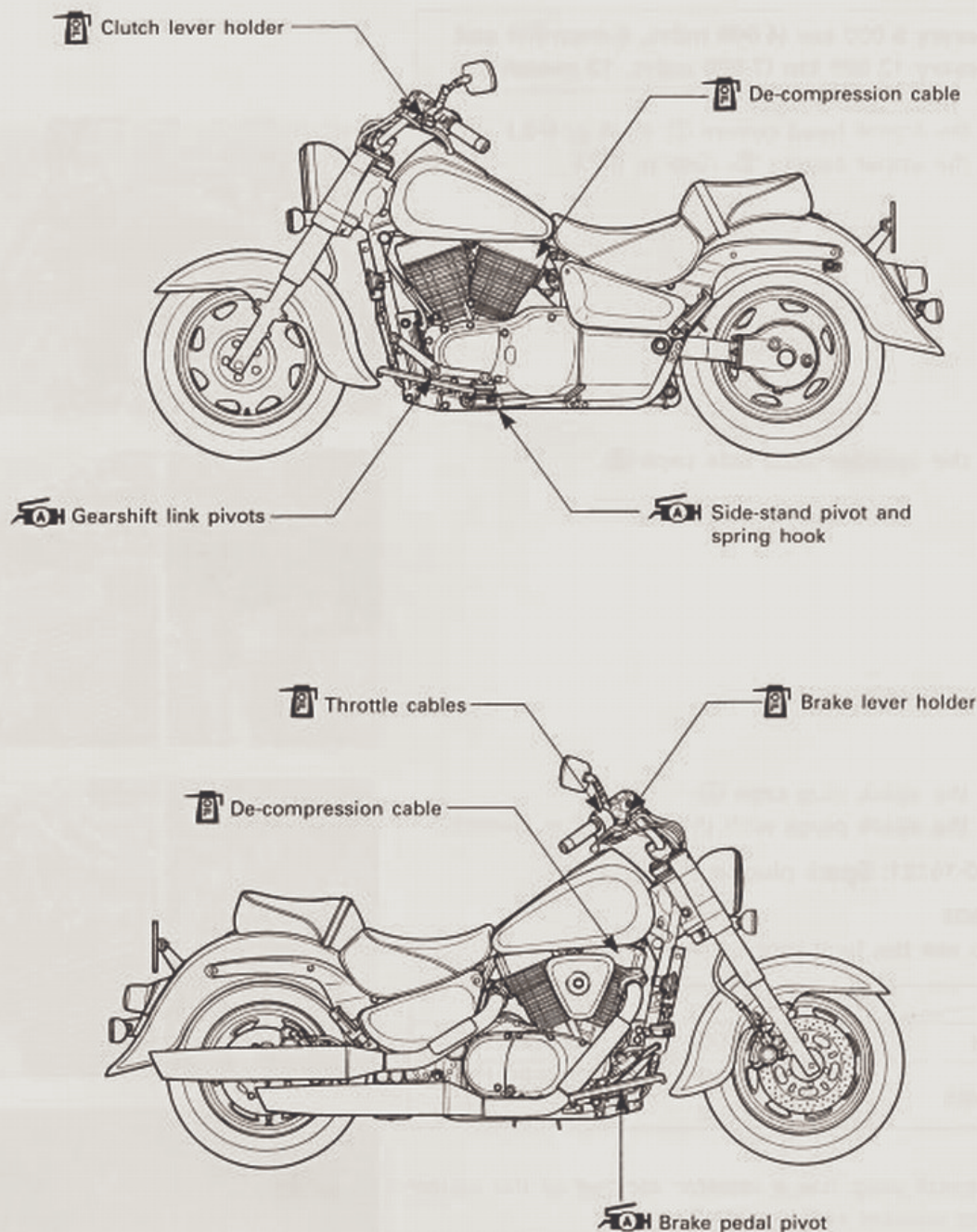
R=Replace; T=Tighten



## LUBRICATION POINTS

Proper lubrication is important for smooth operation and long life of each working part of the motorcycle.

Major lubrication points are indicated below.



### 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 a rust preventative spray, especially whenever the motorcycle has been operated under wet or rainy conditions.



## MAINTENANCE AND TUNE-UP PROCEDURES

This section describes the servicing procedures for each item mentioned in the Periodic Maintenance chart.

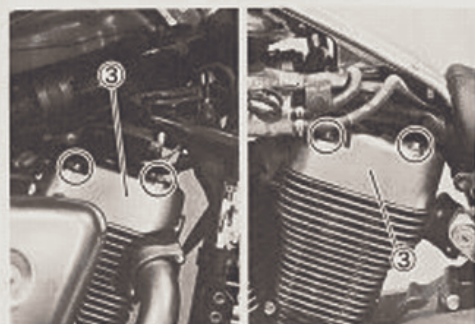
### SPARK PLUGS

**Inspect every 6 000 km (4 000 miles, 6 months) and replace every 12 000 km (7 500 miles, 12 months).**


- Remove the frame head covers ①. (See p. 6-3.)
- Remove the upper covers ②. (See p. 6-3.)



- Remove the cylinder head side caps ③.



- Remove the spark plug caps ④.
- Remove the spark plugs with the spark plug wrench.

 09930-10121: Spark plug wrench set

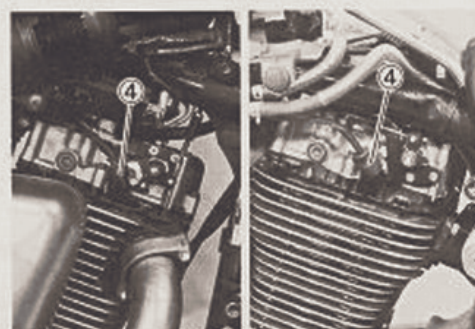
#### HEAT RANGE

- Check to see the heat range of the plug.

	NGK	DENSO
Standard	DPR7EA-9	X22EPR-U9
Colder type	DPR8EA-9 DPR9EA-9	X24EPR-U9 X27EPR-U9

#### NOTE:

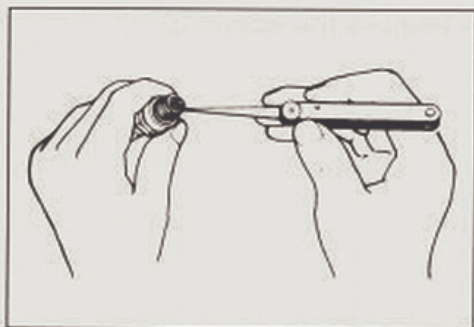
"R" type spark plug has a resistor located at the center electrode to prevent radio noise.





**CARBON DEPOSITS**

Check to see if there are carbon deposits on the spark plug. If carbon is deposited, remove it using a spark plug cleaner machine or carefully using a tool with a pointed end.

**SPARK PLUG GAP**

Measure the spark plug gap using a thickness gauge. If out of specification, regap the spark plug.

**Standard**

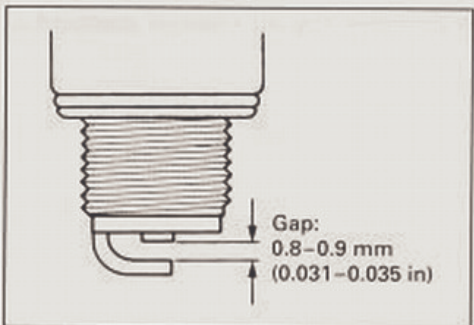
Spark plug gap: 0.8–0.9 mm (0.031–0.035 in)

 09900-20803: Thickness gauge

**ELECTRODE'S CONDITION**

Check the condition of the electrode.

If it is extremely worn or burnt, replace the spark plug. Replace the spark plug if it has a broken insulator, damaged thread, etc.

**⚠ CAUTION**

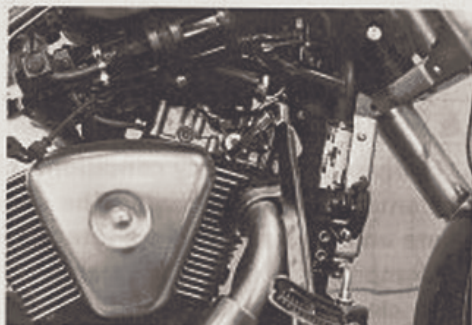
Confirm the thread size and reach when replacing the spark plug. If the reach is too short, carbon will be deposited on the screw portion of the spark plug hole and engine damage may result.

**SPARK PLUG AND PLUG CAP INSTALLATION****⚠ CAUTION**

Before using a spark plug wrench, carefully turn the spark plug by finger into the threads of the cylinder head to prevent damage the aluminum threads.

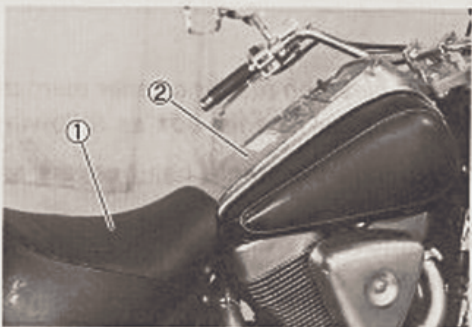
- Install the spark plugs to the cylinder heads by finger tight, and then tighten them to the specified torque.

 Spark plug: 18 N·m (1.8 kg-m, 13.0 lb-ft)

**AIR CLEANER**

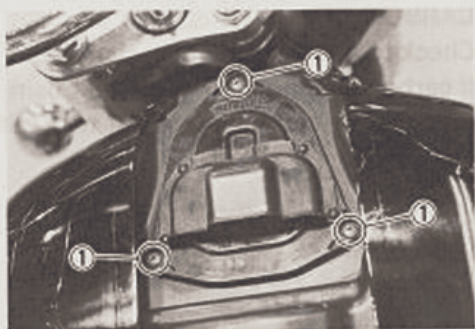
Inspect every 6 000 km (4 000 miles, 6 months) and replace every 18 000 km (11 000 miles, 18 months).

- Remove the seat ①. (See p. 6-2.)
- Remove the meter and fuel inlet cover ②. (See pp. 6-3 and -4.)

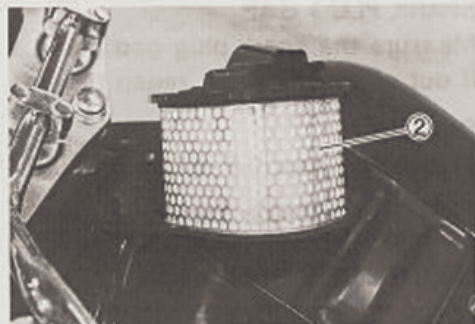




- Remove the screws ①.



- Remove the air cleaner element ②.



- Carefully use compressed air to clean the air cleaner element.

**CAUTION**

Always apply compressed air to the outside of the air cleaner element. If compressed air is applied to the inside, dirt will be forced into the pores of the air cleaner element, restricting air flow through the air cleaner element.



- Reinstall the cleaned or new air cleaner element in the reverse order of removal.

**CAUTION**

If driving under dusty conditions, clean the air cleaner element more frequently. The surest way to accelerate engine wear is to operate the engine without the element or to use a torn element. Make sure that the air cleaner is in good condition at all times. Life of the engine depends largely on this component!

**NOTE:**

When cleaning the air cleaner element, drain out any water from the air cleaner box as following procedure.

- Remove the frame head covers and upper covers. (See p. 6-3.)
- Remove the drain plugs and drain out any water from the air cleaner box.





## ENGINE OIL AND OIL FILTER

### (ENGINE OIL)

Replace initially at 1 000 km (600 miles, 1 month) and every 6 000 km (4 000 miles, 6 months) thereafter.

### (OIL FILTER)

Replace initially at 1 000 km (600 miles, 1 month) and every 18 000 km (11 000 miles, 18 months) thereafter.

The oil should be changed while the engine is warm. Oil filter replacement at the above intervals, should be done together with the engine oil change.

### ENGINE OIL REPLACEMENT


- Remove the rear clutch cover ①.
- Keep the motorcycle upright.
- Place an oil pan below the engine, and drain oil by removing the oil drain plug ② and filler cap ③.
- Tighten the oil drain plug ② to the specified torque, and pour new oil through the oil filler. When performing an oil change (without filter replacement), the engine will hold about 3.7 L (3.9/3.3 US/Imp qt) of oil. Use SF or SG classified (API) engine oil with a viscosity rating of 10W/40 (SAE).

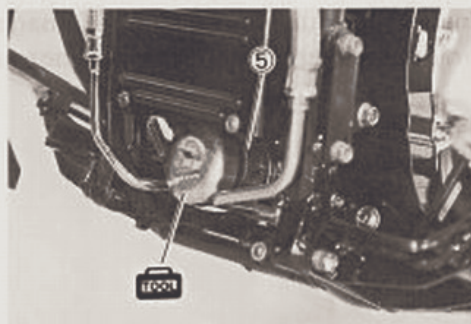
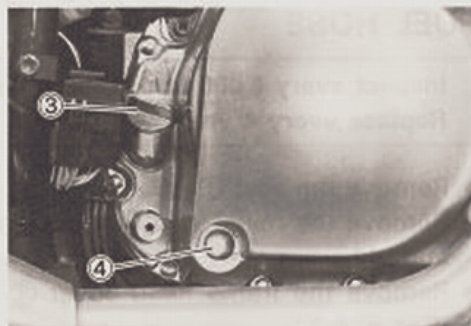
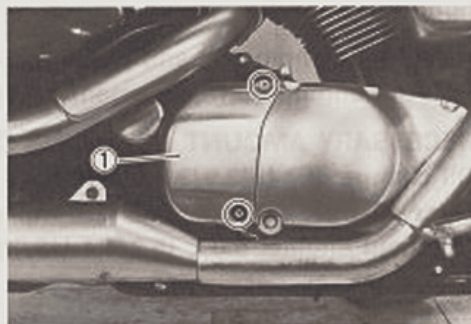
 Oil drain plug: 21 N·m (2.1 kg-m, 15.0 lb-ft)

- Start up the engine and allow it to run for several seconds at idling speed.
- Turn off the engine and wait about one minute, then check the oil level through the inspection window ④. If the level is below the "L" mark, add oil to "F" level. If the level is above the "F" mark, drain oil to "F" level.
- Install the rear clutch cover.

### OIL FILTER REPLACEMENT

- Drain the engine oil as described in the engine oil replacement procedure.
- Remove the oil filter ⑤ by using the special tool.

 09915-40610: Oil filter wrench





- Apply engine oil lightly to the gasket of the new oil filter, before installation.
- Install the new oil filter. Turn it by hand until you feel that the oil filter gasket has contacted the oil filter mounting surface. Then, tighten the oil filter two full turns using the special tool.



**09915-40610: Oil filter wrench**

**NOTE:**

To properly tighten the oil filter, use the special tool. Never tighten the oil filter by hand.

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

**NECESSARY AMOUNT OF ENGINE OIL**

Oil change: 3.7 L (3.9/3.3 US/Imp qt)

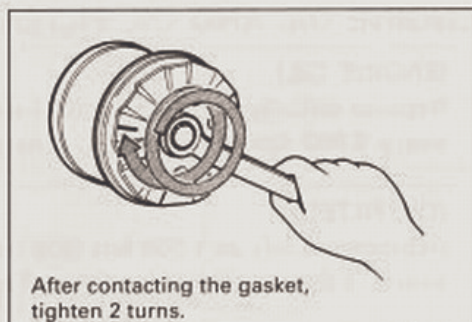
Filter change: 4.3 L (4.5/3.8 US/Imp qt)

Overhaul engine: 5.0 L (5.3/4.4 US/Imp qt)

**CAUTION**

**ONLY USE A GENUINE SUZUKI MOTORCYCLE OIL FILTER.**

Other manufacturer's oil filters may differ in thread specifications (thread diameter and pitch), filtering performance and durability which may lead to engine damage or oil leaks. Also, do not use a genuine Suzuki automobile oil filter on this motorcycle.

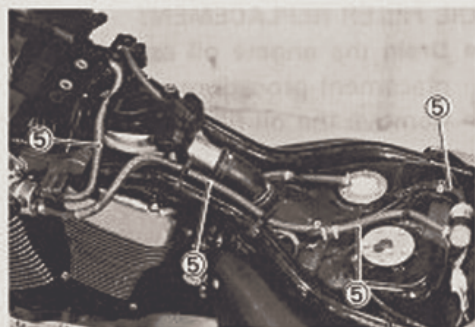
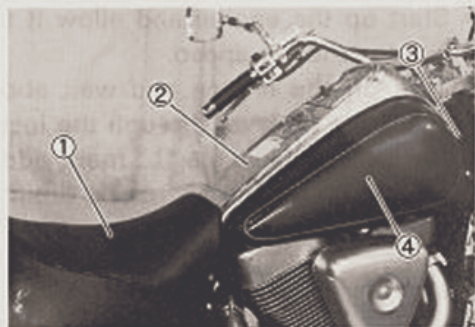


**FUEL HOSE**

**Inspect every 6 000 km (4 000 miles, 6 months).  
Replace every 4 years.**

- Remove the seat ①. (See p. 6-2.)
- Remove the meter and fuel inlet cover ②. (See pp. 6-3 and -4.)
- Remove the frame head cover ③ and upper cover ④. (See p. 6-3.)

Inspect the fuel hoses ⑤ for damage and fuel leakage. If any defects are found, the fuel hoses must be replaced.





## FUEL STRAINER

Inspect every 12 000 km (7 500 miles, 12 months).

(See pp. 5-5 and -6.)



## ENGINE IDLE SPEED

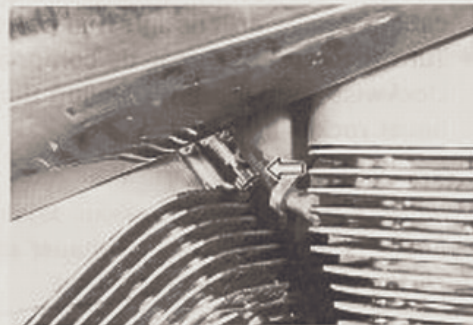
Inspect initially at 1 000 km (600 miles, 1 month) and every 6 000 km (4 000 miles, 6 months) thereafter.

### NOTE:

Make this adjustment when the engine is hot.

- Start up the engine, turn the throttle stop screw and set the engine idle speed as follows

Engine idle speed: 1 000  $\pm$  50 r/min ..... E-18  
1 000  $\pm$  100 r/min ..... Others

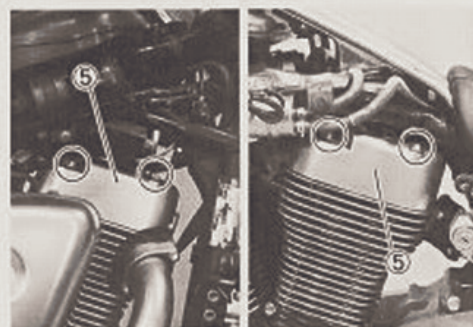
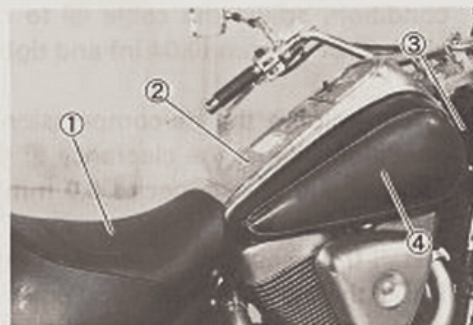


## AUTOMATIC DE-COMPRESSION CABLE

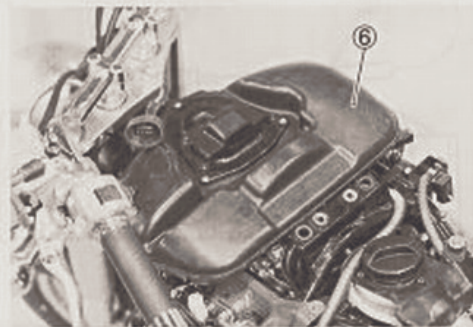
Inspect initially at 1 000 km (600 miles, 1 month) and every 6 000 km (4 000 miles, 6 months).

Incorrect adjustment of the cable slack may result in starting difficulties or engine damage. Check the cable slacks and if necessary, adjust as follows:

- Remove the seat ①. (See p. 6-2.)
- Remove the meter and fuel inlet cover ②. (See pp. 6-3 and -4.)
- Remove the frame head covers ③ and upper covers ④. (See p. 6-3.)
- Remove the cylinder head side caps ⑤.



- Remove the air cleaner box ⑥. (See p. 5-16.)





**NOTE:**

The automatic de-compression cables must be checked and adjusted when the front cylinder is at the T.D.C. (Top Dead Center) of compression stroke.

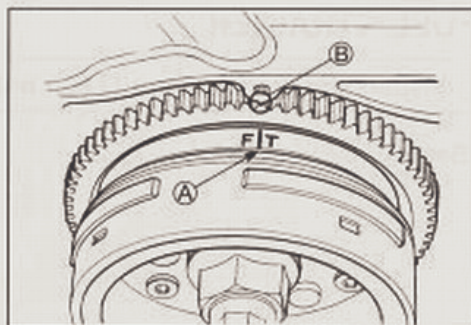
- To set the front cylinder at the T.D.C. of compression stroke, remove the generator cover. (See p. 3D-1.)
- Turn the crankshaft counterclockwise and align "F | T" line (A) on the generator rotor with the aligning mark (B) of the crankcase.
- Loosen the lock nuts (1), (3) and adjuster (4) to make each cable (5) have an enough free play.
- Turn the front and rear de-compression levers counterclockwise by hand until feeling the contact with the exhaust rocker arms.

**NOTE:**

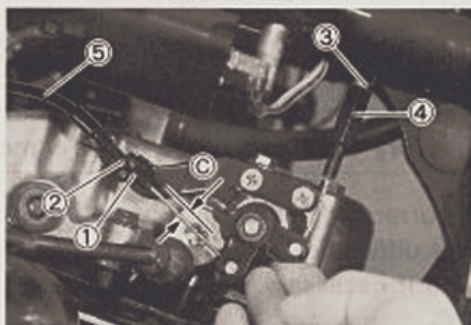
When the front de-compression lever turns fully, the front cylinder is at the T.D.C. of exhaust stroke.

Turn the crankshaft 360° (1 turn).

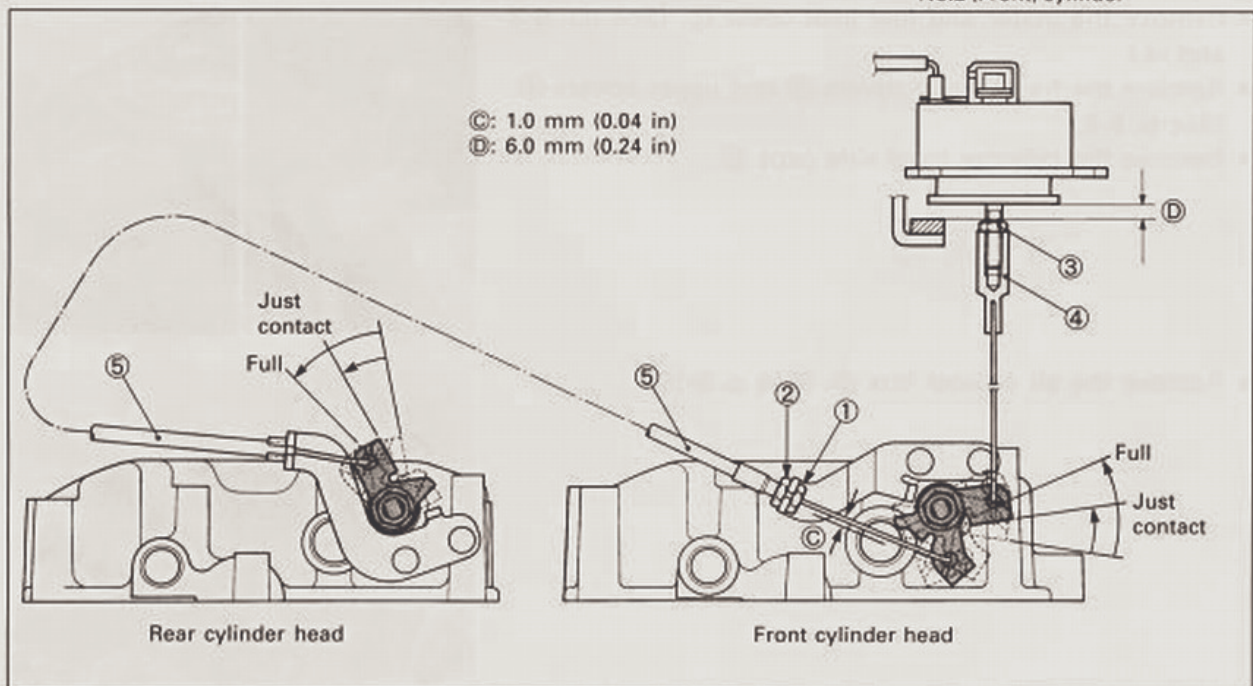
- While holding the de-compression levers at the above condition, adjust the cable (5) to obtain its inner cable slack (C) of 1.0 mm (0.04 in) and tighten the lock nuts (1), (2).
- While holding the de-compression levers at the above condition, adjust the clearance (D) between the solenoid plunger and its stopper to 6.0 mm (0.24 in) and tighten the lock nut (3).
- Install the generator cover. (See pp. 3D-6 to -8.)
- Install the air cleaner box and covers in the reverse order of removal.



No.1 (Rear) cylinder



No.2 (Front) cylinder





## THROTTLE CABLE PLAY

Inspect initially at 1 000 km (600 miles, 1 month) and every 6 000 km (4 000 miles, 6 months) thereafter.

Adjust the throttle cable play **A** as follows.

1st step:

- Loosen the lock nut **3** of the throttle returning cable **1** and fully turn in the adjuster **4**.

2nd step:

- Loosen the lock nut **5** of the throttle pulling cable **2**.
- Turn the adjuster **6** in or out until the throttle cable play (at the throttle grip) **A** is between 2.0–4.0 mm (0.08–0.16 in).
- Tighten the lock nut **5** while holding the adjuster **6**.

3rd step:

- While holding the throttle grip at the fully closed position, slowly turn out the adjuster **4** of the throttle returning cable **1** until resistance is felt.
- Tighten the lock nut **3** while holding the adjuster **4**.

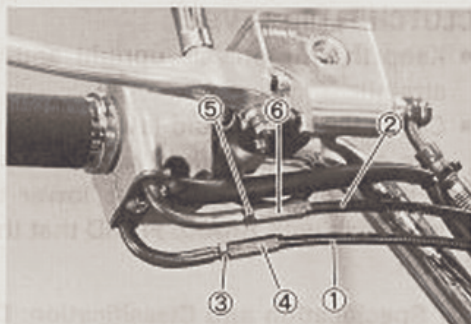
Throttle cable play **A**: 2.0–4.0 mm (0.08–0.16 in)

### ⚠ WARNING

After the adjustment is completed, check that handlebar movement does not raise the engine idle speed and that the throttle grip returns smoothly and automatically.

NOTE:

Major adjustment can be made by the carburetor side adjuster.



## CARBURETOR SYNCHRONIZATION

Inspect initially at 1 000 km (600 miles, 1 month) (E-33 only) and every 12 000 km (7 500 miles, 12 months).

(See pp. 5-27 to -29.)

## EVAPORATIVE EMISSION CONTROL SYSTEM (E-33 ONLY)

Inspect every 12 000 km (7 500 miles, 12 months).  
Replace vapor hose every 4 years.

(See p. 9-3.)

## PAIR (AIR SUPPLY SYSTEM (E-33 ONLY))

Inspect every 12 000 km (7 500 miles, 12 months).

(See p. 9-6.)



## CLUTCH

**(CLUTCH HOSE AND CLUTCH FLUID)**

Inspect every 6 000 km (4 000 miles, 6 months).

Replace fluid every 2 years.

Replace hose every 4 years.

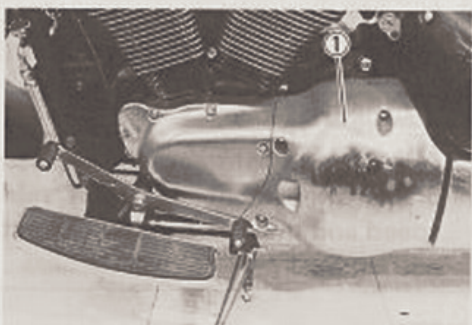
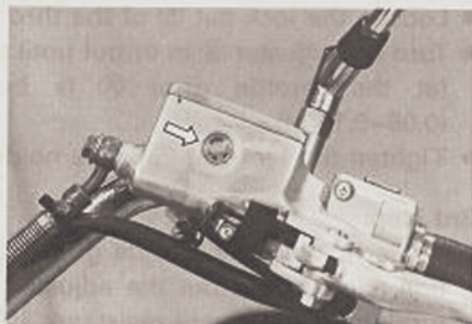
**CLUTCH FLUID LEVEL**

- Keep the motorcycle upright and place the handlebars straight.
- Check the clutch fluid level by observing the lower limit line on the clutch fluid reservoir.
- If the level is found to be lower than the lower mark, replenish with BRAKE FLUID that the following specification.

 **Specification and Classification: DOT 4**

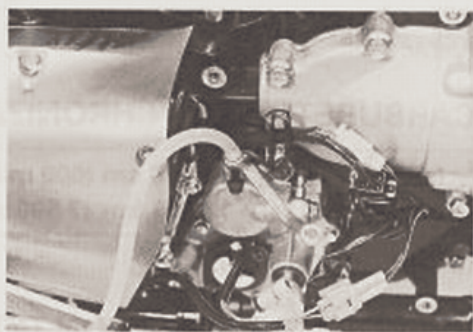
**WARNING**

The clutch 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 and 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 of time.

**AIR BLEEDING THE BRAKE FLUID CIRCUIT**

The clutch fluid circuit may be purged of air in the following manner.

- Remove the secondary gear case cover ①. (See p. 3-7.)
- Keep the motorcycle upright and place the handlebars straight.
- Fill the master cylinder reservoir to the top of the inspection window. Replace the reservoir cap to prevent entry of dirt.
- Attach a hose to the air bleeder valve, and insert the free end of the hose into a receptacle.
- Squeeze and release the clutch lever several times in rapid succession, and squeeze the lever fully without releasing it. Loosen the air 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 clutch lever causing it to touch the handlebar grip. Then, close the air bleeder valve, pump and squeeze the lever, and open the valve. Repeat this process until the fluid flowing into the receptacle no longer contains air bubbles.





## BRAKE

**(BRAKE)**

Inspect initially at 1 000 km (600 miles, 1 month) and every 6 000 km (4 000 miles, 6 months) thereafter.

**(BRAKE HOSE AND BRAKE FLUID)**

Inspect every 6 000 km (4 000 miles, 6 months). Replace hoses every 4 years. Replace 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 on the front and rear brake fluid reservoirs.
- When the brake fluid level is below the lower limit line, replenish with brake fluid that meets the following specification.

**BF** Specification and Classification: DOT 4

**⚠ WARNING**

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 fluids. 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 of time.

**⚠ WARNING**

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 PADS

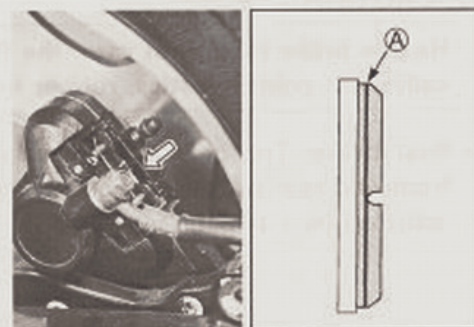
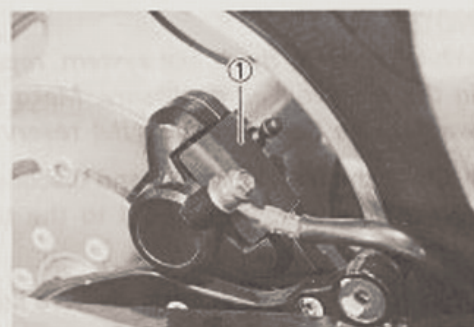
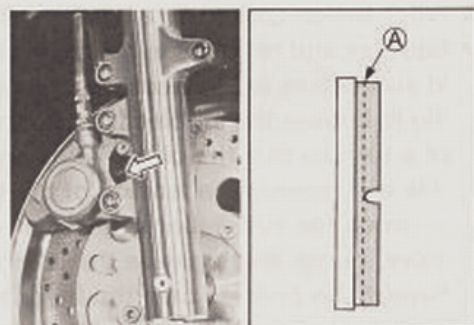
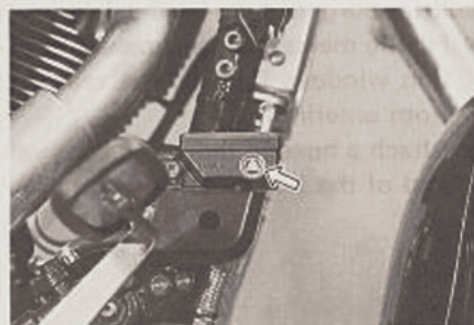
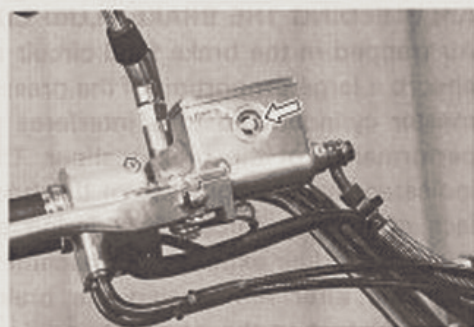
The extent of brake pad wear can be checked by observing the grooved limit line **A** on the pad. When the wear exceeds the grooved limit line, replace the pads with new ones. (See pp. 6-44 and -52.)

**⚠ CAUTION**

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

## NOTE:

When checking the rear brake pad, remove the cover ①.





**AIR BLEEDING 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 the top of the inspection window. Replace the reservoir cap to prevent dirt from entering.
- Attach a hose to the air bleeder valve, and insert the free end of the hose into a receptacle.

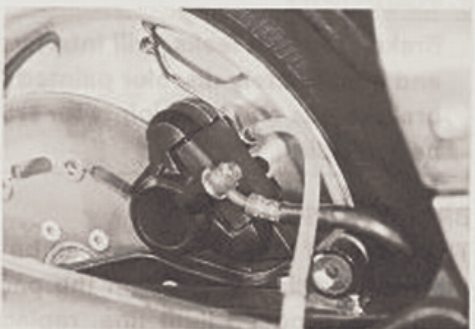


- Front brake: Bleed the air from the brake system.
- Squeeze and release the brake lever several times in rapid succession and squeeze the lever fully without releasing it. Loosen the air bleeder valve by turning it a quarter of a turn so that the brake fluid runs into the receptacle, this will remove the tension of the brake lever causing it to touch the handlebar grip. Then, close the air bleeder valve, pump and squeeze the 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 bleeder valve, and disconnect the hose. Fill the reservoir with brake fluid to the top of the inspection window.



 **Air bleeder valve: 7.5 N·m (0.75 kg-m, 5.5 lb-ft)**

**CAUTION**

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


- Rear brake: The only difference between bleeding the front and rear brakes is that the rear master cylinder is actuated by a pedal.





**BRAKE PEDAL HEIGHT**

- Loosen the lock nut ①.
- Turn the push rod ② until the center of the brake pedal is 98 mm (3.86 in) A below the top face of the footrest.
- Tighten the lock nut ① securely.

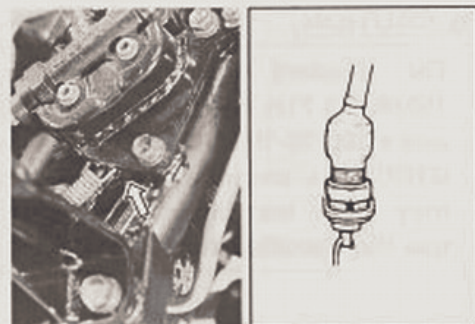
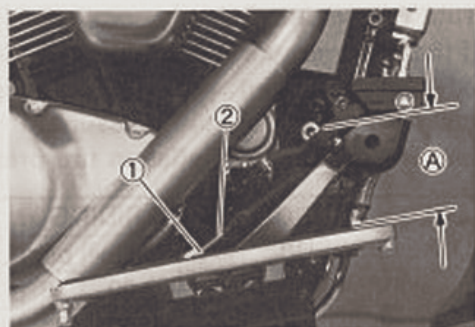
 **Rear brake master cylinder rod lock nut ①: 18 N·m (1.8 kg-m, 13.0 lb-ft)**

**Standard**

Brake pedal height A: 98 mm (3.86 in)

**BRAKE LIGHT SWITCH**

Adjust the rear brake light switch so that the brake light will come on just before pressure is felt when the brake pedal is depressed.


**FINAL GEAR OIL**

Replace initially at 1 000 km (600 miles, 1 month) and inspect every 12 000 km (7 500 miles, 12 months).

- Keep the motorcycle upright and place the handlebars straight.
- Place an oil pan below the final gear case and drain oil by removing filler cap ① and drain plug ②.
- Refit the drain plug ② and pour the specified oil (SAE 90 hypoid gear oil with GL-5 under API classification) through the filler hole until the oil level reaches the filler hole.
- Refit the filler cap ①.

**Necessary amount of final gear oil:**

200–220 ml (6.8/7.0–7.4/7.7 US/Imp oz)

 **Oil drain plug: 23 N·m (2.3 kg-m, 16.5 lb-ft)**

**TIRE**

Inspect every 6 000 km (4 000 miles, 6 months).

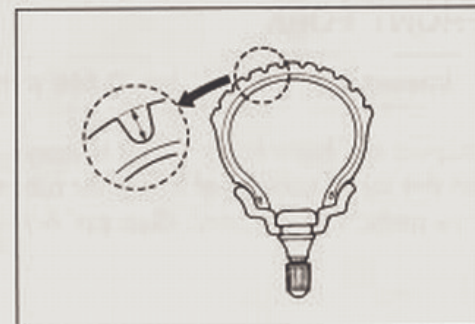
**TIRE TREAD CONDITION**

Operating the motorcycle with excessively worn tires will decrease riding stability and consequently invite a dangerous situation. It is highly recommended to replace a tire when the remaining depth of the tire tread reaches the following specification.

 **09900-20805: Tire depth gauge**

**Service Limit**

Tire tread depth (FRONT): 1.6 mm (0.06 in)  
(REAR) : 2.0 mm (0.08 in)





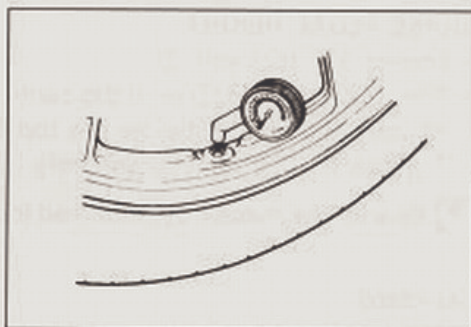
**TIRE PRESSURE**

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 and longer tire life. Cold inflation tire pressure is as follows.

COLD INFLATION TIRE PRESSURE	SOLO RIDING			DUAL RIDING		
	kPa	kgf/cm <sup>2</sup>	psi	kPa	kgf/cm <sup>2</sup>	psi
FRONT	200	2.00	29	200	2.00	29
REAR	250	2.50	36	250	2.50	36

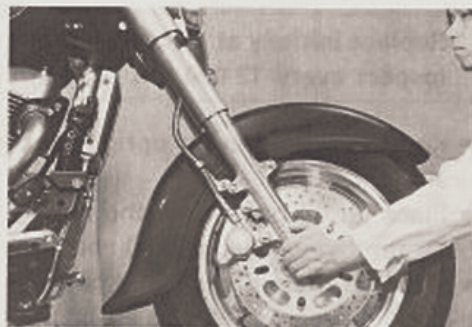
**▲ CAUTION**

The standard tire fitted on this motorcycle is a 150/80-16 71H for the front (BRIDGESTONE G703 G) and a 180/70-15 M/C 76H for the rear (BRIDGESTONE G702). The use of tires other than those specified may cause instability. It is highly recommended to use the specified tires.

**STEERING**

Inspect initially at 1 000 km (600 miles, 1 month) and every 12 000 km (7 500 miles, 12 months) thereafter.

The steering should be adjusted properly for smooth turning of handlebars and safe operation. Overtight steering prevents smooth turning of the handlebars and too loose steering will cause poor stability. Check that there is no play in the front fork. Support the motorcycle so that the front wheel is off the ground. With the wheel facing straight ahead, grasp the lower fork tubes near the axle and pull forward. If play is found, readjust the steering. (See p. 6-26.)

**FRONT FORK**

Inspect every 12 000 km (7 500 miles, 12 months).

Inspect the front forks for oil leakage, scoring or scratches on the outer surface of the inner tubes. Replace any defective parts, if necessary. (See pp. 6-11 to -18.)



## REAR SUSPENSION


Inspect every 12 000 km (7 500 miles, 12 months).

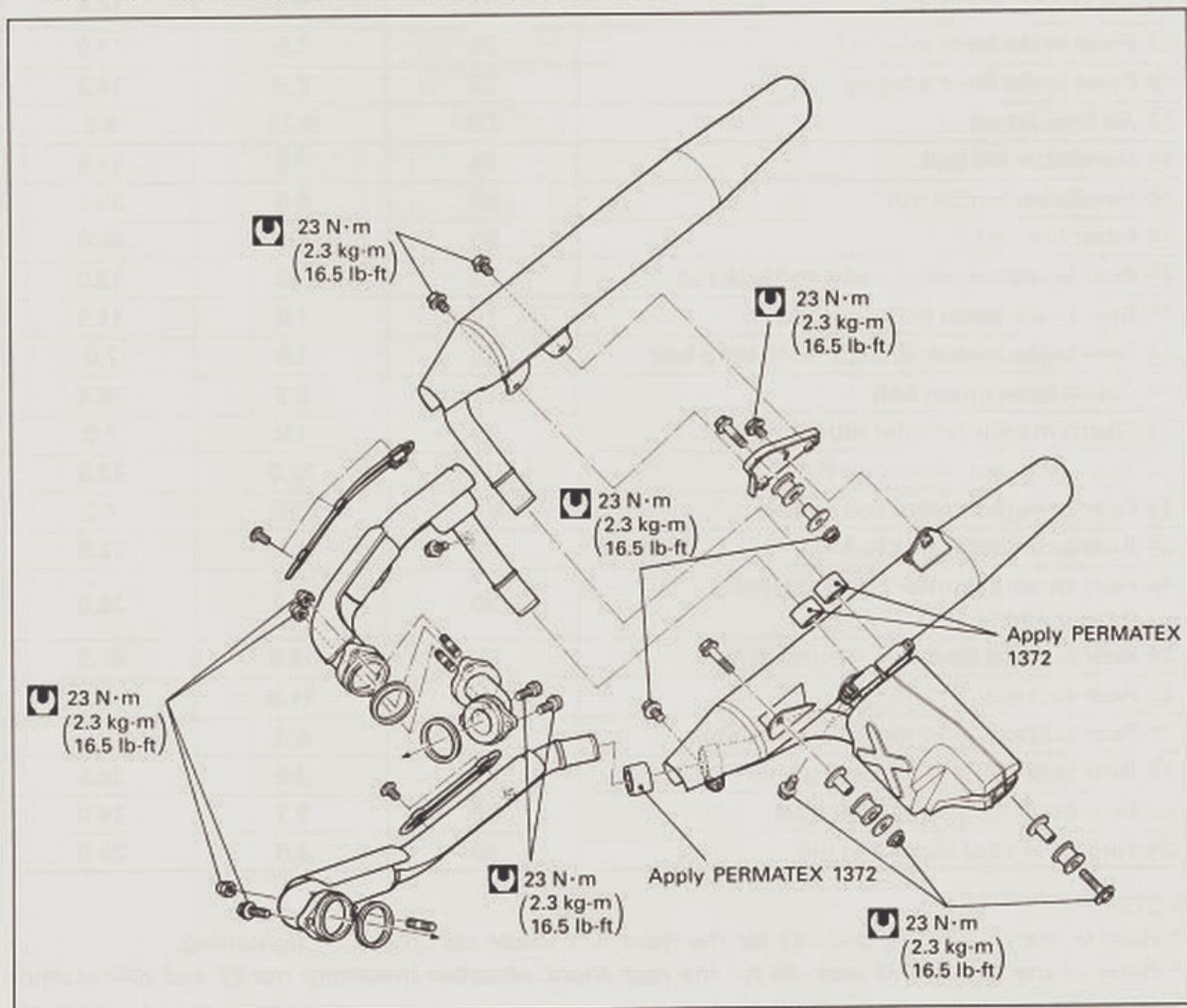
Inspect the rear shock absorber for oil leakage and check that there is no play in the swingarm. Replace any defective parts, if necessary. (See pp. 6-33 to -42.)

## EXHAUST PIPE BOLTS AND MUFFLER BOLTS

Tighten initially at 1 000 km (600 miles, 1 month) and every 12 000 km (7 500 miles, 12 months) thereafter.

- Tighten the exhaust pipe bolts and muffler mounting bolts to the specified torque.

 Exhaust pipe bolt: 23 N·m (2.3 kg-m, 16.5 lb-ft)  
Muffler mounting bolt: 23 N·m (2.3 kg-m, 16.5 lb-ft)





## CHASSIS BOLTS AND NUTS

**Tighten initially at 1 000 km (600 miles, 1 month) and every 6 000 km (4 000 miles, 6 months) thereafter.**

Check that all chassis bolts and nuts are tightened to their specified torque. (Refer to page 2-18 for the locations of the following nuts and bolts.)

Item	N·m	kg-m	lb-ft
① Front axle	65	6.5	47.0
② Front axle pinch bolt	23	2.3	16.5
③ Brake disc bolt (Front and Rear)	23	2.3	16.5
④ Front fork cap bolt	90	9.0	65.0
⑤ Front fork lower clamp bolt	23	2.3	16.5
⑥ Steering stem head nut	90	9.0	65.0
⑦ Front brake master cylinder mounting bolt	10	1.0	7.0
⑧ Front brake caliper mounting bolt	35	3.5	25.5
⑨ Front brake caliper housing bolt	33	3.3	24.0
⑩ Brake hose union bolt	23	2.3	16.5
⑪ Front brake hose joint nut	15	1.5	11.0
⑫ Front brake hose adaptor	23	2.3	16.5
⑬ Air bleeder valve	7.5	0.75	5.5
⑭ Handlebar set bolt	16	1.6	11.5
⑮ Handlebar holder nut	50	5.0	36.0
⑯ Front footrest bolt	50	5.0	36.0
⑰ Rear brake master cylinder rod lock nut	18	1.8	13.0
⑱ Rear brake pedal bolt	16	1.6	11.5
⑲ Rear brake master cylinder mounting bolt	10	1.0	7.0
⑳ Clutch hose union bolt	23	2.3	16.5
㉑ Clutch master cylinder mounting bolt	10	1.0	7.0
㉒ Rear swingarm pivot bolt (Left)	100	10.0	72.5
㉓ Rear swingarm pivot bolt (Right)	9.5	0.95	7.0
㉔ Rear swingarm pivot lock nut	100	10.0	72.5
㉕ Rear shock absorber mounting nut (Upper and Lower)	50	5.0	36.0
㉖ Rear cushion lever/rod mounting nut	135	13.5	97.5
㉗ Rear axle nut	110	11.0	79.5
㉘ Rear caliper mounting bracket bolt/nut	60	6.0	43.5
㉙ Rear brake caliper mounting bolt	35	3.5	25.5
㉚ Rear brake caliper housing bolt	33	3.3	24.0
㉛ Final gear case mounting nut	40	4.0	29.0

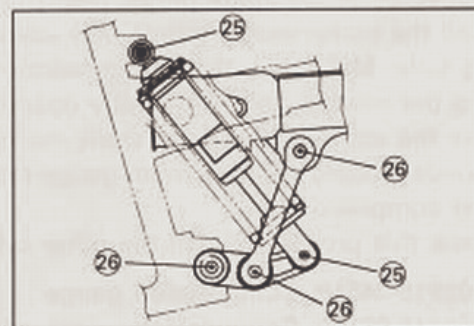
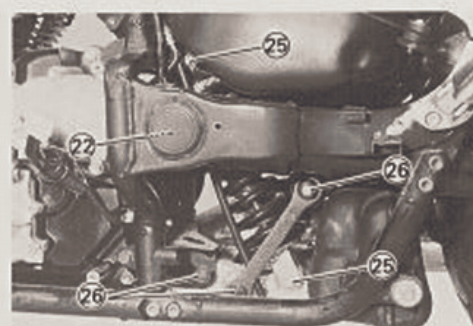
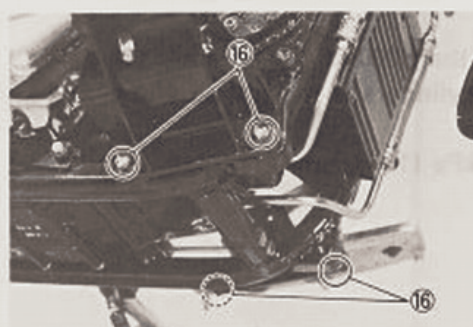
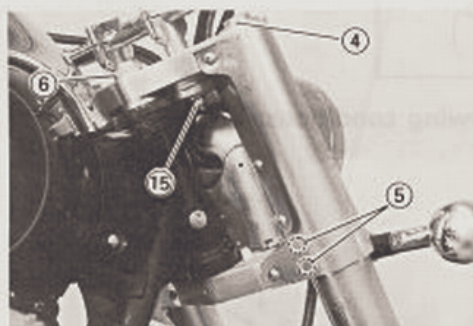
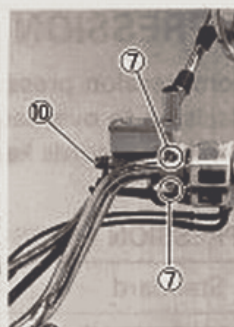
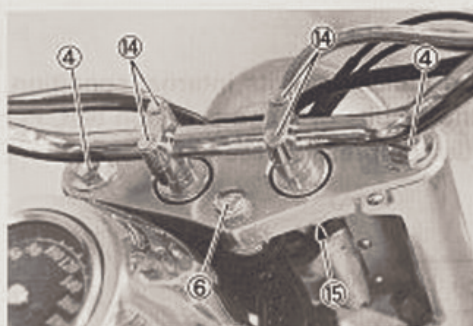
## NOTE:

\* Refer to the pages 6-12 and -13 for the front fork lower clamp bolt ⑤ tightening.

\* Refer to the pages 6-35 and -36 for the rear shock absorber mounting nut ㉕ and rear cushion lever/rod mounting nut ㉖ tightening.

\* Refer to the page 6-53 for the rear brake caliper housing bolt ㉚ tightening.







## COMPRESSION PRESSURE CHECK

The compression pressure reading 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 readings for each maintenance service.

### COMPRESSION PRESSURE SPECIFICATION

Standard	Limit	Difference
1 000–1 400 kPa (10–14 kg/cm <sup>2</sup> ) (142–199 psi)	800 kPa (8 kg/cm <sup>2</sup> ) (114 psi)	200 kPa (2 kg/cm <sup>2</sup> ) (28 psi)

**Low compression pressure can indicate any of the following conditions:**

- \* Worn piston or piston rings
- \* Piston rings stuck in grooves
- \* Poor valve seating
- \* Ruptured or otherwise defective cylinder head gasket
- \* Damaged lash adjuster
- \* Starter motor cranks too slowly

**Overhaul the engine in the following cases:**

- \* Compression pressure in one of two cylinders is less than 800 kPa (8 kg/cm<sup>2</sup>, 114 psi).
- \* The difference in compression pressure between two cylinders is more than 200 kPa (2 kg/cm<sup>2</sup>, 28 psi).
- \* Two compression pressure readings are below 1 000 kPa (10 kg/cm<sup>2</sup>, 142 psi).

## 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 automatic de-compression cable are properly adjusted.
- \* Have the engine warmed-up before testing.
- \* Make sure that the battery is fully-charged.

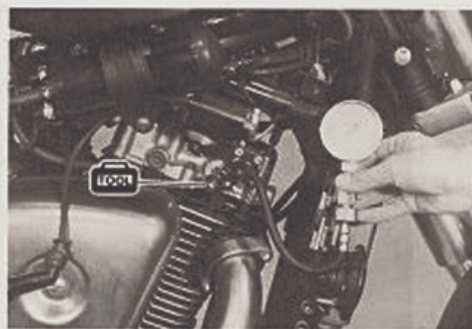
Remove the related parts and test the compression pressure in the following manner.

- Remove all of the spark plugs. (See p. 2-3.)
- Install the compression gauge and adaptor in the spark plug hole. Make sure that the connection is tight.
- Keep the throttle grip in the fully opened position.
- Press the starter button and crank the engine for a few seconds. Record the maximum gauge reading as the cylinder compression.
- Repeat this procedure with the other cylinders.



09915-64510: Compression gauge

09918-03810: Compression gauge adaptor





## OIL PRESSURE CHECK

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

### OIL PRESSURE SPECIFICATION

Above 350 kPa (3.5 kg/cm<sup>2</sup>, 50 psi) at 3 000 r/min., Oil temp. at 60°C (140°F)  
Below 650 kPa (6.5 kg/cm<sup>2</sup>, 92 psi)

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

#### LOW OIL PRESSURE

- \* Clogged oil filter
- \* Oil leakage from the oil passage
- \* Damaged O-ring
- \* Defective oil pump
- \* Combination of the above items


#### HIGH OIL PRESSURE

- \* Engine oil viscosity is too high.
- \* Clogged oil passage
- \* Combination of the above items

### OIL PRESSURE TEST PROCEDURE

Start the engine and check if the oil pressure indicator light is turned on. If the light stays on, check the oil pressure indicator light circuit. If the circuit is OK, check the oil pressure in the following manner.

- Remove the main oil gallery plug ①.
- Install the oil pressure gauge and adaptor into the main oil gallery.
- Warm up the engine as follows:  
Summer 10 min. at 2 000 r/min.  
Winter 20 min. at 2 000 r/min.
- After warm up, increase the engine speed to 3 000 r/min. and read the oil pressure gauge.

-  **09915-74520: Oil pressure gauge hose**  
**09915-74532: Oil pressure gauge adaptor**  
**09915-77330: Meter (for high pressure)**  
**09900-25008: Multi circuit tester**

 **Main oil gallery plug: 18 N·m (1.8 kg-m, 13.0 lb-ft)**

#### NOTE:

The engine speed can be observed by using the multi circuit tester.

