

HOW TO USE THIS MANUAL

Follow the Maintenance Schedule (Section 3) recommendations to ensure that the scooter is in peak operating condition and the emission levels are within the standards set by the U. S. Environmental Protection Agency and the California Air Resources Board. Performing the first scheduled maintenance is very important. It helps compensate for the initial wear that occurs during the break-in period.

Sections 1 through 3 apply to the whole scooter, while sections 4 through 16 describe parts of the 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 the source of the trouble, go to section 17, TROUBLESHOOTING.

CONTENTS

	GENERAL INFORMATION	1
	LUBRICATION	2
	MAINTENANCE	3
ENGINE	FUEL SYSTEM	4
	ENGINE REMOVAL/INSTALLATION	5
	CYLINDER HEAD/VALVES	6
	CYLINDER/PISTON	7
	DRIVE PULLEY/CLUTCH/DRIVEN PULLEY	8
	FINAL REDUCTION	9
	ALTERNATOR	10
	CRANKCASE/CRANKSHAFT	11
	CHASSIS	FRAME COVERS
STEERING/FRONT WHEEL/BRAKE/SUSPENSION		13
REAR WHEEL/BRAKE/SUSPENSION		14
ELECT-RICAL	ELECTRICAL EQUIPMENT	15
	WIRING DIAGRAMS	16
	TROUBLESHOOTING	17
	INDEX	18

GENERAL SAFETY	1-1	TORQUE VALUES	1-5
SERVICE RULES	1-1	TOOLS	1-7
MODEL IDENTIFICATION	1-2	CABLE & HARNESS ROUTING	1-9
SPECIFICATIONS	1-3	EMISSION CONTROL SYSTEM	1-13

GENERAL SAFETY

WARNING

Inhaled asbestos fibers have been found to cause respiratory disease and cancer. Never use an air hose or dry brush to clean brake or clutch assemblies. In the United States, use an OSHA-approved vacuum cleaner or alternate method approved by OSHA-designed to minimize the hazard caused by airborne asbestos fibers.

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 that can cause loss of consciousness and may lead to death.

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.

CAUTION

Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

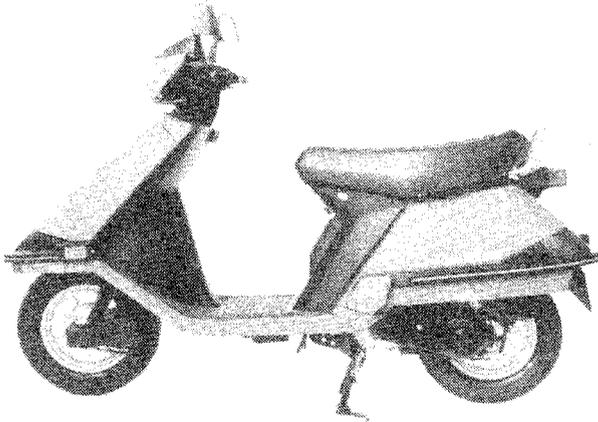
SERVICE RULES

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 product.
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, unless a particular sequence is specified.
6. Clean parts in cleaning 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 pages 1-8 thru. 1-12, Cable & Harness Routing, and away from sharp edges and areas when they might be pinched between moving parts.

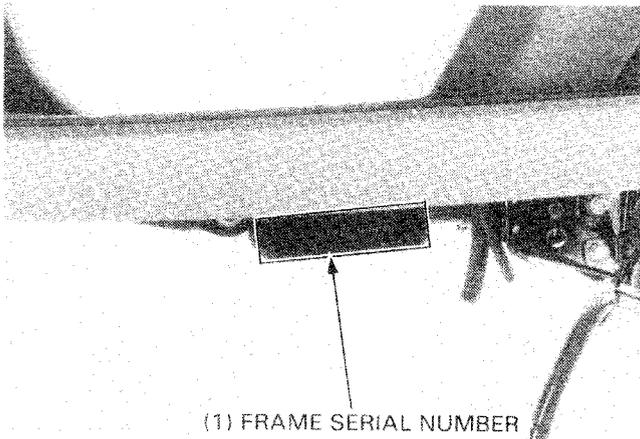
GENERAL INFORMATION

MODEL IDENTIFICATION

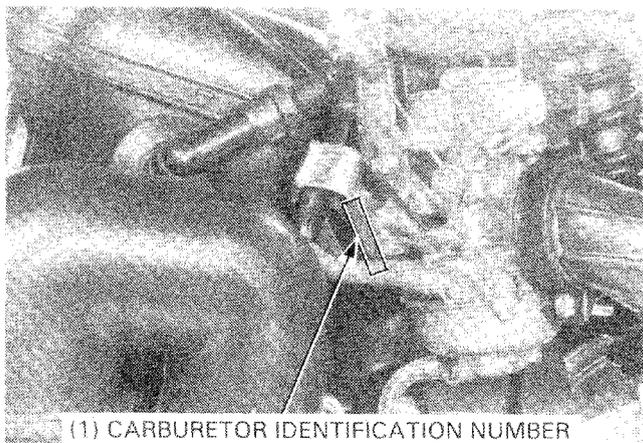
'85 SHOWN; AFTER '85 Similar



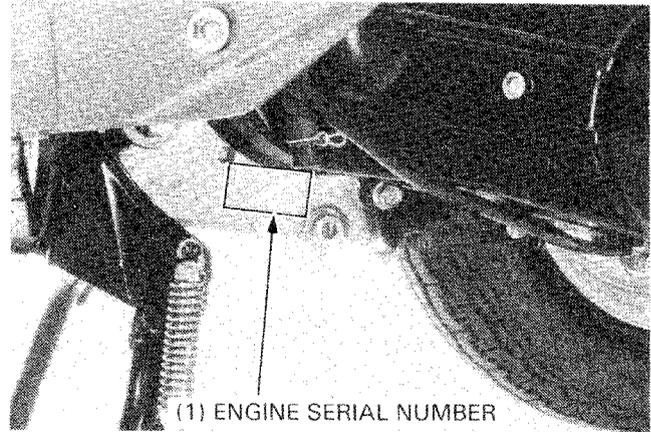
The frame serial number is stamped on the left side of the frame body.



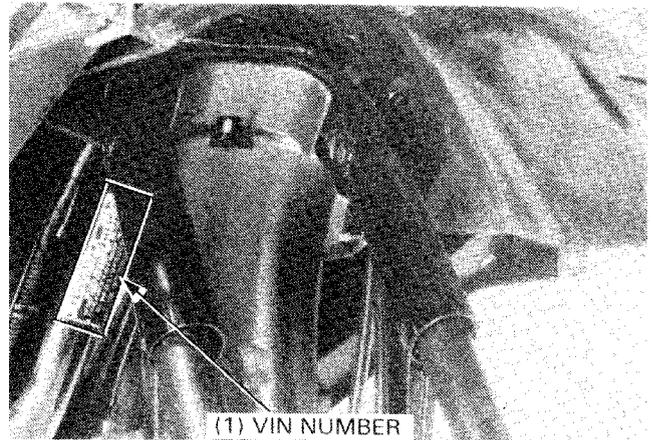
The carburetor identification number is stamped on the carburetor.



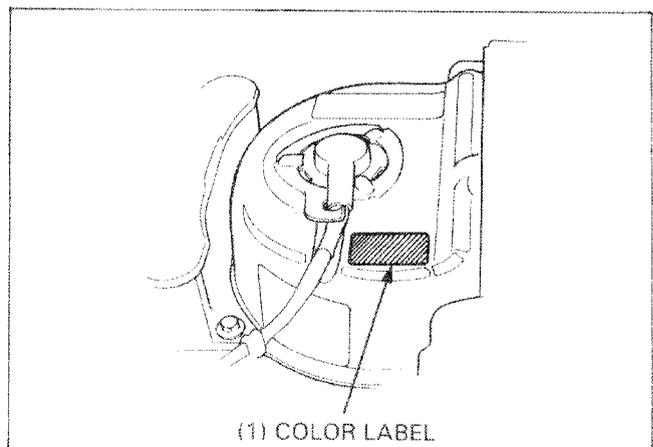
The engine serial number is stamped on bottom of the left crankcase.



The VIN (Vehicle Identification Number) is attached to the frame tube forward of the front cover.



The color label is attached to the fuel tank below the seat.



GENERAL INFORMATION

ITEM		SPECIFICATION		
CARBURETION	Carburetor type	Change valve type VC		
	Identification number	'85: VC61A After '85: VC61C		
	Air screw initial setting	'85: 1-7/8 turns out After '85: 1-1/2 turns out		
	Float level	10.7 mm (0.42 in)		
DRIVE TRAIN	Clutch type	Dry, automatic centrifugal clutch		
	Primary reduction	V-matic		
	Gear ratio	2.8 - 1.08		
	Final reduction	8.382 : 1		
ELECTRICAL	Ignition	Capacitor Discharge Ignition (CDI)		
	Starting system	Starting motor		
	Generator	'85 - '00: 12V 99W/5,000 rpm After '00: 12V 100W/5,000 rpm		
	Spark plug		NGK	DENSO
		For cold climate (below 5°C/41°F)	CR6HS	U20FSR-U
		Standard	CR7HS	U22FSR-U
		For extended high speed riding	CR8HS	U24FSR-U
Spark plug gap	0.6 - 0.7 mm (0.024 - 0.028 in)			
ignition timing "F" mark	'85 - '88: 18° BTDC/1,700 rpm '88 - '00: 18° BTDC/1,800 rpm After '00: 18° BTDC/2,000 rpm			
Battery capacity	'85: 12V-5AH After '85: 12V-4AH			
Fuse	'85: 7A After '85: 10A			
LIGHTS	Headlight Low/High	'85 - '00: 12V 25/25W After '00: 12V 35/35W		
	Brake/Taillight	12V 32/3CP (27/8W)		
	Turn signal light	12V 32CP (23W) SAE No. 1156		
	Speedometer light	12V 1.7W x 2		
	Turn signal indicator	12V 3.4W		
	High beam indicator	12V 3.4W		
	License light	12V 2CP (3.8W)		

NEW

TORQUE VALUES

ENGINE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Camshaft holder nut	4	6	10-14 (1.0-1.4, 7-10)	
Cylinder head cover	3	6	10-14 (1.0-1.4, 7-10)	
Cam chain tensioner sealing bolt	1	14	38-45 (3.8-4.5, 27-33)	
Cam chain tensioner	1	8	13-17 (1.3-1.7, 9-12)	
Clutch lock nut	1	28	35-40 (3.5-4.0, 25-29)	
Flywheel	1	10	35-40 (3.5-4.0, 25-29)	
Crankcase	—	6	9-12 (0.9-1.2, 7-9)	
Movable face seal	3	4	2.5-4 (0.25-0.4, 1.8-2.9)	
Drive face	1	10	35-40 (3.5-4.0, 25-29)	
Clutch outer	1	10	35-40 (3.5-4.0, 25-29)	
Movable driver face	1	10	50-60 (5.0-6.0, 36-43)	

FRAME

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Engine hanger upper	1	10	35-45 (3.5-4.5, 25-32)	
Engine hanger lower	1	10	35-45 (3.5-4.5, 25-32)	
Engine hanger stopper bolt	1	8	15-25 (1.5-2.5, 11-18)	
Steering stem lock nut	1	—	5-13 (0.5-1.3, 4-9)	
Steering stem nut	1	—	80-120 (8.0-12.0, 58-87)	
Front fork pivot arm flange nut	2	8	27-33 (2.7-3.3, 20-24)	
Front shock absorber upper '85, '86:	2	8	30-36 (3.0-3.6, 22-26)	
After '86:	2	8	27-33 (2.7-3.3, 20-24)	
Front axle flange nut	1	12	50-70 (5.0-7.0, 36-51)	
Rear axle flange nut '85, '86:	1	14	80-100 (8.0-10.0, 58-72)	
After '86:	1	14	100-120 (10.0-12.0, 72-87)	
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)	
Rear shock absorber damper lock nut	1	8	1.5-2.5 (1.5-2.5, 11-18)	
EXP joint nut	2	6	5-12 (0.5-1.2, 4-9)	
Muffler stay flange bolt '85, '86:	3	8	20-30 (2.0-3.0, 14-22)	
After '86:	3	8	30-36 (3.0-3.6, 22-26)	
Floor reinforcement flange bolt	5	8	30-45 (3.0-4.5, 22-33)	
Ignition coil bolt	1	5	5-9 (0.5-0.9, 4-7)	
Seat hinge flange nut	4	6	5-9 (0.5-0.9, 4-7)	
Lighting switch	2	5	2-4 (0.2-0.4, 1-3)	
Turn signal switch	2	5	2-4 (0.2-0.4, 1-3)	
Handle lever pivot bolt	2	5	2-4 (0.2-0.4, 1-3)	
Handle lever nut	2	5	2-4 (0.2-0.4, 1-3)	
Front fender bolt	5	—	2-4 (0.2-0.4, 1-3)	
Trunk hinge flange bolt	2	5	2-4 (0.2-0.4, 1-3)	
Trunk hinge patch screw	3	—	2-4 (0.2-0.4, 1-3)	
Horn	1	8	20-24 (2.0-2.4, 14-17)	
Trunk lid self-tapping screw	9	4	0.5-1.5 (0.05-0.15, 0.4-1.1)	

GENERAL INFORMATION

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kg·m, ft·lb)	REMARKS
Handlebar front cover tapping	3	4	0.5–1.5 (0.05–0.15, 0.4–1.1)	
Handlebar front cover screw	2	5	2–4 (0.2–0.4, 1–3)	
Handlebar lower cover hinge patch screw	4	—	2–4 (0.2–0.4, 1–3)	
Leg shield flange bolt	2	5	2–4 (0.2–0.4, 1–3)	
Right/left handle cover tapping	3	4	0.5–1.5 (0.05–0.15, 0.4–1.1)	
Speedometer cable lower Carrier	1	5	1.5–3 (0.15–0.3, 1.1–2.2)	
License plate base	1	8	20–30 (2.0–3.0, 14–22)	
Headlight tapping	2	—	0.5–1.5 (0.05–0.15, 0.4–1.1)	
Headlight tapping	3	4	0.5–1.5 (0.05–0.15, 0.4–1.1)	
Carburetor insulator band	1	5	2–4 (0.2–0.4, 1–3)	
Tank insulator tapping	2	5	0.5–1.5 (0.05–0.15, 0.4–1.1)	
Front turn signal tapping	1	4	0.5–1.5 (0.05–0.15, 0.4–1.1)	
Front turn signal cover tapping	2	4	0.5–1.5 (0.05–0.15, 0.4–1.1)	
Taillight cover	1	—	2–4 (0.2–0.4, 1–3)	
Main stand bracket flange bolt	1	8	20–30 (2.0–3.0, 14–22)	

Torque specifications listed above are for the most important tightening points. If a specification is not listed, follow the standard torque values below.

STANDARD TORQUE VALUES

TYPE	TORQUE N·m (kg·m, ft·lb)	TYPE	TORQUE N·m (kg·m, ft·lb)
5 mm bolt, nut	4.5–6.0 (0.45–0.6, 3.3–4.3)	5 mm screw	3.5–5 (0.35–0.5, 2.5–3.6)
6 mm bolt, nut	8–12 (0.8–1.2, 6–9)	6 mm screw	7–11 (0.7–1.1, 5–8)
8 mm bolt, nut	18–25 (1.8–2.5, 13–18)	6 mm flange bolt, nut	10–14 (1.0–1.4, 7–10)
10 mm bolt, nut	30–40 (3.0–4.0, 22–29)	8 mm flange bolt, nut	24–30 (2.4–3.0, 17–22)
12 mm bolt, nut	50–60 (5.0–6.0, 36–43)	10 mm flange bolt, nut	30–40 (3.0–4.0, 22–29)
6 mm SH bolt	8–12 (0.8–1.2, 6–9)		

TOOLS

SPECIAL

DESCRIPTION	TOOL NUMBER	ALTERNATE TOOL	TOOL NUMBER	REF. SECT.
Vacuum pressure pump	A937X--041--XX XXX	Vacuum pump (U.S.A. only)	ST-AH-260-MC-7	4
Valve guide reamer	07984--MA60000	Valve guide reamer	07984--MA6000A (U.S.A. only)	6
Valve guide driver, 5 mm	07942--MA60000			6
Valve spring compressor attachment	07959--KM30101			6
Lock nut wrench, 39 mm	07916--1870002			8
Clutch spring compressor	07960--KJ90000	Clutch spring compressor	07960--KM1000A	8
Bearing driver	07945--GC80000			8
Bearing driver attachment, 28 x 30 mm	07946--1870100			8, 9
Flywheel puller	07935--8050003			8
Assembly collar	07965--1480100			9
Assembly bolt	07965--1480200			9
Lock nut wrench	07916--1870100	Lock nut wrench, 30 x 22 mm or equivalent commercially available in U.S.A.	07716--0020400	13
Lock nut wrench	07916--GK00000	Adjustable pin spanner	07702--0020001	13
Ball race remover	07946--GA70000			13
Ball race remover	07953--KJ90000	Not available in U.S.A.		13
Rear cushion attachment B	07967--GA70200	Compressor attachment	07967--GA70001	14
Spring attachment	07967--1180100			14

COMMON

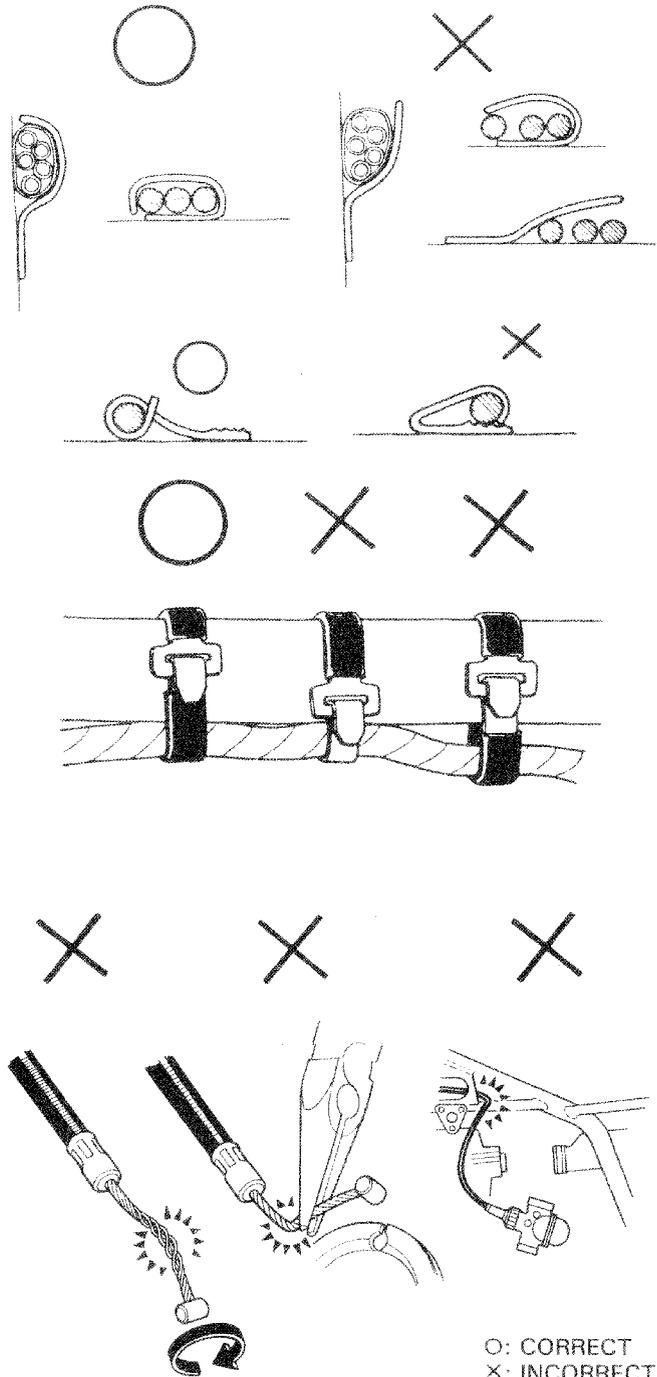
DESCRIPTION	TOOL NUMBER	ALTERNATE TOOL	TOOL NUMBER	REF. SECT.
Wrench, 8 x 9 mm	07708--0030100	Equivalent commercially available in U.S.A.		3
Adjusting wrench	07708--0030400	Valve adjustment wrench	07908--KE90200	3
Float level gauge	07401--0010000			4
Valve spring compressor	07757--0010000			6
Universal holder	07725--0030000	Band strap wrench (Commercially available in U.S.A.)		8, 10
Attachment, 32 x 35 mm	07746--0010100			9
Attachment, 37 x 40 mm	07746--0010200			9
Attachment, 42 x 47 mm	07746--0010300			9, 13
Driver	07749--0010000			9, 13
Pilot, 12 mm	07746--0040200			9, 13
Pilot, 20 mm	07746--0040500			9
Pilot, 15 mm	07746--0040300			8
Pilot, 17 mm	07746--0040400			9
Flywheel puller	07733--0010000			10
Remover shaft	07746--0050300	Equivalent tool commercially available in U.S.A.		13
Remover head, 12 mm	07746--0050100			13
Extension bar	07716--0020500			13
Shock absorber compressor	07959--3290001			14

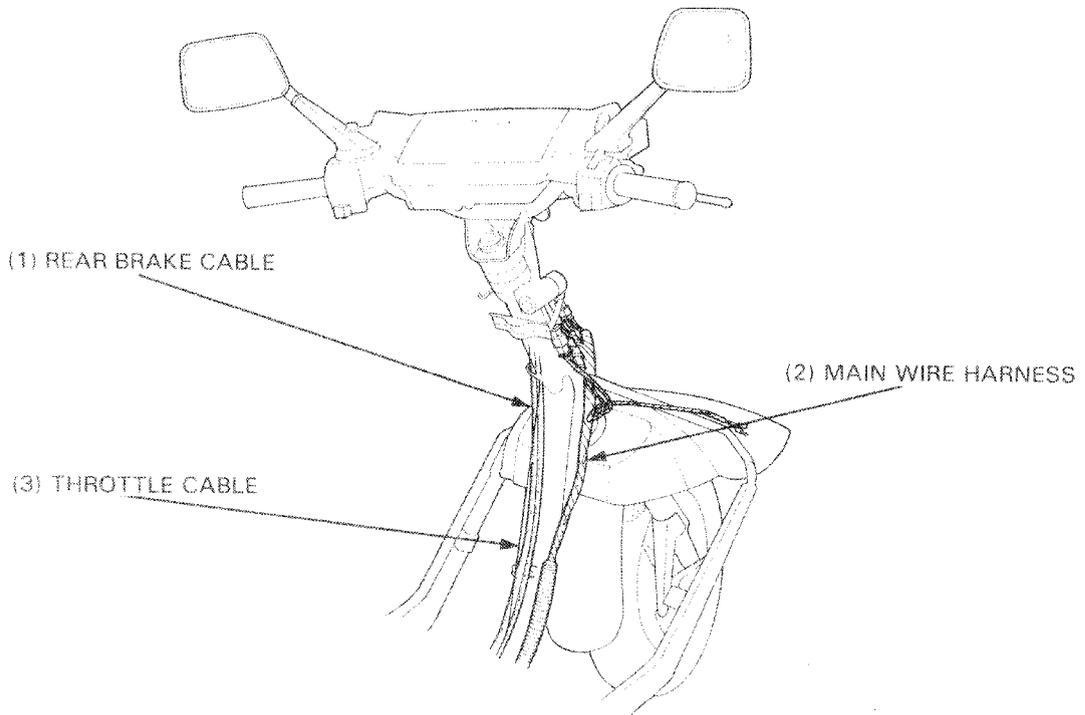
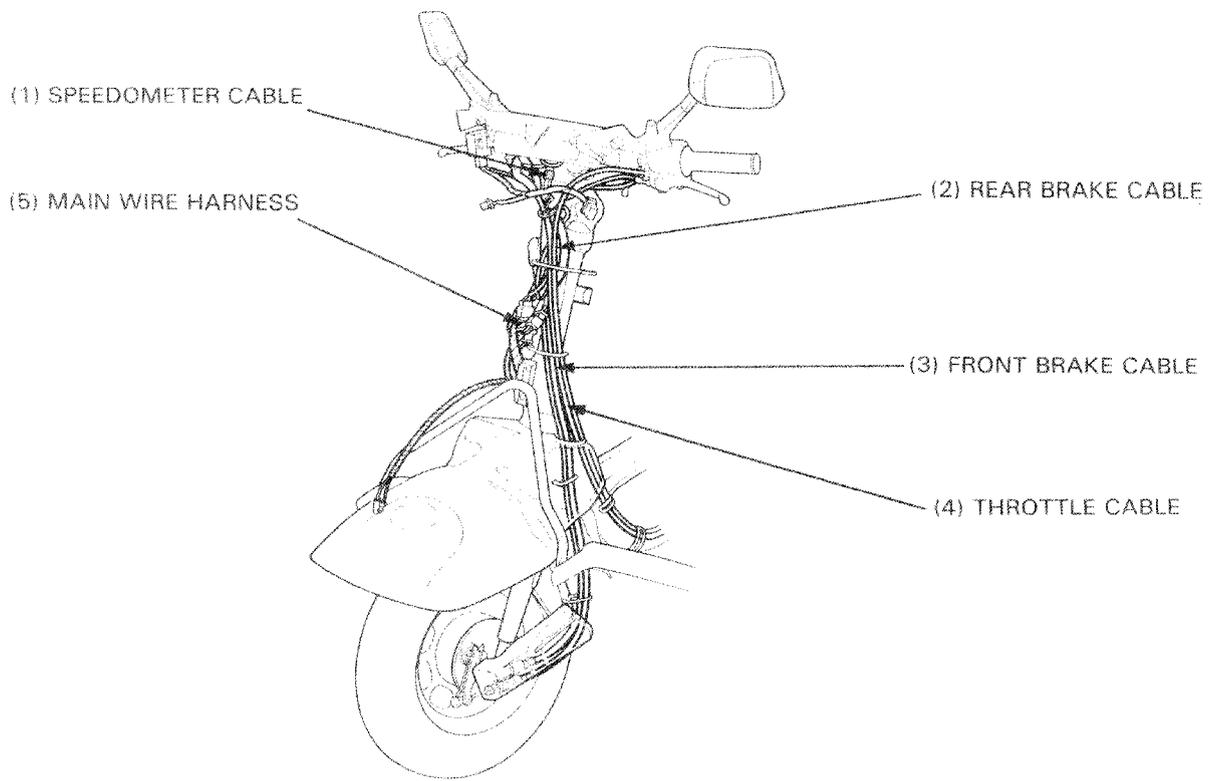
GENERAL INFORMATION

CABLE & HARNESS ROUTING

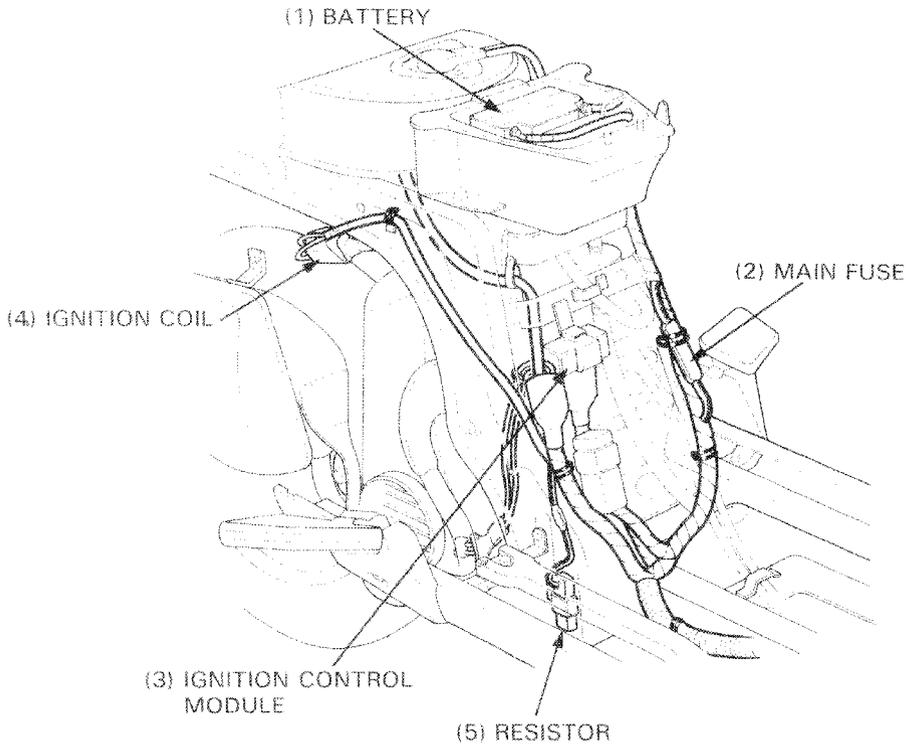
Note the following when routing cables and wire harnesses.
A loose wire, harness or cable can be a safety hazard.
After clamping, check each wire to be sure it is secure.

- Do not squeeze wires against the weld or end of its 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 taut or have excessive slack.
- Protect wires and harnesses with electrical tape or tube if they contact a sharp edge or corner. Clean the attaching surface thoroughly before applying tape.
- Do not use wires or harnesses with broken insulators. Repair by wrapping them with protective tape or replace them.
- Route wire harnesses to avoid sharp edges or corners.
- 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.
- After routing, check that the wire harnesses are not twisted or kinked.
- 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.
- Do not bend or twist control cables. Damaged control cables will not operate smoothly and may stick or bind.

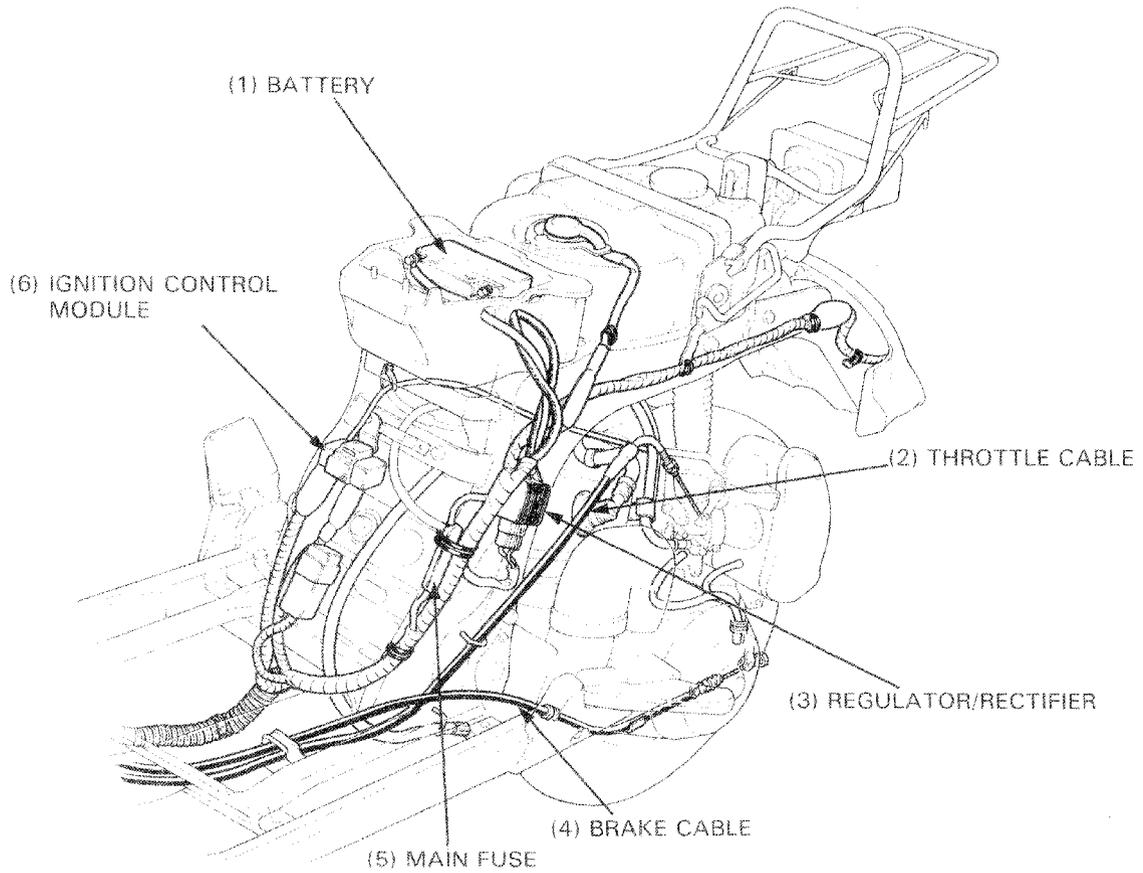
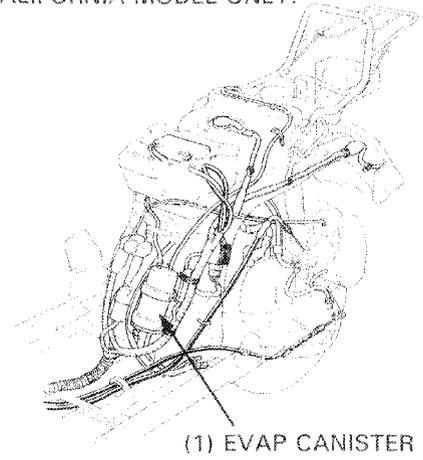


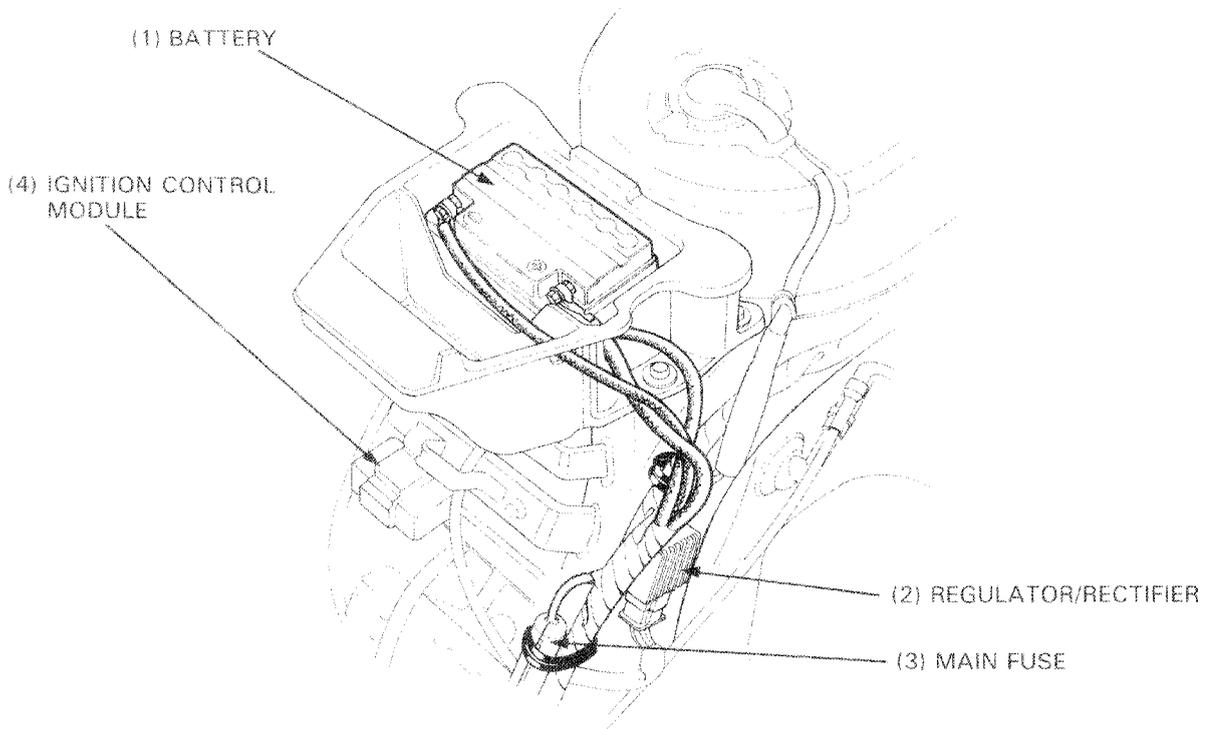
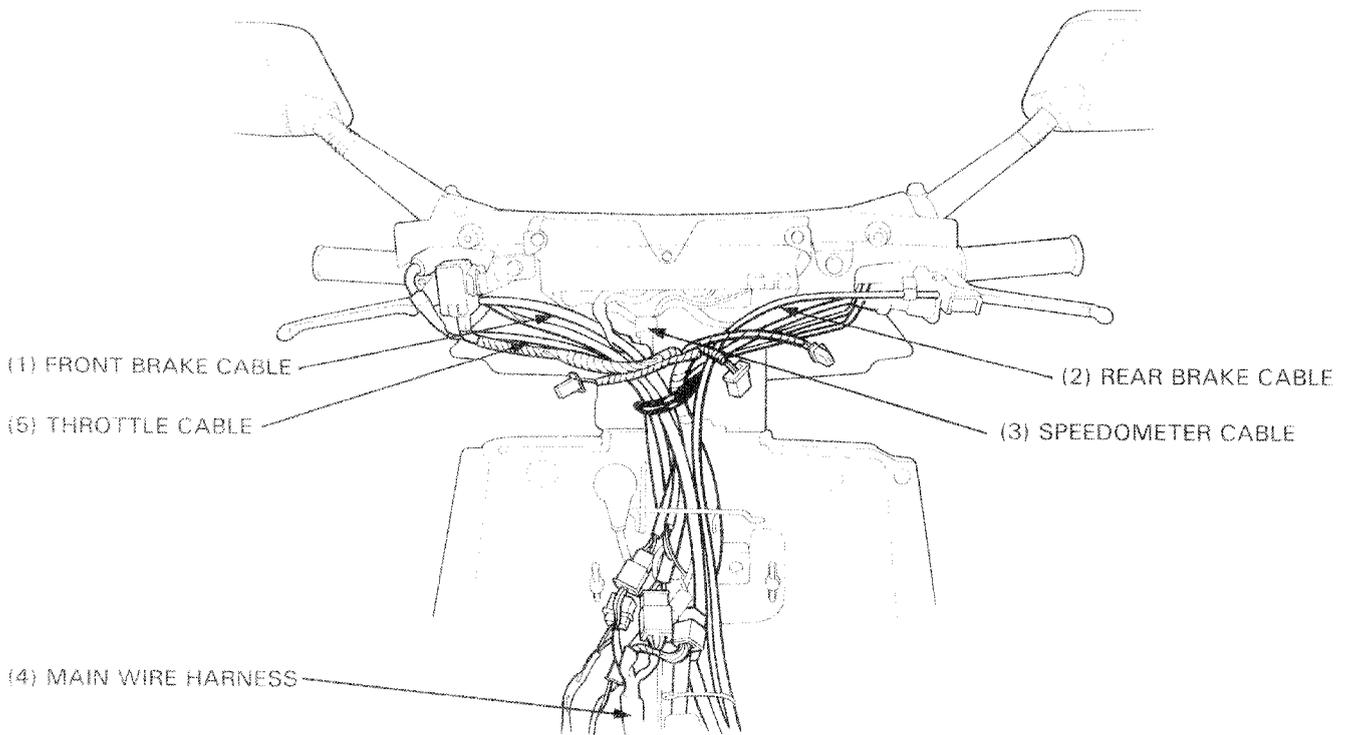


GENERAL INFORMATION



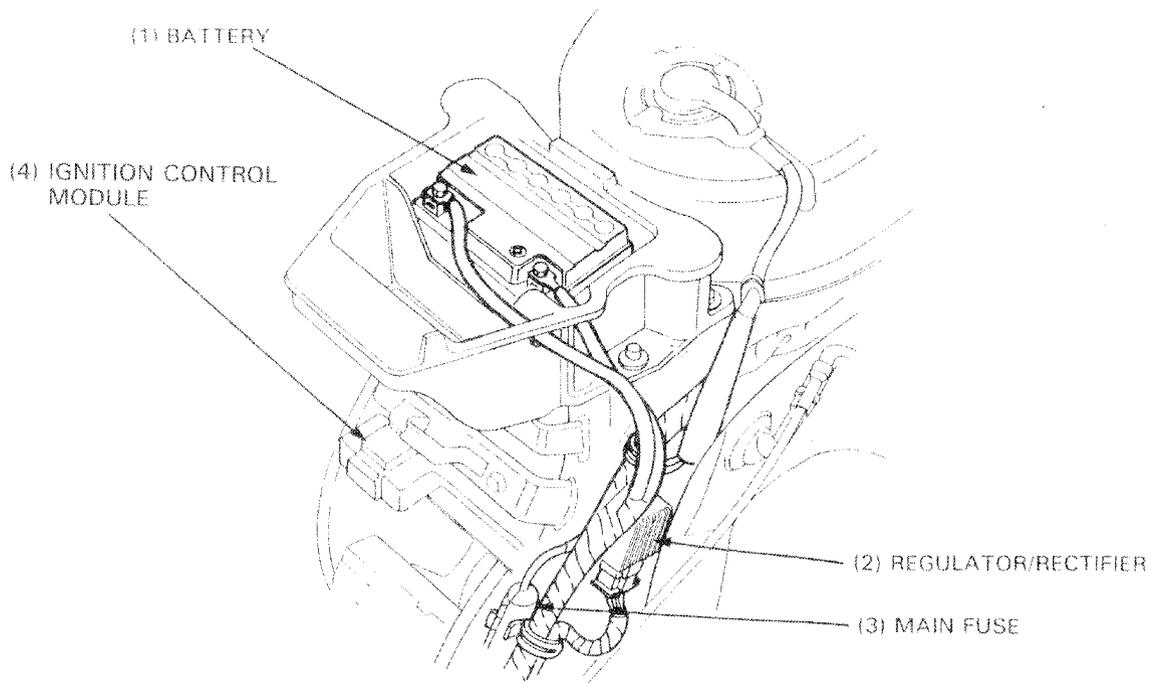
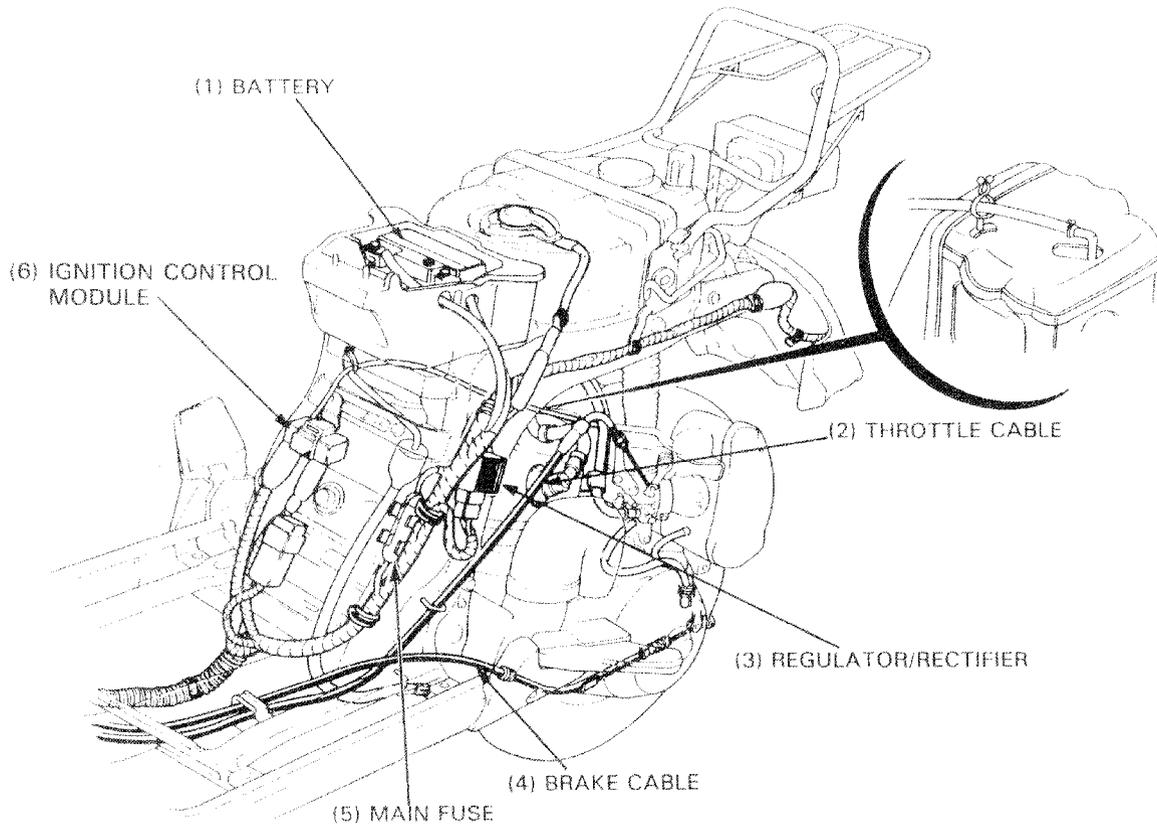
CALIFORNIA MODEL ONLY:





GENERAL INFORMATION

After '85:



EMISSION CONTROL SYSTEM

The U.S. Environmental Protection Agency and California Air Resources Board (CARB) require manufacturers to certify that their scooters comply with applicable exhaust emission standards during their useful life, when operated and maintained according to the instructions provided, and that scooters built after January 1, 1983 comply with applicable noise emission standards for one year of 6,000 km (3,730 miles) after the time of sale to the ultimate purchaser, when operated and maintained according to the instructions provided. Compliance with the terms of the Distributor's Warranties for Honda Scooter Emission Control Systems is necessary in order to keep the emission warranty in effect.

SOURCE OF EMISSIONS

The combustion process produces carbon monoxide and hydrocarbons. Control of hydrocarbons is very important because, under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.

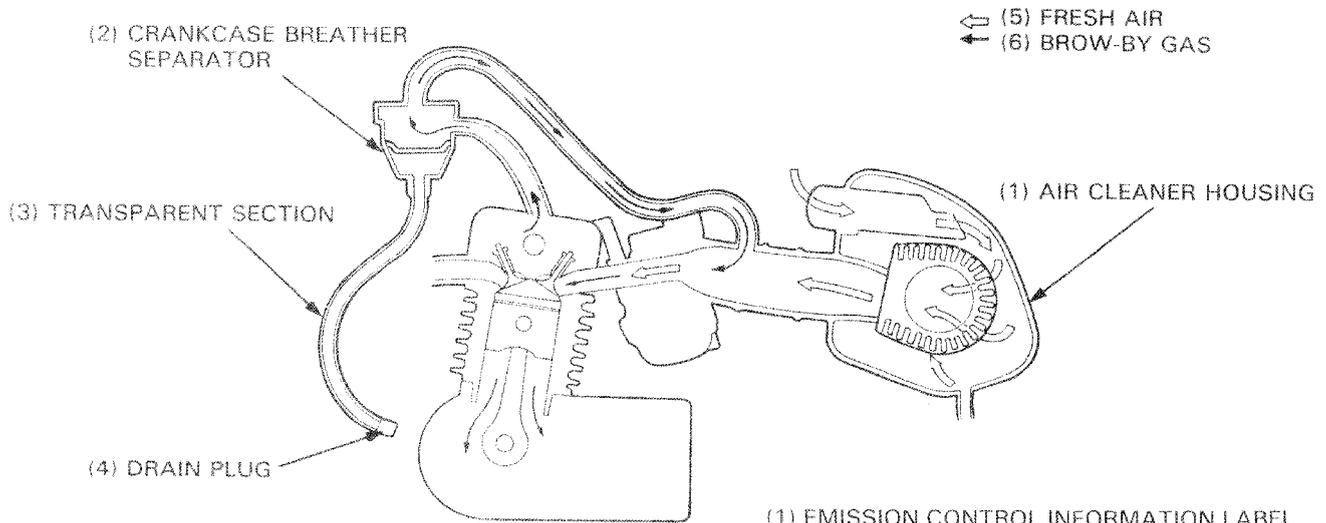
Honda Motor Co., Ltd. utilizes lean carburetor settings as well as other systems, to reduce carbon monoxide and hydrocarbons.

EXHAUST EMISSION CONTROL SYSTEM

The exhaust emission control system is composed of lean carburetor settings, and no adjustments should be made except idle speed adjustment with the throttle stop screw.

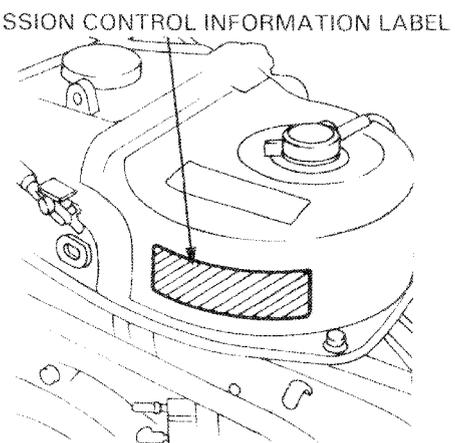
CRANKCASE EMISSION CONTROL SYSTEM

The engine is equipped with a crankcase emission control system which routes crankcase emissions through the air cleaner and into the combustion chamber. Condensed crankcase vapors are accumulated in a transparent tube which must be emptied periodically. See the Maintenance Schedule in Section 3.



EMISSION CONTROL INFORMATION LABEL

An emission control information label is attached to the fuel tank below the seat as shown. It gives basic tune-up specification.



GENERAL INFORMATION

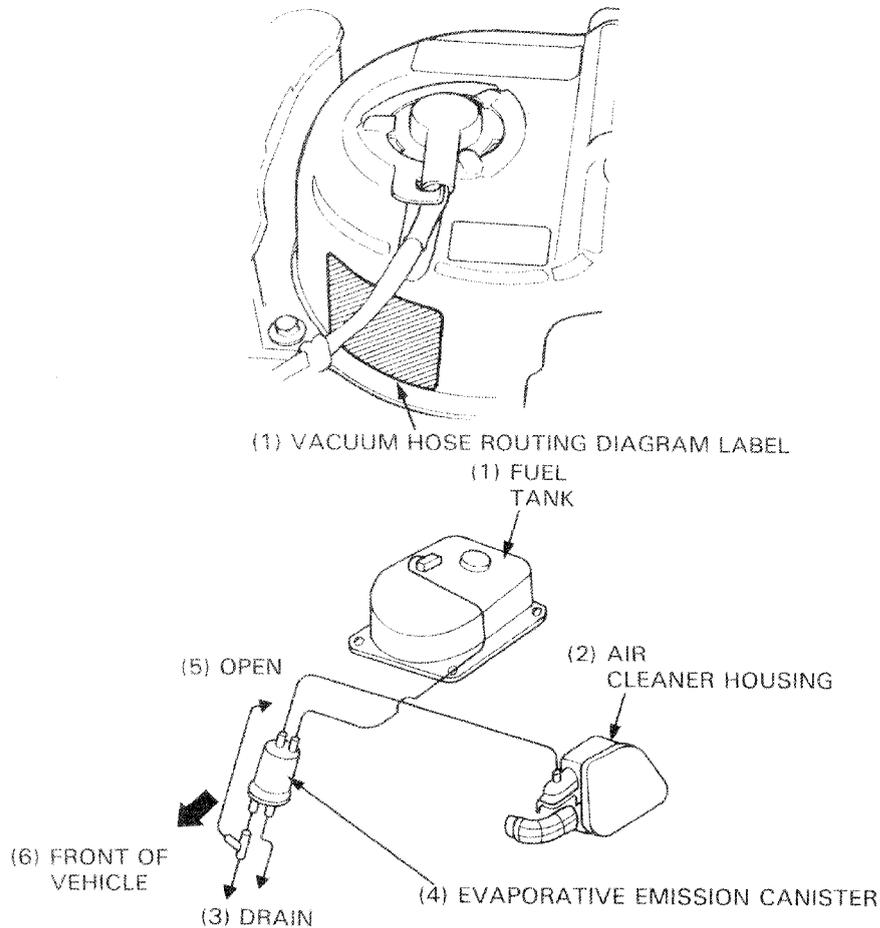
EVAPORATIVE EMISSION CONTROL SYSTEM (California model)

This model complies with California Air Resources Board requirements for evaporative emission regulations. Fuel vapor from the fuel tank is routed into an evaporative emission canister where it is absorbed and stored while the engine is stopped.

When the scooter is running fuel vapor in the evaporative emission canister is drawn into the engine through the carburetor.

VACUUM HOSE ROUTING DIAGRAM LABEL (California model)

The Vacuum Hose Routing Diagram Label is attached to the left side of the fuel tank.

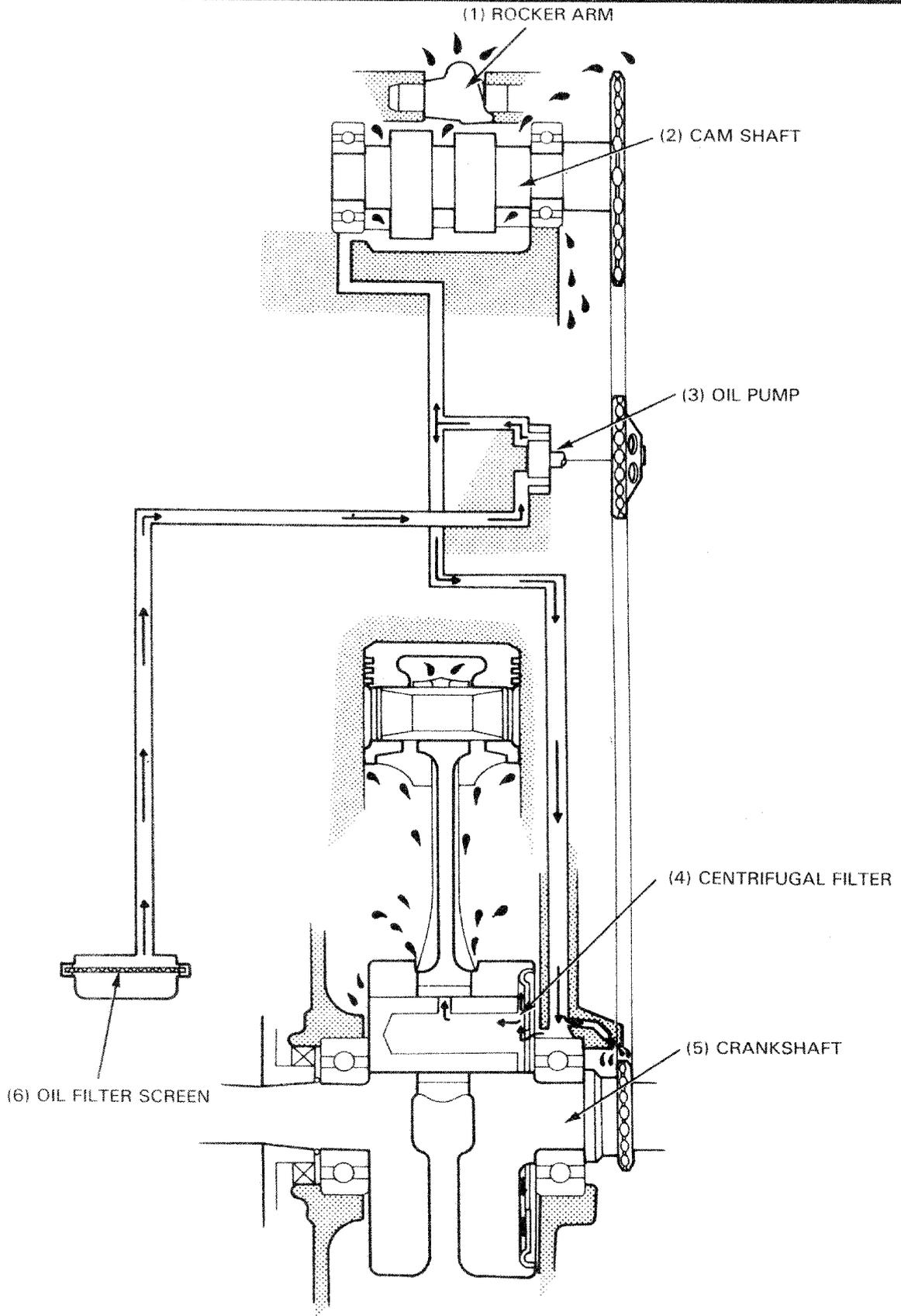


NOISE EMISSION CONTROL SYSTEM

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW:

1. Removal of, or puncturing the muffler, baffles, header pipes or any other component which conducts exhaust gases.
2. Removal of, or puncturing of any part of the intake system.
3. Lack of proper maintenance.
4. Replacing any moving parts of the vehicle, or parts of the exhaust or intake system, with parts other than those specified by the manufacturer.



2. LUBRICATION

SERVICE INFORMATION	2-1	OIL PUMP INSPECTION	2-5
TROUBLESHOOTING	2-1	OIL PUMP ASSEMBLY	2-6
ENGINE OIL	2-2	OIL PUMP INSTALLATION	2-6
ENGINE OIL FILTER SCREEN CLEANING	2-3	TRANSMISSION OIL	2-7
OIL PUMP REMOVAL	2-3	LUBRICATION POINTS	2-8
OIL PUMP DISASSEMBLY	2-4		

SERVICE INFORMATION

GENERAL

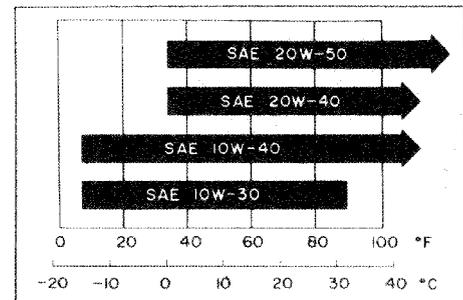
- This section covers maintenance of the engine oil, transmission oil, oil pump and chassis lubrication points. This service can be done with the engine installed in the frame.

CAUTION

- Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

SPECIFICATIONS

- Engine oil capacity 750 cc (25 US oz, 0.66 Imp qt.) at disassembly
600 cc (20 US oz, 0.53 Imp qt.) at draining
- Recommended oil Use Honda GN4 or HP4 4-Stroke Oil or equivalent.
API Service Classifications: SF or SG
VISCOSITY: SAE 10W-40
Other viscosities shown in the chart may be used when the average temperature in your riding area is within the indicated range.
- Transmission oil capacity 60 cc (2 US oz, 0.053 Imp qt.) After disassembly
52 cc (1.8 US oz, 0.046 Imp qt.) After draining
- Recommended oil Honda GN4 or HP4 4-Stroke Oil, SAE 10W-30 or equivalent



ITEM		STANDARD	SERVICE LIMIT
Oil pump	Rotor tip clearance	0.15 mm (0.006 in)	0.20 mm (0.008 in)
	Body clearance	0.15—0.20 mm (0.006—0.008 in)	0.25 mm (0.010 in)
	Rotor end clearance	0.04—0.09 mm (0.002—0.004 in)	0.12 mm (0.005 in)

TORQUE VALUES

- Oil drain plug 20—30 N·m (2.0—3.0 kg-m, 14—22 ft-lb)
Crankcase bolt 9—12 N·m (0.9—1.2 kg-m, 7—9 ft-lb)
Transmission oil drain bolt 10—14 N·m (1.0—1.4 kg-m, 7—10 ft-lb)

TROUBLESHOOTING

Oil level too low

- External oil leaks
- Worn valve guide or seal
- Worn piston rings

Oil contamination

- Oil not changed often enough
- Faulty head gasket
- Worn piston rings
- Engine oil additive used

Poor lubrication pressure

- Oil level too low
- Clogged oil filter, oil passage, and or oil pipe
- Faulty oil pump
- Oil not changed often enough

LUBRICATION

ENGINE OIL

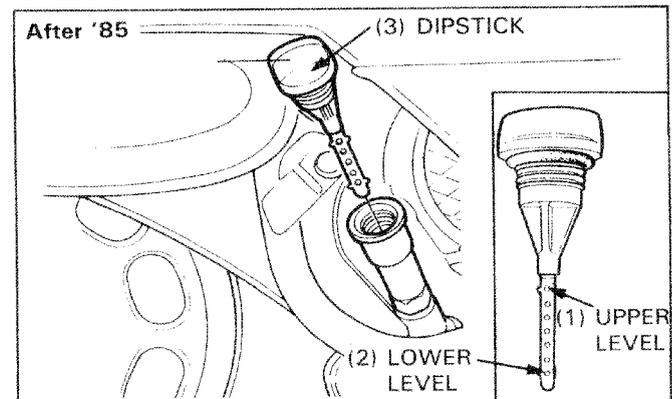
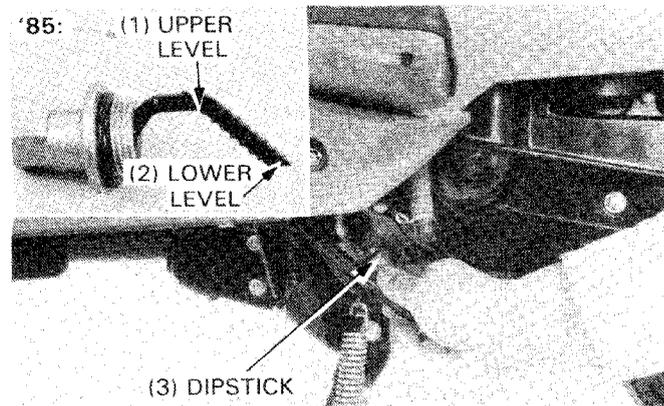
OIL LEVEL

Stop the engine and support the scooter upright on level ground.

Check the oil level with the filler cap/dipstick.

Do not screw in the dipstick when making this check.

If the level is near the lower level mark, fill to the upper level mark with the recommended engine oil.



OIL CHANGE

NOTE

- Change engine oil with the engine warm and the scooter on its center stand to assure complete and rapid draining.

Remove the oil filler cap/dipstick and drain plug. After the oil has been drained, check that the drain plug sealing washer is in good condition and install the plug.

TORQUE: 20 – 30 N·m (2.0 – 3.0 kg·m, 14 – 22 ft·lb)

NOTE

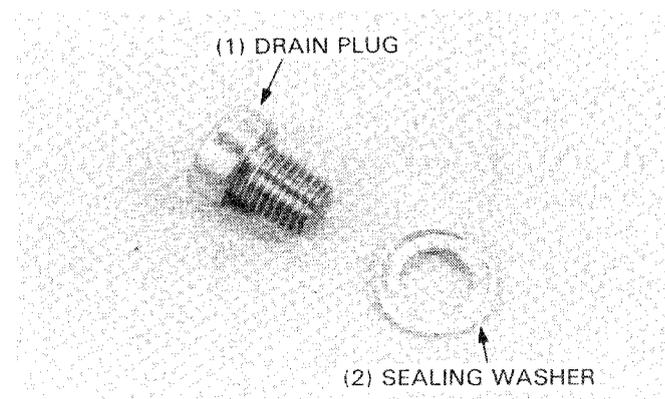
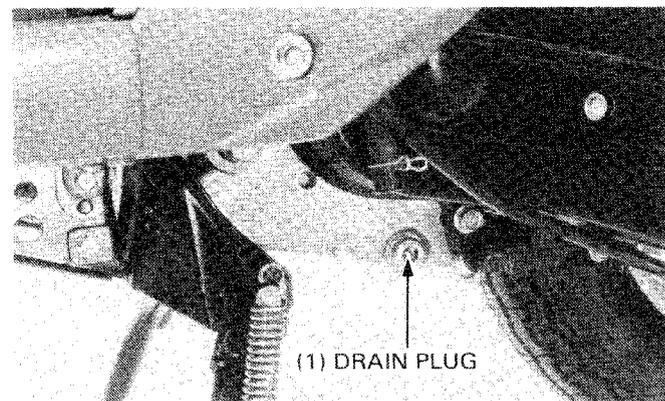
- Perform the oil filter screen maintenance, if required, before filling the crankcase.

Fill the crankcase with 0.7 liter (0.74 U.S. qt., 0.62 Imp qt.) of recommended oil.

Install the oil filler cap/dipstick.

Start the engine and let it idle for 2 or 3 minutes.

Stop the engine and wait for a few minutes; then check that the oil level is at the upper level mark with the scooter upright. Check that there are no oil leaks.



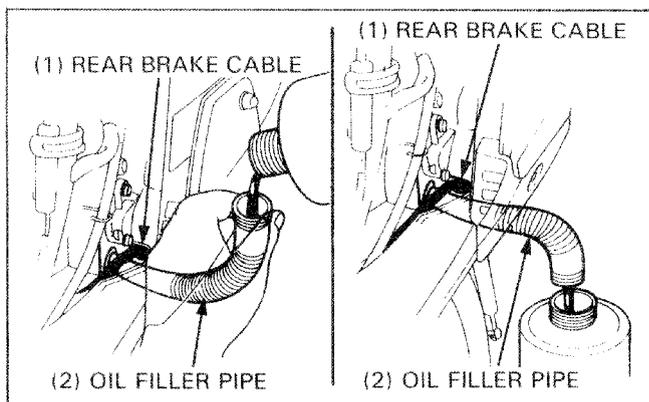
'85:

If required, remove the center cover and add the specified oil up to the upper level mark using the oil filler pipe stored in the tool set in the front trunk.

Replace the filler cap/dipstick and center cover. Check for oil leaks.

NOTE

- Route the oil filler pipe under the rear brake cable.
- Some oil may be left in the oil filler pipe. Before removing the pipe from the oil filler opening, turn the pipe downward and drain the residue into a container.



ENGINE OIL FILTER SCREEN CLEANING

NOTE

- Clean the oil filter screen whenever the crankcase cover has been removed.

Remove the engine.

Remove the crankcase cover.

Remove the oil filter screen and clean it.

Install the oil filter screen.

NOTE

- Install the oil filter screen with the thick end facing the outside.

Install a new crankcase cover gasket.

Install the removed parts in the reverse order of disassembly.

Fill the crankcase with the recommended oil (page 2-1).

OIL PUMP REMOVAL

Remove the following:

- Engine (Section 5).
- Cylinder head (Section 6).
- Cylinder (Section 7).

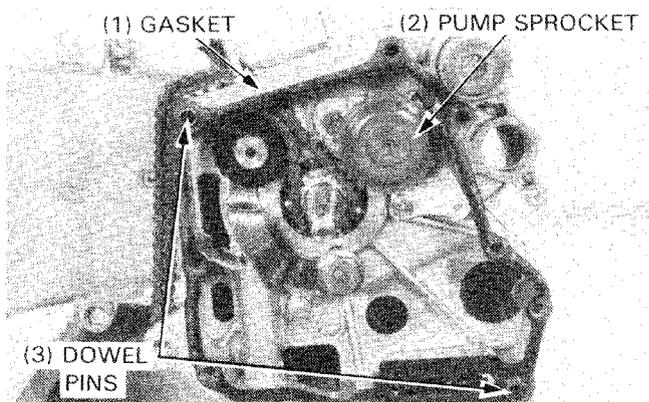
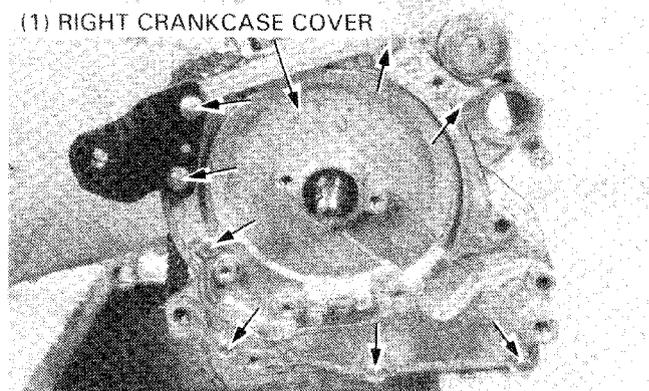
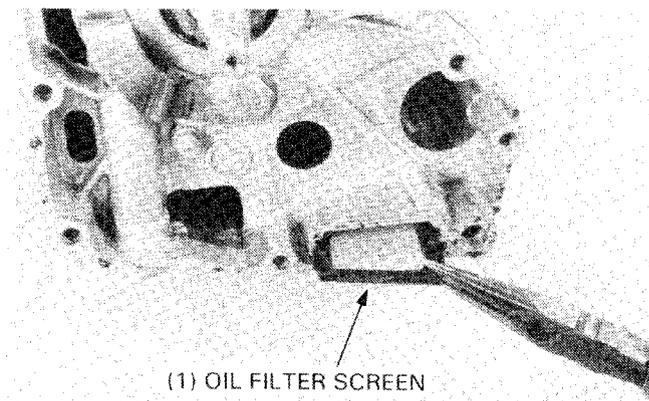
Remove the alternator and right crankcase cover.

Remove the gasket and dowel pins.

Slide the cam chain to left, and pull out the oil pump sprocket with the pump shaft.

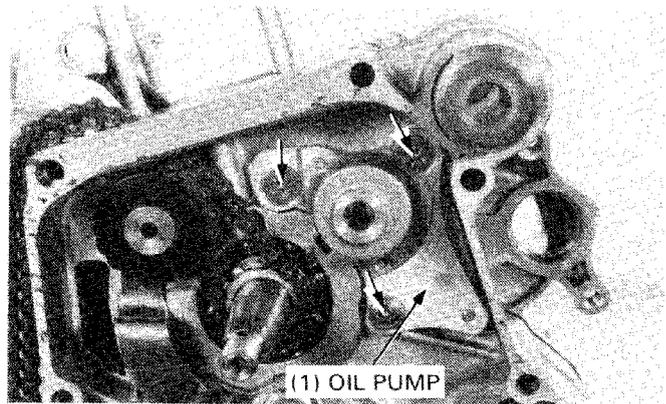
NOTE

- The pump sprocket has left hand threads.



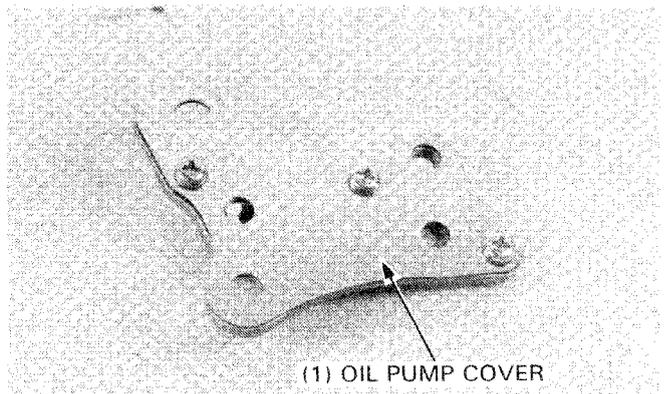
LUBRICATION

Remove the screws and oil pump.
Remove the O-rings.



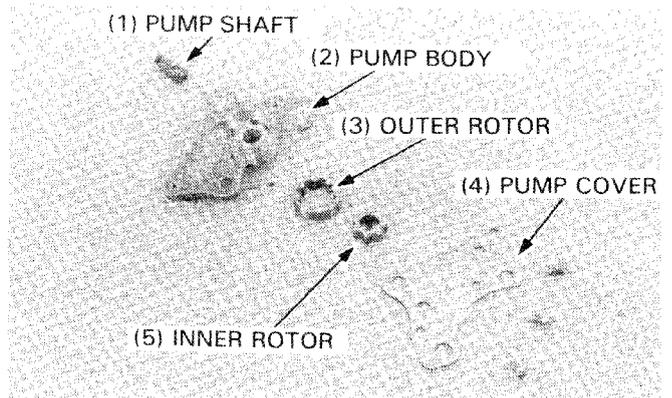
OIL PUMP DISASSEMBLY

Remove the three screws and oil pump cover.



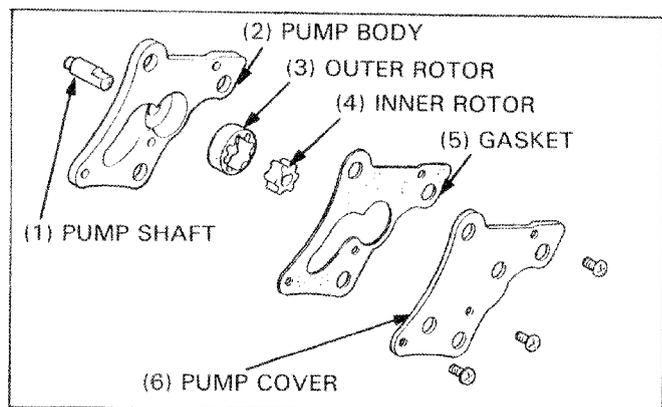
'85, '86:

Remove the inner rotor and outer rotor from the oil pump body.



After '86:

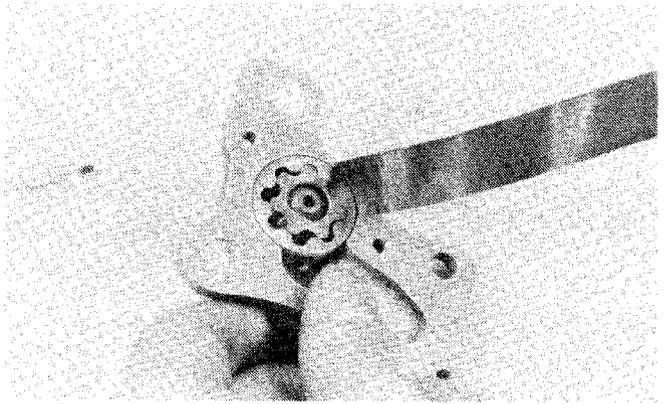
Remove the inner rotor, outer rotor and gasket from the oil pump body.



OIL PUMP INSPECTION

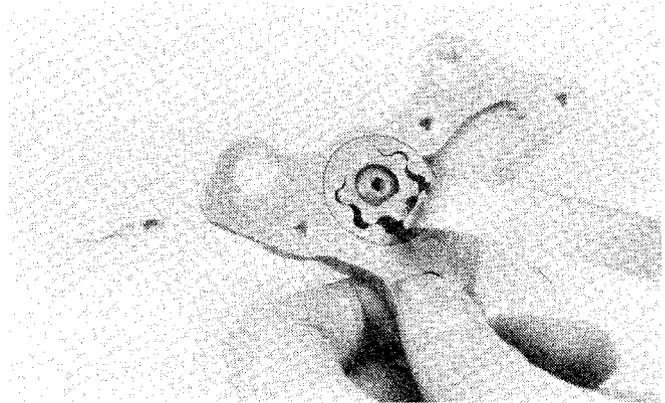
Measure the pump body-to-outer rotor clearance.

SERVICE LIMIT: 0.25 mm (0.010 in)



Measure the outer rotor-to-inner rotor tip clearance.

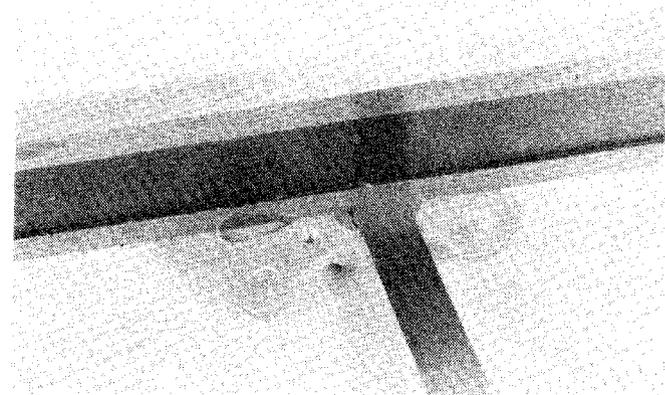
SERVICE LIMIT: 0.20 mm (0.008 in)



'85, '86:

Check the rotor-to-pump body clearance.

SERVICE LIMIT: 0.12 mm (0.005 in)

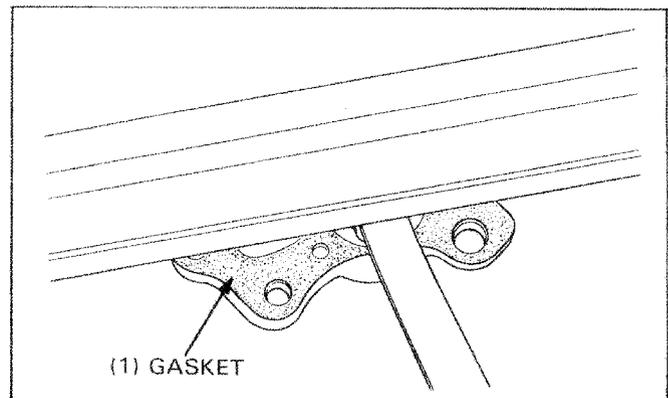


After '86:

Check the rotor-to-pump body clearance with a new gasket attached.

NOTE

- For accurate measurement, make sure the pump body surface is clean and a new gasket is used.



LUBRICATION

OIL PUMP ASSEMBLY

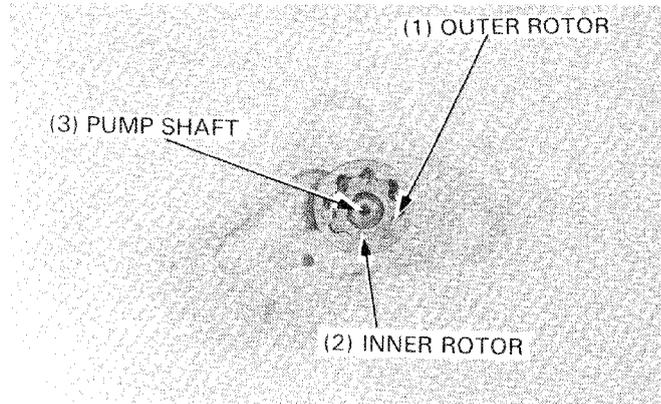
Install the outer and inner rotors into the pump body.

NOTE

- Insert the pump shaft by aligning the flat of the shaft with the inner rotor.

After '86:

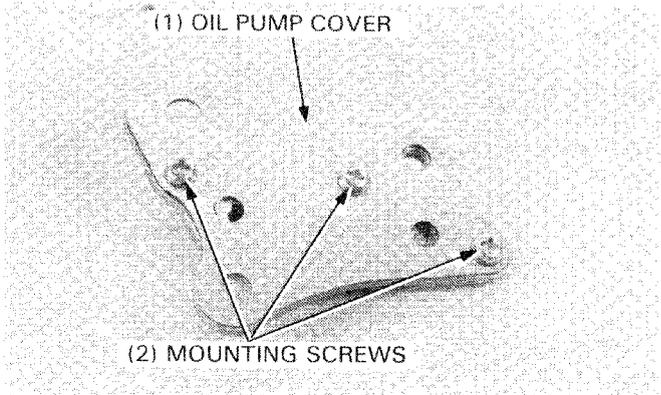
Install the new gasket on the pump body.



Install the pump cover with the three screws.

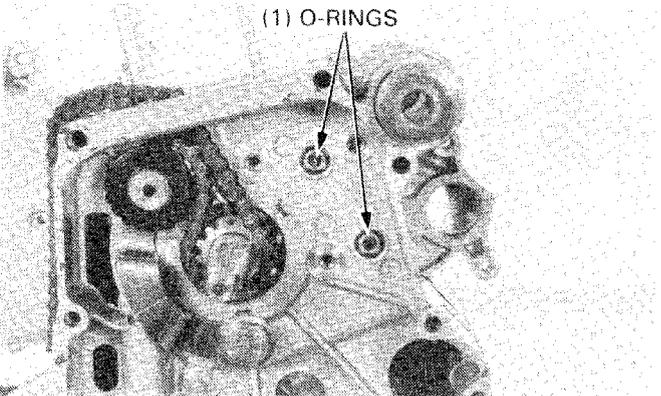
NOTE

- Make sure that the pump shaft rotates freely without binding.



OIL PUMP INSTALLATION

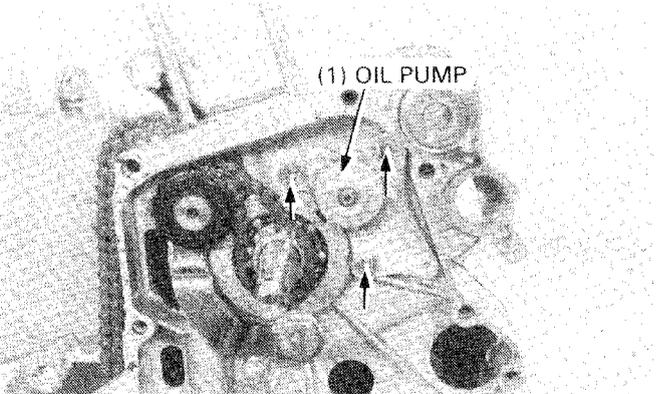
Install the new O-rings in the right crankcase.



Install the oil pump and tighten the screws.

NOTE

- Be careful not to pull the pump shaft out.



Install the pump sprocket.

NOTE

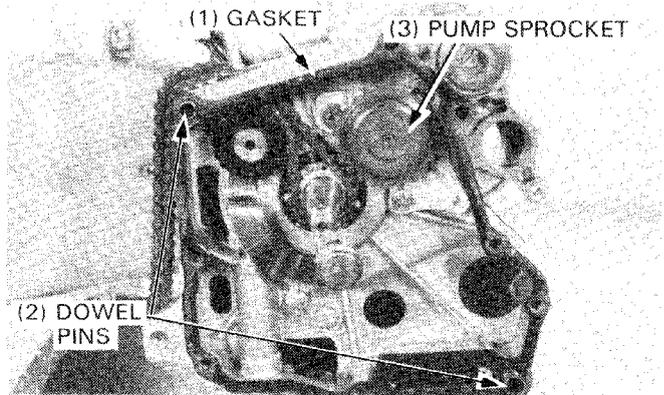
- The pump shaft has left hand threads.

Install the right crankcase cover.

TORQUE: 9–12 N·m (0.9–1.2 kg·m, 7–9 ft-lb)

NOTE

- Clean the oil filter screen before installing the right crankcase cover.

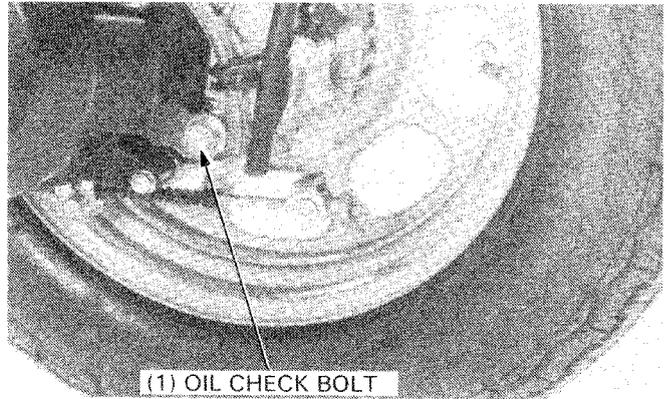


Install the removed parts in the reverse order of removal and install the engine in the frame.

TRANSMISSION OIL

OIL LEVEL CHECK

Place the scooter on its stand on level ground.
 Stop the engine and remove the transmission oil check bolt.
 The oil level should be at the oil check bolt hole.
 If the level is low, fill the final reduction case with the recommended oil (page 2-1).
 Install the oil check bolt.



OIL CHANGE

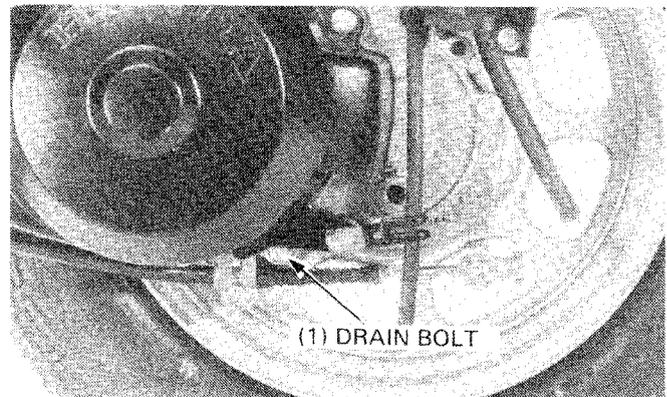
Remove the oil check bolt.
 Remove the oil drain bolt and drain the oil thoroughly.
 Make sure that the drain bolt sealing washer is in good condition.
 Reinstall the drain bolt.

TORQUE: 10–14 N·m (1.0–1.4 kg·m, 7–10 ft-lb)

Fill the final reduction case with the recommended oil (page 2-1), through the oil check bolt hole up to the bolt hole.

CAPACITY: 150 cc (5.1 US oz, 0.26 Imp qt)

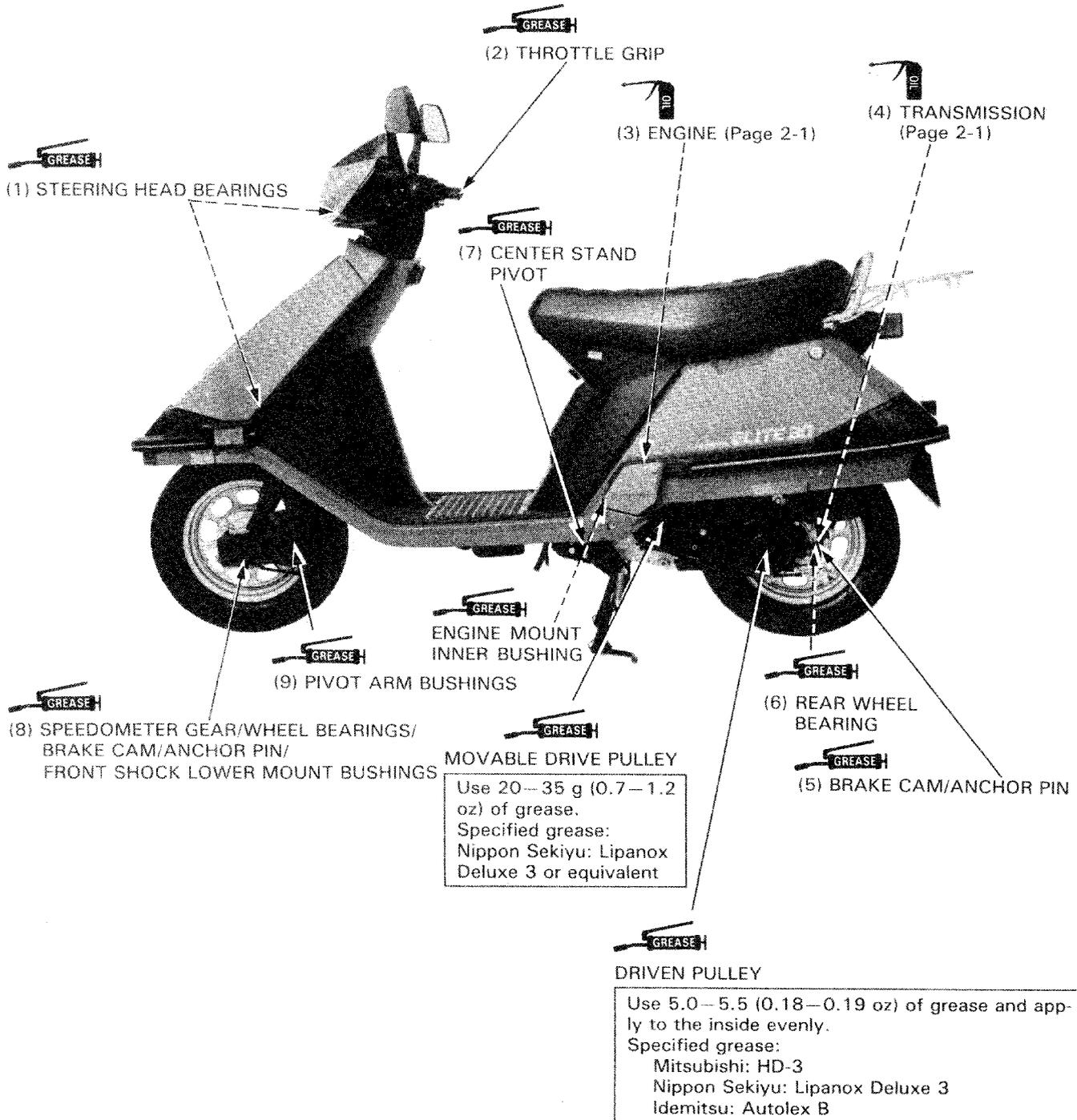
Make sure that the oil check bolt sealing washer is in good condition and reinstall the oil check bolt.
 Start the engine and test ride for 2–3 minutes.
 Stop the engine and check the oil level.
 Make sure that there are no oil leaks.



LUBRICATION POINTS

CONTROL CABLES

Periodically, disconnect the throttle and brake cables at their upper ends. Thoroughly lubricate the cables and their pivot points with a commercially available cable lubricant or a light weight oil.



3. MAINTENANCE

3

SERVICE INFORMATION	3-1	IGNITION TIMING	3-7
MAINTENANCE SCHEDULE	3-2	BELT CASE/AIR CLEANER	3-8
FUEL LINES	3-4	BRAKE SHOE	3-8
FUEL FILTER	3-4	BRAKE SYSTEM	3-9
THROTTLE OPERATION	3-4	BRAKE LIGHT SWITCH	3-9
AIR CLEANER	3-5	HEADLIGHT AIM	3-10
CRANKCASE BREATHER	3-5	CLUTCH SHOE INSPECTION	3-10
SPARK PLUG	3-6	SUSPENSION	3-10
VALVE CLEARANCE	3-6	NUTS, BOLTS, FASTENERS	3-11
CARBURETOR IDLE SPEED	3-7	WHEELS	3-11
EVAPORATIVE EMISSION		STEERING HEAD BEARINGS	3-11
CONTROL SYSTEM	3-7		

SERVICE INFORMATION

GENERAL

Engine oil See page 2-2
 Engine oil strainer screen See page 2-3
 Transmission (final reduction) oil See page 2-7

SPECIFICATIONS

Engine

Throttle grip free play 2—6 mm (1/8—1/4 in)
 Spark plug Standard CR7HS (NGK), U22FSR-U (NIPPONDENSO)
 For cold climate (below 5°C/41°F) CR6HS (NGK), U20FSR-U (NIPPONDENSO)
 For extended high speed riding CR8HS (NGK), U24FSR-U (NIPPONDENSO)
 Plug gap 0.6—0.7 mm (0.024—0.028 in)
 Ignition timing
 — At idle 18° BTDC
 — Advance starts 18° BTDC at 2,400 rpm
 — Full advance 27° BTDC at 3,000 rpm
 Idle speed 1,700 ± 100 rpm

Chassis

Front brake free play 10—20 mm (3/8—3/4 in)
 Rear brake free play 10—20 mm (3/8—3/4 in)
 Tire:

		FRONT	REAR
Tire size		3.50-10-4PR	3.50-10-4PR
Cold tire pressure	Up to vehicle capacity load	150 kPa (1.50 kg/cm ² , 22 psi)	225 kPa (2.25 kg/cm ² , 33 psi)
	Up to 90 kg (200 lbs.) load	150 kPa (1.50 kg/cm ² , 22 psi)	175 kPa (1.75 kg/cm ² , 25 psi)
Tire brand	DUNLOP	K 398	K 398
	INOUE	3R	3R
	BRIDGESTONE	ML2	ML2
	KIK	MB3	MB3

TOOLS

Common

Wrench, 8 x 9 mm 07708—0030100 Equivalent commercially available in U.S.A.
 Adjusting wrench 07708—0030400 or Valve adjustment wrench 07908—KE90200

MAINTENANCE

MAINTENANCE SCHEDULE

'85:

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.

ITEM	FREQUENCY	WHICHEVER COMES FIRST ↓	ODOMETER READING (NOTE 4)				Refer to page
			600 mi (1,000 km)	2,500 mi (4,000 km)	5,000 mi (8,000 km)	7,500 mi (12,000 km)	
* FUEL LINES			I	I	I		3-4
* FUEL FILTER					R		3-4
* THROTTLE OPERATION			I	I	I		3-4
AIR CLEANER	NOTE 1		Replace every 12,500 mi (20,000 km)				3-5
CRANKCASE BREATHER	NOTE 2		C	C	C		3-5
SPARK PLUG			R	R	R		3-6
* VALVE CLEARANCE		I	I	I	I		3-6
ENGINE OIL	YEAR	R	Replace every 1,000 mi (1,600 km)				2-2
** ENGINE OIL FILTER SCREEN				C			2-3
* CARBURETOR- IDLE SPEED		I	I	I	I		3-7
* EVAPORATIVE EMISSION CONTROL SYSTEM	NOTE 3				I		3-7
* TRANSMISSION OIL	2 YEARS R*						2-7
BELT CASE/AIR CLEANER	NOTE 1		C	C	C		3-8
BRAKE SHOE WEAR			I	I	I		3-8
BRAKE SYSTEM		I	I	I	I		3-9
* BRAKE LIGHT SWITCH			I	I	I		3-9
STARTER LIMIT SWITCH			I	I	I		—
* HEADLIGHT AIM			I	I	I		3-10
** CLUTCH SHOE WEAR			I	I	I		3-10
* SUSPENSION			I	I	I		3-10
** NUTS, BOLTS, FASTENERS		I	I	I	I		3-11
** WHEELS			I	I	I		3-11
** STEERING HEAD BEARINGS		I			I		3-11

* 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.
3. California type only.
4. For higher odometer readings, repeat at the frequency interval established here.

After '85:

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

C: Clean. R: Replace. A: Adjust. L: Lubricate.

FREQUENCY		WHICHEVER COMES FIRST	ODOMETER READING (NOTE 4)				Refer to page
			600 mi (1,000 km)	2,500 mi (4,000 km)	5,000 mi (8,000 km)	7,500 mi (12,000 km)	
ITEM	EVERY						
EMISSION RELATED ITEMS	* FUEL LINES		I	I	I	3-4	
	* THROTTLE OPERATION		I	I	I	3-4	
	AIR CLEANER	NOTE 1			R	3-5	
	CRANKCASE BREATHER	NOTE 2	C	C	C	3-5	
	SPARK PLUG		R	R	R	3-6	
	* VALVE CLEARANCE		I	I	I	3-6	
	ENGINE OIL	YEAR	R	Replace every 1,000 mi (1,600 km)			2-2
	* ENGINE OIL STRAINER SCREEN				C	2-3	
	* CARBURETOR-IDLE SPEED		I	I	I	3-7	
	* EVAPORATIVE EMISSION CONTROL SYSTEM	NOTE 3			I	3-7	
NON-EMISSION RELATED ITEMS	BELT CASE/AIR CLEANER	NOTE 1	C	C	C	3-8	
	BRAKE SHOE WEAR		I	I	I	3-8	
	BRAKE SYSTEM		I	I	I	3-9	
	* BRAKE LIGHT SWITCH		I	I	I	3-9	
	* HEADLIGHT AIM		I	I	I	3-10	
	** CLUTCH SHOE WEAR			I		3-10	
	* SUSPENSION		I	I	I	3-10	
	* NUTS, BOLTS, FASTENERS		I	I	I	3-11	
	** WHEELS		I	I	I	3-11	
** STEERING HEAD BEARINGS		I	I	I	3-11		

* 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 SCOOTER DEALER.

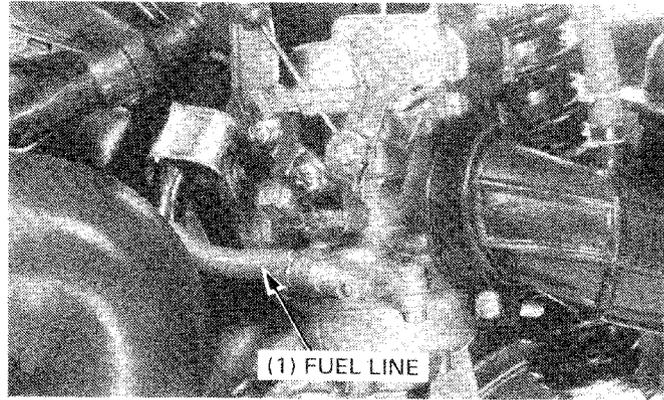
NOTE

1. Service more frequently when riding in dusty areas.
2. Service more frequently when riding in rain or at full throttle.
3. California type only.
4. For higher odometer reading, repeat at the frequency interval established here.

MAINTENANCE

FUEL LINES

Remove the right side cover (Section 12).
Check the fuel lines and replace any parts which show signs of deterioration, damage or leakage.



FUEL FILTER

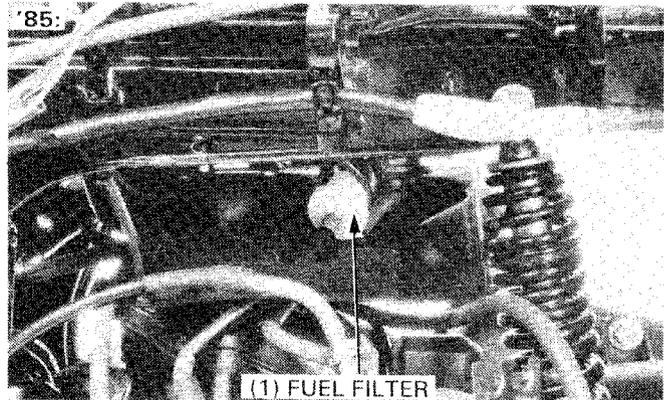
'85:

WARNING

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

Replace the fuel filter with a new one when indicated by the maintenance schedule (page 3-2).
Remove the right side cover (Section 12).
Remove the fuel tank under cover.
Disconnect the fuel lines from the fuel filter.
Replace the fuel filter and install with its arrow mark toward the fuel flow direction.

After installing, check for fuel leaks.

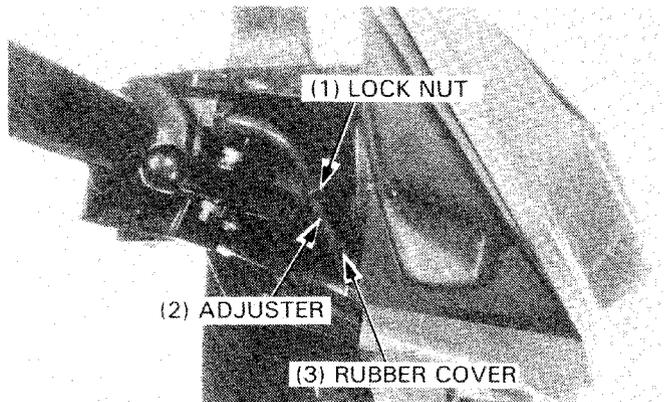
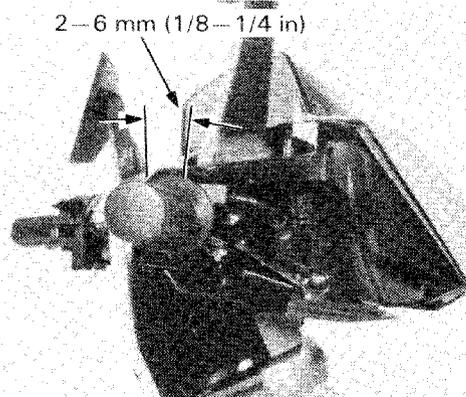


THROTTLE OPERATION

Check for smooth throttle grip full opening and automatic full closing in all steering positions.
Inspect the throttle cable for kinking or other damage.
Lubricate the throttle cable (page 2-7).
Measure the throttle grip free play at the throttle grip flange.

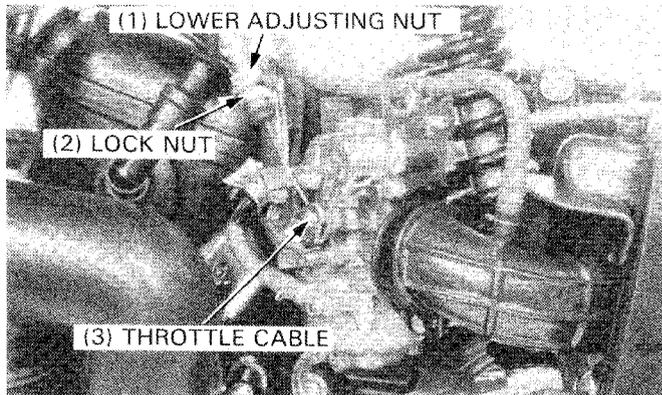
FREE PLAY: 2—6 mm (1/8—1/4 in)

Adjustment can be made at either end of the throttle cable.
Minor adjustments are made with the upper adjuster.
Slide the rubber cover out and adjust by loosening the lock nut and turning the adjuster.



Major adjustments are made with the lower adjusting nut. Remove the frame center cover (Section 12) and adjust by loosening the lock nut and turning the adjusting nut.

Tighten the lock nut and recheck throttle operation.



AIR CLEANER

Remove the left side cover (Section 12). Remove the three air cleaner housing cover screws and cover.

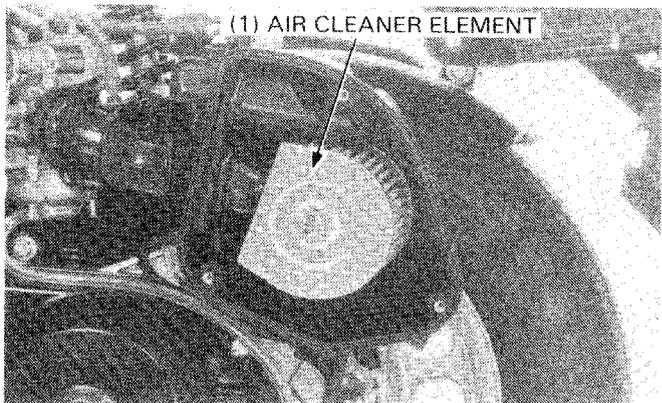


Remove the air cleaner element and discard it in accordance with the maintenance schedule. Also replace the air cleaner any time it is excessively dirty or damaged.

NOTE

- The air cleaner is of a viscous type paper element. Do not try to clean.

Install the air cleaner and air cleaner housing cover and tighten the three screws. Install the left side cover.

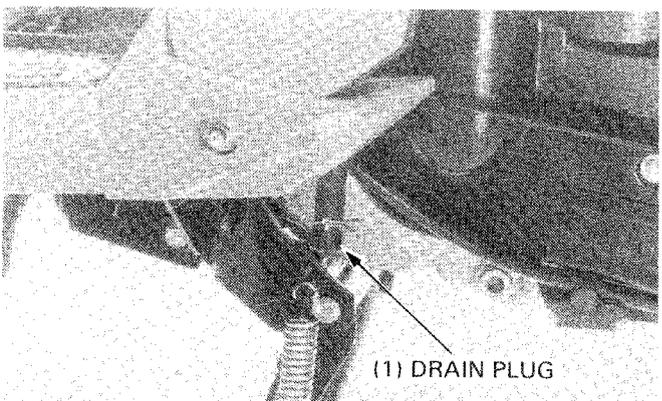


CRANKCASE BREATHER

Remove the plug and drain any residue.

NOTE

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



SPARK PLUG

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 with a wire-type feeler gauge.

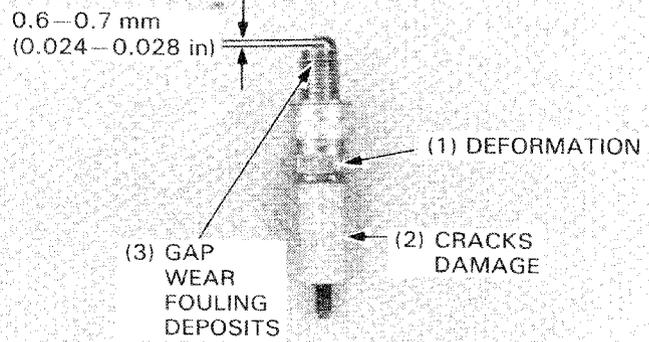
Adjust the gap by carefully bending the side electrode.

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

RECOMMENDED SPARK PLUG:

For cold climate (below 5°C/41°F)	CR6HS	NGK
	U20FSR-U	ND
Standard	CR7HS	NGK
	U22FSR-U	ND
For extended high speed riding	CR8HS	NGK
	U24FSR-U	ND

Make sure the sealing washer is in good condition. Install the spark plug and tighten it by hand. Then tighten with a spark plug wrench. Connect the spark plug cap.



VALVE CLEARANCE

NOTE

- Inspect and adjust valve clearance while the engine is cold (below 35°C/95°F).

Remove the left and right side covers.
Remove the fan cover.
Remove the cylinder head cover.
Rotate the flywheel and align the "T" mark with the index mark at TDC (Top Dead Center).

Check the valve clearance by inserting a feeler gauge between the rocker arm and valve stem.

NOTE

- When checking the clearance, slide the feeler gauge in the arrow direction as shown.

VALVE CLEARANCES:

INTAKE: 0.05 mm (0.002 in)

EXHAUST: 0.05 mm(0.002 in)

Adjust by loosening the lock nut and turning the adjusting screw until there is a slight drag on the feeler gauge. Hold the adjusting screw and tighten the lock nut. Recheck the valve clearance. Install removed parts in the reverse order of disassembly.

