

HOW TO USE THIS MANUAL

Follow the Maintenance Schedule recommendations to ensure that the vehicle is in peak operating condition and the emission levels are within the standards set by the U.S. Environmental Protection Agency. Performing the first scheduled maintenance is very important. It compensates for the initial wear that occurs during the break-in period.

Sections 1 through 3 apply to the whole motor scooter, while sections 4 through 14 describe parts of the motor scooter, grouped according to location.

Find the section you want on this page, then turn to the table of contents on page 1 of that section.

Most sections start with an assembly or system illustration, service information and troubleshooting for the section. The subsequent pages give detailed procedures.

If you don't know what the source of the trouble is, refer to section 16, Troubleshooting.

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HONDA MOTOR CO., LTD.
 Service Publications Office

CONTENTS

	GENERAL INFORMATION	1
	LUBRICATION	2
	MAINTENANCE	3
ENGINE	FUEL SYSTEM	4
	ENGINE REMOVAL/INSTALLATION	5
	CYLINDER HEAD/CYLINDER/PISTON	6
	ALTERNATOR	7
	DRIVE AND DRIVEN PULLEYS/CLUTCH	8
	FINAL REDUCTION	9
	CRANKCASE/CRANKSHAFT	10
CHASSIS	FRAME COVERS	11
	STEERING/FRONT WHEEL/BRAKE/SUSPENSION	12
	REAR WHEEL/BRAKE/SUSPENSION	13
ELECTRICAL	ELECTRICAL EQUIPMENT	14
	WIRING DIAGRAM	15
	TROUBLESHOOTING	16

GENERAL SAFETY	1-1	TORQUE VALUES	1-5
SERVICE RULES	1-1	TOOLS	1-6
MODEL IDENTIFICATION	1-2	CABLE & HARNESS ROUTING	1-7
SPECIFICATIONS	1-3	NOISE EMISSION CONTROL SYSTEMS (U.S.A. only)	1-10

GENERAL SAFETY

 **WARNING**

If the engine must be running to do some work, make sure the area is well-ventilated. Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas.

 **WARNING**

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

 **WARNING**

The battery electrolyte contains sulfuric acid. Protect your eyes, skin and clothing. In case of contact, flush thoroughly with water and call a doctor if electrolyte gets in your eyes.

 **WARNING**

The battery generates hydrogen gas which can be highly explosive. Do not smoke or allow flames or sparks near the battery, especially while charging it.

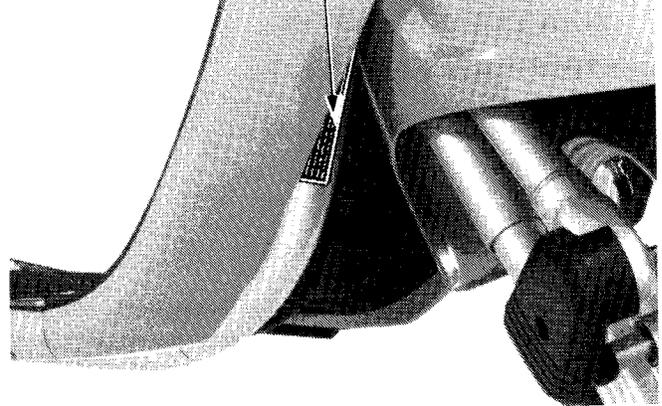
SERVICE RULES

1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalents. Parts that do not meet HONDA's design specifications may damage the scooter.
2. Use the special tools designed for this scooter.
3. Use only metric tools when servicing this scooter. Metric bolts, nuts, and screws are not interchangeable with English fasteners. The use of incorrect tools and fasteners may damage the scooter.
4. Install new gaskets, O-rings, cotter pins, lock plates, etc. when reassembling.
5. When tightening bolts or nuts, begin with larger-diameter or inner bolts first, and tighten to the specified torque diagonally in 2 or 3 steps, unless a particular sequence is specified.
6. Clean parts in non-flammable or high flash point solvent upon disassembly. Lubricate any sliding surfaces before reassembly.
7. After reassembly, check all parts for proper installation and operation.
8. Route all electrical wires as shown on page 1-7, Cable and Harness Routing, and always away from sharp edges and areas where they might be pinched between moving parts.

MODEL IDENTIFICATION

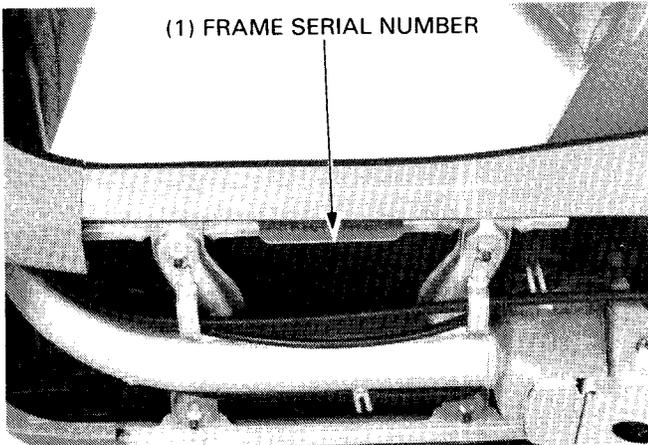


(3) VEHICLE IDENTIFICATION NUMBER



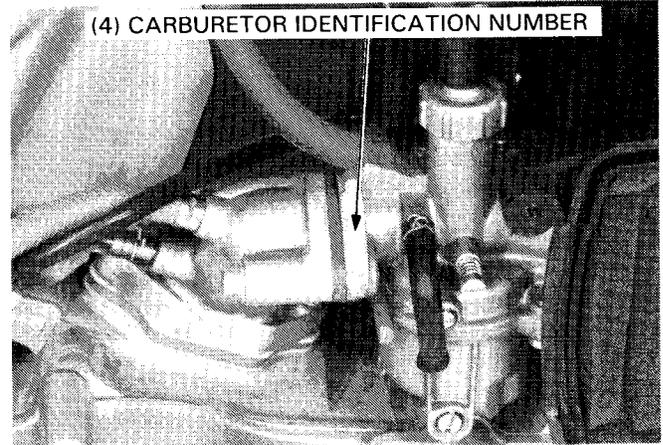
The vehicle identification number is on the frame tube in front of the right front cover.

(1) FRAME SERIAL NUMBER



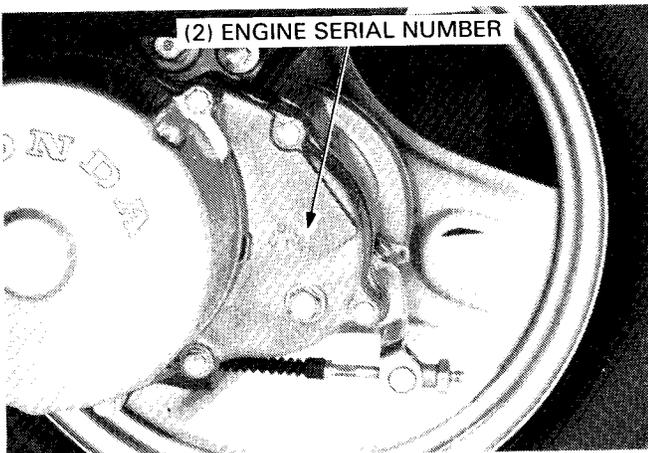
The frame serial number is stamped on the left side of the frame.

(4) CARBURETOR IDENTIFICATION NUMBER



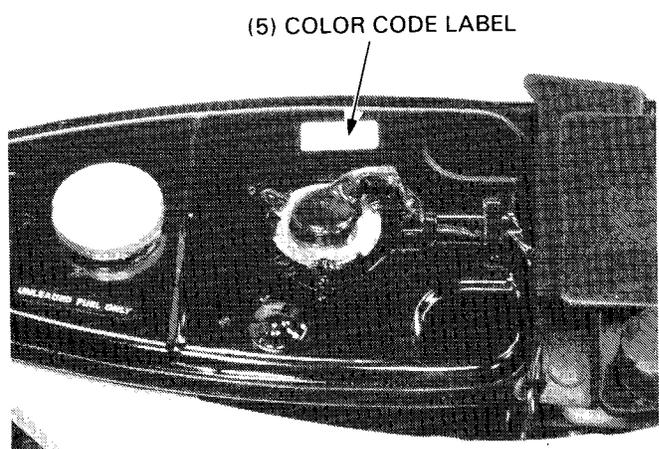
The carburetor identification number is on the left side of the carburetor body.

(2) ENGINE SERIAL NUMBER



The engine serial number is stamped on the left side of the engine case.

(5) COLOR CODE LABEL



The color code label is attached to the fuel tank below the seat. When ordering a color coded part, always specify its designated color.

SPECIFICATIONS

ITEM		SPECIFICATIONS
DIMENSIONS	Overall length	1,595 mm (62.8 in)
	Overall width	625 mm (24.6 in)
	Overall height	965 mm (38.0 in)
	Wheel base	1,130 mm (44.5 in)
	Ground clearance	100 mm (3.9 in)
	Dry weight	55 kg (121.3 lb)
	FRAME	Type
Front suspension, travel		Trailing link, 43 mm (1.69 in)
Rear suspension, travel		Final drive unit/swing arm 60 mm (2.36 in)
Vehicle capacity load		82 kg (180 lb)
Front tire size, pressure		2.75-10-4PR, 150 kPa (1.5 kg/cm ² , 21 psi)
Rear tire size, pressure		2.75-10-4PR, 200 kPa (2.0 kg/cm ² , 28 psi)
Front brake		Internal expanding shoe
Rear brake		Internal expanding shoe
Fuel capacity		3.7 liter (0.98 U.S. gal., 0.81 Imp. gal.)
Caster angle		28°
Trail		77 mm (3.0 in)
ENGINE		Type
	Cylinder arrangement	Single cylinder inclined 15° from vertical
	Bore and stroke	41 x 37.4 mm (1.61 x 1.47 in)
	Displacement	49.3 cm ³ (3.0 cu, in)
	Compression ratio	6.8 : 1
	Transmission oil capacity	90 cc (3.0 U.S. oz, 2.5 Imp. oz)
	Oil tank capacity	0.8 liter. (0.85 U.S. qt, 0.70 Imp. qt)
	Lubrication system	Oil automatically mixed with gasoline
	Port timing	
	Intake	Open
		Close
	Exhaust	Open
		Close
	Scavenge	Open
		Close
Engine dry weight	14 kg (30.9 lb)	
Idle speed	1,800 ± 100 min ⁻¹ (rpm)	
CARBURETION	Carburetor type	Piston valve
	Identification number	PA04G
	Air screw initial setting	1-1/4 turns out
	Float level	12.2 mm (0.48 in)

GENERAL INFORMATION

ITEM		SPECIFICATIONS	
DRIVE TRAIN	Clutch type	Automatic dry centrifugal clutch	
	Primary reduction	V-Belt	
ELECTRICAL	Gear ratio	2.4—0.8:1	
	Final reduction	11.097:1	
ELECTRICAL	Ignition	Condenser capacitive discharge ignition (CDI)	
	Starting system	Starter motor	
	Alternator	12V 96W/5,000 min ⁻¹ (rpm)	
	Spark plug	NGK	ND
	Standard	BPR6HSA, BPR6HS	W20FPR-L, W20FPR
	For cold climate	BPR4HSA, BPR4HS	W14FPR-L
ELECTRICAL	For extended high speed riding	BPR8HSA, BPR8HS	W24FPR-L, W24FPR
	Spark plug gap	0.6—0.7 mm (0.024—0.028 in)	
ELECTRICAL	Ignition timing "F" mark	13° BTDC at 1,800 ± 100 min ⁻¹ (rpm)	
	Battery capacity	12V3AH	
	Fuse capacity	7A	
LIGHTS	Headlight Low/High	12V-25/25W	
	Tail/stoplight	12V-2/32 cp	SAE No. 2057
	Turn signal Front/Rear	12V-32 cp	SEA No. 1073
	Speedometer light	12V-1 cp x 2	SAE No. 53
	High beam indicator	12V-1 cp	SAE No. 53
	Turn signal indicator	12V-2 cp	SAE No. 57

TORQUE VALUES

ENGINE

Item	Q'ty	Thread Dia (mm)	Torque N·m (kg-m, ft-lb)	Remarks
Cylinder head	4	6	9-12 (0.9-1.2, 7-9)	While the engine is cold. (Below 35°C, 95°F)
Flywheel	1	10	35-40 (3.5-4.0, 25-29)	
Drive pulley	1	10	35-40 (3.5-4.0, 25-29)	While the engine is cold. (Below 35°C, 95°F)
Intake pipe	2	6	8-12 (0.8-1.2, 6-9)	
Clutch outer	1	10	35-40 (3.5-4.0, 25-29)	While the engine is cold. (Below 35°C, 95°F)
Carburetor	2	6	9-12 (0.9-1.2, 7-9)	
Clutch lock nut	1	28	35-40 (3.5-4.5, 25-29)	

CHASSIS

Item	Q'ty	Thread Dia (mm)	Torque N·m (kg-m, ft-lb)	Remarks	
Steering stem nut	1	25.4	80-120 (8.0-12.0, 58-87)	Self-locking nut	
Front axle nut	1	10	40-50 (4.0-5.0, 29-36)		
Steering stem lock nut	1	25.4	5-13 (0.5-1.3, 4-10)		
Front shock absorber upper mount bolt	2	8	20-30 (2.0-3.0, 14-22)		
Front shock absorber lower mount bolt	2	8	0.8-1.2 (0.08-0.12, 0.6-0.9)		
Front shock absorber lower mount nut	2	8	15-20 (1.5-2.0, 11-14)		
Pivot arm bolt lower mount bolt	2	8	27-33 (2.7-3.3, 20-24)		
Engine hanger bolts	2	8	35-45 (3.5-4.5, 25-33)		
Rear axle nut	1	14	80-100 (8.0-10.0, 58-72)		Self-locking nut
Rear shock absorber (Upper)	1	10	30-45 (3.0-4.5, 22-33)		
Rear shock absorber (Lower)	1	8	20-30 (2.0-3.0, 14-22)		
Front/Rear brake arm	2	5	4-7 (0.4-0.7, 3-5)		

Torque specifications listed above are for specific fasteners. Others should be tightened to the standard torque values below.

STANDARD TORQUE VALUES

Item	Torque Values N·m (kg-m, ft-lb)	Item	Torque Values N·m (kg-m, ft-lb)
5 mm bolt and nut	4.5-6 (0.45-0.6, 3-4)	5 mm screw	3.5-5 (0.35-0.5, 2-4)
6 mm bolt and nut	8-12 (0.8-1.2, 6-9)	6 mm screw and 6 mm bolt with 8 mm head	7-11 (0.7-1.1, 5-8)
8 mm bolt and nut	18-25 (1.8-2.5, 13-18)	6 mm flange bolt and nut	10-14 (1.0-1.4, 7-10)
10 mm bolt and nut	30-40 (3.0-4.0, 22-29)	8 mm flange bolt and nut	24-30 (2.4-3.0, 17-22)
12 mm bolt and nut	50-60 (5.0-6.0, 36-43)	10 mm flange bolt and nut	35-45 (3.5-4.5, 25-33)

GENERAL INFORMATION

TOOLS

SPECIAL

Description	Tool Number	Alternate Tool	Tool number	Ref.Sec
Vacuum pump (U.S.A. only)	A937X-041-XX XXX	Vacuum pump (U.S.A. only: Included in turbo kit)	ST-AH-260-MC7	4
*Lock nut wrench, 39 mm	07916-1870002	39 mm socket		8
*Universal bearing puller	07631-0010000			10
Case puller	07935-KG80000			10
Lock nut wrench	07916-1870100	Equivalent commercially available in U.S.A.		12
Lock nut wrench	07916-GK00000			12
Attachment, 28 x 30 mm	07946-1870100			8, 12
Clutch spring compressor	07960-KJ90000			8
Assembly collar	07965-1480100			9, 10
Assembly bolt	07965-1480200			9, 10
Shock absorber compressor attachment	07967-GA70101			12, 13
Spring attachment	07967-1180100			13
Bearing remover, 15 mm	07936-KC10500			9
Bearing remover, 12 mm	07936-1660100			9
Bearing remover, 17 mm	07936-3710300			8
Remover handle	07936-3710100			8, 9
Remover weight	07741-0010201	Remover weight	07936-3710200	8, 9
Shock absorber compressor spring attachment	07967-KM10100			12
Bearing driver	07945-GC80000			8
Case puller	07935-GK80000			10

* These tools are not available in the U.S.A. Equivalent tools or commercially available in the U.S.A. or other methods are recommended. Refer to the alternate tool column.

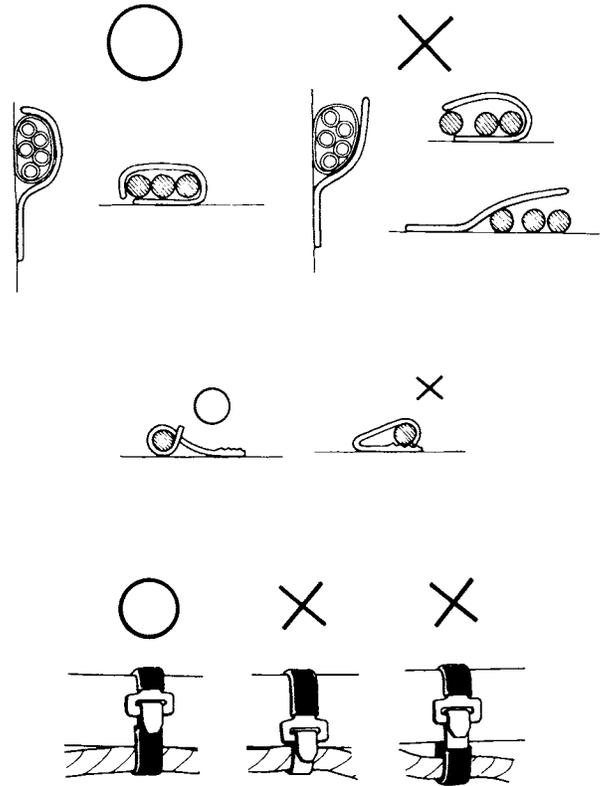
COMMON

Description	Tool Number	Alternate Tool	Tool number	Ref.Sec
Float level gauge	07401-0010000			4
Universal holder	07725-0030000			7, 8
Flywheel puller	07733-0010000	Flywheel puller	07933-0010000	7
Attachment, 32 x 35 mm	07746-0010100			9
Attachment, 37 x 40 mm	07746-0010200			9, 10
Attachment, 42 x 47 mm	07746-0010300			10, 12
Pilot, 10 mm	07746-0040100			12
Pilot, 12 mm	07746-0040200			9
Pilot, 15 mm	07746-0040300			9
Pilot, 17 mm	07746-0040400			9, 10
Pilot, 20 mm	07746-0040500			10
Driver	07749-0010000			8, 9, 10, 12
Bearing remover shaft	07746-0050100	Equivalent commercially available in U.S.A.		12
Bearing remover head, 10 mm	07746-0050200			12
Shock absorber compressor	07959-3290001			12, 13
Lock nut wrench, 30 x 32 mm	07716-0020400	Equivalent commercially available in U.S.A.		12
Extension bar	07716-0020500			12

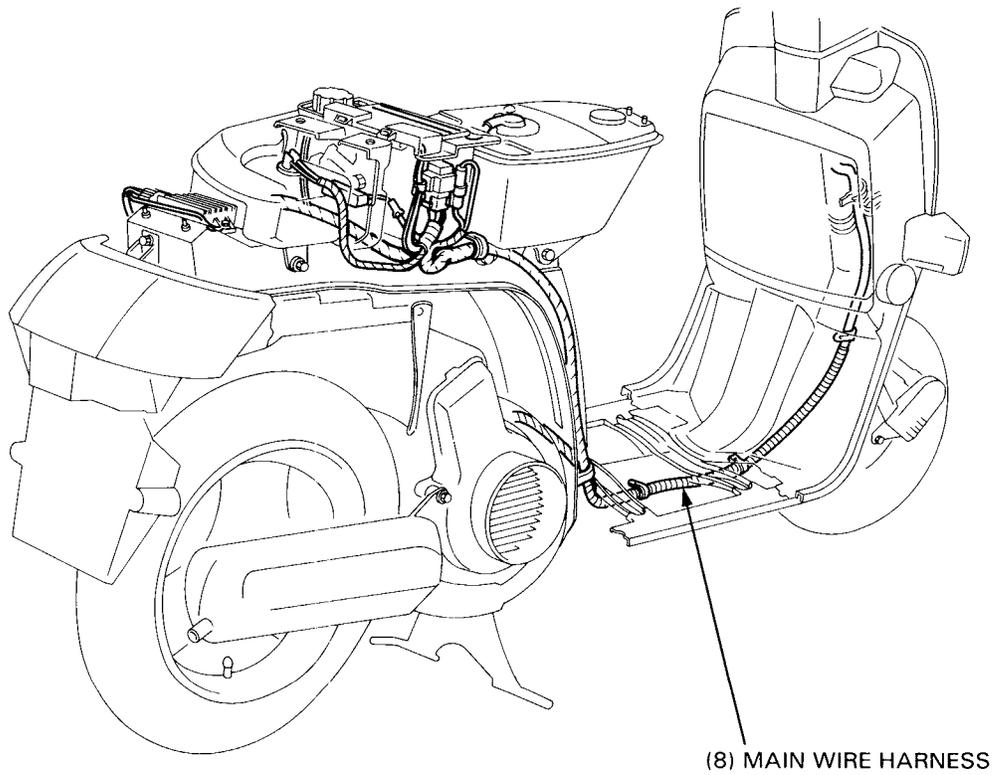
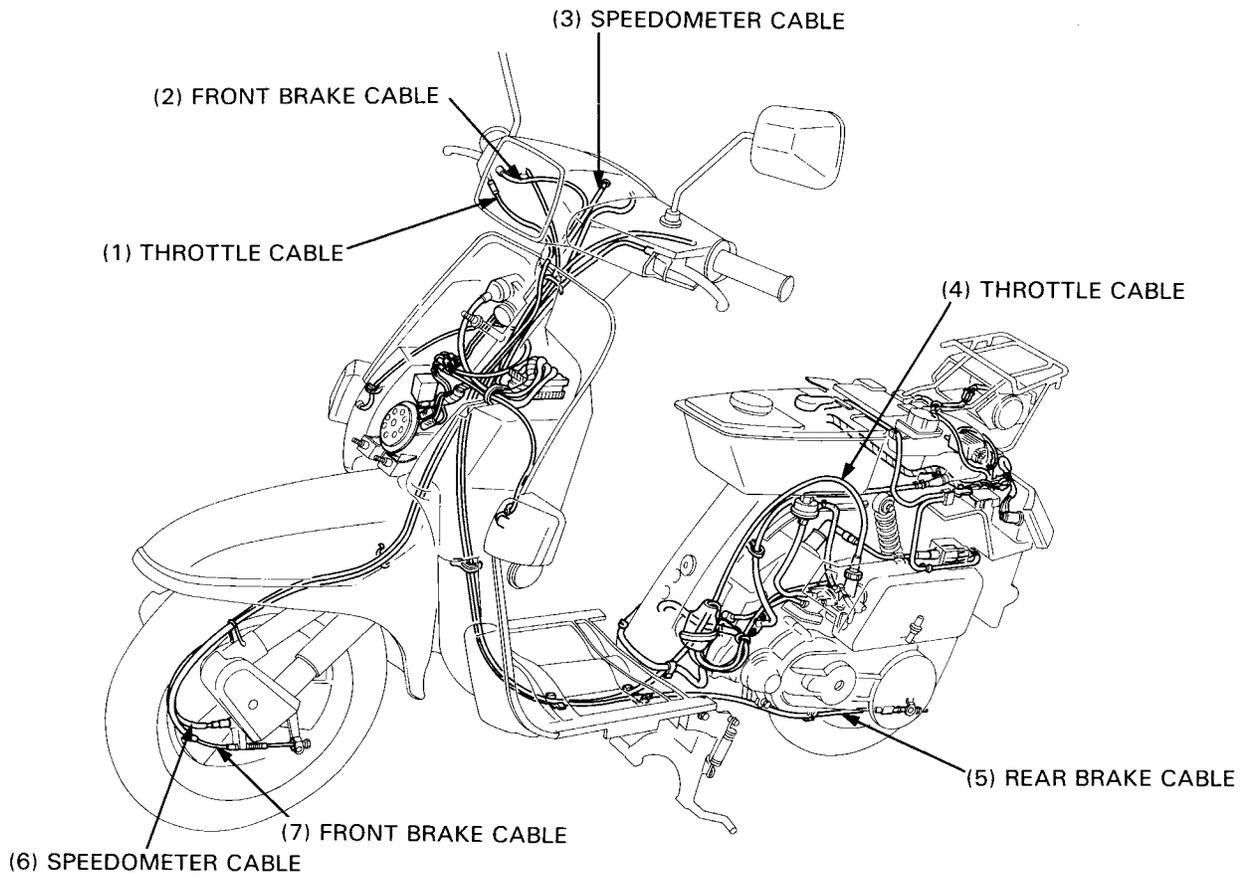
CABLE & HARNESS ROUTING

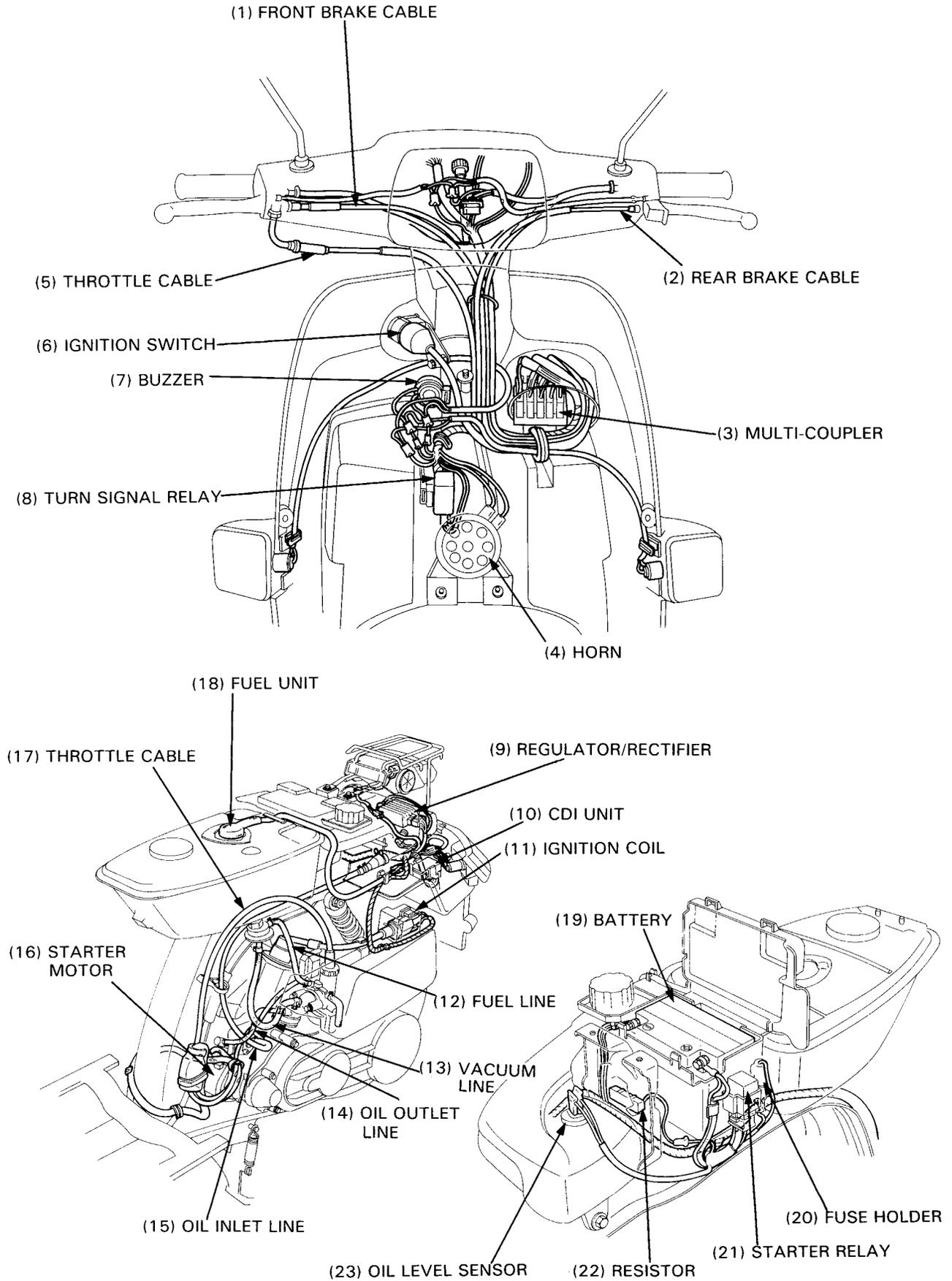
Note the following when routing cables and wire harnesses.

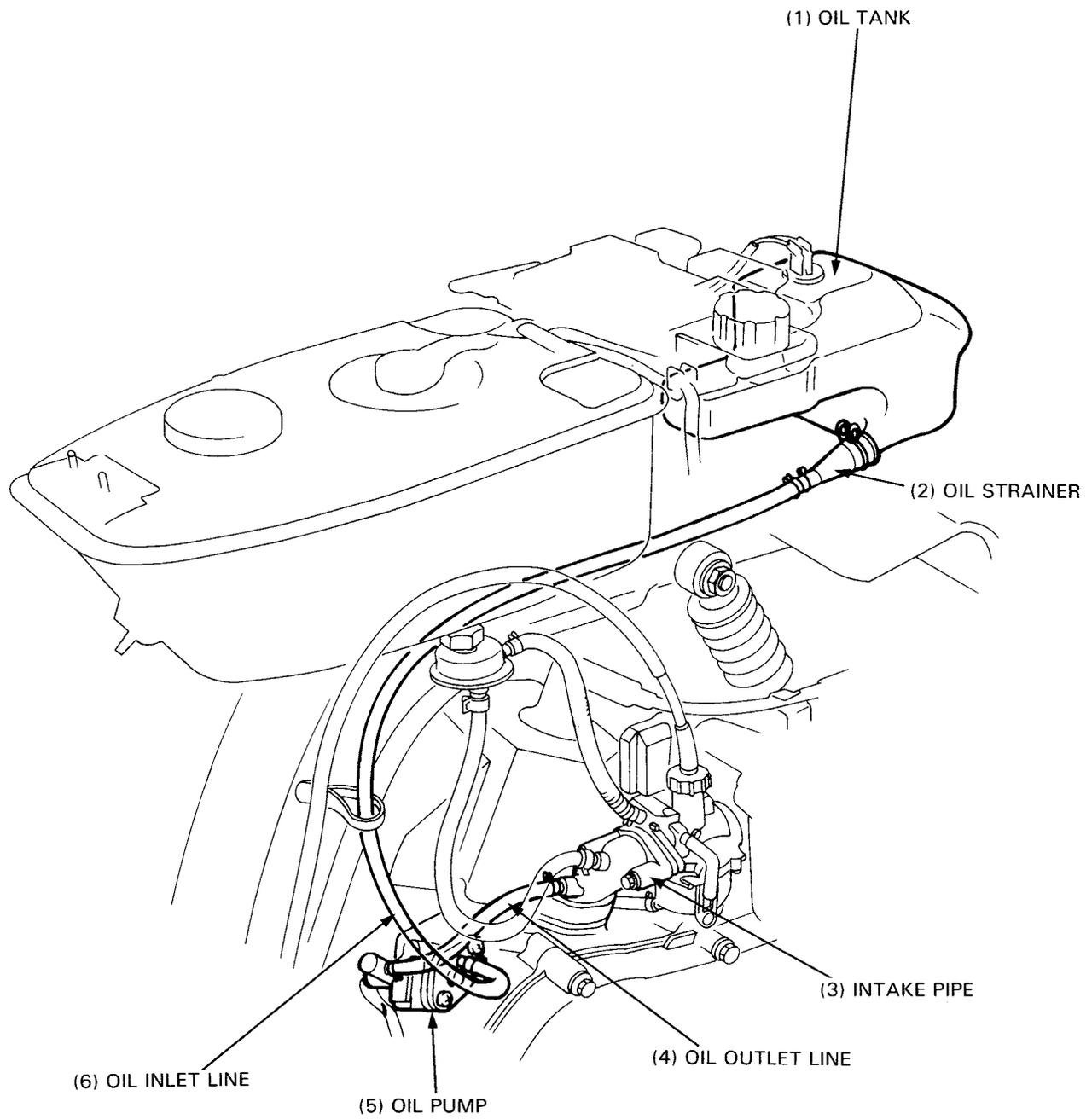
- A loose wire harness or cable can be a safety hazard. After clamping, check each wire to be sure it is secure.
- Do not squeeze wires against a weld or end of a clamp.
- Secure wires and wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wires or wire harnesses.
- Route harnesses so they are not pulled tight or have excessive slack.
- Protect wires and harnesses with electrical tape or tubes if they contact a sharp edge or corner. Clean the attaching surface thoroughly before applying tape.
- Do not use wires or harnesses with broken insulation. Repair by wrapping them with a protective tape or replace them.
- Route wire harnesses to avoid sharp edges and corners. Also avoid the projected ends of bolts and screws.
- Keep wire harnesses away from the exhaust pipes and other hot parts.
- Be sure grommets are seated in their grooves properly.
- After clamping, check each harness to be certain that it is not interfering with any moving or sliding parts.
- Wire harnesses routed along the handlebars should not be pulled taut, have excessive slack, be pinched, or interfere with adjacent or surrounding parts in all steering positions.
- After routing, check that the wire harnesses are not twisted or kinked.



GENERAL INFORMATION







2. LUBRICATION

SERVICE INFORMATION	2-1	OIL STRAINER	2-3
TROUBLESHOOTING	2-1	OIL TANK	2-4
OIL PUMP	2-2	LUBRICATION POINTS	2-5
OIL LINES/PUMP BLEEDING	2-3		

SERVICE INFORMATION

GENERAL

- When removing and installing the oil pump use care not to allow dust or dirt to enter the engine and oil line.
- Do not attempt to disassemble the oil pump.
- Bleed air from the oil pump if there is air in the oil inlet line (from the oil tank to the oil pump) or whenever the oil line has been disconnected.
- Bleed air from the oil outlet line (from the oil pump to the carburetor) whenever the line has been disconnected (page 2-3).
- Use HONDA 2-stroke injector oil or equivalent.

TROUBLESHOOTING

Excessive smoke and/or carbon on spark plug

- Faulty oil pump
- Low quality engine oil

Overheating

- Faulty oil pump
- Low quality oil

Seized piston

- No oil in tank or clogged oil line
- Air in oil lines
- Faulty oil pump
- Clogged oil strainer

Oil not flowing out of tank

- Clogged oil tank cap breather hole
- Clogged oil strainer

LUBRICATION

OIL PUMP

REMOVAL

Remove both frame rear covers (page 11-2).

NOTE

- Before removing the oil pump, clean the oil pump and crankcase.

Clamp the oil line so oil does not flow out and disconnect the oil lines from the oil pump.

Remove the oil pump set plate attaching bolt and remove the oil pump.

INSPECTION

Inspect for the following item:

- Damage to crankcase mating surface
- Damage to pump body
- Worn or damaged pump gears
- Oil leaks

CAUTION

- *Do not disassemble the oil pump.*

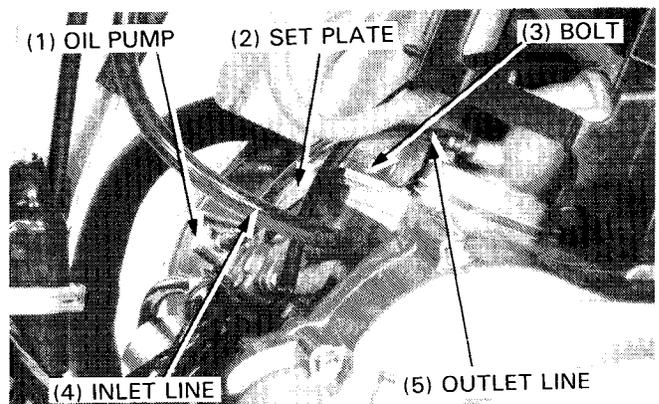
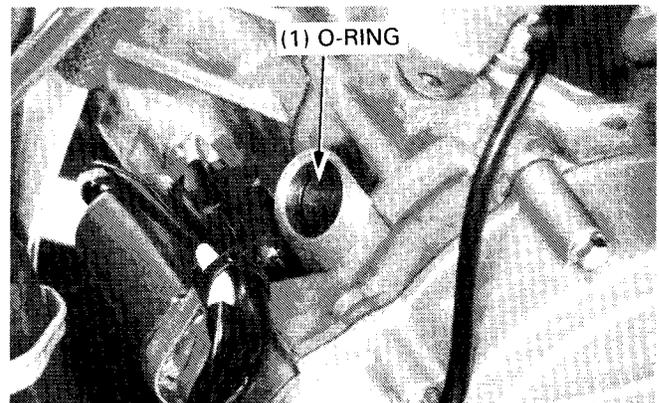
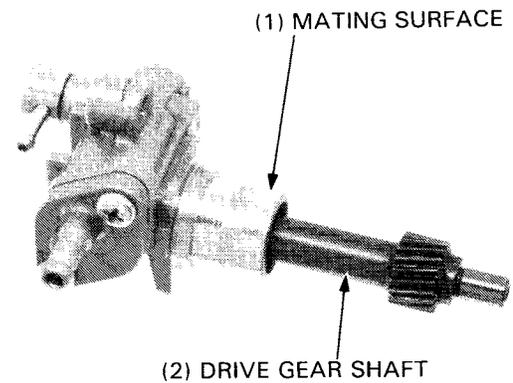
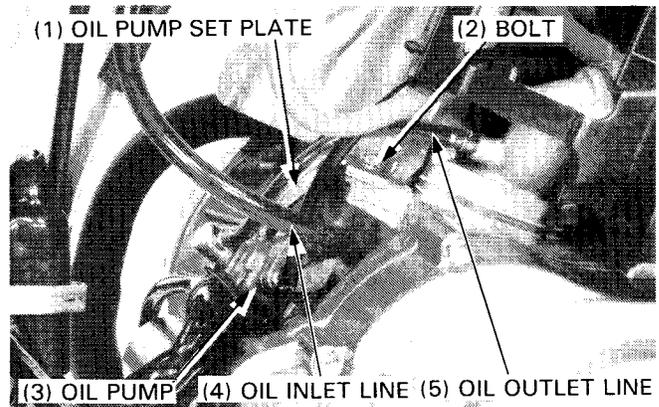
INSTALLATION

Lubricate a new O-ring and install it in the crankcase. Lubricate the oil pump gear and install the pump.

Be sure the pump is properly seated, then install the pump set plate and tighten the attaching bolt securely.

Reconnect the oil inlet and outlet lines.

After installation, bleed the oil pump (page 2-3) and check for leaks.



OIL LINES/PUMP BLEEDING

CAUTION

- Air in the oil system will block or restrict oil flow and may result in severe engine damage.
- Bleed air from the oil lines whenever the oil lines or pump have been removed or there is air in the oil lines.
- Bleed air from the oil inlet line first, then bleed air from the oil outlet line.

OIL INLET LINE/OIL PUMP

Fill the oil tank with the recommended oil (page 2-1). Place a shop towel around the oil pump. Disconnect the oil inlet line from the pump, and the outlet line from the carburetor intake pipe. Let oil drip from the inlet line to expel any air that may be in the line.

OUTLET LINE

Force oil through the outlet line and pump with a squirt can until oil flows without air bubbles from the pump's inlet joint. Connect the inlet line to the oil pump. Make sure that there are no air bubbles in the inlet line. If there is, disconnect the line to let oil drip from it and to expel the air.

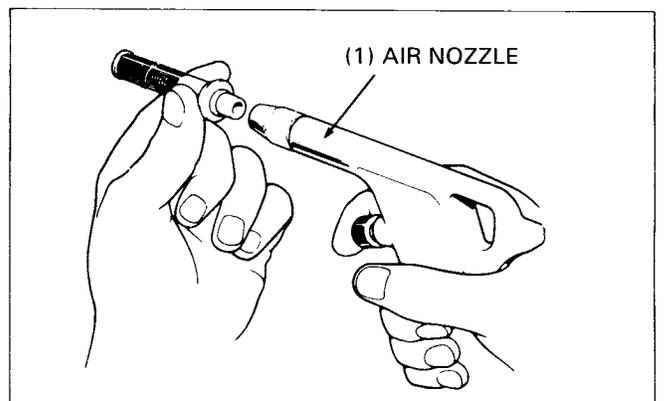
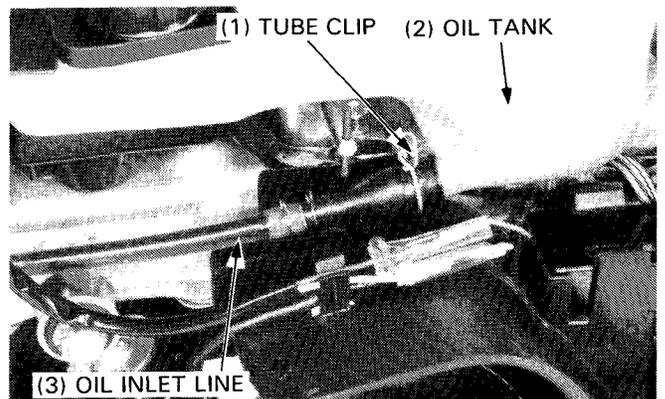
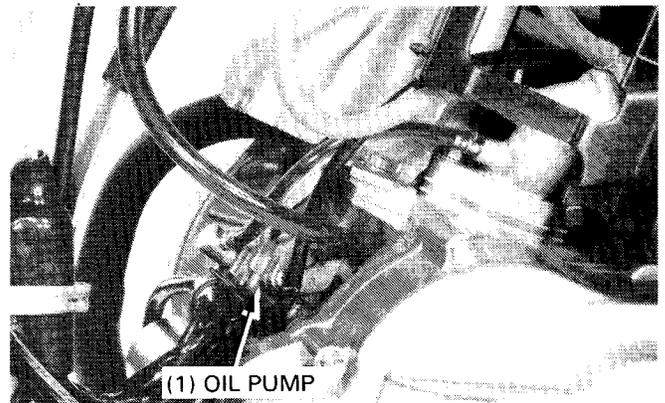
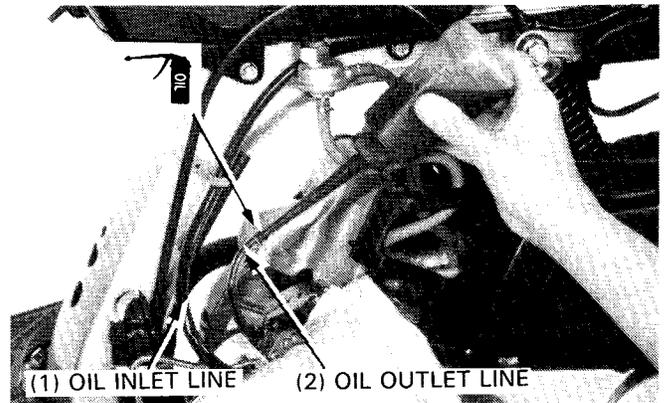
Connect the outlet line to the intake pipe. Do not spill any oil from the line.

Start the engine and allow it to idle, checking that no air bubbles flow from the pump to the intake pipe. If there are bubbles in the system, repeat the bleeding procedures above.

OIL STRAINER

Remove both frame rear covers (page 11-2). Disconnect the oil inlet line at the oil pump and allow the oil to drain into a clean container. Loosen the tube clip and disconnect the oil tube joint under the oil tank. Remove the oil strainer.

Clean the oil strainer with compressed air. Installation of the oil strainer is the reverse of removal. Fill the oil tank with the recommended oil up to the proper level. Bleed air from the oil pump and oil lines. Connect the oil lines securely and check for leaks.



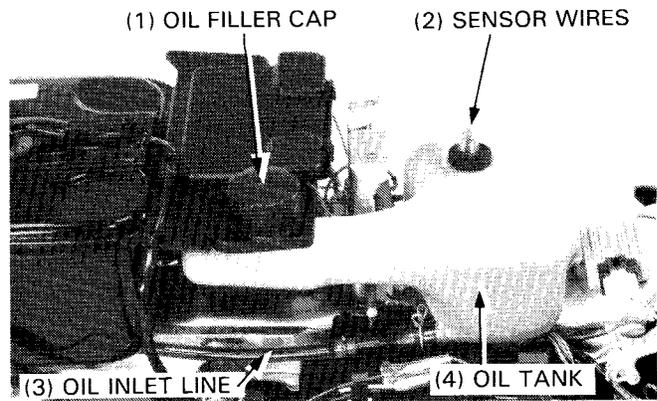
LUBRICATION

OIL TANK

REMOVAL

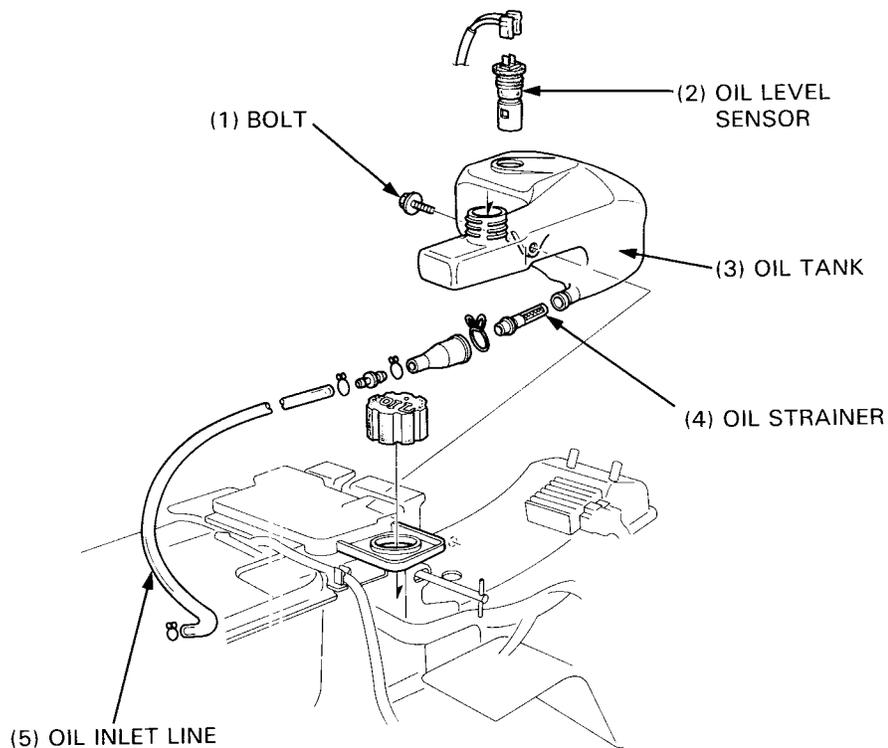
Remove both frame rear covers (page 11-2).
Disconnect the oil level sensor wires from the oil level sensor.
Remove the oil filler cap.
Disconnect the oil inlet line at the oil pump and allow oil to drain into a clean container.
Remove the oil tank attaching bolt and remove the oil tank.

Clean the interior of the oil tank thoroughly.
Clean the oil strainer (page 2-3).



INSTALLATION

Install the oil tank in the reverse order of removal.
Refill the oil tank up to the proper level and check for oil leaks.
Bleed the oil lines (page 2-3).



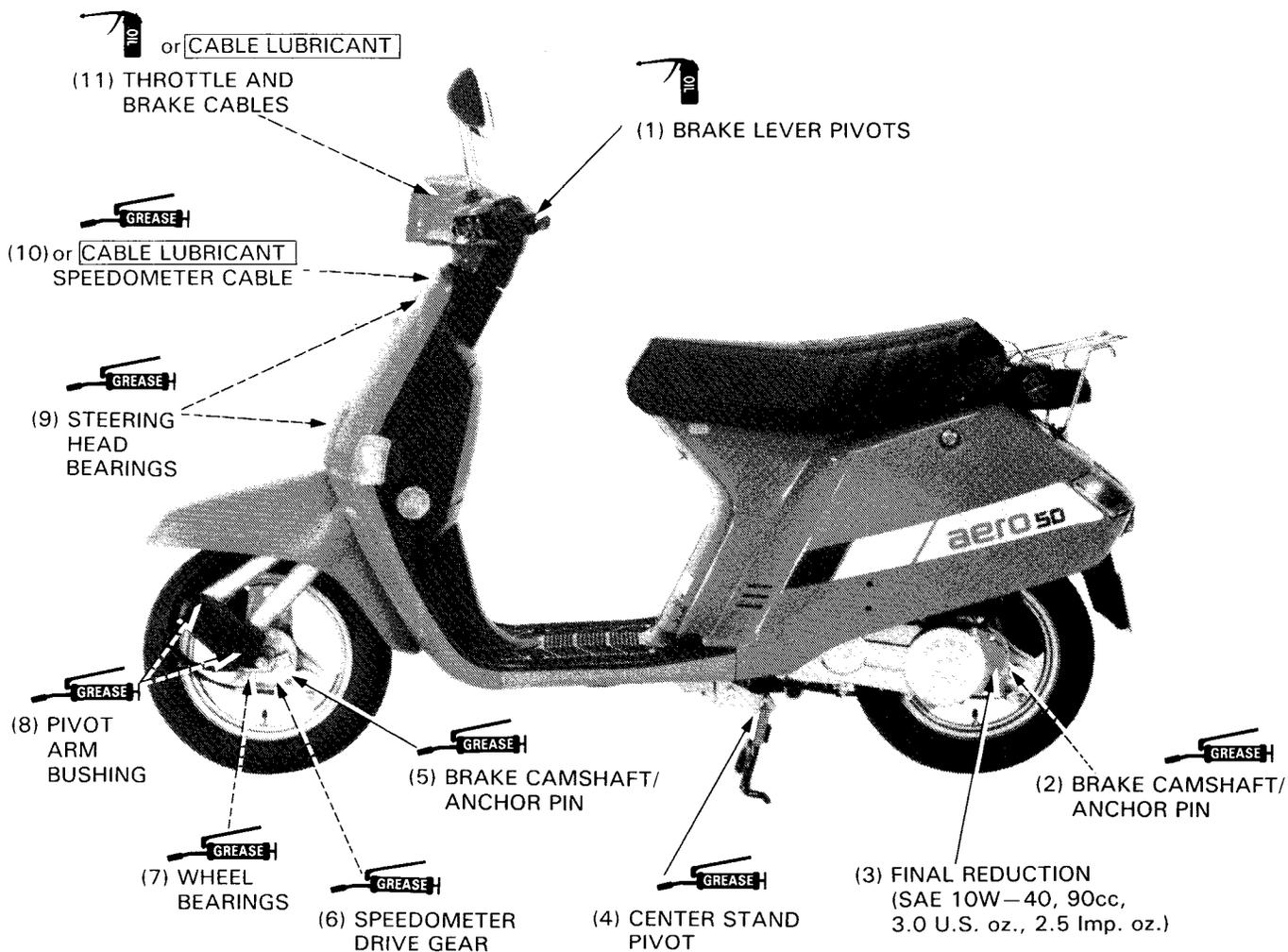
LUBRICATION POINTS

ENGINE

LUBRICATION POINTS	LUBRICANT	REMARKS
Piston/crankshaft	Honda 2-stroke injector oil or equivalent	
Final reduction	Honda 4-stroke oil SAE 10W-40 or equivalent	90cc (3.0 US oz., 2.5 Imp.oz.)
Movable drive face	Lithium Based Grease Mitsubishi HD-3 Nippon Sekiyu Lipanox Deluxe 3 Idemitsu Coronex 3 or equivalent	10-15g (0.35-0.53 oz.)
Starter gear	General purpose grease	

FRAME

Apply clean engine oil or grease to cables and parts not called out.



3. MAINTENANCE

SERVICE INFORMATION	3-1	BRAKE FREE PLAY	3-5
MAINTENANCE SCHEDULE	3-2	STEERING HEAD BEARINGS	3-6
AIR CLEANER ELEMENT	3-3	SUSPENSION OPERATION	3-6
CARBURETOR	3-3	NUTS, BOLTS	3-7
THROTTLE OPERATION	3-4	SPARK PLUG	3-7
FUEL LINE	3-4	LIGHTS AND HORN	3-7
TRANSMISSION CASE	3-4	COMPRESSION TEST	3-8
TIRES	3-5		

SERVICE INFORMATION

Spark plug

	NGK	ND
Standard	BPR6HSA BPR6HS	W20FPR-L W20FPR
For cold climate	BPR4HSA BPR4HS	W14FPR-L
For extended high speed riding	BPR8HSA BPR8HS	W24FPR-L W24FPR

Spark plug gap	0.6–0.7 mm (0.024–0.028 in)
Compression	800–1,200 kPa (8.0–12.0 kg/cm ² , 114–171 psi)
Throttle free play	2–6 mm (1/8–1/4 in)
Idle speed	1,800 ± 100 min ⁻¹ (rpm)
Brake lever free play	
Front	10–20 mm (0.40–0.80 in)
Rear	10–20 mm (0.40–0.80 in)
Tire size	
Front	2.75–10–4PR
Rear	2.75–10–4PR
Tire pressure	
Front	150 kPa (1.5 kg/cm ² , 21 psi)
Rear	200 kPa (2.0 kg/cm ² , 28 psi)

MAINTENANCE

MAINTENANCE SCHEDULE

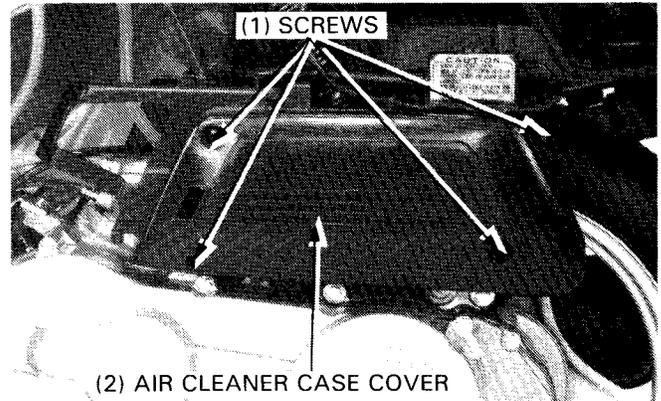
I — Inspection and clean, adjust, lubricate or replace if necessary R — Replace C — Clean

This maintenance schedule is based upon average riding conditions. Scooters subjected to severe use, or ridden in unusually dusty areas require more frequent servicing.	PRE-RIDE INSPECTION	INITIAL SAFETY INSPECTION	REGULAR SERVICE PERIOD Perform at every indicated month or mileage interval whichever occurs first		Refer to page
		600 miles (1,000 km)	1,000 miles (1,500 km)	2,000 miles (3,000 km)	
AIR CLEANER ELEMENT			(EVERY 6 MONTHS) C		3-3
CARBURETOR		I	I	I	3-3
* THROTTLE OPERATION	I		I	I	3-4
OIL PUMP			I	I	2-2
FUEL LINE			I	I	3-4
* OIL AND FUEL LEVELS	I				—
DECARBONIZE CYLINDER HEAD, CYLINDER, PISTON AND MUFFLER				C	6-3,5
* TRANSMISSION CASE FOR LEAK	I				3-4
CLUTCH SHOE WEAR				I	8-7
TIRES: PRESSURES AND CONDITION	I				3-5
WHEEL TRUENESS			I	I	12-5,13-2
* BRAKE OPERATION AND FREE PLAY	I	I	I	I	3-5
BRAKE LININGS			I	I	3-5
STEERING HEAD BEARINGS		I		I	3-6
SUSPENSION OPERATION			I	I	3-6
NUTS, BOLTS (TIGHTEN)		I		I	3-7
* SPARK PLUG			R	R	3-7
ALL LIGHTS AND HORN	I				3-7

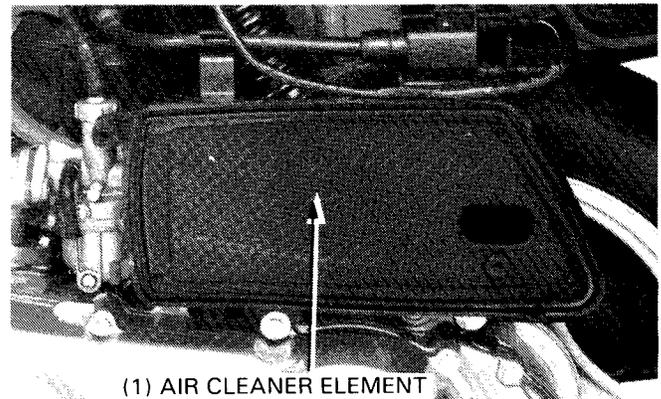
Items marked * are simple to perform and may be serviced by the owner. Other maintenance items should be serviced by an authorized Honda dealer.

AIR CLEANER ELEMENT

Remove the left frame rear cover (page 11-2).
Remove the four air cleaner case cover attaching screws and remove the air cleaner case cover.



Remove the air cleaner element.

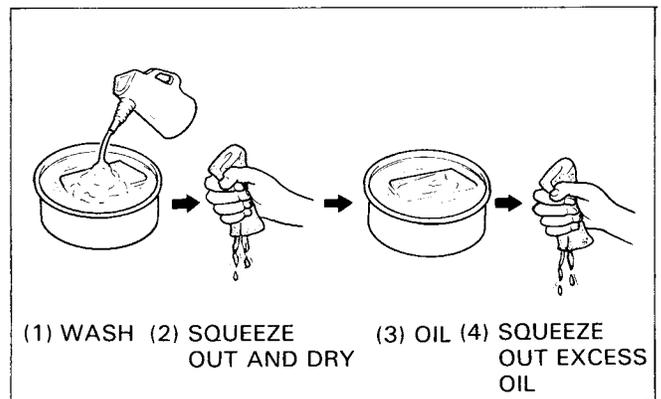


Wash the element in non-flammable or high flash point solvent, squeeze out and allow to dry.

WARNING

- *Never use the gasoline or low flash point solvents for cleaning the air cleaner element. A fire or explosion could result.*

Soak the element in clean motor oil (SAE 10W–40) or gear oil (#80–90) and squeeze out excess.
Reinstall the element, and the air cleaner case cover.

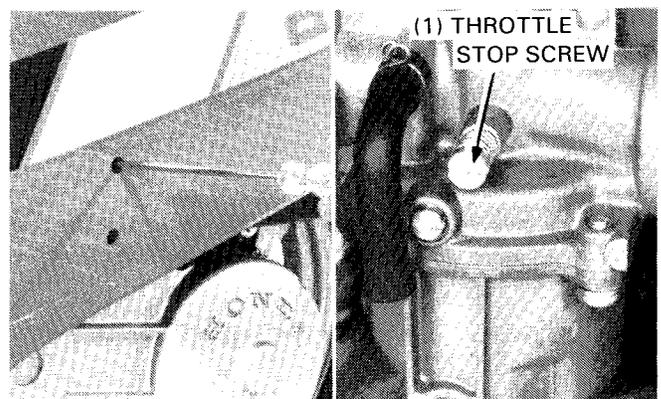


CARBURETOR

IDLE SPEED ADJUSTMENT

Place the scooter on level ground.
Warm up the engine and attach an engine tachometer.
Adjust the idle speed with the throttle stop screw.

IDLE SPEED: 1,800 ± 100 min⁻¹ (rpm)



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 cable.

Replace any damaged parts.

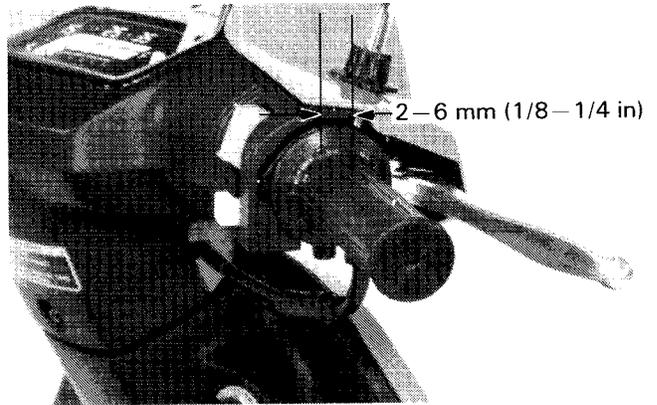
Remove the right handlebar switch housing.

Disconnect the throttle cable upper end.

Thoroughly lubricate the cable with a commercially available cable lubricant or grease.

Install the throttle cable in the reverse order of removal.

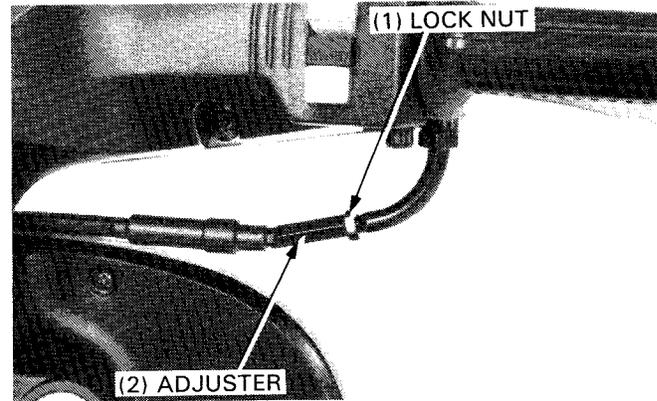
Measure the throttle grip free play at the throttle grip flange.



FREE PLAY: 2-6 mm (1/8-1/4 in)

Adjustments can be made by loosening the lock nut and turning the adjuster.

Replace the throttle cable when the above procedure is no longer effective.

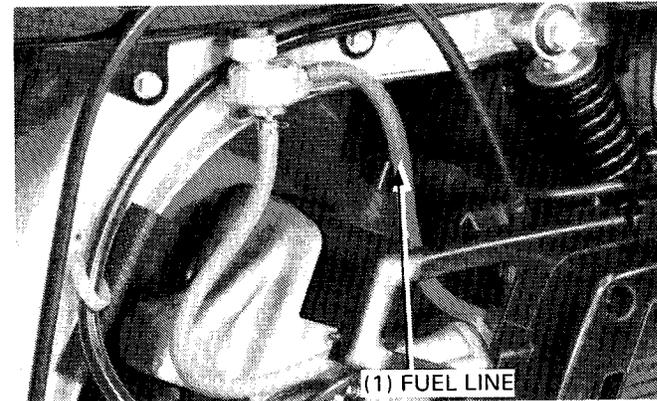


FUEL LINE

Inspect the fuel line for damage or deterioration.

Check that the fuel line is intact and has clamps at each connection.

Replace any parts that are damaged, leaking or show signs of deterioration.



TRANSMISSION CASE

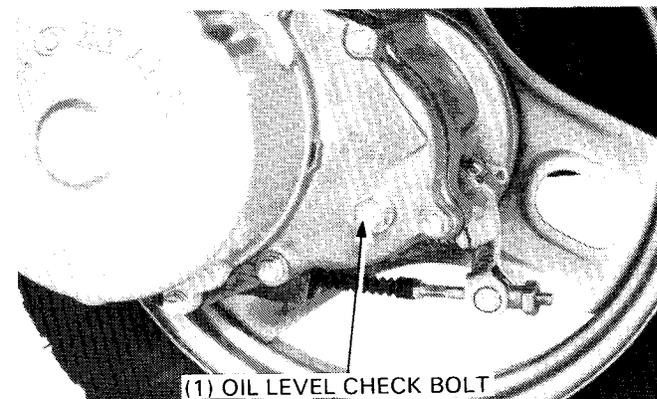
NOTE

- Place the scooter on level ground and support it with the center stand.

Start the engine and let it idle for a few minutes.

Stop the engine, remove the oil level check bolt and check that the oil level is at the bottom edge of the oil level check bolt hole.

Check the transmission case for oil leakage.



TIRES

Check the tire pressures when the tires are COLD.

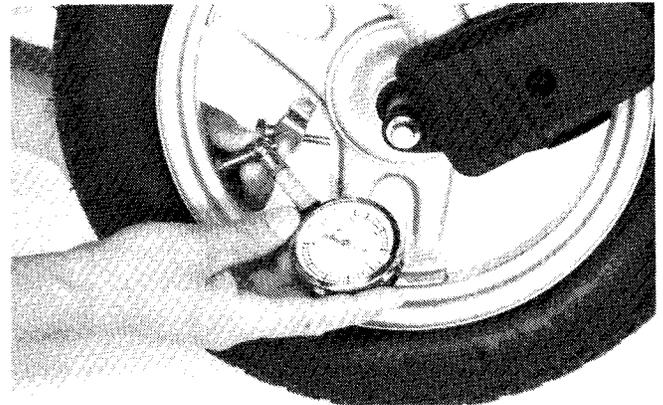
TIRE PRESSURES:

FRONT: 150 kPa (1.5 kg/cm², 21 psi)
 REAR: 200 kPa (2.0 kg/cm², 28 psi)

TIRE SIZES:

FRONT: 2.75-10-4 PR
 REAR: 2.75-10-4 PR

Check the tires for wear, damage or imbedded objects.

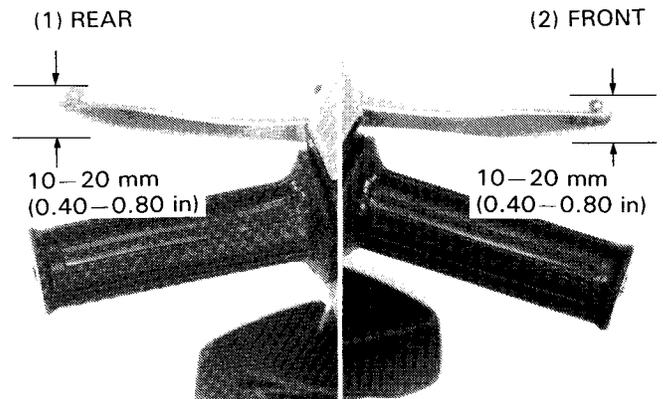


BRAKE FREE PLAY

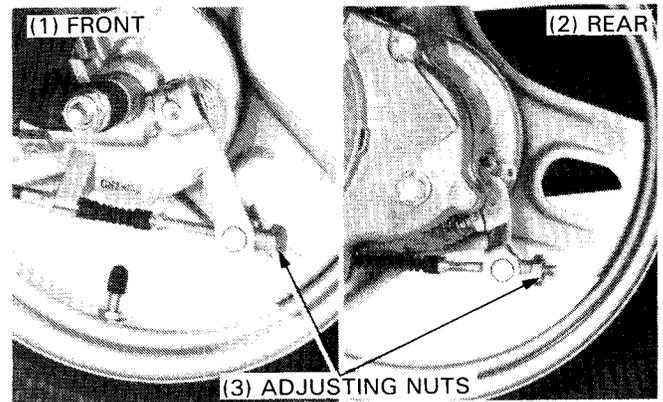
Measure the front and rear brake lever free play at the end of the levers.

FREE PLAY:

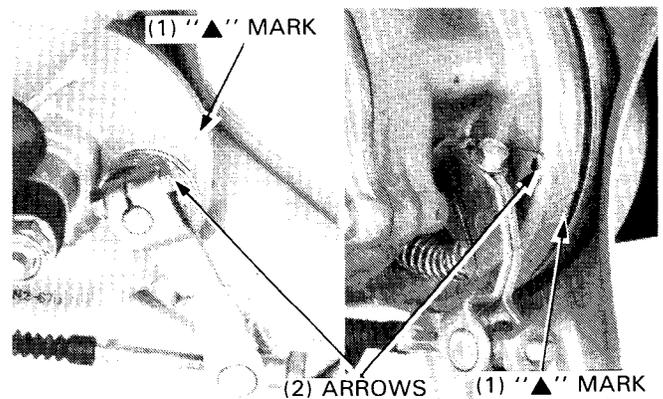
FRONT: 10-20 mm (0.40-0.80 in)
 REAR: 10-20 mm (0.40-0.80 in)



If adjustment is necessary, turn the brake adjusting nut.



Replace the brake shoes if the arrow on the brake arm aligns with the reference mark "▲" on full application of the front or rear brake (pages 12-8, 13-3).

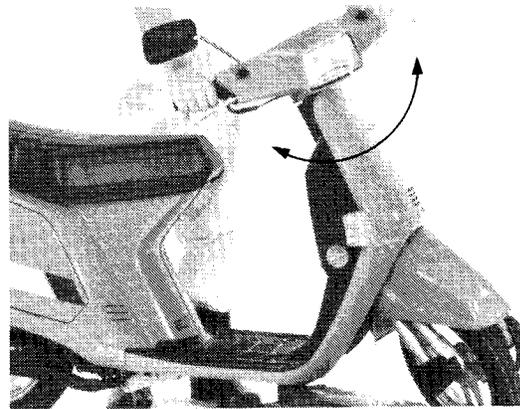


STEERING HEAD BEARINGS

NOTE

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

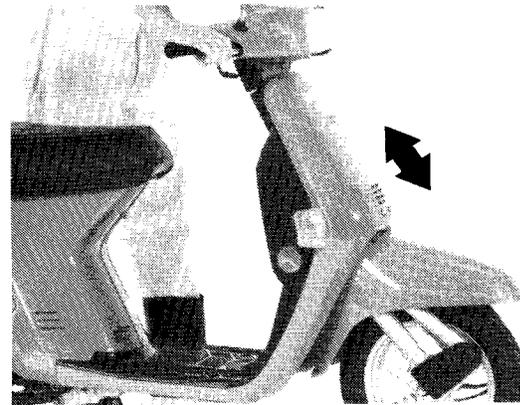
Place the scooter on the center stand.
Raise the front wheel off the ground by placing a support under the frame.
Check that the handlebar rotates freely.
If the handlebar moves unevenly, binds, or has vertical movement, adjust the steering head bearing by turning the steering head adjusting nut (page 12-15).



SUSPENSION OPERATION

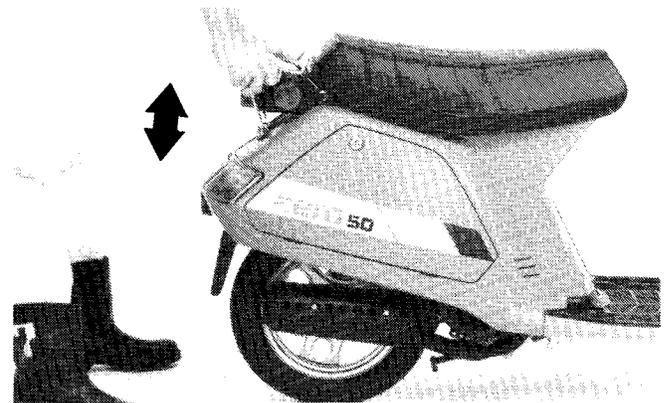
FRONT

Check the action of the front forks by compressing them several times.
Check the entire fork assembly for signs of damage.
Replace any components which cannot be repaired.
Tighten all nuts and bolts to the specified torque values (page 1-5).



REAR

Check the operation of the shock absorber by pressing down on the end of the frame several times.



Place the scooter on the center stand.
Hold the rear carrier with one hand and move the left crankcase sideways with force to see if the swing arm bushings are worn.
Replace if excessively worn.
Check the entire suspension assembly.
Be sure it is securely mounted and not damaged.
Tighten all nuts and bolts to the specified torque value (page 1-5).

NUTS, BOLTS

Tighten bolts, nuts and fasteners at the regular intervals shown in the Maintenance Schedule (page 3-2).

Check that all chassis nuts and bolts are tightened to their correct torque values (page 1-5).

Check that all cotter pins and safety clips are in place.

SPARK PLUG

RECOMMENDED SPARK PLUGS:

	NGK	ND
Standard	BPR6HSA BPR6HS	W20FPR-L W20FPR
For cold climate	BPR4HSA BPR4HS	W14FPR-L
For extended high speed riding	BPR8HSA BPR8HS	W24FPR-L W24FPR

Disconnect the spark plug cap and clean any dirt from around the spark plug base.

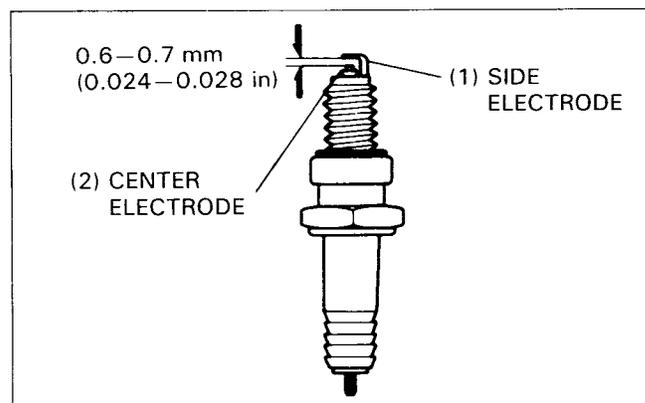
Remove and discard the spark plug.

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

SPARK PLUG GAP: 0.6–0.7 mm (0.024–0.028 in)

Adjust the gap by bending the side electrode carefully.

With the plug washer attached, thread the spark plug in by hand to prevent crossthreading. Tighten the spark plug another 1/2 turn with a spark plug wrench to compress the plug washer. Then connect the spark plug cap.



LIGHTS AND HORN

Place the scooter on level ground and support it with the center stand.

Start the engine and allow it to idle.

Make sure that the headlight and taillight are on.

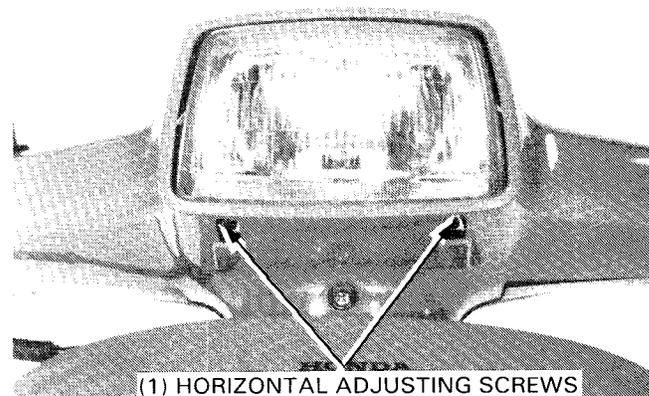
Check the operation of the headlight dimmer (Lo-Hi) switch.

Adjust the headlight beam by turning the horizontal adjusting screws.

CAUTION

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

Check the horn by pushing the horn button.



MAINTENANCE

COMPRESSION TEST

Remove the frame rear covers (page 11-2).
Warm up the engine.
Stop the engine and remove the spark plug.
Insert a compression gauge.
Open the throttle grip fully and operate the starter motor several times.

COMPRESSION: 800—1,200 kPa
(8.0—12.0 kg/cm², 114—171 psi)

Low compression can be caused by:

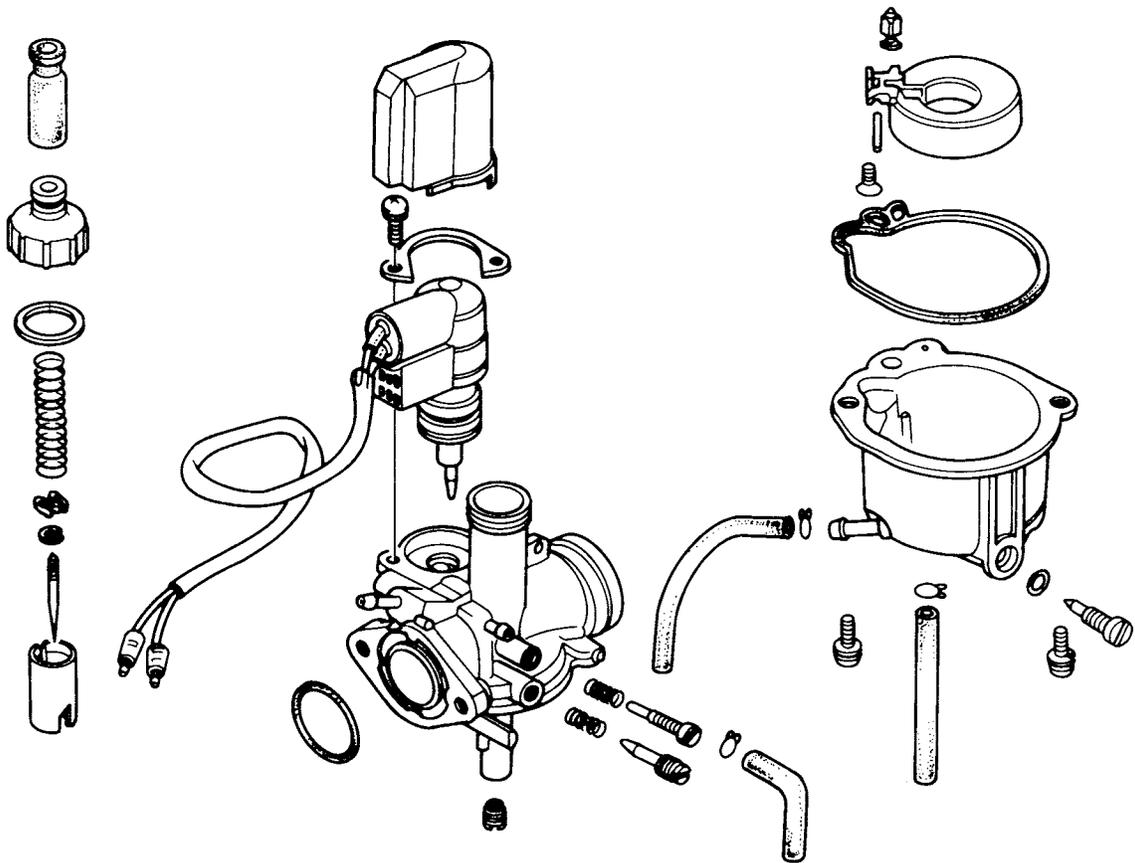
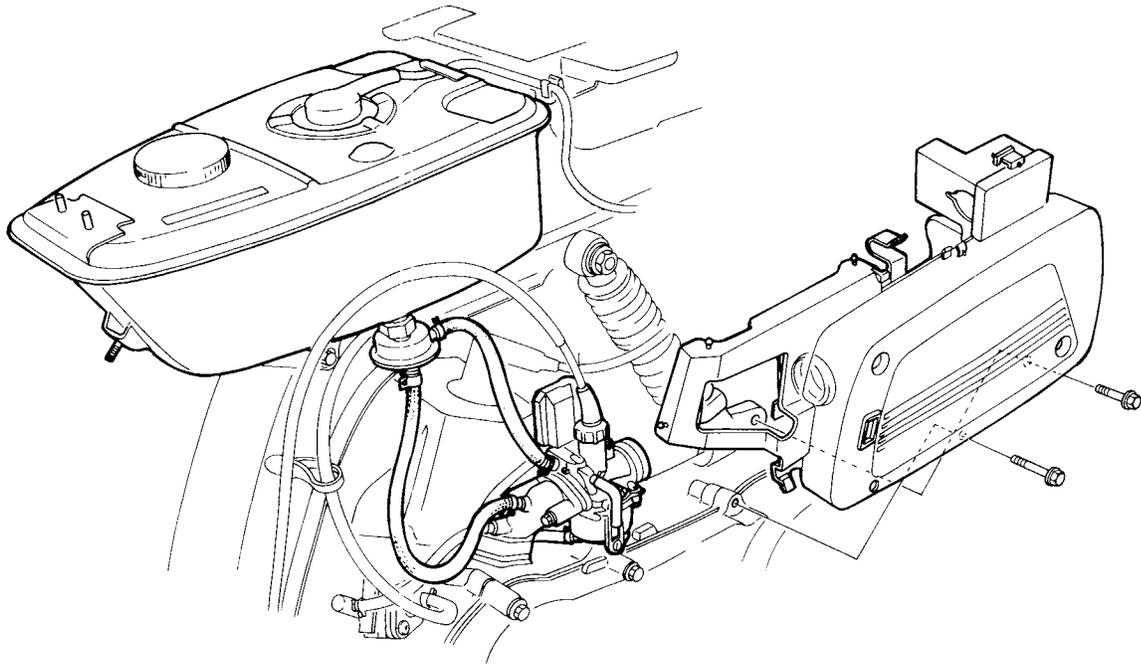
- Leaking cylinder head gasket
- Worn piston rings
- Worn cylinder

High compression can be caused by:

- Carbon deposits in combustion chamber or on top of the piston.



FUEL SYSTEM



4. FUEL SYSTEM

SERVICE INFORMATION	4-1	CARBURETOR INSTALLATION	4-8
TROUBLESHOOTING	4-2	THROTTLE VALVE INSTALLATION	4-8
THROTTLE VALVE DISASSEMBLY	4-3	REED VALVE	4-9
CARBURETOR REMOVAL	4-4	AIR SCREW ADJUSTMENT	4-10
AUTO BYSTARTER	4-4	AUTO FUEL VALVE INSPECTION/ MAINTENANCE	4-11
FLOAT/FLOAT VALVE/JETS DISASSEMBLY	4-6	FUEL STRAINER CLEANING	4-11
JETS/FLOAT VALVE/FLOAT ASSEMBLY	4-7	FUEL TANK	4-12
FLOAT LEVEL INSPECTION	4-8	AIR CLEANER CASE	4-13

SERVICE INFORMATION

GENERAL

- The fuel tank is equipped with an auto fuel valve that is turned OFF automatically when the engine is stopped.
- Use caution when working with gasoline. Always work in a well-ventilated area and away from sparks or flames.
- When disassembling fuel system parts, note the locations of the O-rings. Replace them with new ones during assembly.
- Bleed air from the oil outlet line whenever it is disconnected.

SPECIFICATIONS

Venturi diameter	14 mm (0.55 in)
Identification number	PA04G
Float level	12.2 mm (0.48 in)
Air screw opening	1-1/4 turns out
Idle speed	1,800 ± 100 min ⁻¹ (rpm)
Throttle grip free play	2–6 mm (1/8–1/4 in)

TORQUE VALUES

Carburetor 9–12 N·m (0.9–1.2 kg-m, 7–9 ft-lb)
 Intake pipe 8–12 N·m (0.8–1.2 kg-m, 6–9 ft-lb)

TOOLS

Special
 Vacuum pump A937X–041–XXXXX or ST–AH–260–MC7
 (U.S.A. only, included in Turbo kit.)

Common
 Float level gauge 07401–0010000

TROUBLESHOOTING

Engine cranks but won't start

- No fuel in tank
- No fuel to carburetor
- Too much fuel getting into cylinder
- No spark at plug (ignition malfunction)
- Air cleaner clogged
- Faulty auto bystarter
- Clogged fuel line
- Clogged fuel strainer
- Stuck fuel valve diaphragm

Engine idles roughly, stalls, or runs poorly

- Idle speed incorrect
- Ignition malfunction
- Low compression
- Rich mixture
- Lean mixture
- Air cleaner clogged
- Air leaking into inlet pipe
- Fuel contaminated

Lean mixture

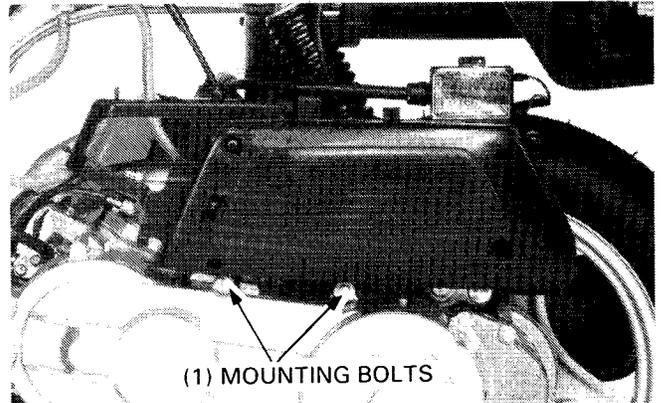
- Carburetor fuel jets clogged
- Fuel cap vent clogged or blocked
- Fuel strainer clogged
- Fuel line kinked or restricted
- Float valve faulty
- Float level too low
- Air vent tube clogged

Rich mixture

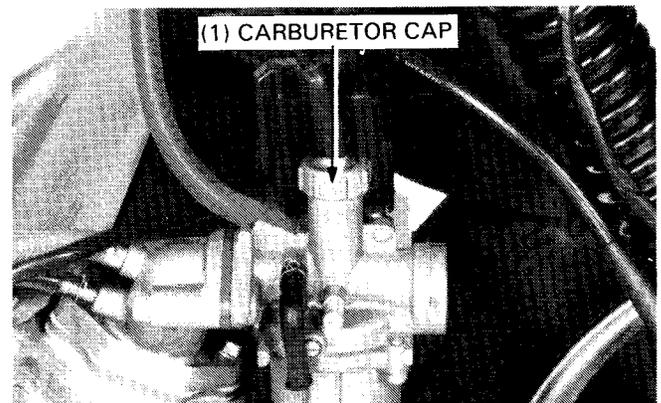
- Disconnected auto bystarter wires
- Faulty float valve
- Float level too high
- Carburetor air jets clogged
- Air cleaner dirty

THROTTLE VALVE DISASSEMBLY

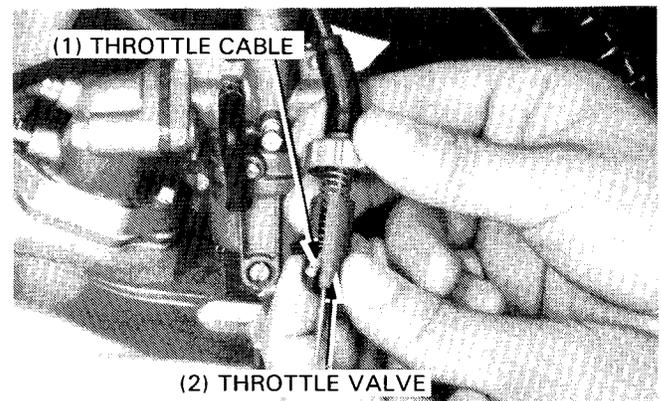
Remove the left frame rear cover (page 11-2).
Remove the air cleaner case by removing the two mounting bolts.



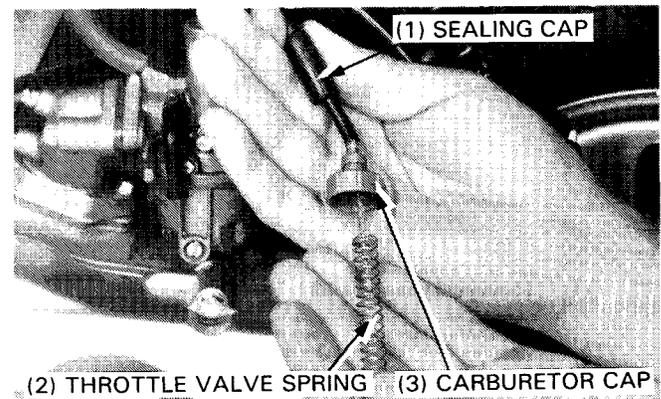
Remove the carburetor cap and pull out the throttle valve.



Disconnect the throttle cable from the throttle valve.

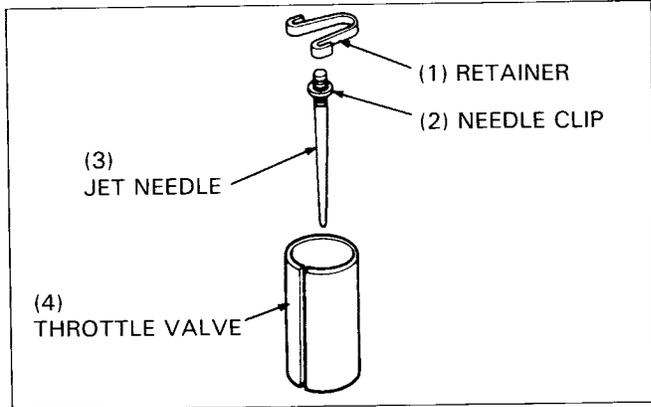


Remove the throttle valve spring, carburetor cap and sealing cap from the throttle cable.



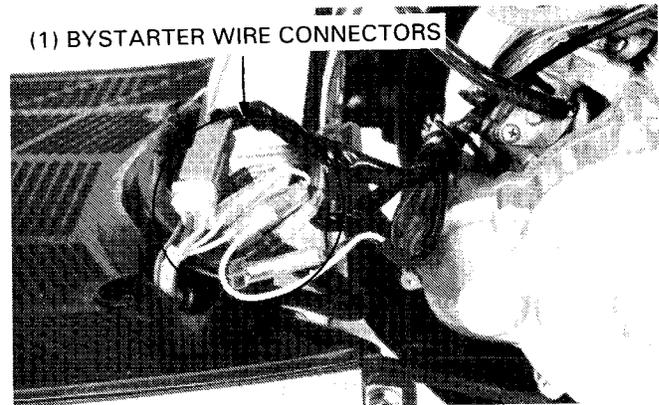
FUEL SYSTEM

Pry out the retainer and remove the jet needle.
Check the jet needle and throttle valve for wear or damage and replace them if necessary.

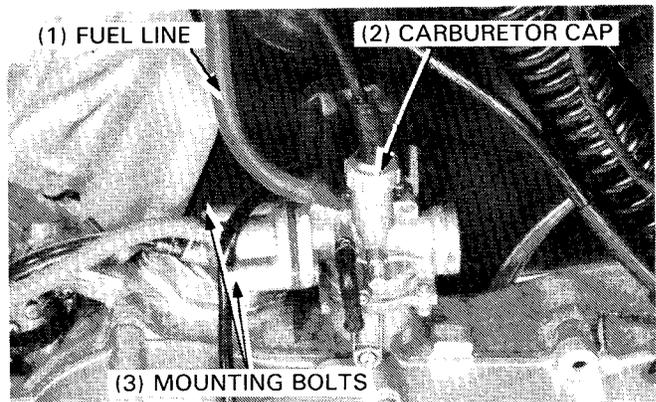


CARBURETOR REMOVAL

Remove the left frame rear cover (page 11-2).
Remove the air cleaner case and disconnect the bystarter wire connectors.



Remove the carburetor cap and pull out the throttle valve.
Disconnect the fuel line from the carburetor body.
Remove the carburetor mounting bolts and remove the carburetor.



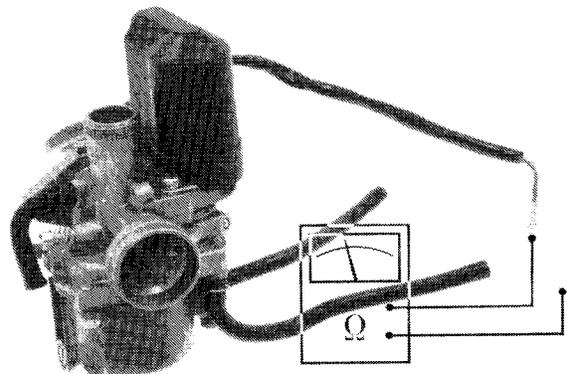
AUTO BYSTARTER

INSPECTION

If the engine has been running, let it cool for 10 minutes or more.

Measure the resistance between the auto bystarter wires. Replace the auto bystarter with a new one if resistance is out of specification or if there is no continuity.

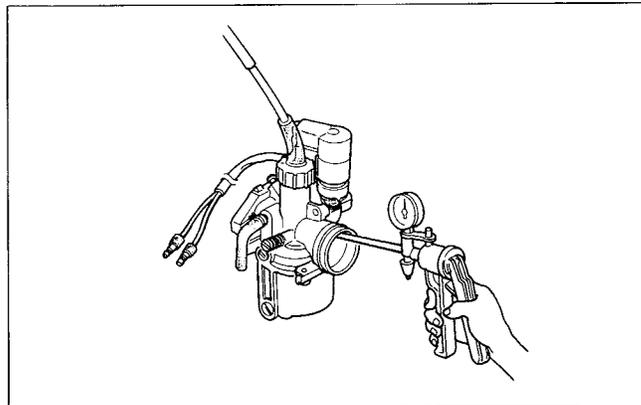
RESISTANCE: 10 Ω max.



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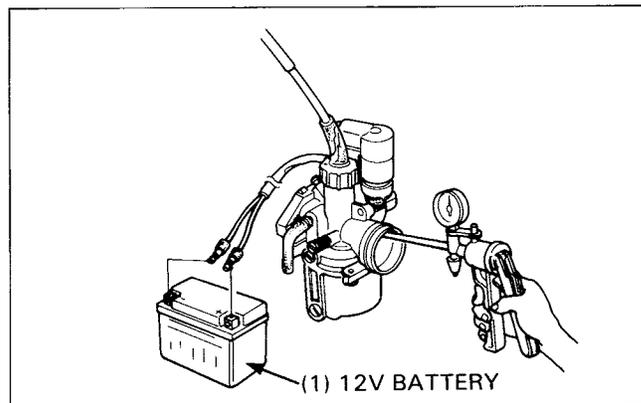
Let the carburetor sit for 30 minutes.
Connect a pressure tester to the enriching circuit.
Apply pressure to the circuit.

If the passage is blocked, replace the auto bystarter with a new one.



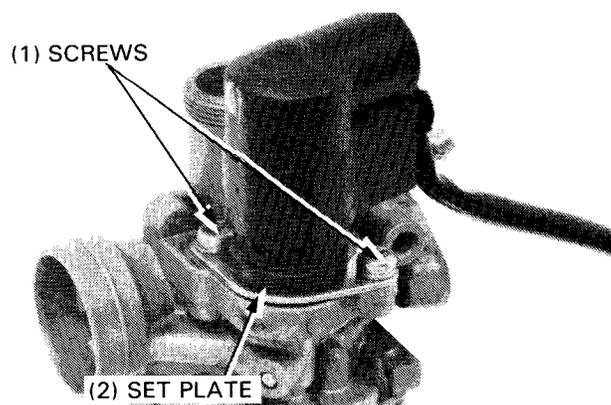
Connect a 12V battery between the auto bystarter wires and wait five minutes.
Connect a pressure tester to the fuel enriching circuit and apply pressure to it.

Replace the auto bystarter with a new one if there is no restriction to the pressure applied.



REMOVAL/INSTALLATION

Remove the two screws, set plate and auto bystarter from the carburetor body.



Inspect the auto bystarter valve for wear or damage, and the O-ring for deterioration.

