

# 3. MAINTENANCE

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## SERVICE INFORMATION

### GENERAL

- Engine oil See page 2-3
- Engine oil filter See page 2-3
- Final drive gear oil See page 2-11

### SPECIFICATIONS

#### < ENGINE >

Spark plugs:

Standard		For cold climate (below 5°C, 41°F)		For extended high speed riding	
NGK	ND	NGK	ND	NGK	ND
DPR8EA-9	X24EPR-U9	DPR7EA-9	X22EPR-U9	DPR9EA-9	X27EPR-U9

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

## MAINTENANCE

### Ignition timing

At idle: '83, '84: 5° BTDC  
After '84: 10° BTDC  
Full advance: '83, '84: 26° BTDC at 3,500 rpm  
After '84: 26° BTDC at 4,000 rpm

### Idle speed:

900 ± 100 rpm

Carburetor synchronization: Both carburetor within 40 mm (1.6 in) Hg of each other

Cylinder compression: 12 ± 2 kg/cm<sup>2</sup> (171 ± 28 psi)

Throttle grip free play: 2–6 mm (1/8–1/4 in)

## < CHASSIS >

Rear brake pedal free play: 20–30 mm (3/4–1-1/4 in)

Front fork air pressure: 0–6 psi (0–40 kPa, 0–0.4 kg/cm<sup>2</sup>)

### Tire:

Tire size		Front	Rear
		110/90–19 62H	140/90–15 70H
Cold tire pressure, psi (kPa, kg/cm <sup>2</sup> )	Up to 90 kg (200 lbs) load	32 (225, 2.25)	32 (225, 2.25)
	90 kg (200 lbs) load to vehicle capacity load	32 (225, 2.25)	40 (280, 2.80)
Tire brand	Bridgestone	L303	G508
	Dunlop	F11	K627C

## TOOLS

### Special:

Vacuum gauge set

07404–0020000 or M937B–021–XXXXX (U.S.A. only)

## MAINTENANCE SCHEDULE

Perform the PRE-RIDE INSPECTION in the Owner's Manual at each scheduled maintenance period.

I: INSPECT AND CLEAN, ADJUST, LUBRICATE, OR REPLACE IF NECESSARY.

C: CLEAN, R: REPLACE, A: ADJUST

FREQUENCY		WHICHEVER COMES FIRST ↓	ODOMETER READING (NOTE 3)							
			600 mi (1,000 km)	4,000 mi (6,400 km)	8,000 mi (12,800 km)	12,000 mi (19,200 km)	16,000 mi (25,600 km)	20,000 mi (32,000 km)	24,000 mi (38,400 km)	Refer to page
EMISSION RELATED ITEMS	ITEM	EVERY								
	* FUEL LINES				I		I		I	3-4
	* FUEL FILTER								R	3-4
	* THROTTLE OPERATION		I		I		I		I	3-5
	* CARBURETOR-CHOKE				I		I		I	3-6
	AIR CLEANER	NOTE 1		C	C	C	C	C	C	3-7
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	SPARK PLUGS			R	R	R	R	R	R	3-8
	ENGINE OIL	YEAR	R		R		R		R	2-3
	ENGINE OIL FILTER	YEAR	R		R		R		R	2-3
	* CARBURETOR-SYNCHRONIZATION		I		I		I		I	3-9
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NON-EMISSION RELATED ITEMS	* EVAPORATIVE EMISSION CONTROL SYSTEM	NOTE 3			I		I		I	3-12
	FINAL DRIVE OIL				I		I		R	2-11
	BATTERY	MONTH	I	I	I	I	I	I	I	3-13
	BRAKE FLUID (FRONT)	MONTH I 2 YEARS* R	I	I	I	*R	I	I	*R	3-13
	BRAKE SHOE/PAD WEAR			I	I	I	I	I	I	3-14
	BRAKE SYSTEM		I		I		I		I	3-14
	* BRAKE LIGHT SWITCH		I		I		I		I	3-16
	* HEADLIGHT AIM		I		I		I		I	3-16
	CLUTCH FLUID	MONTH I 2 YEARS* R	I	I	I	*R	I	I	*R	3-16
	CLUTCH SYSTEM		I		I		I		I	3-16
	SIDE STAND				I		I		I	3-17
	* SUSPENSION		I		I		I		I	3-17
	* NUTS, BOLTS, FASTENERS		I		I		I		I	3-19
	** WHEELS		I		I		I		I	3-18
	** STEERING HEAD BEARINGS		I		I		I		I	3-19

\* SHOULD BE SERVICED BY AN AUTHORIZED HONDA DEALER, UNLESS THE OWNER HAS PROPER TOOLS AND SERVICE DATA AND IS MECHANICALLY QUALIFIED.

\*\* IN THE INTEREST OF SAFETY, WE RECOMMEND THESE ITEMS BE SERVICED ONLY BY AN AUTHORIZED HONDA DEALER.

NOTE: 1. SERVICE MORE FREQUENTLY WHEN RIDING IN DUSTY AREAS.

2. SERVICE MORE FREQUENTLY WHEN RIDING IN RAIN OR AT FULL THROTTLE (U.S.A. ONLY).

3. '84 CALIFORNIA MODEL.

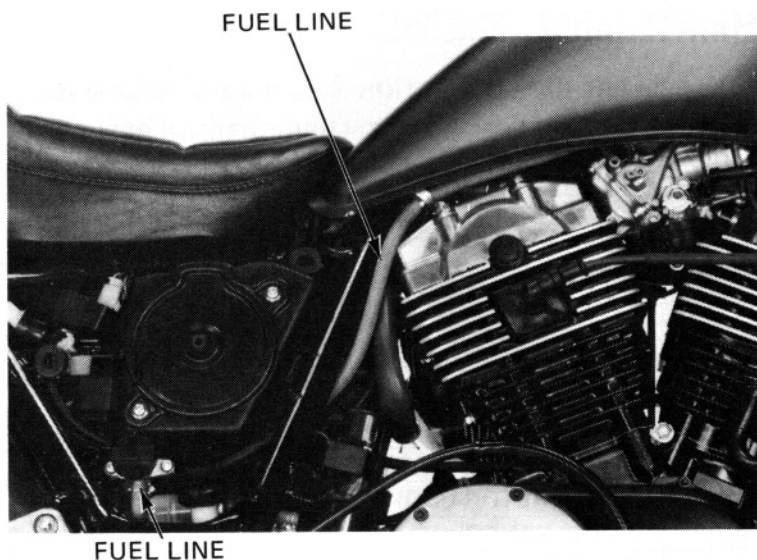
4. FOR HIGHER ODOMETER READING, REPEAT AT THE FREQUENCY INTERVAL ESTABLISHED HERE.

## MAINTENANCE

### FUEL LINES

Check the fuel lines for deterioration, damage, or leakage.

Replace if necessary.



### FUEL FILTER

Turn the fuel valve OFF.

Remove the right side cover, radiator reserve tank cap and pull out the fuel filter.

Clamp the fuel line between the fuel filter and fuel pump shut.

Disconnect the fuel lines from the filter.

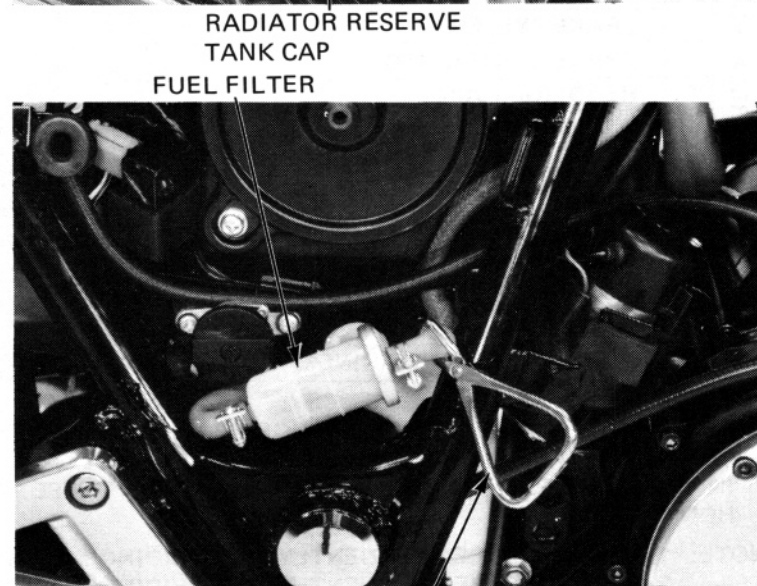
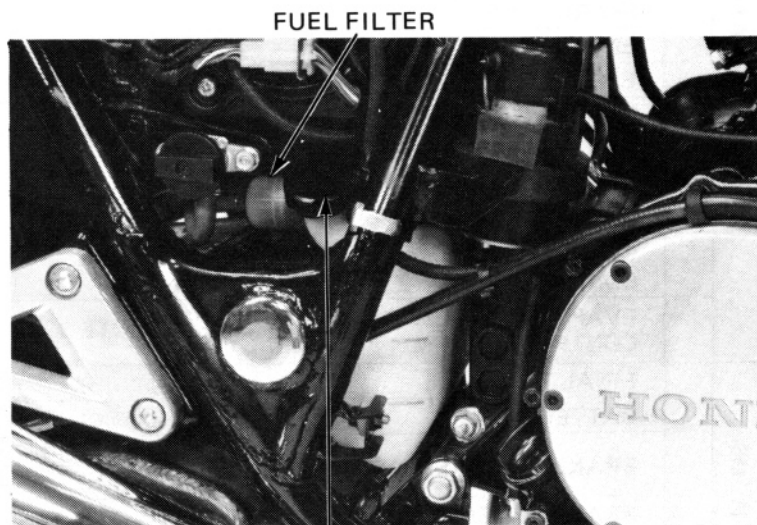
Replace the fuel filter with a new one when indicated by the maintenance schedule. (See page 3-3).

#### WARNING

*Gasoline is flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks in your working area.*

Install the removed parts and remove the clip.

After installing, turn the fuel valve ON and check that there are no fuel leaks.





## THROTTLE OPERATION

Check for smooth throttle grip full opening and automatic full closing in all steering positions.

Make sure there is no deterioration, damage, or kinking in the throttle cables. Replace any damaged parts.

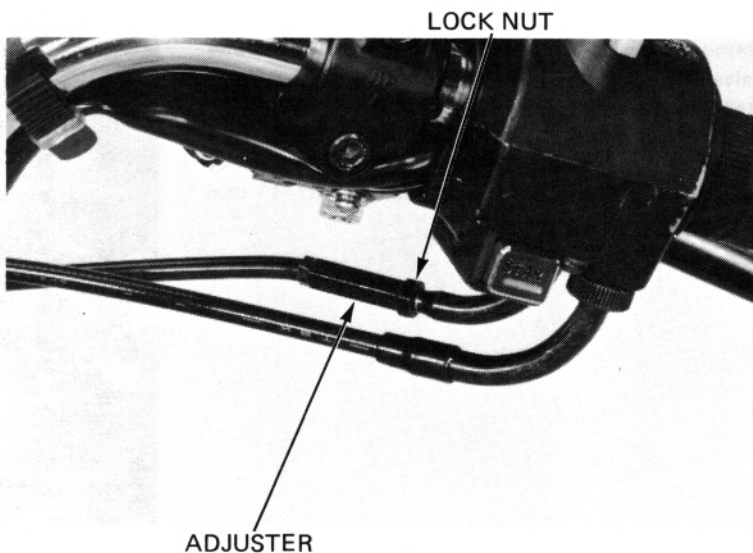
Lubricate the throttle cables (page 2-12), if throttle operation is not smooth.

Measure throttle grip free play at the throttle grip flange.

**FREE PLAY: 2–6 mm (1/8–1/4 in)**



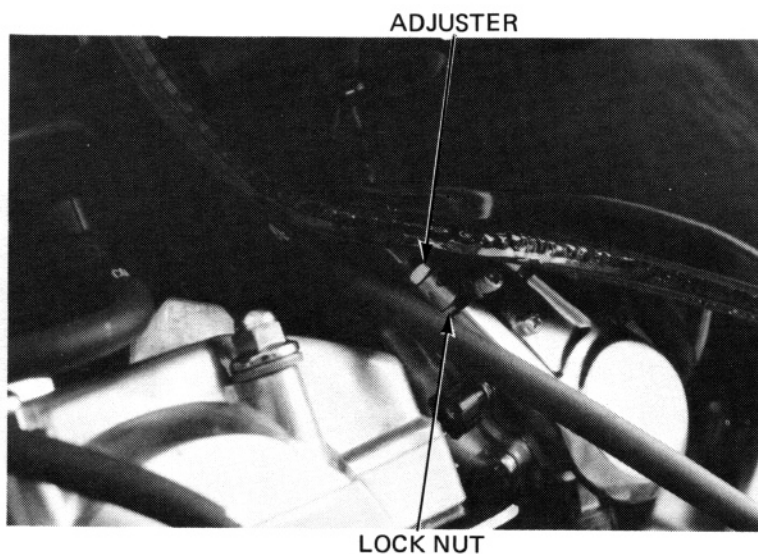
Throttle grip free play can be adjusted at either end of the throttle cable. Minor adjustments are made with the upper adjuster.



Major adjustments are made with the lower adjuster.

Adjust free play by loosening the lock nut and turning the adjuster. Tighten the lock nut.

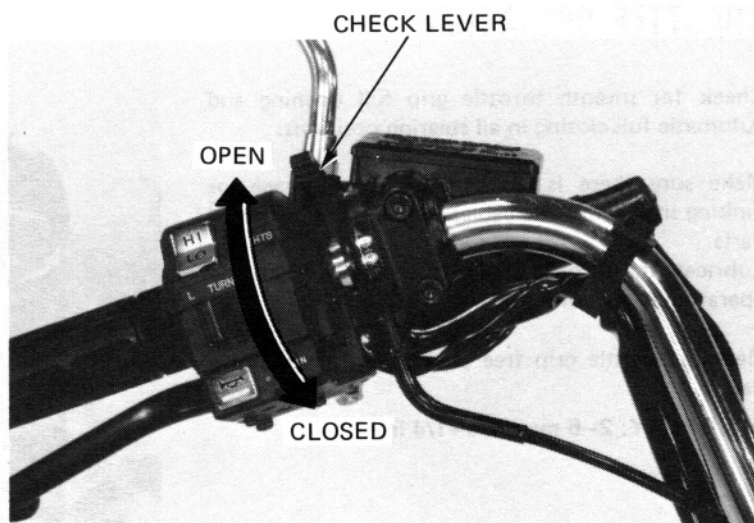
Recheck throttle operation.



### CARBURETOR CHOKE

This model choke system uses a fuel enriching circuit controlled by a bystarter valve. The bystarter valve opens the enriching circuit via a cable when the choke lever on the handlebar is pushed up.

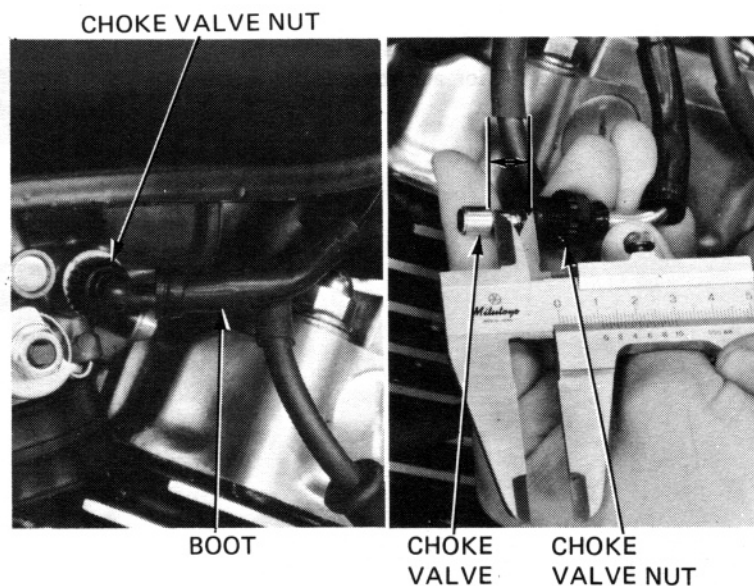
Check for smooth upper choke lever operation. Lubricate the choke cable if the operation is not smooth.



Remove the choke cable boots and loosen the choke valve nuts on the carburetors.

Remove the choke valve from the carburetor.

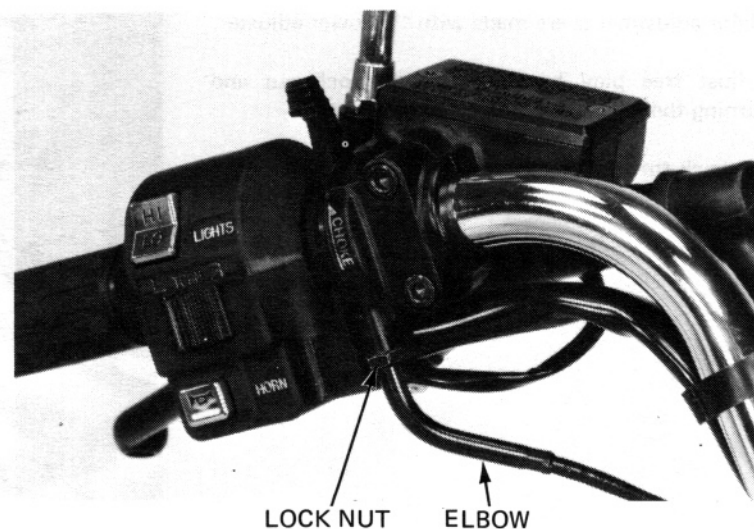
Push the choke lever on the handlebar all the way down to fully closed and make sure the distance between the nut's threads and valve is 10–11 mm (0.39–0.43 in).



Adjust within specifications by loosening the lock nut and turning the cable's elbow at the clutch housing. Tighten the lock nut. Recheck the distance.

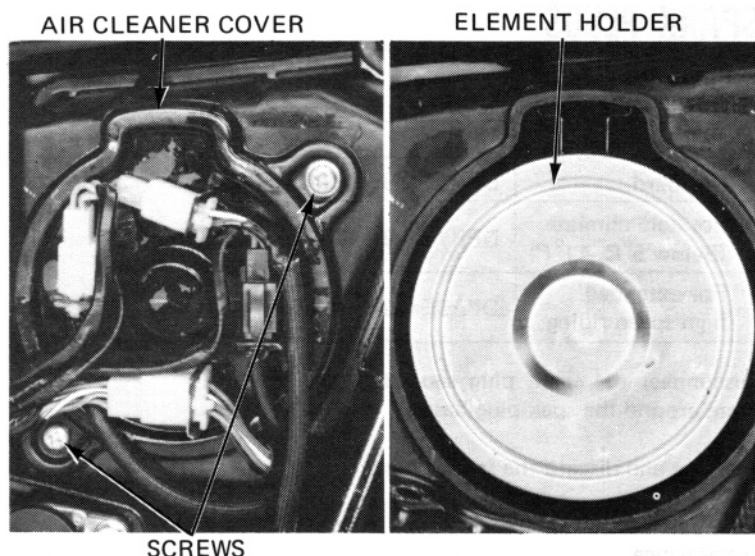
Thread the choke valve in by hand and then tighten the choke valve nut 1/4 turn with a 14 mm wrench. Install the choke cable boots.

Reinstall the removed parts in the reverse order of disassembly.



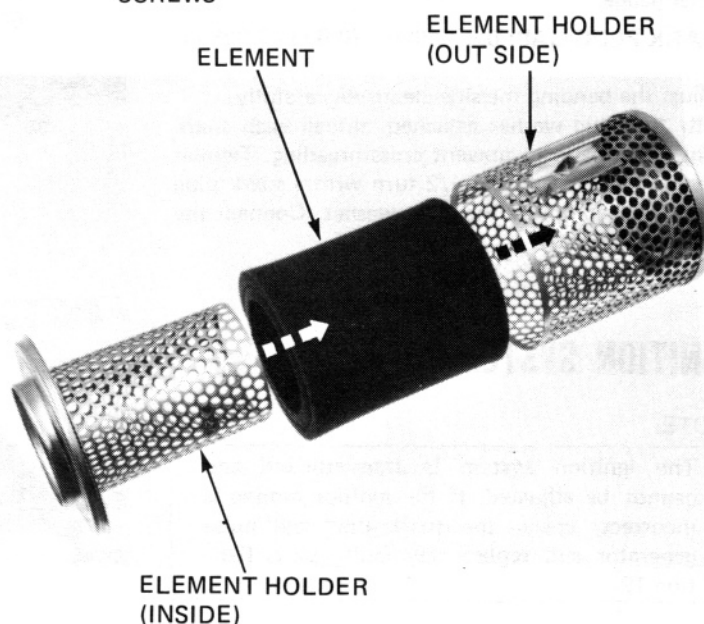
# AIR CLEANER

Remove the right side cover.  
Remove the air cleaner cover screws and cover.  
Pull the air cleaner element holder out of the air cleaner case.



Wash the elements in non-flammable or high flash point solvent, squeeze out and let them dry.  
Soak the elements in gear oil (SAE #80—#90) and squeeze out the excess.

Install the removed parts in the reverse order of disassembly.



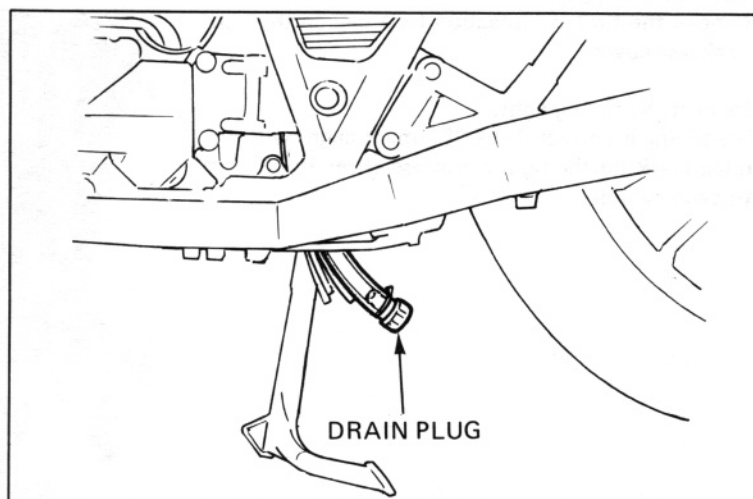
# CRANKCASE BREATHER

Remove the plug from the drain tube to empty any deposits.

Install the drain plug.

## NOTE:

Service more frequently when riding in rain, or at full throttle, or if the deposit level can be seen in the transparent section of the drain tube.





## SPARK PLUGS

### RECOMMENDED SPARK PLUGS

	NGK	ND
Standard	DPR8EA-9	X24EPR-U9
For cold climate (Below 5°C, 41°F)	DPR7EA-9	X22EPR-U9
For extended high speed riding	DPR9EA-9	X27EPR-U9

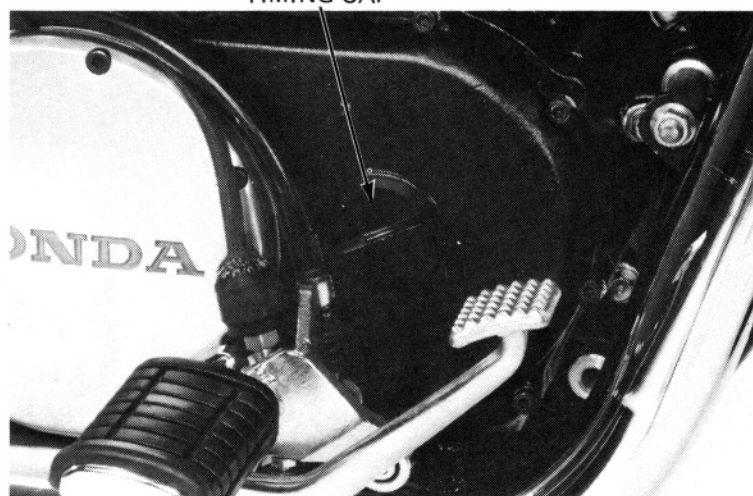
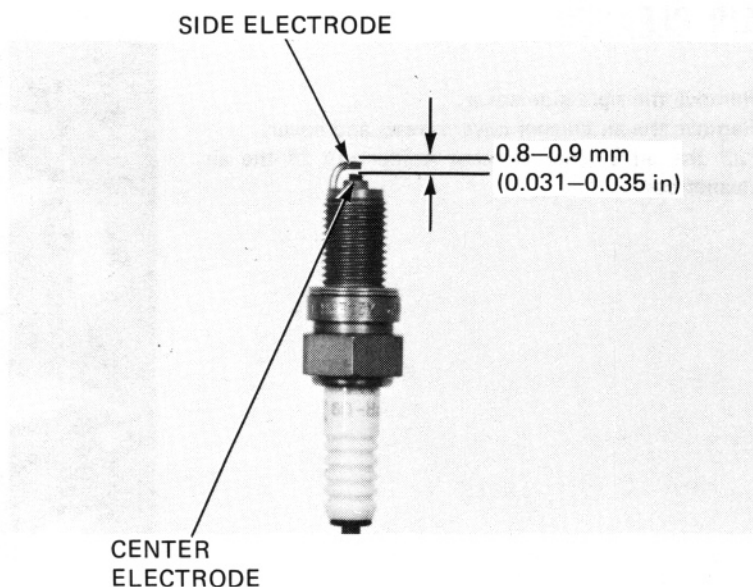
Disconnect the spark plug caps and clean any dirt from around the spark plug bases.

Remove and discard the spark plugs.

Measure the new spark plug gaps using a wire-type feeler gauge.

**SPARK PLUG GAP: 0.8–0.9 mm (0.031–0.035 in)**

Adjust the bending the side electrode carefully. With the plug washer attached, thread each spark plug in by hand to prevent crossthreading. Tighten the spark plugs another 1/2 turn with a spark plug wrench to compress the plug washer. Connect the spark plug caps.



## IGNITION SYSTEM

### NOTE:

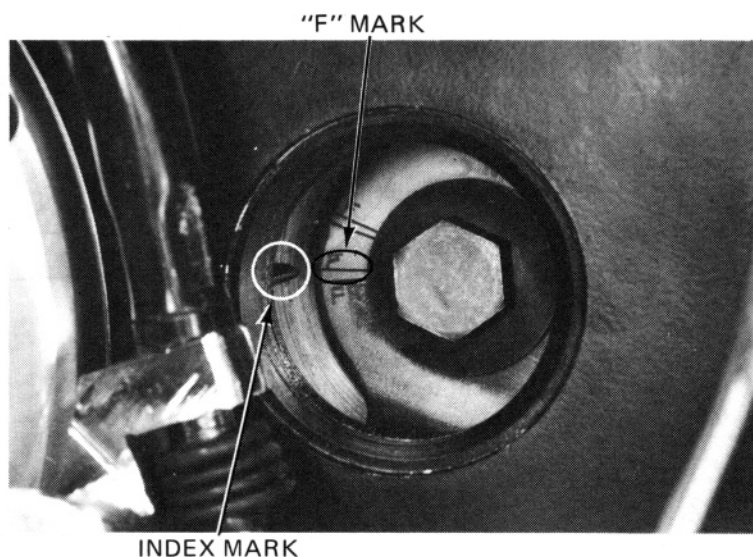
The ignition system is transistorized and cannot be adjusted. If the ignition timing is incorrect, check the spark unit and pulse generator and replace any faulty parts (Section 19).

Warm up the engine

Remove the timing inspection hole cap on the right crankcase cover.

Connect the timing light.

The timing is correct if the "F" mark aligns with the index mark on the right crankcase cover at 900 rpm for each cylinder.



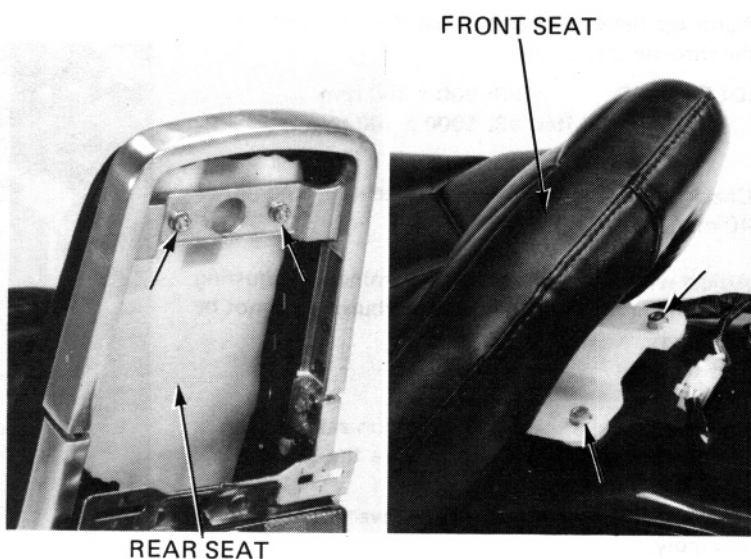
# CARBURETOR SYNCHRONIZATION

## NOTE:

Perform this maintenance with the engine at normal operating temperature, transmission in neutral, and motorcycle on its center stand.

Unlock and remove the tool box at the back of the rear seat with the key.

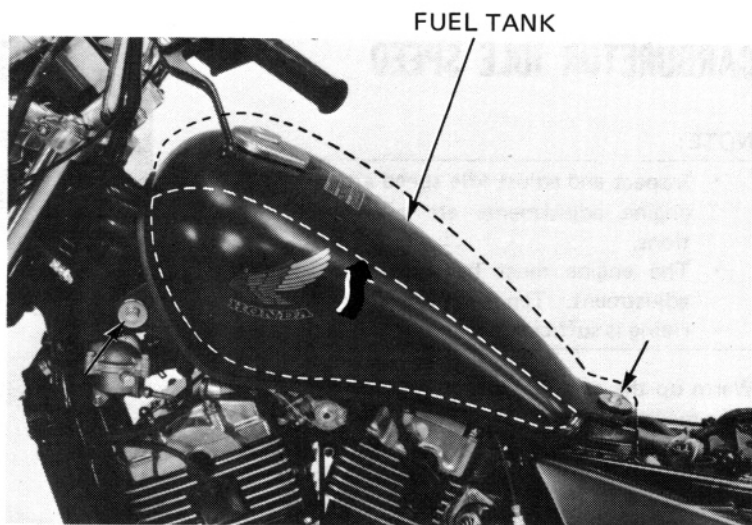
Remove the rear and front seats.



REAR SEAT

FRONT SEAT

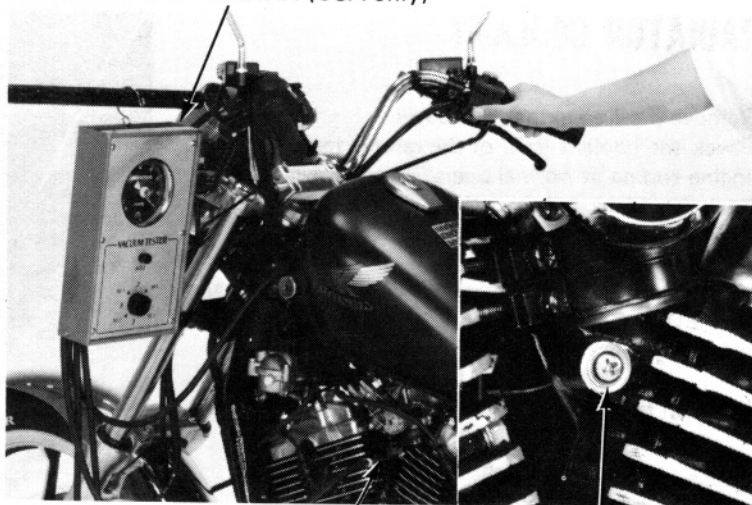
Move the fuel tank back about 25–50 mm (1–2 in) removing the fuel tank mounting bolts. Let it rest on the frame.



FUEL TANK

Remove the plugs from the cylinder head intake ports and install the vacuum gauge adapters. Connect the vacuum gauges.

VACUUM GAUGE 07404-0020000  
OR M937B-021-XXXXX (USA only)



VACUUM GAUGE  
ADAPTER

PLUG

## MAINTENANCE

Warm up the engine and adjust the idle speed with the throttle stop screw.

**IDLE SPEED:** '83:  $900 \pm 100$  rpm  
After '83:  $1000 \pm 100$  rpm

Check that the difference in vacuum readings is 40 mm (1.6 in) Hg or less.

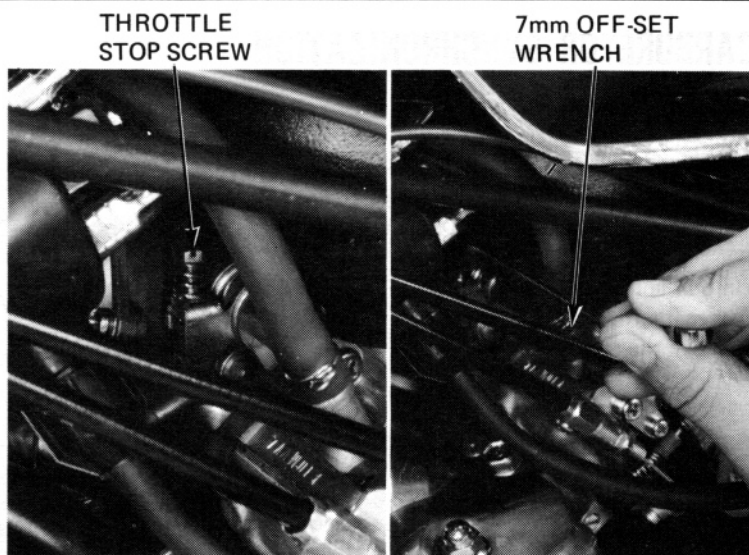
Adjust within specifications by turning the adjusting screw, if necessary. The No. 1 carburetor cannot be adjusted.

It is the base.

Recheck the idle speed and synchronization.

Disconnect the gauges and remove the gauge adapters from the ports.

Install the removed parts in the reverse order of disassembly.

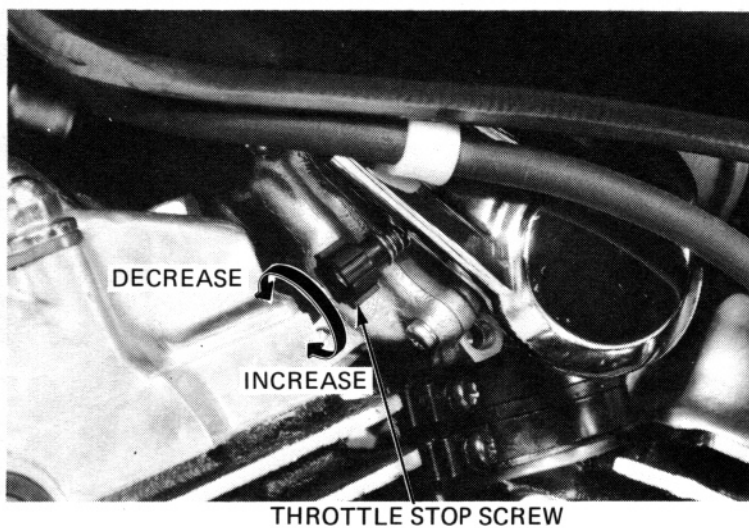


## CARBURETOR IDLE SPEED

### NOTE:

- Inspect and adjust idle speed after all other engine adjustments are within specifications.
- The engine must be warm for accurate adjustment. Ten minutes of stop-and-go riding is sufficient.

Warm up the engine, shift to NEUTRAL, and place the motorcycle on its center stand. Turn the throttle stop screw as required to obtain the specified idle speed.



## RADIATOR COOLANT

Remove the frame right side cover.

Check the coolant level of the reserve tank with the engine running at normal operating temperature. The level should be between the "FULL" and "LOW" level lines.

If necessary, remove the reserve tank cap and fill to the "FULL" level line with a 50/50 mixture of distilled water and anti-freeze.

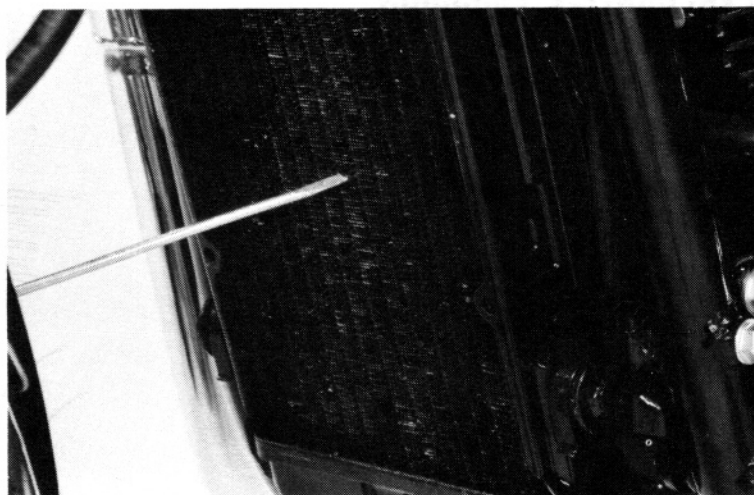
Reinstall the cap and frame side cover.





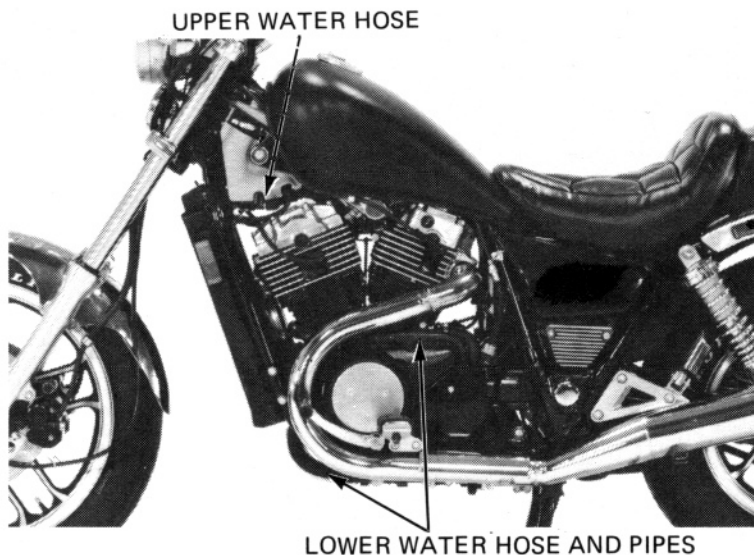
## RADIATOR CORE

Check the air passages for clogging or damage. Straighten bent fins or collapsed core tubes. Remove insects, mud or any obstructions with compressed air or low water pressure. Replace the radiator if the air flow is restricted over more than 20% of the radiating surface.



## COOLING SYSTEM HOSES & CONNECTIONS

Make sure the hoses are in good condition; they should not have any signs of deterioration. Replace any hose that does. Check that all hose clamps are tight.



## CYLINDER COMPRESSION

Warm up the engine to normal operating temperature.

Stop the engine, disconnect both spark plug caps and remove one spark plug from each cylinder.

Insert the compression gauge. Open the throttle all the way and crank the engine with the starter motor. Crank the engine until the gauge reading stops rising. The maximum reading is usually reached within 4-7 seconds.

### COMPRESSION PRESSURE:

$12 \pm 2 \text{ kg/cm}^2$  ( $171 \pm 28 \text{ psi}$ )

If compression is low, check for the following:

- Leaky valves
- Leaking cylinder head gasket
- Worn piston/ring/cylinder.

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

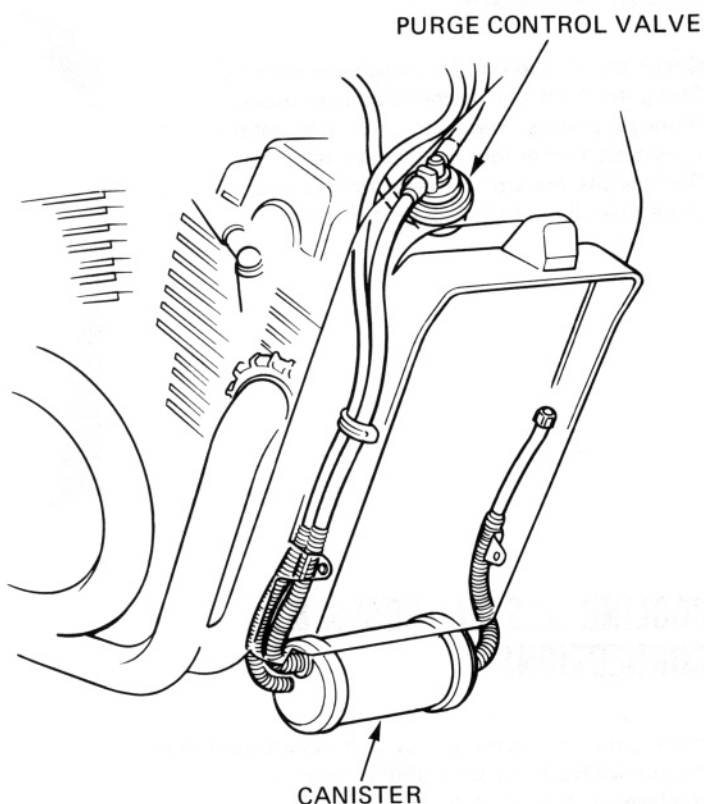


COMPRESSION GAUGE

## EVAPORATIVE EMISSION CONTROL SYSTEM (After '83 : California model only)

Check all hoses to be sure they are securely connected and not kinked. Replace any hose that shows signs of deterioration.

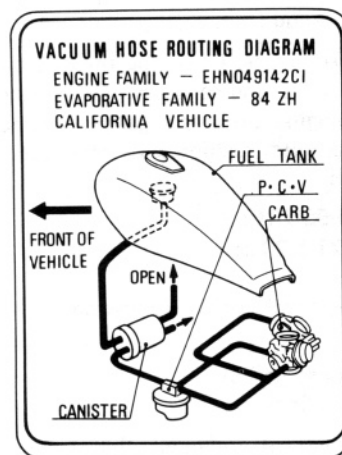
Check the canister for cracks or damage.



## CARBURETOR PIPING

### NOTE:

- Be careful not to bend, twist or kink the tubes when installing.
- Slide the end of each tube onto its fitting fully and secure with a tube band. Secure with the tube clamps whenever specified.
- Replace the tubes with new ones if they show signs of deterioration or damage.
- After installing the carburetor on the engine, check that the tubes are not contacting sharp edges or corners.



## BATTERY

Remove the left side cover and inspect the battery fluid level. When the fluid level nears the lower level, remove the battery and add distilled water to the upper level line as follows:

Remove the regulator/rectifier holder bolt and open the holder.

Disconnect the negative cable at the battery terminal. Then remove the positive cable.

Pull out the battery and add distilled water to the upper level line.

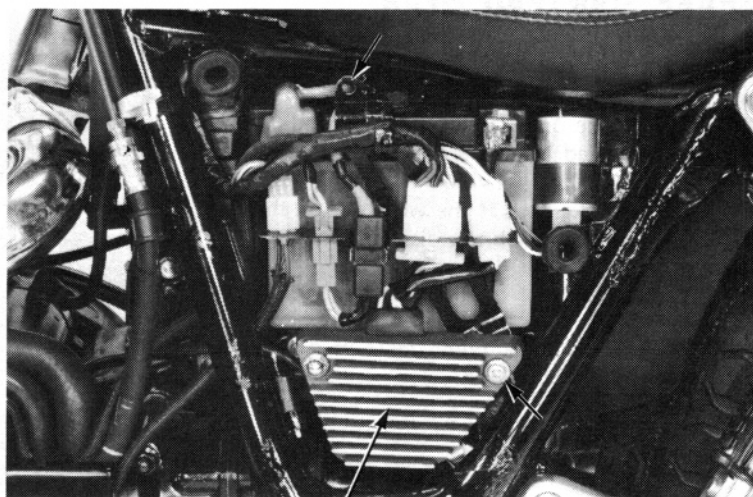
Reinstall the battery.

### NOTE:

Add only distilled water. Tap water will shorten the service life of the battery.

### WARNING

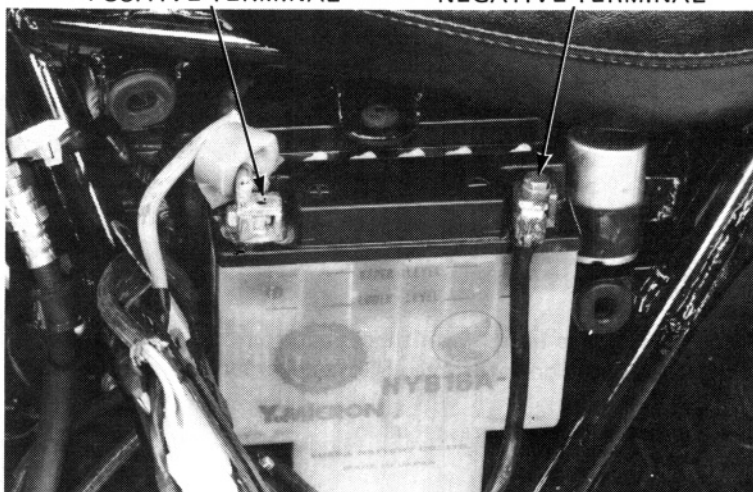
*The battery electrolyte contains sulphuric acid. Protect your eyes, skin, and clothing. If electrolyte gets in your eyes; flush them thoroughly with water and get prompt medical attention.*



REGULATOR/RECTIFIER  
HOLDER

POSITIVE TERMINAL

NEGATIVE TERMINAL



## BRAKE FLUID

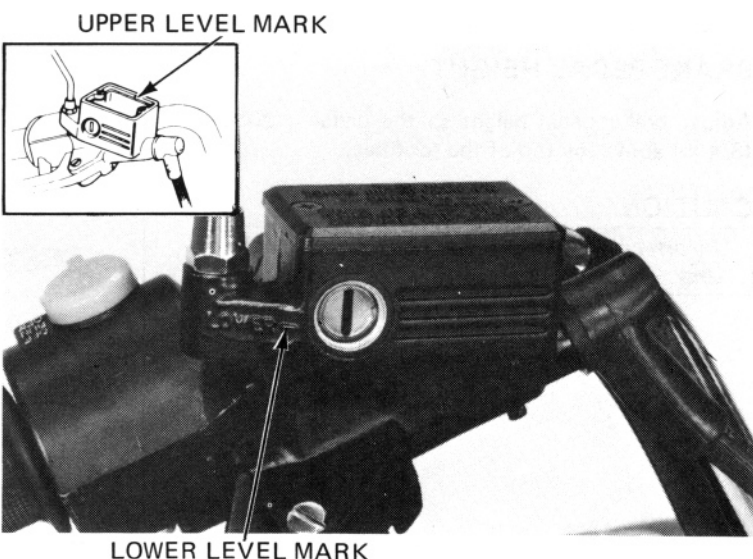
Check the front brake fluid reservoir level. If the level nears the lower level mark remove the cover and diaphragm. Fill the reservoir with DOT-3 Brake Fluid to the upper level mark located inside the reservoir.

Check the entire system for leaks, if the level is low.

### CAUTION:

- Do not remove the cover until the handlebar has been turned so that the reservoir is level.
- Avoid operating the brake lever with the cap removed. Brake fluid will squirt out if the lever is pulled.
- Do not mix different types of fluid, as they are not compatible with each other.

Refer to section 17 for brake bleeding procedures.



UPPER LEVEL MARK

LOWER LEVEL MARK

## MAINTENANCE

### BRAKE SHOE/PAD WEAR

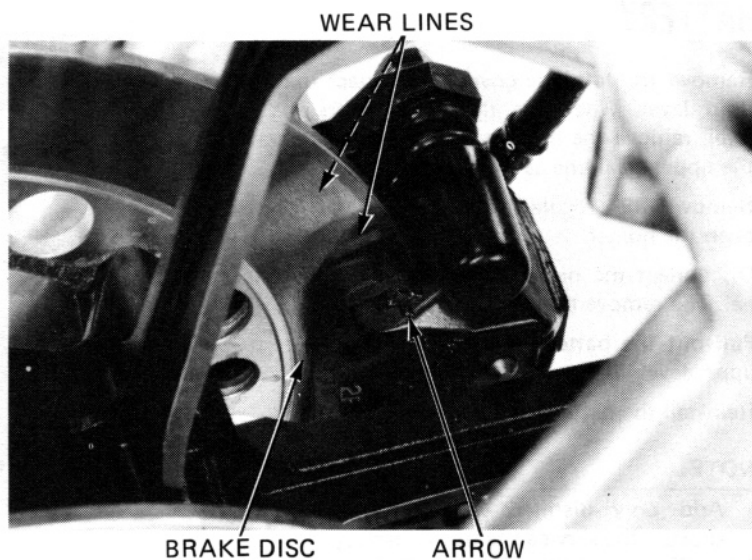
#### BRAKE PAD WEAR

Check the brake pads for wear by looking through the slot indicated by the arrow cast on the caliper assembly.

Replace the brake pads if the wear line on the pads reaches the edge of the brake disc (page 17-5).

#### CAUTION:

*Always replace the brake pads as a set to assure even disc pressure.*



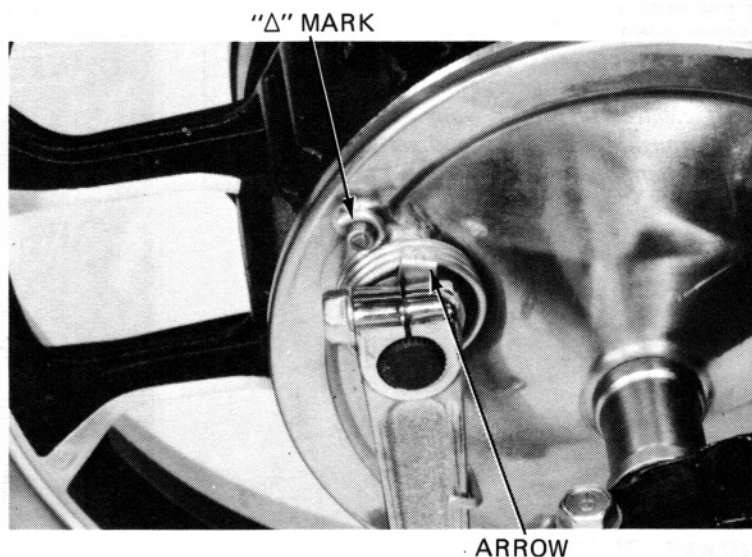
#### BRAKE SHOE INSPECTION

Replace the brake shoes if the arrow on the brake arm aligns with the reference mark "Δ" on full application of the rear brake pedal.

### BRAKE SYSTEM

Inspect the brake hoses and fittings for deterioration, cracks and signs of leakage. Tighten any loose fittings.

Replace hoses and fittings as required.

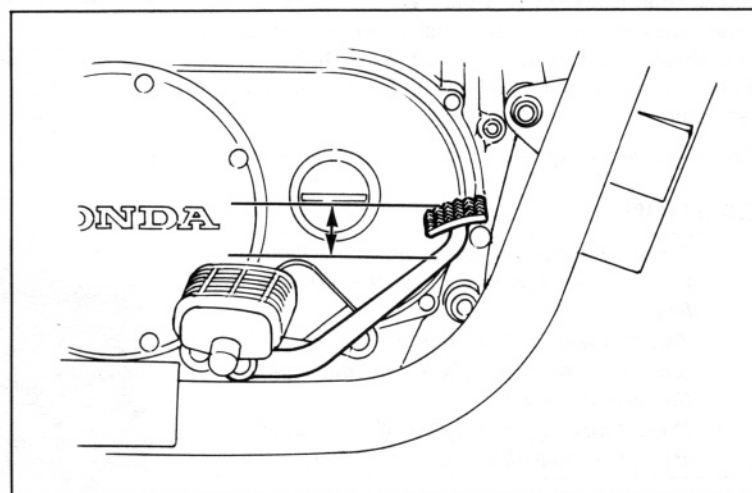


#### BRAKE PEDAL HEIGHT

Adjust brake pedal height so the pedal is 20 mm (3/4 in) above the top of the foot peg.

#### CAUTION:

*Incorrect brake pedal height can cause brake drag.*





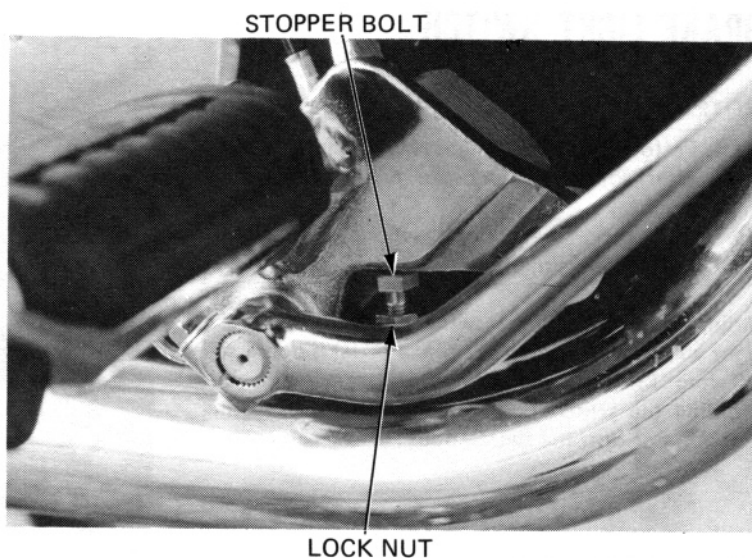
### To Adjust:

Loosen the stopper bolt lock nut and turn the stopper bolt.

Retighten the lock nut.

### NOTE:

After adjusting the brake pedal height, check the rear brake light switch and brake pedal free play and adjust if necessary.



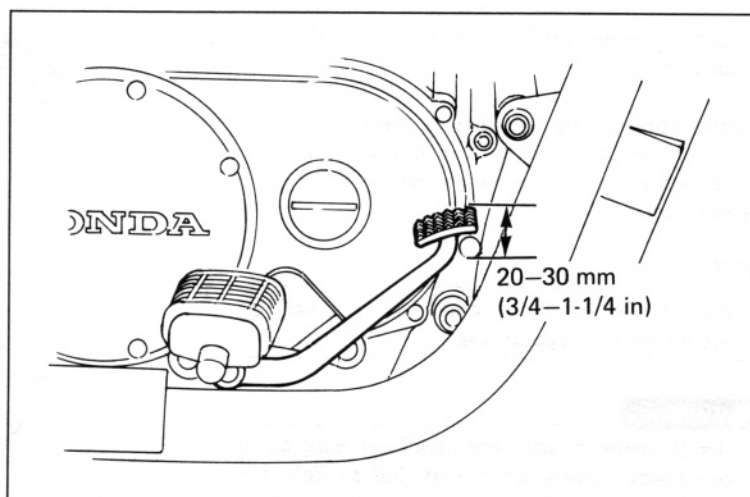
## BRAKE PEDAL FREE PLAY

### NOTE:

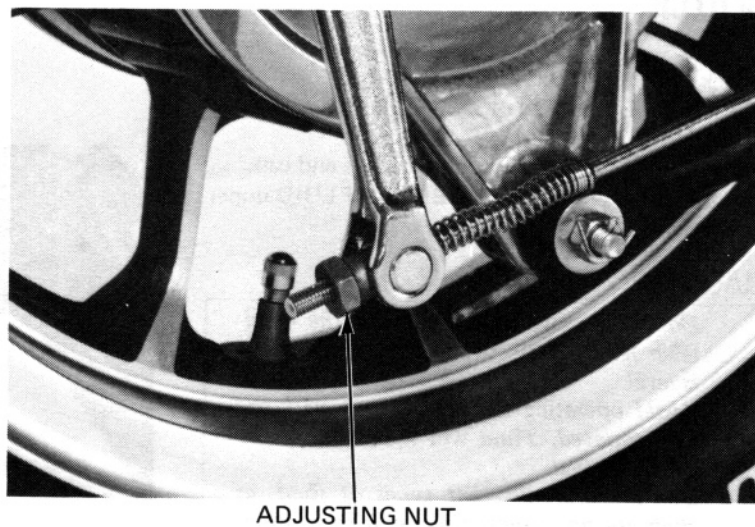
Perform brake pedal free play adjustment after adjusting brake pedal height.

Check the brake pedal free play.

**FREE PLAY: 20–30 mm (3/4–1-1/4 in)**



If adjustment is necessary, turn the rear brake adjusting nut.



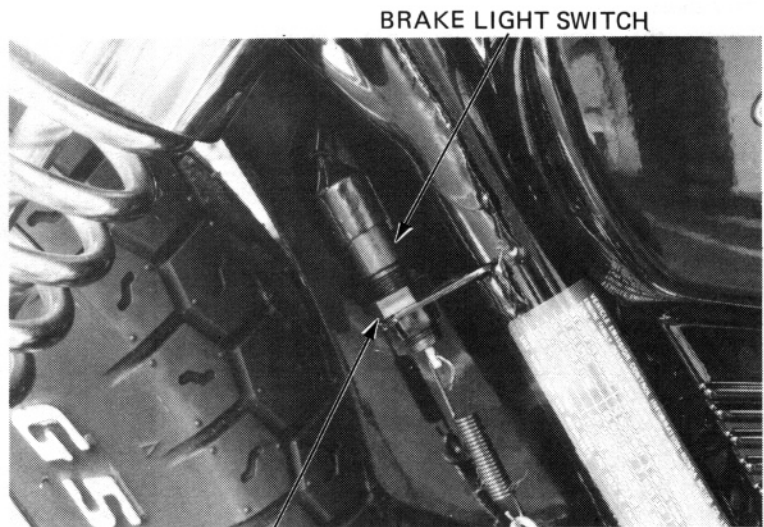
## MAINTENANCE

### BRAKE LIGHT SWITCH

#### NOTE:

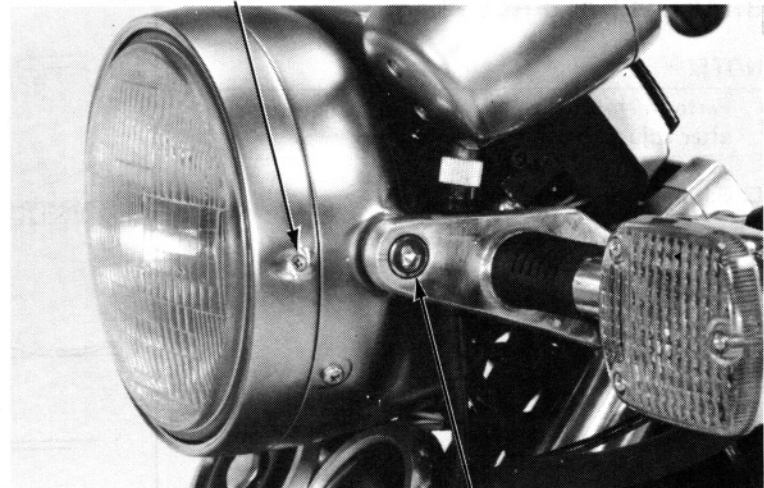
- Perform rear brake light switch adjustment after adjusting the brake pedal play and height.
- The front brake light switch does not require adjustment.

Adjust the brake light switch so that the brake light will come on when the brake pedal is depressed 20 mm (3/4 in), and brake engagement begins. Holding the switch body and turning the adjusting nut. Do not turn the switch body.



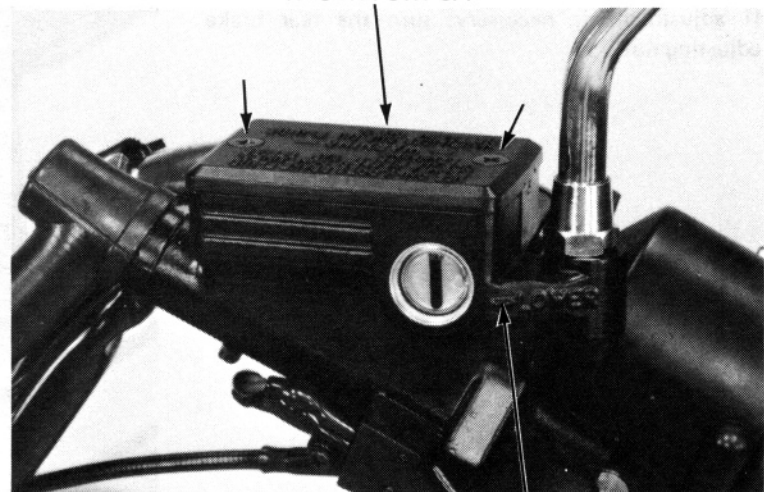
ADJUSTING NUT

ADJUSTING SCREW



MOUNTING BOLT

CLUTCH  
RESERVOIR CAP



“LOWER” LEVEL MARK

### HEADLIGHT AIM

Adjust vertically by loosening both headlight case mounting bolts.

Adjust horizontally by turning the adjusting screw on the headlight rim. Turn the adjusting screw clockwise to direct the beam toward the right side of the rider.

#### NOTE:

Adjust the headlight beam as specified by local laws and regulations.

#### WARNING

*An improperly adjusted headlight may blind oncoming drivers, or it may fail to light the road for a safe distance.*

### CLUTCH

Check the clutch fluid level.

If the level is under the lower level mark, check the clutch system for leak.

Remove the reservoir cap mount screws and cap.

Fill the reservoir with DOT-3 BRAKE FLUID upper the lower level mark.

#### CAUTION:

- Do not remove the cover until the handlebar has been turned so that the reservoir is level.
- Avoid operating the clutch lever with the cap removed. Fluid will squirt out if the lever is pulled.
- Do not mix different types of fluid, as they are not compatible with each other.



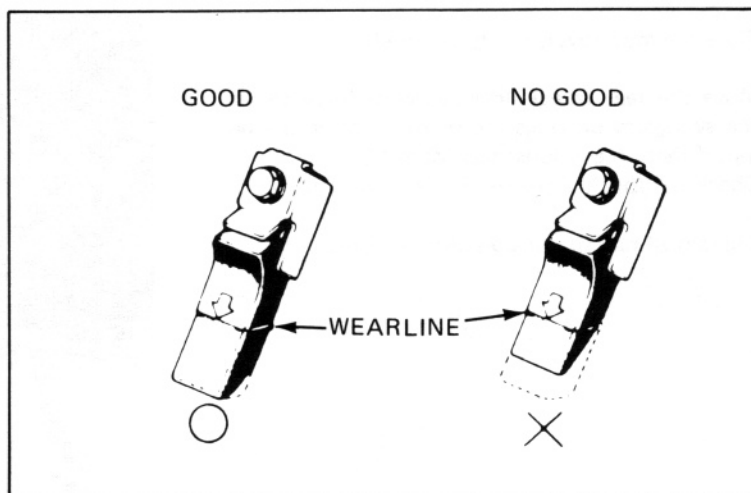
## SIDE STAND

Check the rubber pad for deterioration or wear. Replace if any wear extends to wear line as shown.

Check the side stand spring for damage and loss of tension, and the side stand assembly for freedom of movement. Make sure the side stand is not bent.

### NOTE:

- When replacing, use a rubber pad with the mark "Over 260 lbs ONLY".
- Spring tension is correct if the measurements fall within 2–3 kg (4.4–6.6 lb), when pulling the side stand lower end with a spring scale.



## SUSPENSION

### WARNING

*Do not ride a vehicle with faulty suspension. Loose, worn or damaged suspension parts impair vehicle stability and control.*

### FRONT

Check the action of the front forks by compressing them several times.

Check the entire fork assembly for leaks or damage. Replace damaged components which cannot be repaired.

Tighten all nuts and bolts.

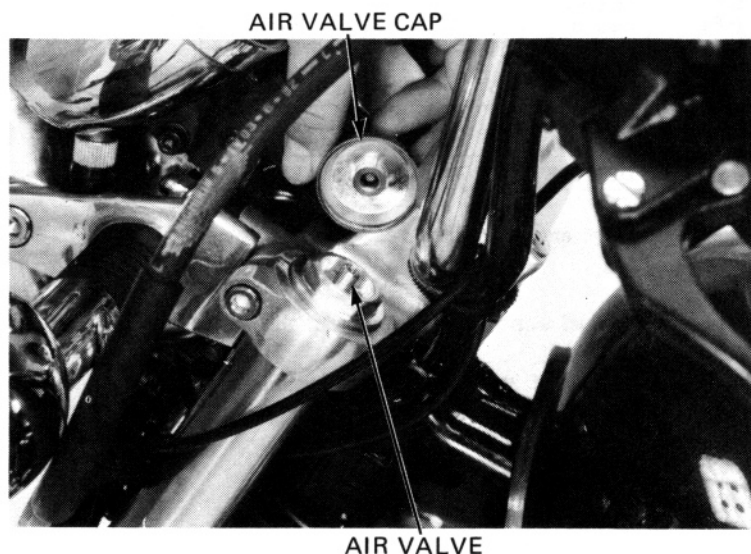
Check the front fork air pressure when the forks are cold.

Place the vehicle on its center stand.

Remove each air valve cap and measure the air pressure.

### AIR PRESSURE:

0–6 psi (0–40 kPa, 0–0.4 kg/cm<sup>2</sup>)



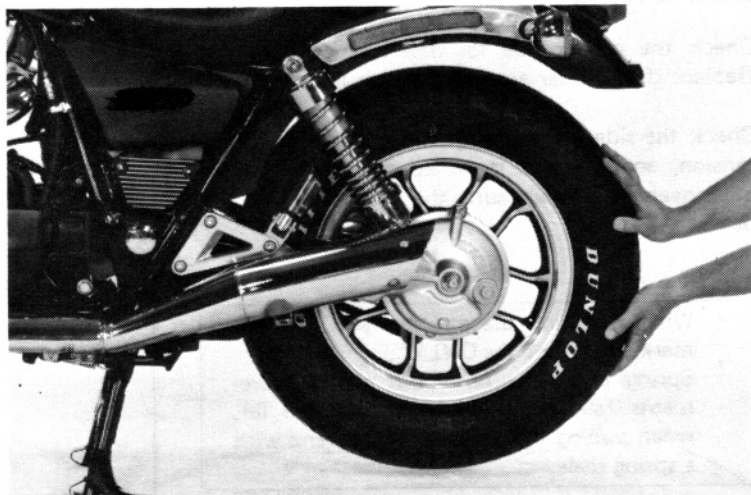
## MAINTENANCE

### REAR

Place the motorcycle on its center stand.

Move the rear wheel sideways with force to see if the swingarm bearings are worn. Replace the bearings if there is any looseness (page 16-5).  
Check the shock absorbers for leaks or damage.

Tighten all rear suspension nuts and bolts.



### WHEELS

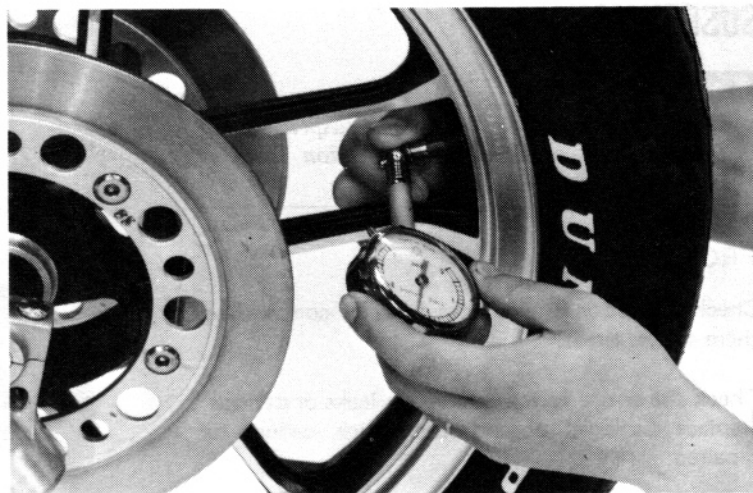
#### NOTE:

Tire pressure should be checked when tires are COLD.

Check the tires for cuts, imbedded nails, or other sharp objects.

#### RECOMMENDED TIRES AND PRESSURES:

		Front	Rear
Tire size		110/90-19 62H	140/90-15 70H
Cold tire pressure psi (kPa, kg/cm <sup>2</sup> )	Up to 90 kg (200 lbs) load	32 (225, 2.25)	32 (225, 2.25)
	90 kg (200 lbs) load to vehicle capacity load	32 (225, 2.25)	40 (280, 2.8)
Tire brand	BRIDGE- STONE	L303	G508
	DUNLOP	F11	K627C



Check the front and rear wheels for trueness (page 15-15 and 16-5).

Measure the tread depth at the center of the tires.

Replace the tires if the tread depth reaches the following limits:

#### Minimum tread depth:

Front: 1.5 mm (1/16 in)

Rear: 2.0 mm (3/32 in)

## STEERING HEAD BEARINGS

### NOTE:

Check that the control cables do not interfere with handlebar rotation.

Raise the front wheel off the ground and check that the handlebar rotates freely. If the handlebar moves unevenly, binds, or has vertical movement, adjust the steering head bearing by turning the steering head adjusting nut (page 15-31).



## NUTS, BOLTS, FASTENERS

Check that all chassis nuts and bolts are tightened to their correct torque values (Section 1) at the intervals shown in the Maintenance Schedule (Page 3-3).

Check all cotter pins, safety clips, hose clamps and cable stays.