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 compensates for the initial wear that occurs during the break-in period.

Sections 1 through 3 apply to the whole scooter, while sections 4 through 17 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 18, TROUBLESHOOTING.

HONDA MOTOR CO., LTD.
Service Publications Office

CONTENTS

Date of Issue: March, 1986

1. GENERAL INFORMATION

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.

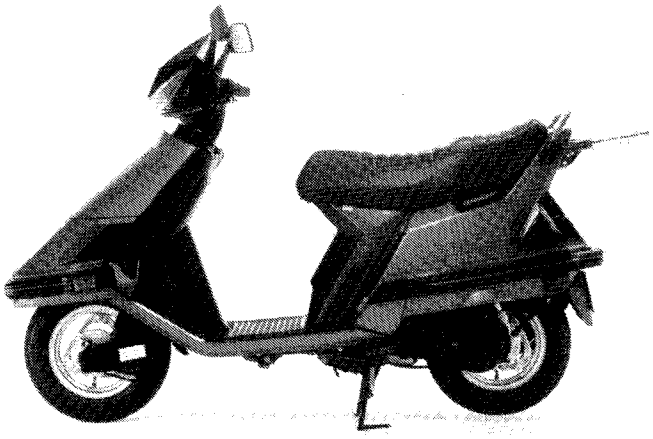
WARNING

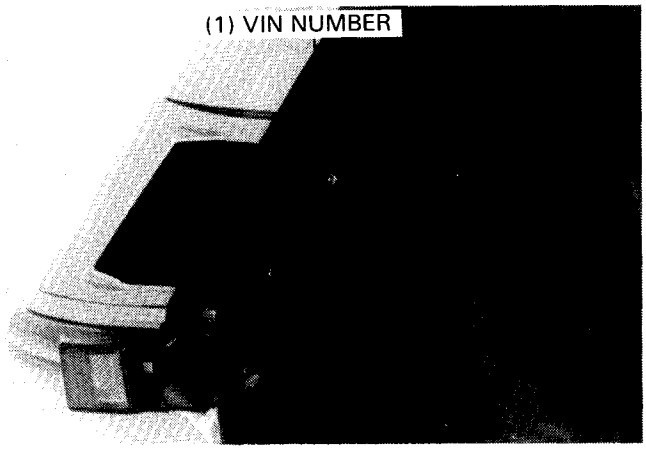
The battery generates hydrogen gas which can be highly explosive. Do not smoke or allow flames or sparks near the battery, especially while charging it.

SERVICE RULES

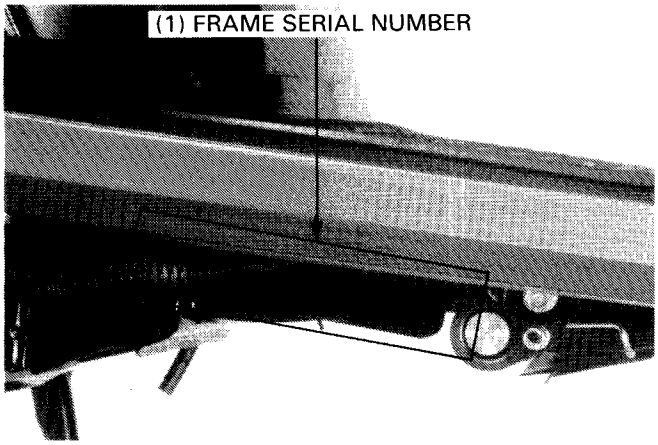
1. Use genuine Honda or Honda-recommended parts and lubricants or their equivalents. Parts that do not meet Honda' design specifications may damage the scooter.
2. Use the special tools designed for this product.
3. Use only metric tools when servicing this scooter. Metric bolts, nuts, and screws are 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 beginning on page 1-7, Cable & Harness Routing.

MODEL IDENTIFICATION

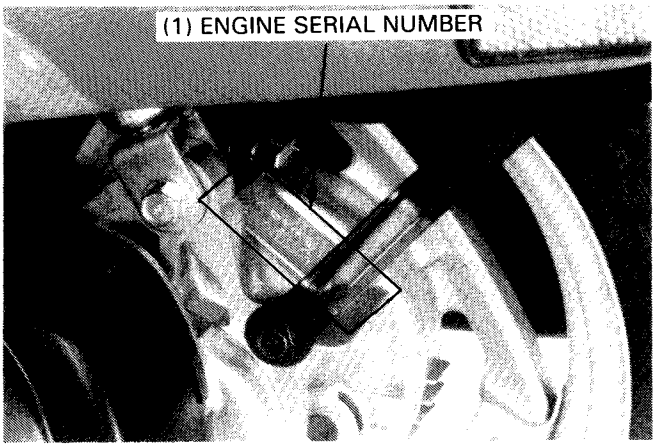




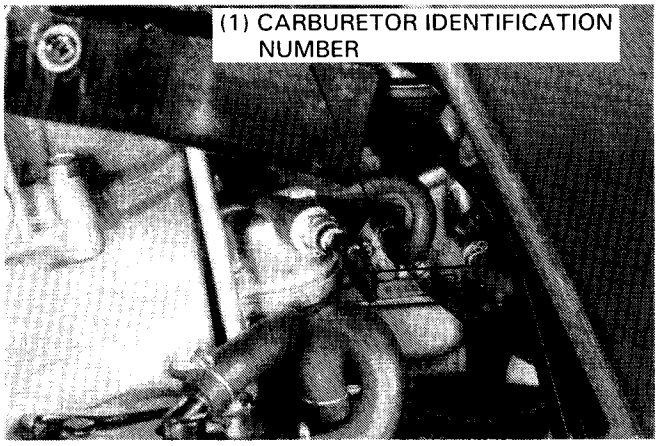
The VIN (Vehicle Identification Number) is attached to the left side of the inner box.



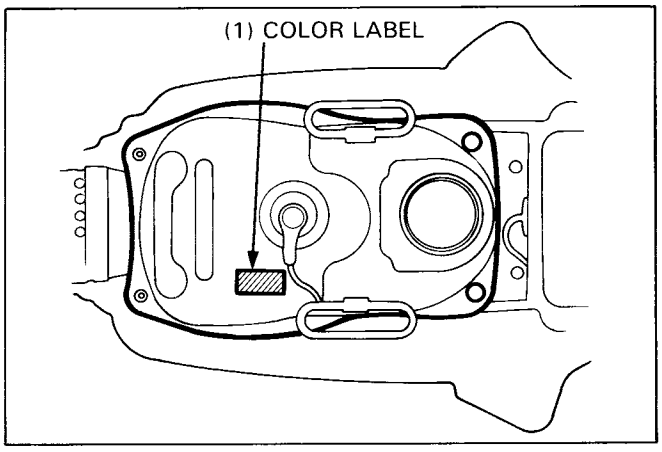
The frame serial number is stamped on the right side of the frame body.



The engine serial number is stamped on the back of the crankcase near the rear wheel.



The carburetor identification number is stamped on the right side of the carburetor.



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

SPECIFICATIONS

< >: CH150D

ITEM		SPECIFICATION
DIMENSIONS	Overall length	1,925 mm (75.8 in)
	Overall width	645 mm (25.4 in) < 655 mm (25.79 in)>
	Overall height	1,125 mm (44.3 in) <1,165 mm (45.87 in)>
	Wheel base	1,200 mm (47.2 in)
	Ground clearance	125 mm (4.9 in)
	Dry weight	105 kg (232 lb) <107 kg (236 lb)>
FRAME	Type	Back bone
	Front suspension, travel	Bottom link 76 mm (3.0 in)
	Rear suspension, travel	Power unit swing arm 96 mm (3.8 in)
	Vehicle capacity load	149 kg (330 lb)
	Front tire size	3.50—10 (—4PR), tubeless
	Rear tire size	3.50—10 (—4PR), tubeless
	Front tire pressure	150 kPa (1.5 kg/cm², 21 psi)
	Rear tire pressure	200 kPa (2.0 kg/cm², 29 psi) Up to 90 kg (200 lbs) load 250 kPa (2.5 kg/cm², 36 psi) Up to vehicle capacity load
	Front brake	Internal expanding shoes
	Rear brake	Internal expanding shoes
	Fuel capacity	8.0 liters (2.1 Us gal, 1.8 Imp gal)
	Caster angle	27° 00′
	Trail length	79 mm (3.1 in)
ENGINE	Type	Water cooled 4-stroke, OHC engine
	Cylinder arrangement	Single cylinder
	Bore and stroke	58.0 x 57.8 mm (2.283 x 2.275 in)
	Displacement	153 cm³ (9.3 cu in)
	Compression ratio	10.0 : 1
	Engine oil capacity	1.0 liter (1.1 Us qt, 0.9 Imp qt) at disassembly 0.8 liter (0.8 US qt, 0.7 Imt qt) at draining
	Lubrication system	Forced pressure and wet sump
	Coolant capacity	1.0 liters (1.1 US qt, 0.9 Imp qt)
	Air filtration	Paper filter
	Cylinder compression	1,300 kPa (13.0 kg/cm², 184 psi)
	Intake valve Opens	0° (BTDC) } at 1.1 mm lift
	Closes	30° (ABDC) } at 1.1 mm lift
	Exhaust valve Opens	35° (BBDC) } at 1.1 mm lift
	closes	0° (ATDC) } at 1.1 mm lift
	Valve clearance (Cold)	IN/EX: 0.1 mm (0.004 in)
	Engine weight	26.5 kg (58 lb)
	Idle speed	1,500 ± 100 rpm

ITEM		SPECIFICATION
CARBURETION	Identification number '85 After '85	VE03A (VE04A, California model) VE03B (VE04B, California model)
	Float level	18.5 mm (0.73 in)
	Pilot screw initial opening	See page 4-11
	Main jet	#100 (#95, High altitude type)
	Slow jet	#35
DRIVE TRAIN	Clutch type	Automatic centrifugal clutch, dry type
	Primary reduction	2.2—0.9
	Final reduction	7.318 : 1
ELECTRICAL	Ignition	Condenser capacitive discharge ignition (CDI)
	Starting system	Starting motor
	Alternator	12V—203 W/ 5,000 rpm
	Spark plug	(ND) X22EPR-U9,X20EPR-U9 (NGK) DPR7EA-9, DPR6EA-9
	Spark plug gap	0.8—0.9 mm (0.032—0.035 mm)
	Ignition timing "F" mark	10° BTDC/ 1500 rpm
	full advance	27° BTDC/ 4000 rpm
	Battery capacity	12 V 9 AH
	Fuse capacity	20 A (Main) 10 A (Turn signal light, Brake light) 10 A (Headlight, Instruments light) 10 A (Horn, license plate light, position light)
LIGHTS	Headlight, Low/High	12 V—55/60 W
	Brake/Tail light	12 V—27/8 W (32/3 cp) SEA No. 1157
	Turn signal/Position light (front)	12 V—23/8 W (32/3 cp) SEA No. 1034
	(rear)	12 V—23 W (32 cp) SAE No. 1073
	Instrument light	12 V—3.4 W x 3 (2 cp) SAE No. 158
	Turn signal indicator light	12 V—3.4 W x 2 (2 cp) SAE No. 158
	High beam indicator	12 V—3.4 W x 2 (2 cp) SAE No. 158
	License plate light	12 V—8 W (4 cp)

TORQUE VALUES

ENGINE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Oil bolt	1	12	18–22 (1.8–2.2, 13–16)	
Oil bolt	2	8	8–12 (0.8–1.2, 6–9)	
Cylinder head cap nut	4	8	20–24 (2.0–2.4, 14–17)	
Water pump impeller	1	8	10–14 (1.0–1.4, 7–10)	Left hand threads
Cylinder head cover bolt	5	6	8–12 (0.8–1.2, 6–9)	
Oil filter screen cap	1	36	15–30 (1.5–3.0, 11–22)	
Cam chain tensioner sealing bolt	1	8	4–6 (0.4–0.6, 2.8–4.3)	
Cam chain tensioner bolt	2	8	6–10 (0.6–1.0, 4.3–7.2)	
Clutch drive plate nut	1	28	50–60 (5.0–6.0, 36–43)	
Flywheel nut	1	14	50–60 (5.0–6.0, 36–43)	
Crankcase bolt	7	6	8–12 (0.8–1.2, 6–9)	
Drive face seal cover bolt	3	4	3–5 (0.3–0.5, 2.2–3.6)	
Drive face nut	1	12	50–60 (5.0–6.0, 36–43)	
Clutch outer nut	1	10	35–40 (3.5–4.0, 25–29)	
Transmission case cover bolt	7	6	11–14 (1.1–1.4, 8–10)	
Starter clutch socket bolt	3	6	10–14 (1.0–1.4, 7–10)	Apply a locking agent
Transmission oil level check bolt	1	10	10–15 (1.0–1.5, 7–11)	

FRAME

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Engine hanger stopper bolt	1	8	24–30 (2.4–3.0, 17–22)	
Engine hanger bracket bolt	1	10	35–45 (3.5–4.5, 25–32)	
Engine hanger bolt	1	10	35–45 (3.5–4.5, 25–32)	
Engine mounting bolt	1	10	35–45 (3.5–4.5, 25–32)	
Front axle nut	1	12	50–70 (5.0–7.0, 36–51)	
Rear axle nut	1	14	80–100 (8.0–10.0, 58–72)	
Rear shock absorber mount bolt	4	8	24–30 (2.4–3.0, 17–22)	
Rear shock absorber damper lock nut	2	8	15–25 (1.5–2.5, 11–18)	Apply locking agent
Top cone race	1	25.4	2–3 (0.2–0.3, 1.4–22)	
Steering stem nut	1	25.4	130–150 (13.0–15.0, 74–108)	
Steering stem lock nut	1	25.4	10–20 (1.0–2.0, 7–14)	
Front shock absorber:				
—lower bolt	2	8	0.8–1.2 (0.08–0.12, 0.6–0.9)	
—lower nut	2	8	15–20 (1.5–2.0, 11–14)	
—upper mount bolt	2	8	30–36 (3.0–3.6, 22–26)	Apply oil
—damper lock nut	2	8	15–25 (1.5–2.5, 11–18)	Apply locking agent
Brake arm bolt	2	6	8–12 (0.8–1.2, 6–9)	
Pivot arm bolt	2	8	20–24 (2.0–2.4, 14–17)	
Wheel hub nut	6	8	28–32 (2.8–3.2, 20–23)	Apply oil
Rear brake pedal stay	2	6	8–12 (0.8–1.2, 6–9)	
Speedometer cable set screw	1	5	1.5–3 (0.15–0.3, 1.1–2.2)	
Headlight motor attaching nut	1	8	10–12 (1.0–1.2, 7–9)	
Link arm pinch bolt	1	6	10–12 (1.0–1.2, 7–9)	
Headlight motor set nut	1	8	8–12 (0.8–1.2, 6–9)	
Exhaust muffler bolt	3	8	32–38 (3.2–3.8, 23–27)	
Exhaust pipe joint nut	2	7	27–33 (2.7–3.3, 20–24)	

Torque specifications listed above are for most of the 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, and 6 mm bolt with 8 mm head	7–11 (0.7–1.1, 5–8)
8 mm bolt, nut	18–25 (1.8–2.5, 13–18)		
10 mm bolt, nut	30–40 (3.0–4.0, 22–29)	6 mm flange bolt, nut	10–14 (1.0–1.4, 7–10)
12 mm bolt, nut	50–60 (5.0–6.0, 36–43)	8 mm flange bolt, nut	24–30 (2.4–3.0, 17–22)
		10 mm flange bolt, nut	35–45 (3.5–4.5, 25–32)

TOOLS

SPECIAL

DESCRIPTION	TOOL NUMBER	ALTERNATE TOOL	TOOL NUMBER	REF. SECT.
Vacuum/pressure pump	A937X—041—XXXXX	Vacuum pump (U.S.A. only)	ST-AH-260-MC7	4
		Pressure pump (U.S.A. only)	ST-AH-255-MC7	4
Universal bearing puller	07631—0010000	Equivalent commercially available in U.S.A.		9
Lock nut wrench, 39 mm	07916—1870002	Lock nut wrench, 39 mm	07916—1870001	8
Steering stem lock nut wrench	07916—1870101	Equivalent commercially available in U.S.A.		14 14
Steering stem wrench	07916—GK00000	Adjustable pin spanner	07702—0020001	14
Shaft protector	07931—1870000			9
Flywheel puller	07933—KG20000			10
Bearing remover, 12 mm	07936—1660001			9, 12
(Spindle assy, 12 mm)	(07936—1660100)			9, 12
(Remover weight)	(07741—0010201)	Remover weight	07936—3710200	9, 12
Bearing remover handle	07936—3710100			9
Bearing remover, 17 mm	07936—3710300			9
Remover weight	07741—0010201	Remover weight	07936—3710200	9
Valve guide driver, 5.0 mm	07942—MA60000			6
Attachment	07945—3330300			14
Water seal driver	07945—4150400	Water seal driver (U.S.A. only)	GN-AH-065—415	12
Bearing driver	07946—GC80000			8, 12
Ball race remover	07946—GA70000	Race remover	07946—3710400	14
Clutch spring compressor	07960—KM10000	Spring compressor attachment	07960—KM10100	8
		Spring compressor (bolt)	07960—KJ90000	8
Seal and case assembly tool	07965—1480010			9
(Assembly collar)	(07965—1480100)			9
(Assembly shaft)	(07965—1480200)			9
Spring holder attachment	07967—1180100			15
Rear shock absorber attachment	07967—GA70001	Shock absorber attachment	07967—GA70001	14, 15
Shock absorber attachment	07967—KM10100			14
Engine hanger setting tool	07973—KJ90000	Not available in U.S.A.		5
Valve guide reamer, 5.0 mm	07984—MA60000			6

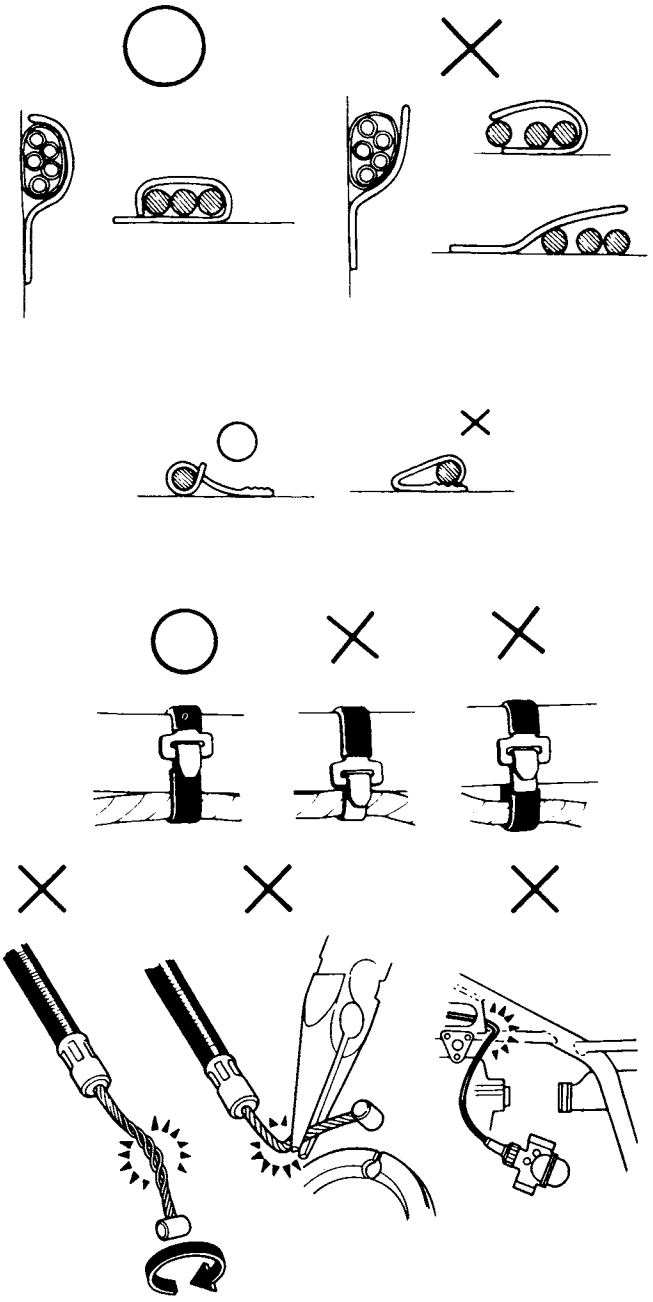
COMMON

DESCRIPTION	TOOL NUMBER	ALTERNATE TOOL	TOOL NUMBER	REF. SECT.
Float level gauge	07401—0010000			4
Lock nut wrench, 30 x 32 mm	07716—0020400	Equivalent commercially available in U.S.A.		14
Extension	07716—0020500	Equivalent commercially available in U.S.A.		14
Universal holder	07725—0030000			8
Flywheel holder	07725—0040000	Band strap wrench (commercially available in U.S.A.)		10
Attachment, 32 x 35 mm	07746—0010100			8, 9, 14
Attachment, 37 x 40 mm	07746—0010200			9
Attachment, 42 x 47 mm	07746—0010300			9, 14
Attachment, 52 x 55 mm	07746—0010400			14
Pilot, 12 mm	07746—0040200			9, 14
Pilot, 15 mm	07746—0040300			15
Pilot, 20 mm	07746—0040500			8, 9
Bearing remover shaft	07746—0050100	Equivalent commercially available in U.S.A.		14
Bearing remover head, 12 mm	07746—0050300			14
Driver	07749—0010000			
Valve guide driver	07743—0020000			6
Valve spring compressor	07757—0010000			6
Shock absorber compressor	07959—3290001			14, 15

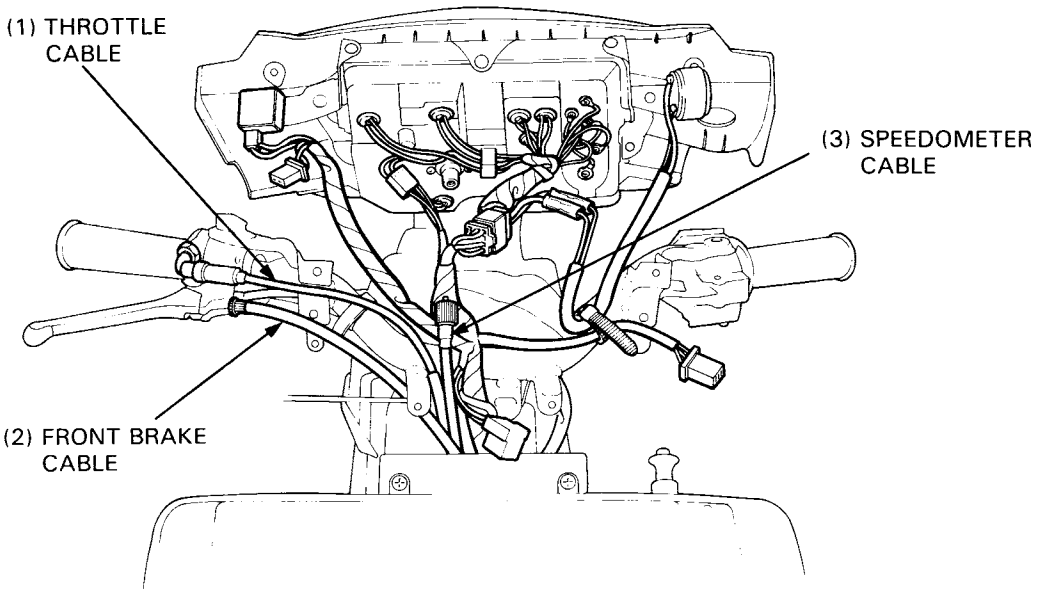
CABLE & HARNESS ROUTING

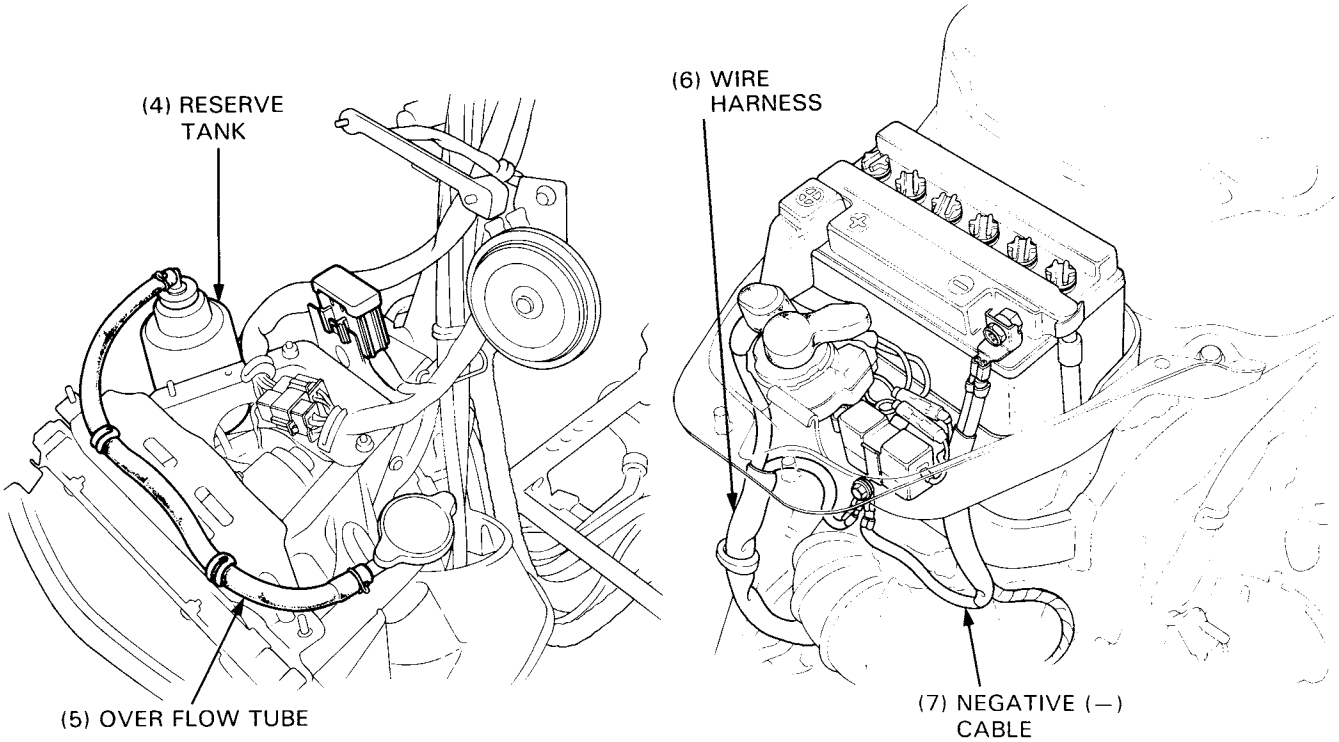
Note the following when routing cables and wire harnesses:

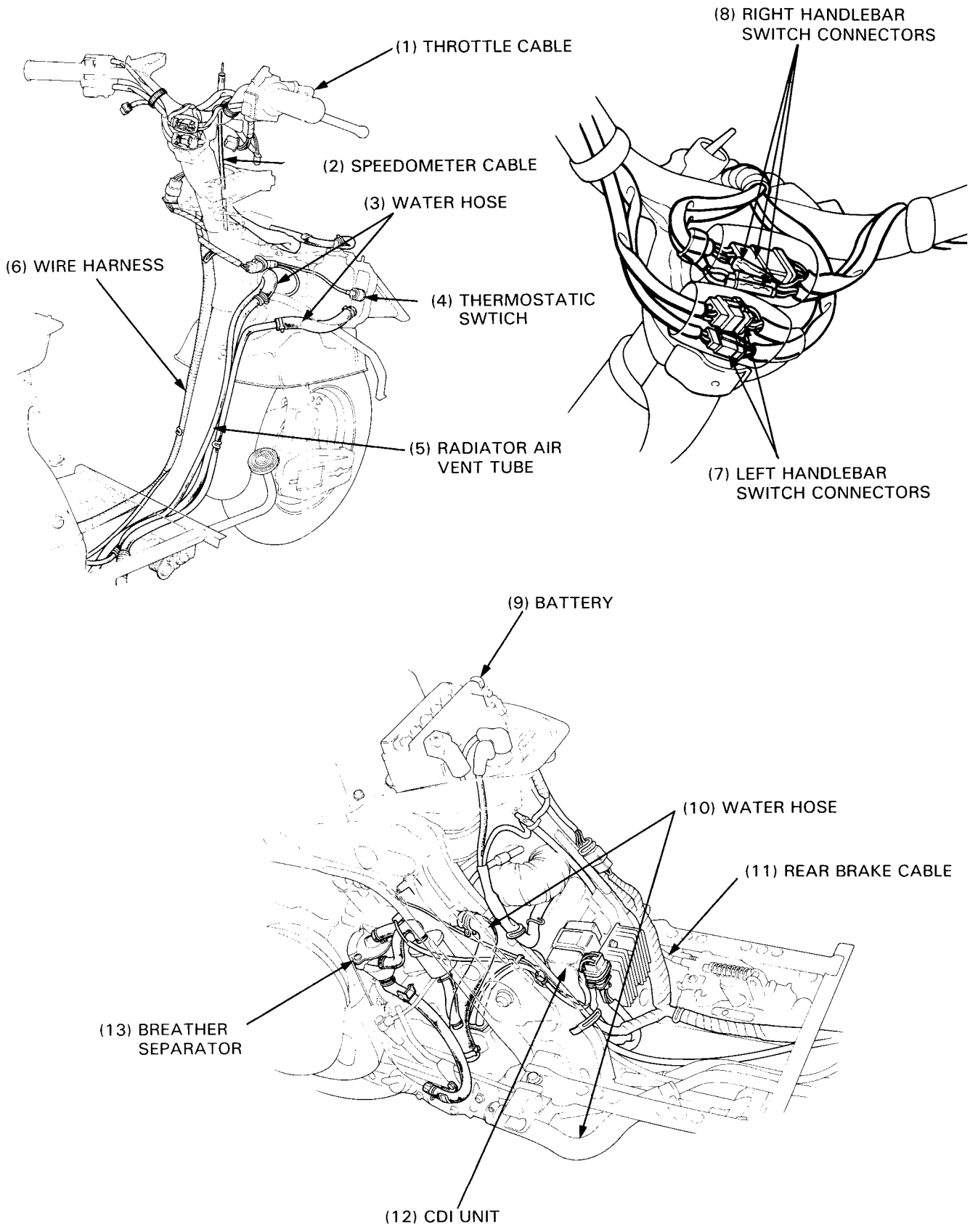
- A loose wire, harness or cable can be safety hazard. After clamping, check each wire to be sure it is secure.
- Do not squeeze wires against the weld or its clamp.
- Secure wires and wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wires or wire harnesses.
- Route harnesses so they are neither pulled tight nor 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 a wire or harness with a broken insulator. 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 interferring 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 by or interfere with adjacent or surrounding parts in all steering positions.
- After routing, check that the wire harnesses are not twisted or kinked.
- Do not bend or twist control cables. Damaged control cables will not operate smoothly and may stick or bind.

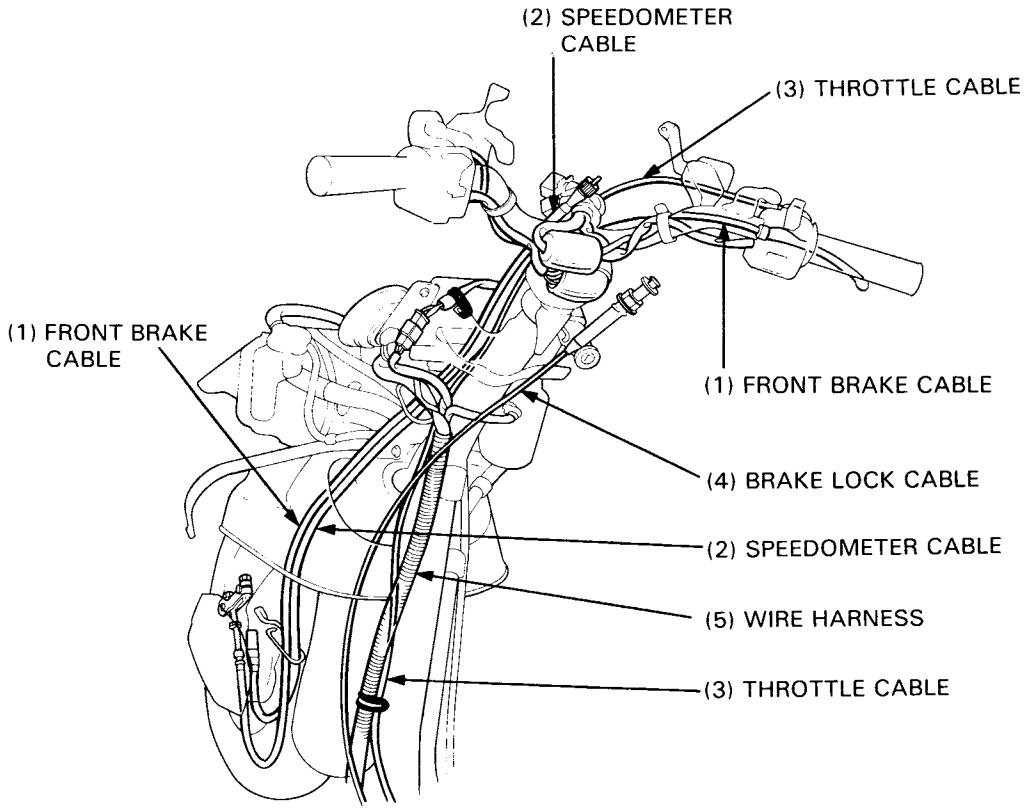


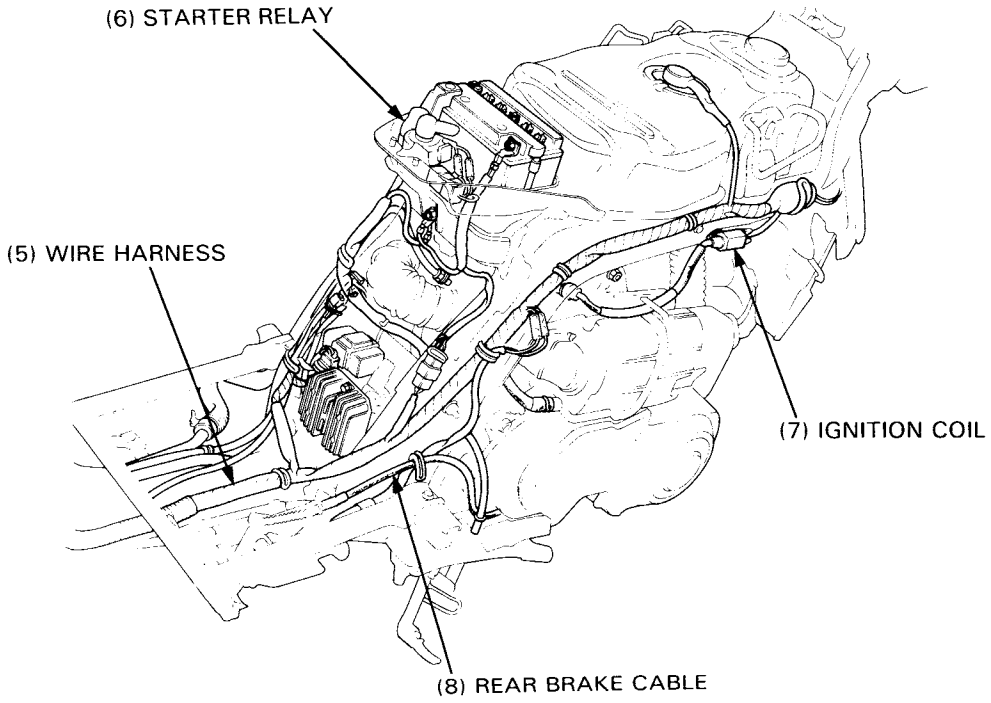
O: CORRECT
X: INCORRECT


(1) THROTTLE CABLE
(3) SPEEDOMETER CABLE
(2) FRONT BRAKE CABLE

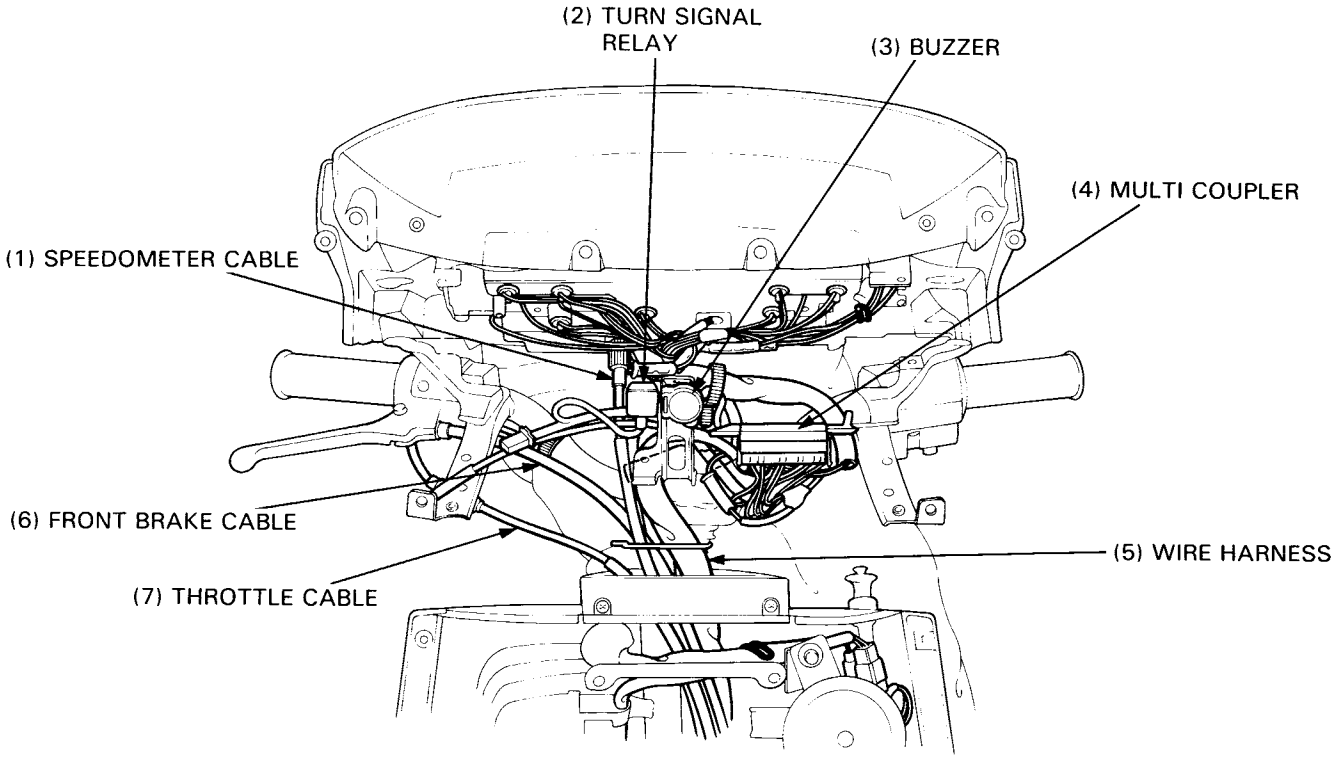

(4) RESERVE TANK
(6) WIRE HARNESS
(5) OVER FLOW TUBE
(7) NEGATIVE (–) CABLE

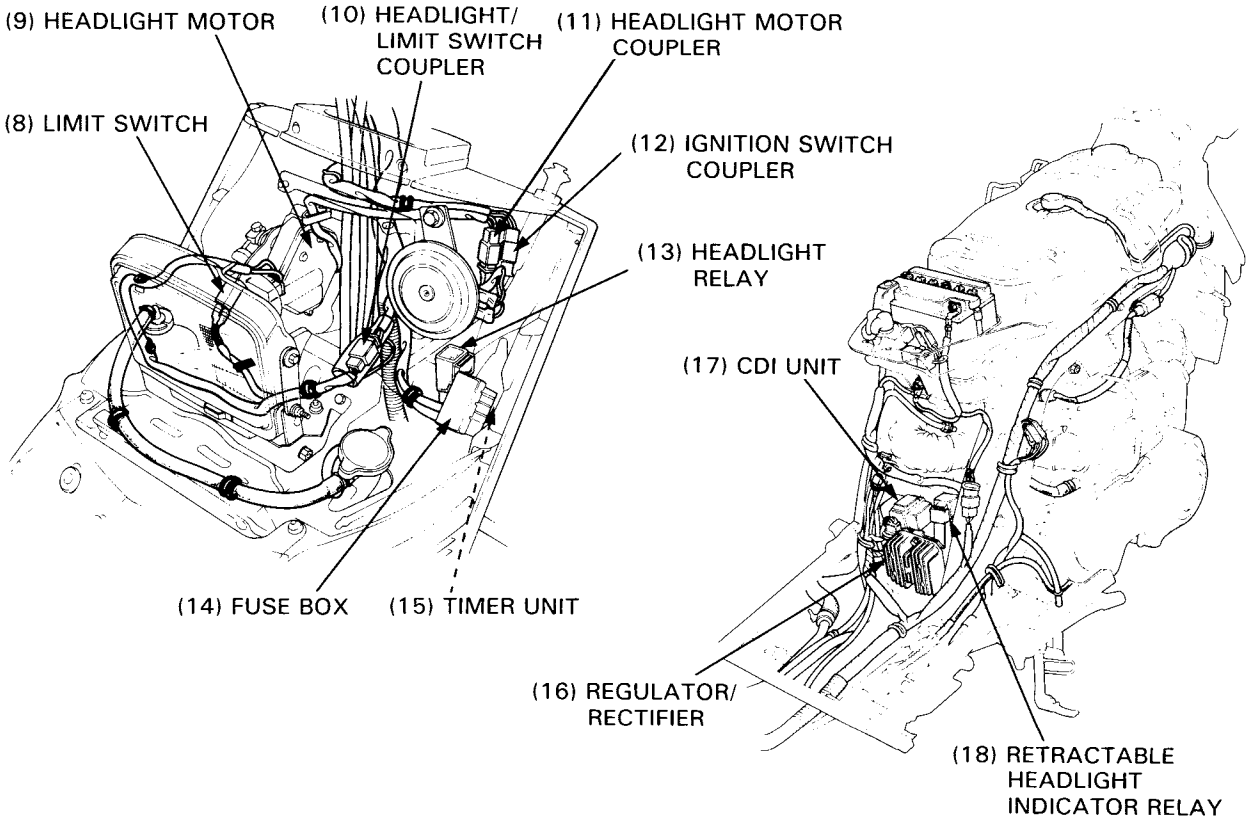

(1) THROTTLE CABLE
(2) SPEEDOMETER CABLE
(3) WATER HOSE
(4) THERMOSTATIC SWTICH
(5) RADIATOR AIR VENT TUBE
(6) WIRE HARNESS
(7) LEFT HANDLEBAR SWITCH CONNECTORS
(8) RIGHT HANDLEBAR SWITCH CONNECTORS
(9) BATTERY
(10) WATER HOSE
(11) REAR BRAKE CABLE
(12) CDI UNIT
(13) BREATHER SEPARATOR


(2) SPEEDOMETER CABLE
(3) THROTTLE CABLE
(1) FRONT BRAKE CABLE
(1) FRONT BRAKE CABLE
(4) BRAKE LOCK CABLE
(2) SPEEDOMETER CABLE
(5) WIRE HARNESS
(3) THROTTLE CABLE


(6) STARTER RELAY
(5) WIRE HARNESS
(7) IGNITION COIL
(8) REAR BRAKE CABLE

CH150D:


(2) TURN SIGNAL RELAY
(3) BUZZER
(4) MULTI COUPLER
(1) SPEEDOMETER CABLE
(6) FRONT BRAKE CABLE
(5) WIRE HARNESS
(7) THROTTLE CABLE


(9) HEADLIGHT MOTOR
(10) HEADLIGHT/ LIMIT SWITCH COUPLER
(11) HEADLIGHT MOTOR COUPLER
(8) LIMIT SWITCH
(12) IGNITION SWITCH COUPLER
(13) HEADLIGHT RELAY
(17) CDI UNIT
(14) FUSE BOX
(15) TIMER UNIT
(16) REGULATOR/ RECTIFIER
(18) RETRACTABLE HEADLIGHT INDICATOR RELAY

EMISSION CONTROL SYSTEMS

The U.S. Environmental Protection Agency and California Air Resources Board (CARB) require manufactures to certify that their motor scooters comply with applicable exhaust emissions standards during their useful life, when operated and maintained according to the instructions provided, and that motor scooters built after January 1, 1983 comply with applicable noise emission standards for one year or 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 Warranty for Honda Motor Scooter Emission Control Systems is necessary in order to keep the emissions system warranty in effect.

SOURCE OF EMISSIONS

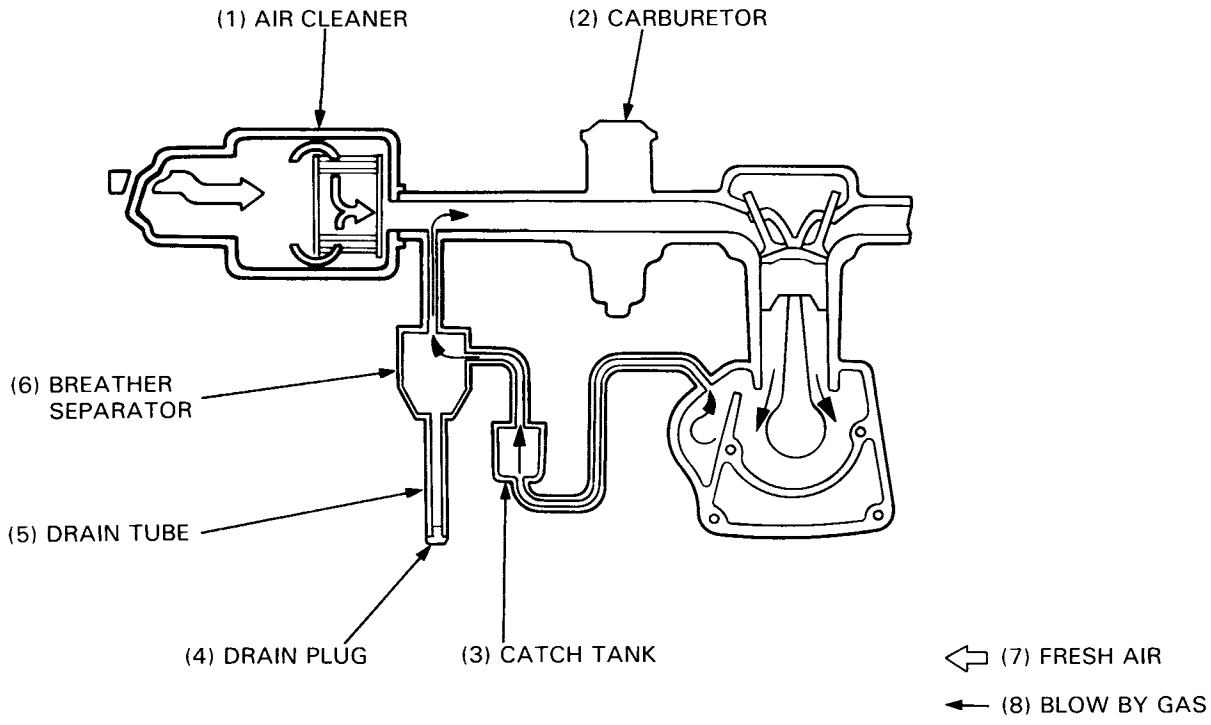
The combustion process produces carbon monoxide and hydrocarbons. Control of hydrocarbons is very important because, under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.
Honda Motor Co., Ltd. utilizes 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 a lean carburetor setting, and no adjustments should be made except the idle speed adjustment with the throttle stop screw.

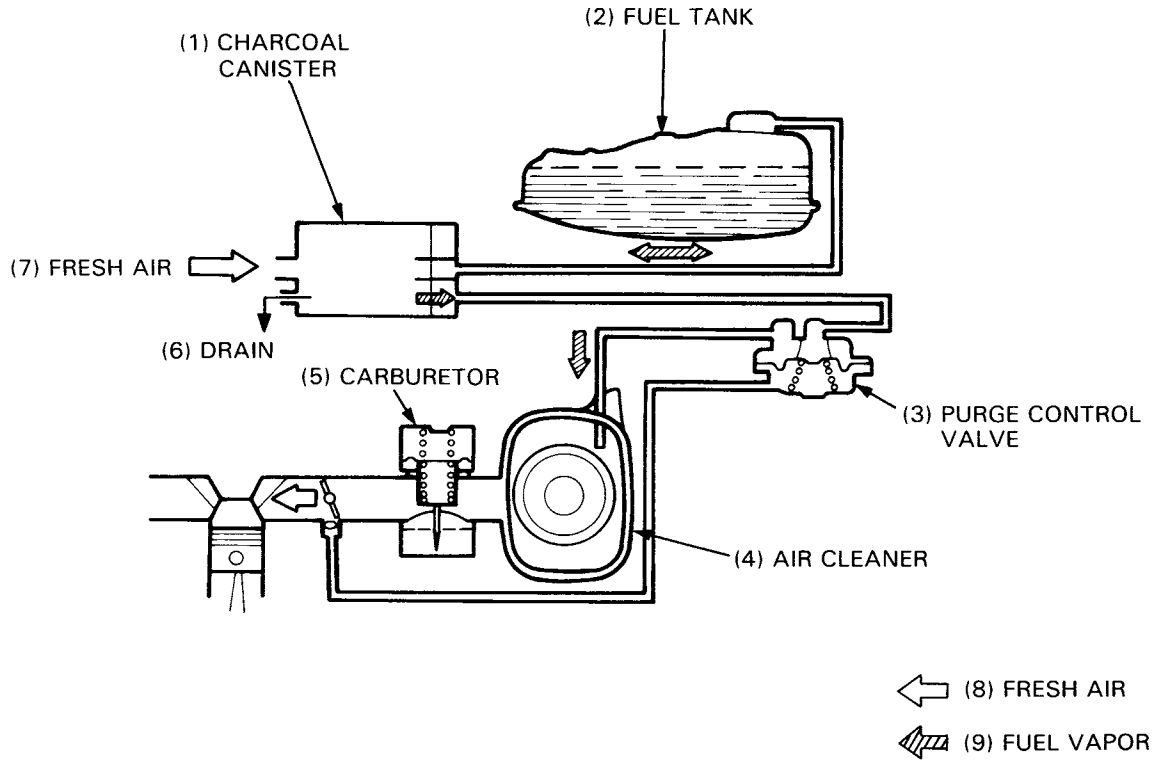
CRANKCASE EMISSION CONTROL SYSTEM

The engine is equipped with a closed crankcase system which routes crankcase emissions through the air cleaner and into the combustion chamber. Condensed crankcase vapors are accumulated in a storage tank which must be emptied periodically. See the Maintenance Schedule in section 3.



EVAPORATIVE EMISSION CONTROL SYSTEM (California model only)

This model complies with California Air Resources Board requirements for evaporative emission regulations.
Fuel vapor from the fuel tank is routed into a charcoal canister where it is adsorbed and stored while the engine is stopped. When the engine is running and the purge control diaphragm valve is open, fuel vapor in the charcoal canister is drawn into the engine through the carburetor.



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.

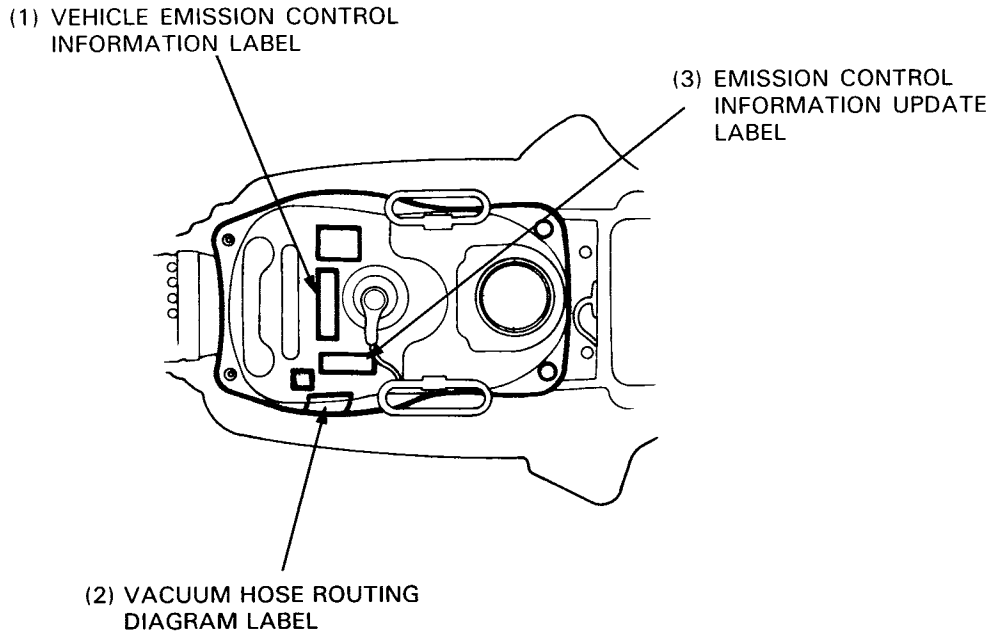
2. Removal of, or puncturing of any part of the intake system.

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.

EMISSION CONTROL INFORMATION LABEL

An Emission Control Information Label is located on the fuel tank as shown. It contains basic tune-up specifications.



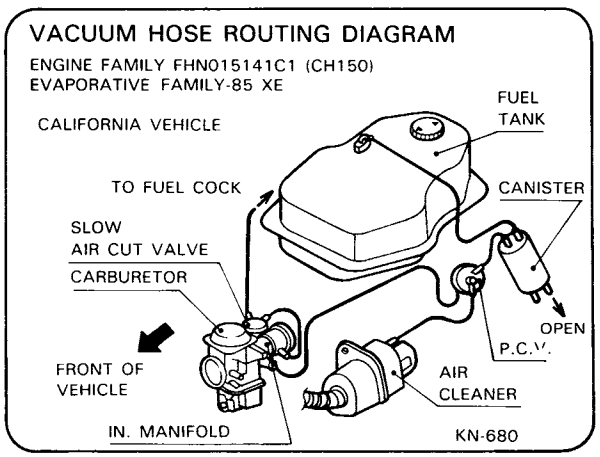
EMISSION CONTROL INFORMATION UPDATE LABEL

After making a high altitude carburetor adjustment (Page 4-12), attach a vehicle emission control information update label on the fuel tank as shown.
Instructions for obtaining the update label are given in Service Letter No. 132.

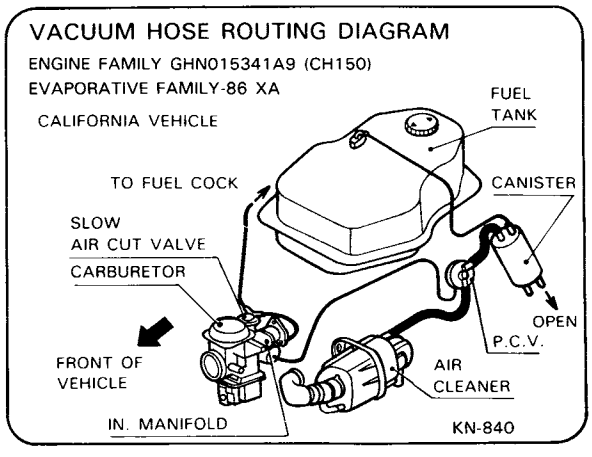
VACUUM HOSE ROUTING DIAGRAM LABEL (California model only)

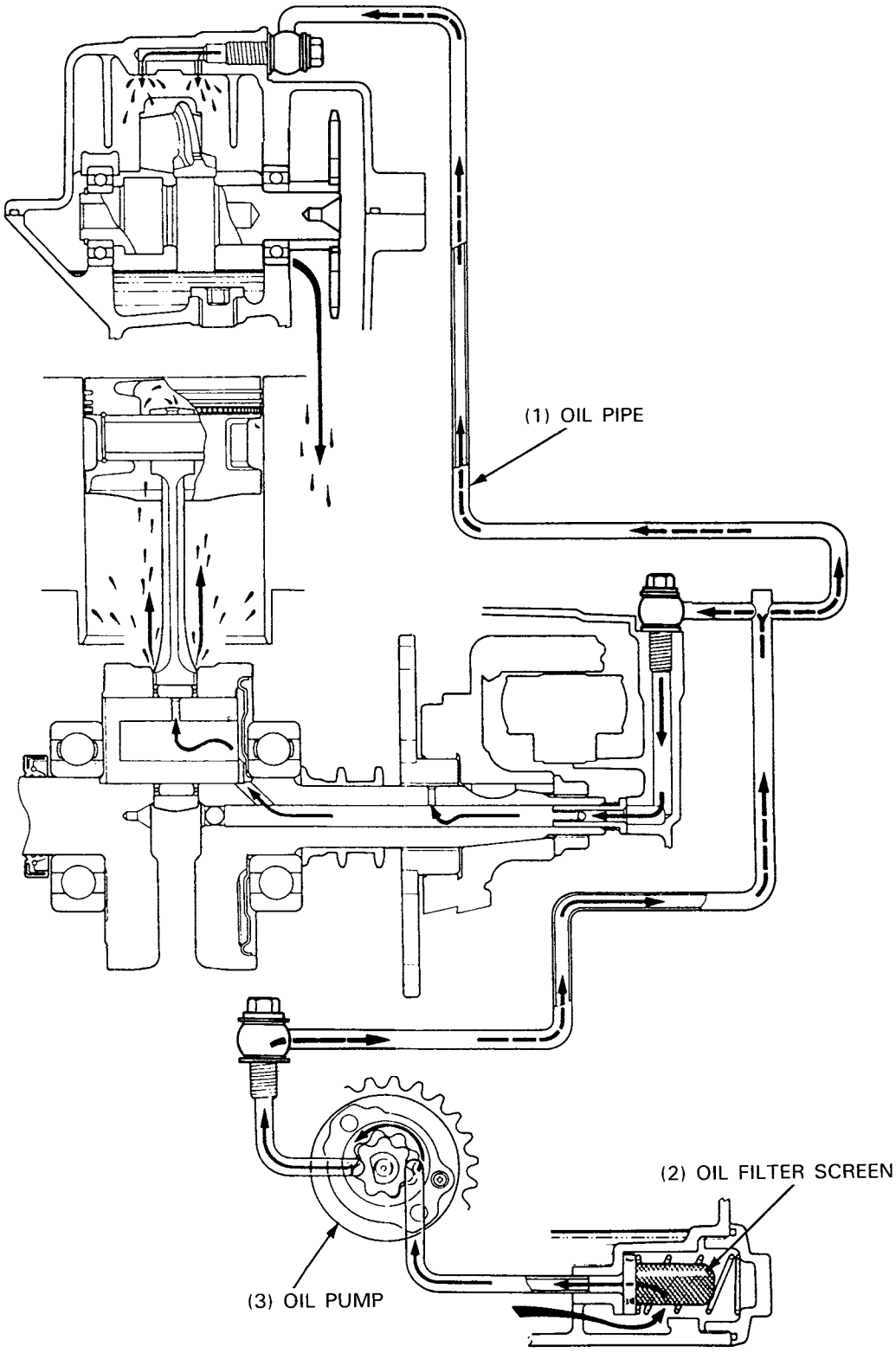
The Vacuum Hose Routing Diagram Label is attached to the fuel tank. Route the vacuum hoses as shown on this label.

'85:



After '85:




(1) OIL PIPE
(2) OIL FILTER SCREEN
(3) OIL PUMP

SERVICE INFORMATION

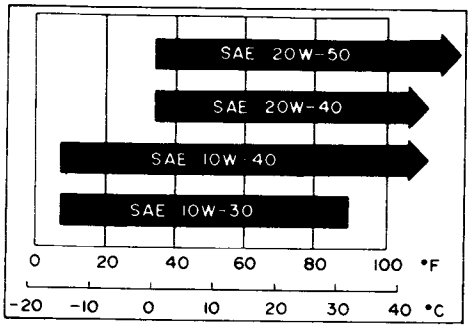
GENERAL

- This section covers maintenance of the oil pump, engine oil and transmission oil.

SPECIFICATIONS

Engine oil capacity	1.0 liter (1.1 US qt, 0.9 Imp qt) at disassembly 0.8 liter (0.8 US qt, 0.7 Imp qt) at change
Transmission oil	0.18 liter (0.19 US qt, 0.16 Imp qt) at disassembly 0.15 liter (0.16 US qt, 0.13 Imp qt) at change
Recommended oil	Use Honda 4-Stroke Oil or equivalent. API Service Classification: SE or SF 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.

OIL VISCOSITES



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

TORQUE VALUES

Oil filter screen cap	15–30 N·m (1.5–3.0 kg-m, 11–22 ft-lb)
Transmission oil drain bolt	11–14 N·m (1.1–1.4 kg-m, 8–10 ft-lb)
Transmission oil level check bolt	10–15 N·m (1.0–1.5 kg-m, 7–11 ft-lb)
Oil pump mounting bolt	8–12 N·m (0.8–1.2 kg-m, 6–9 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.
- Head gasket faulty.
- Worn piston rings.

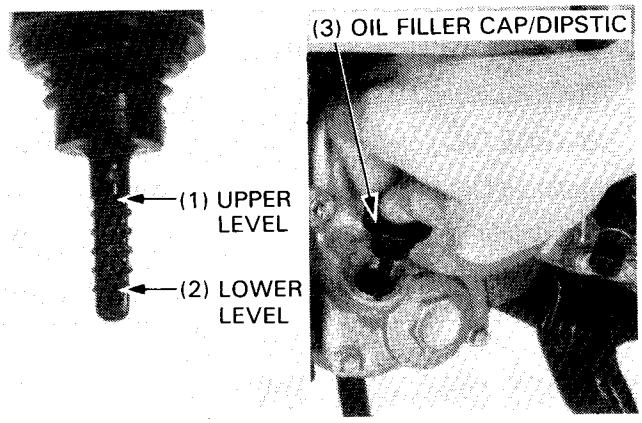
Poor Lubrication Pressure
- Oil level too low.
- Clogged oil filter, oil passage, and/or oil pipe.
- Faulty oil pump.

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, fill to the upper level with the recommended engine oil (page 2-1).



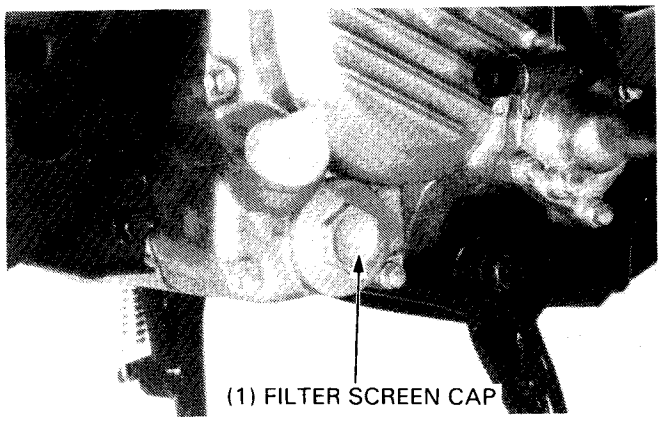
OIL CHANGE

NOTE

- Drain the oil from the crankcase while the engine is warm. This ensures complete and rapid draining.

Place an oil pan under the engine, and remove the oil filter screen cap.
After the oil has been completely drained, be sure the O-ring is in good condition and install the filter, spring and cap.

TORQUE: 15—30 N·m (1.5—3.0 kg-m, 11—22 ft-lb)

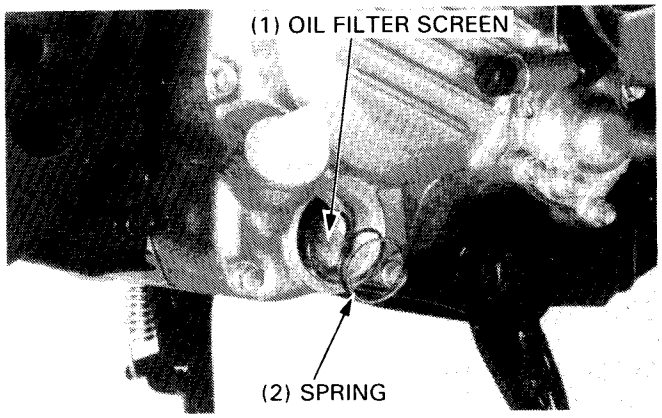


Pour the recommended oil (page 2-1) through the oil filler hole.

ENGINE OIL CAPACITY:
0.8 liter (0.8 US qt, 0.7 Imp qt) at oil change

Reset the indicator by inserting the key in the indicator slot below the instrument panel.

Reinstall the oil filler cap. Start the engine and let it idle for few minutes.
Stop the engine and recheck the oil level.
Check that there are no oil leaks.



ENGINE OIL FILTER SCEREN CLEANING

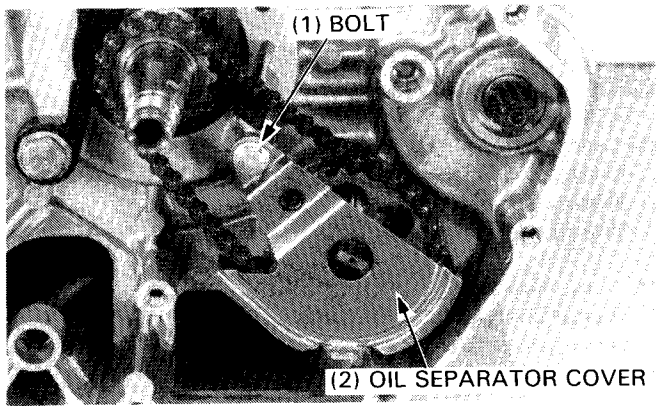
Drain the engine oil.
Remove the oil filter scren and spring.
Clean the oil filter screen.
Make sure that the O-ring is in good condition.
Install the oil filter screen and spring.
Install the filter screen cap.

TORQUE: 15—30 N·m (1.5—3.0 kg-m, 11—22 ft-lb)

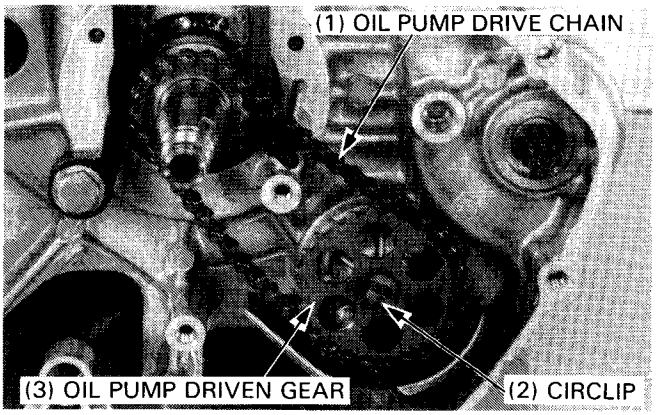
Fill the crankcase with the recommended oil (page 2-1) and check the oil level.

OIL PUMP REMOVAL

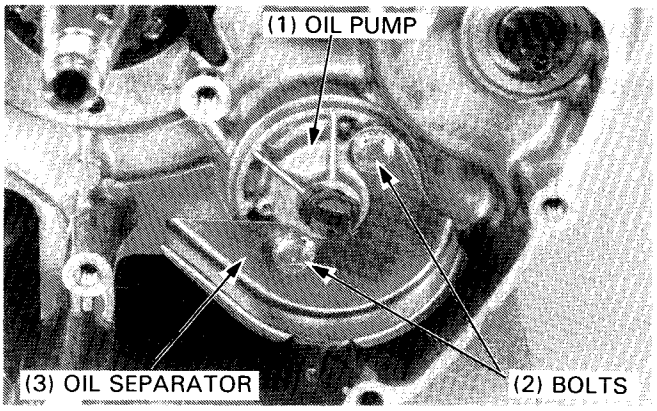
Remove the alternator and starter drive gear (section 10).
Remove the attaching bolt and oil seperator cover.



Pry the circlip off, then remove the oil pump drive chain and driven sprocket.

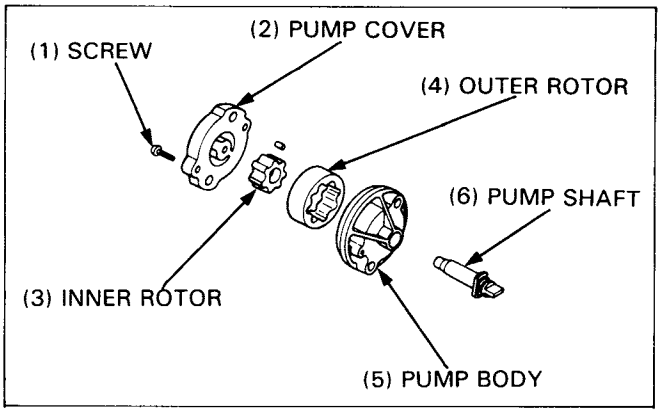


Remove the two oil pump mounting bolts, and remove the oil separator and oil pump.



OIL PUMP DISASSEMBLY

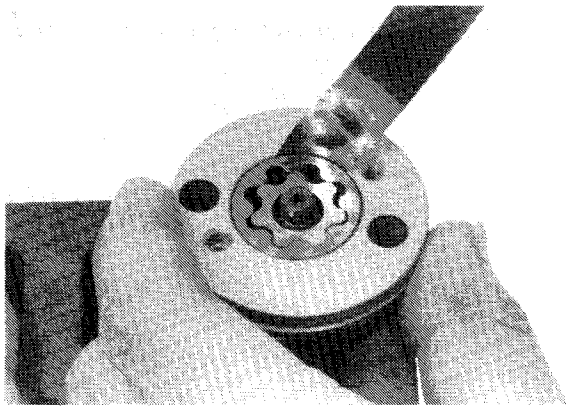
Unscrew the pump cover attaching screw and disassemble the oil pump as shown.



OIL PUMP INSPECTION

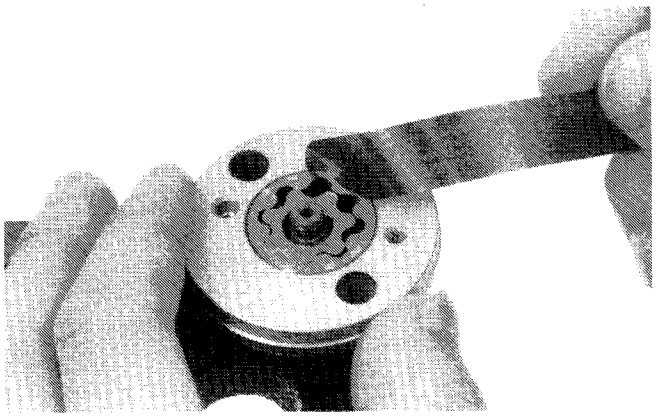
Measure the pump body-to-outer rotor clearance.

SERVICE LIMIT : 0.25 mm (0.010 in)



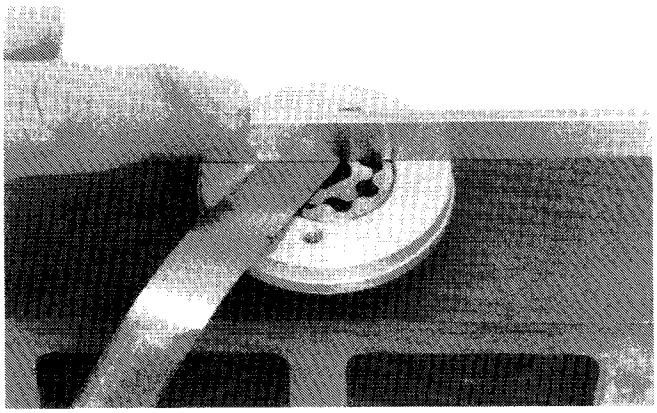
Measure the outer rotor-to-inner rotor tip clearance.

SERVICE LIMIT : 0.20 mm (0.008 in)



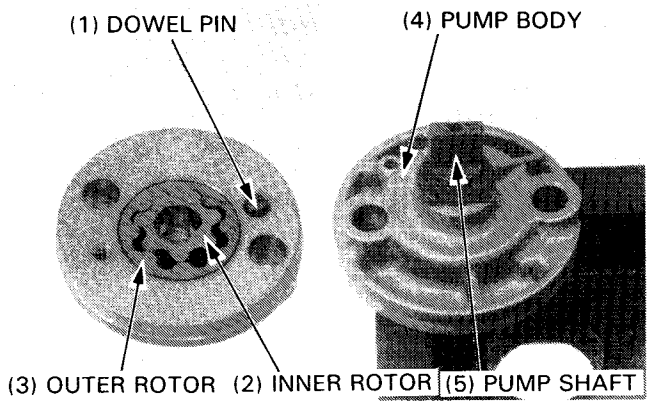
Check the rotor-to-pump body clearance.

SERVICE LIMIT : 0.12 mm (0.005 in)

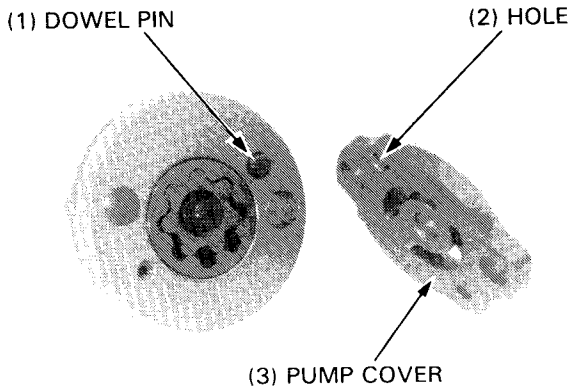


OIL PUMP ASSEMBLY

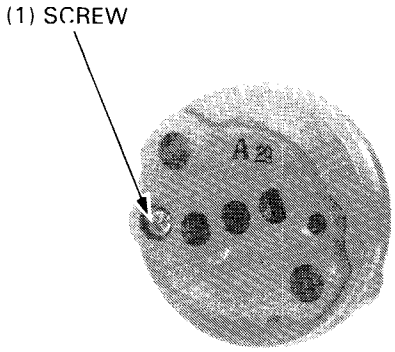
Install the outer and inner rotor into the pump body.
Insert the pump shaft by aligning the flat on the shaft with the flat in the inner rotor.
Install the dowel pin.



Install the pump cover by aligning the hole in the cover with the dowel pin.



Tighten the screw.
Make sure that the pump shaft rotates freely without binding.

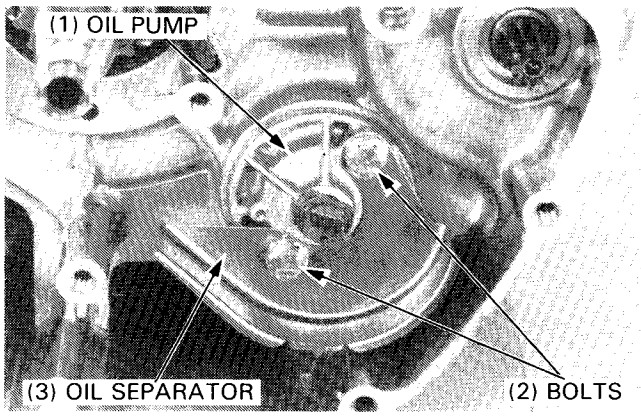


OIL PUMP INSTALLATION

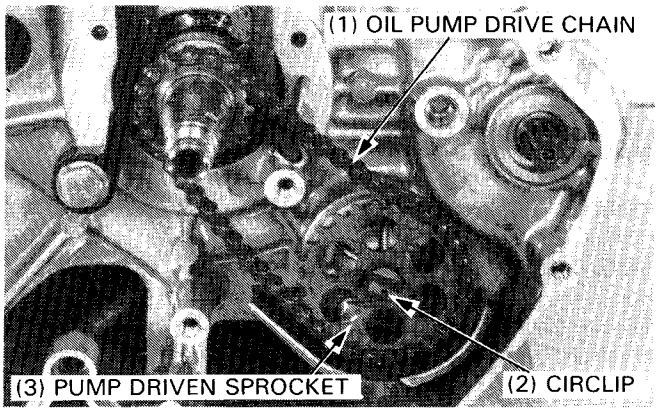
Install the oil pump and oil separator and tighten the bolts.

TORQUE: 8—12 N·m (0.8—1.2 kg-m, 6—9 ft-lb)

Make sure that the pump shaft rotates freely.

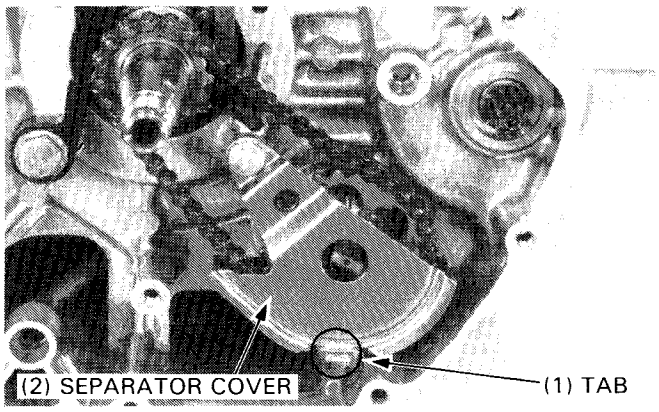


Install the pump driven sprocket and drive chain, then set the circlip securely on the pump shaft.

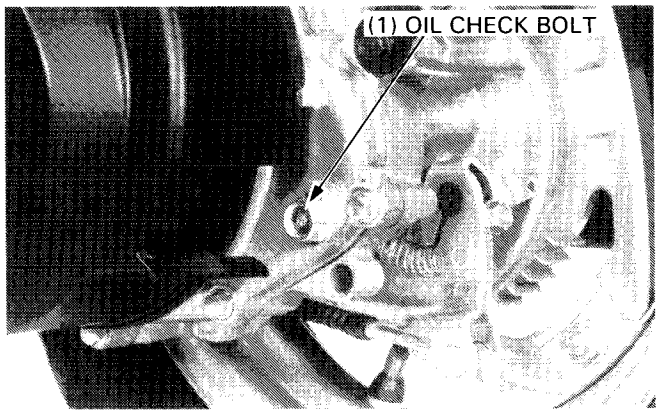


Install the oil separator cover by fitting the tab of the separator cover into the slit in the separator.

Install the starter gear and alternator (section 10).



TRANSMISSION OIL

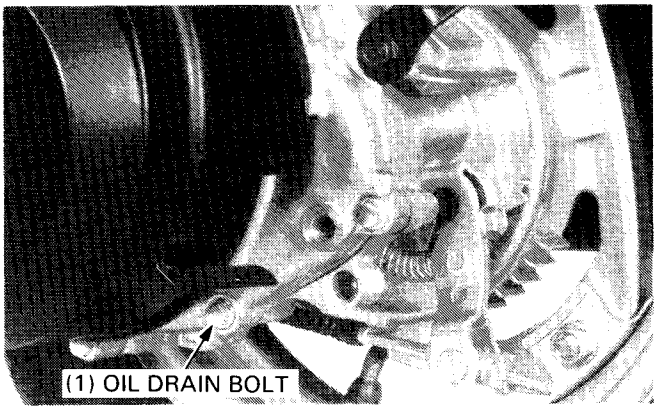


OIL LEVEL CHECK

Place the scooter on its center 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 with the recommended oil (Page 2-1).
Install the oil check bolt.

TORQUE: 10—15 N·m (1.0—1.5 kg-m, 7—11 ft-lb)



OIL CHANGE

Remove the oil check bolt.
Remove the oil drain bolt and drain the oil thoroughly.
Reinstall the drain bolt.

TORQUE: 11—14 N·m (1.1—1.4 kg-m, 8—10 ft-lb)

Make sure that the drain-bolt sealing washer is in good condition.
Fill the final reduction with the recommended oil (Page 2-1) through the oil check bolt hole up to the bolt hole.

CAPACITY: 0.15 liter (0.16 US qt, 0.13 Imp qt) at change

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 make sure that the oil level is correct.
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.

SERVICE INFORMATION

GENERAL

Engine oil	See page 2-2
Engine oil strainer screen	See page 2-2
Transmission (final reduction) oil	See Page 2-6

SPECIFICATIONS

ENGINE

Throttle grip free play:	2—6 mm (1/8—1/4 in)
Spark plug: Standard:	DPR7EA—9 (NGK), X22EPR—U9 (ND)
For cold climate (below 5°C, 41°F)	DPR6EA—9 (NGK), X20EPR—U9 (ND)
Plug gap:	0.8—0.9 mm (0.03—0.04 in)
Ignition timing:	
"F" mark	10° ± 3° BTDC at 1,500 rpm
Advance starts:	10° BTDC at 2,100 rpm
Full advance:	27° BTDC at 4,000 rpm
Idle speed:	1,500 ± 100 rpm
Cylinder compression:	1,300 ± 200 kPa (13 ± 2 kg/cm², 184 ± 28 psi)
Valve clearance: IN/EX	0.1 mm (0.004 in)

CHASSIS

Front brake free play:	10—20 mm (3/8—3/4 in)
Rear brake free play:	20—30 mm (3/4—1-1/8 in)

Tire:

		FRONT	REAR
Tire size		3.50—10—4PR	3.50—10—4PR
Cold tire pressure kPa (kg/cm², psi)	Up to 90 kg (200 lbs) load	150 (1.5, 21)	200 (2.0, 28)
	Up to vehicle capacity load	150 (1.5, 21)	250 (2.5, 36)
Tire brand (Tubeless only)	BRIDGESTONE	ML9	ML12
	DUNLOP	F11	'85 model: K627 After '85 model: K627B

MAINTENANCE SCHEDULES

'85:
Perform the pre-ride inspection at each scheduled maintenance period.
I: Inspect, and Clean, Adjust, Lubricate or Replace if necessary.
C: Clean R: Replace A: Adjust L: Lubricate

		ITEM	FREQUENCY: WHICHEVER COMES FIRST / EVERY	ODOMETER READING [NOTE (4)] 600 mi (1,000 km)	2,500 mi (4,000 km)	5,000 mi (8,000 km)	7,500 mi (12,000 km)	Refer to
EMISSION RELATED ITEMS	*	FUEL LINE			I	I	I	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	3-5
	*	VALVE CLEARANCE		A	A	A	A	3-6
		ENGINE OIL	YEAR	R	Replace every 1,250 mi (2,000 km)			2-2
		ENGINE OIL FILTER SCREEN			Clean every 1,250 mi (2,000 km)			2-2
		RADIATOR COOLANT				I	Replace every 10,000 mi (16,000 km)	3-7
	*	RADIATOR CORE				I		3-7
	*	COOLING SYSTEM HOSE & CONNECTIONS				I		3-7
	*	CARBURETOR-IDLE SPEED		I	I	I	I	3-7
NON-EMISSION RELATED ITEMS	*	EVAPORATIVE EMISSION CONTROL SYSTEM	NOTE (3)				I	3-8
	*	TRANSMISSION OIL	2 YEAR R*					2-6
	*	DRIVE BELT				I		3-9
				Replace every 15,000 mi (24,000 km)				
		BATTERY	MONTH		I	I	I	3-10
		BRAKE SHOE WEAR			I	I	I	3-10
		BRAKE SYSTEM		I	I	I	I	3-10
	*	BRAKE LOCK LEVER		I	I	I	I	3-11
	*	BRAKE LIGHT SWITCH			I	I	I	3-12
	*	STARTER LIMITER SWITCH			I	I	I	3-12
	*	HEADLIGHT AIM			I	I	I	3-12
	**	CLUTCH SHOE WEAR			I	I	I	3-12
		SIDE STAND			I	I	I	3-13
	*	SUSPENSION			I	I	I	3-13
	*	NUT, BOLT, FASTENER		I	I	I	I	3-14
	**	WHEEL			I	I	I	3-14
	**	STEERING HEAD BERARING		I			I	3-14

* Should be serviced by an authorized HONDA Scooter 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 readings, repeat at the frequency interval established here.

AFTER '85:

Perform the pre-ride inspection at each scheduled maintenance period.
I: Inspect, and Clean, Adjust, Lubricate or Replace if necessary.
C: Clean R: Replace A: Adjust L: Lubricate

		ITEM / FREQUENCY	WHICHEVER COMES FIRST ➡ / EVERY	ODOMETER READING (NOTE (4)) 600 mi (1,000 km)	2,500 mi (4,000 km)	5,000 mi (8,000 km)	7,500 mi (12,000 km)	Refer to page
EMISSION RELATED ITEMS	*	FUEL LINE			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	3-5
	*	VALVE CLEARANCE		I	I	I	I	3-6
		ENGINE OIL	YEAR	R	Replace every 1,250 mi (2,000 km)			2-2
	*	ENGINE OIL FILTER SCREEN					C	2-2
	*	CARBURETOR-IDLE SPEED		I	I	I	I	3-7
		RADIATOR-COOLANT	2 YEARS *R			I		3-7
NON-EMISSION RELATED ITEMS	*	COOLING SYSTEM				I		3-7
	*	EVAPORATIVE EMISSION CONTROL SYSTEM	NOTE (3)				I	3-8
		TRANSMISSION OIL					R	2-6
	*	DRIVE BELT		I: EVERY 5,000 mi (8,000 km) R: EVERY 15,000 mi (24,000 km)				3-9
		BELT CASE AIR CLEANER	NOTE 1		C	C	C	3-9
		BATTERY			I	I	I	3-10
		BRAKE SHOE WEAR			I	I	I	3-10
		BRAKE SYSTEM		I	I	I	I	3-10
	*	BRAKE LIGHT SWITCH			I	I	I	3-12
	*	STARTER LIMIT SWITCH			I	I	I	3-12
	*	BRAKE LOCK LEVER		I	I	I	I	3-11
	*	HEADLIGHT AIM			I	I	I	3-12
	* *	CLUTCH SHOE WEAR				I		3-12
		SIDE STAND			I	I	I	3-13
	*	SUSPENSION			I	I	I	3-13
	*	NOT, BOLT, FASTENER		I		I		3-14
	* *	WHEEL			I	I	I	3-14
	* *	STEERING HEAD BEARING		I			I	3-14

* Should be serviced by an authorized HONDA Scooter 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 readings, repeat at the frequency interval established here.

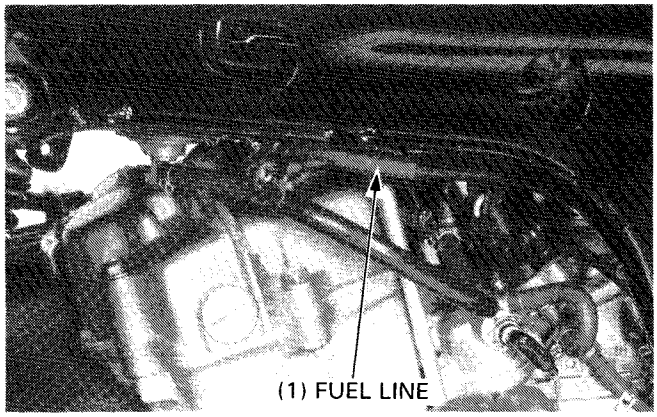
FUEL LINE

Remove the right rear cover (page 13-2).
Remove the fuel valve cover (page 4-13).

Check the fuel lines and replace any parts which show signs of deterioration, damage or leakage.

WARNING

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

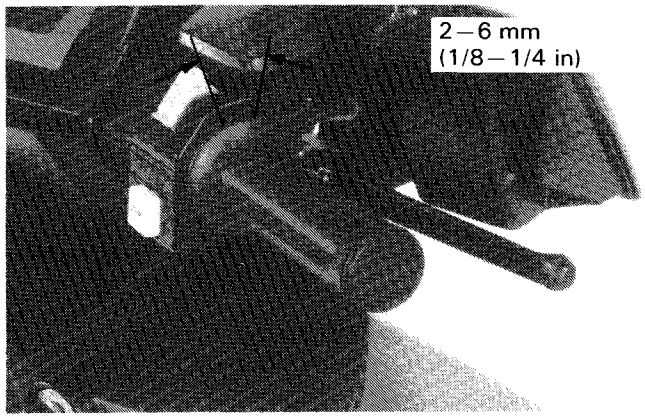


THROTTLE OPERATION

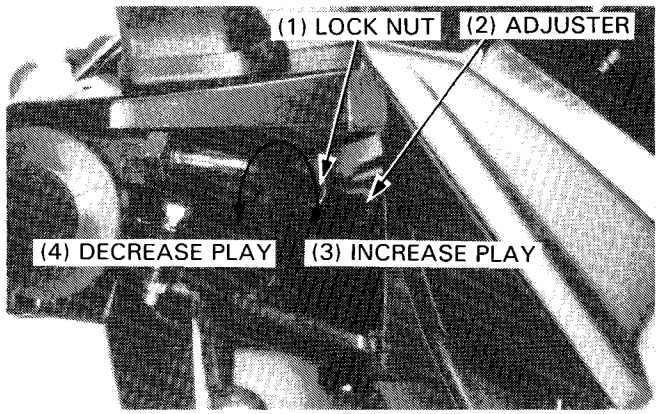
Check for smooth throttle grip movement, full opening and automatic full closing in all steering positions.
Check the throttle cable and replace it, if it is deteriorated, kinked or damaged.

Lubricate the throttle cable (Page 2-7), if throttle operation is not smooth.
Measure the throttle grip free play at the throttle grip flange.

FREE PLAY : 2—6 mm (1/8—1/4 in)

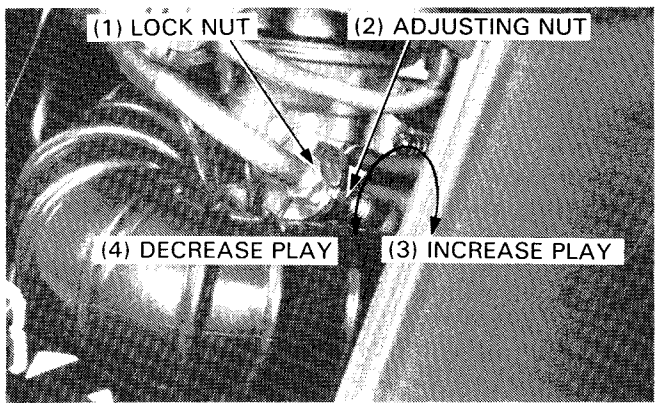


Adjustment can be made at either end of the throttle cable.
Minor adjustments are made with the upper adjuster.
Slide the rubber cover out and adjust by loosening the lock nut and turning the adjuster.



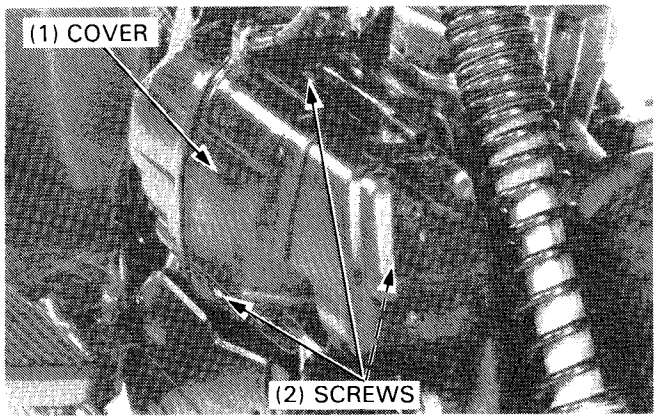
Major adjustments are made with the lower adjusting nut.
Remove the right and left rear covers and the frame center cover (page 13-2) and then adjust by loosening the lock nut and turning the adjusting nut.

Tighten the lock nut and recheck throttle operation.



AIR CLEANER

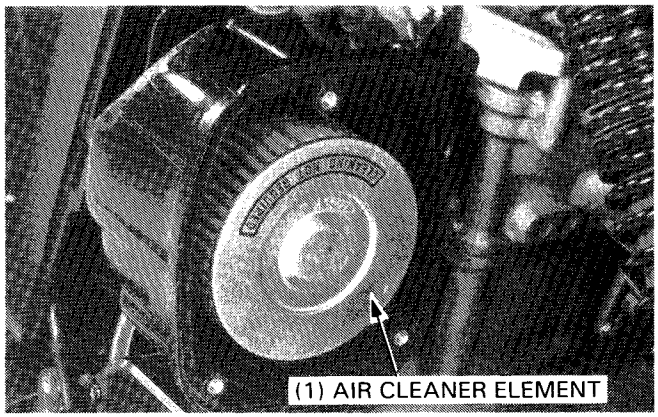
Remove the left rear cover (page 13-2).
Remove the three air cleaner case cover screws and the cover.



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

NOTE

- The air cleaner element has a viscous type paper element. do not try to clean.



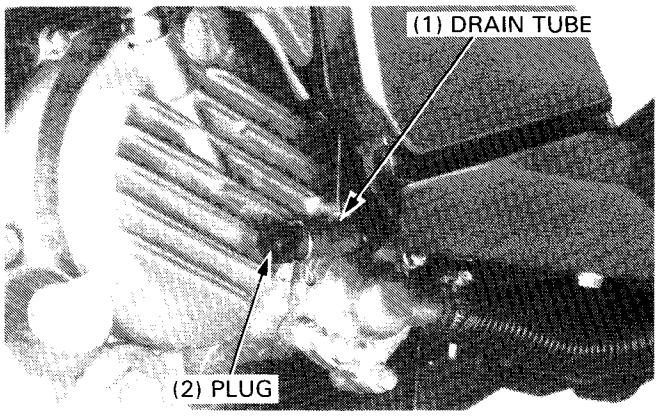
Install the element and air cleaner case cover, and tighten the three screws.
Install the left rear cover.

CRANKCASE BREATHER

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

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.

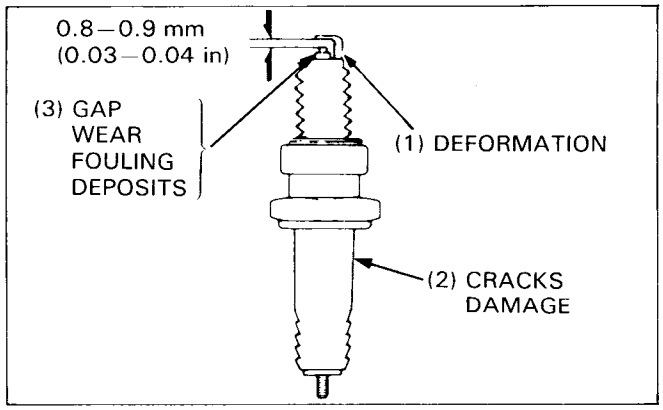


SPARK PLUG

RECOMMENDED SPARK PLUGS:

	NGK	ND
Standard	DPR7EA−9	X22EPR−U9
For cold climent (below 5°C, 41°F)	DPR6EA−9	X20EPR−U9

Remove the left rear cover (page 13-2).
Disconnect the spark plug cap.
Clean any dirt from around the spark plug base.
Remove the discard the spark plug.
Measure the new spark plug gap using a wire-type feeler gauge.



SPARK PLUG GAP: 0.8−0.9 mm (0.03−0.04 in)

Adjust by bending the side electrode carefully.
With the plug washer attached, thread the spark plug in by hand to prevent cross-threading. Tighten the spark plug another 1/2 turn with a spark plug wrench to compress the plug washer.
Then connect the spark plug cap.

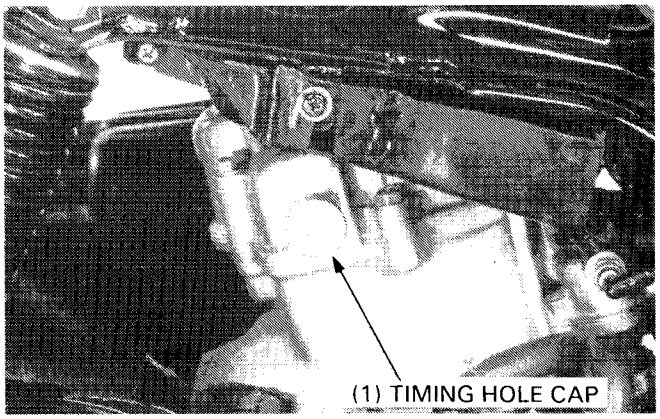
VALVE CLEARANCE

NOTE

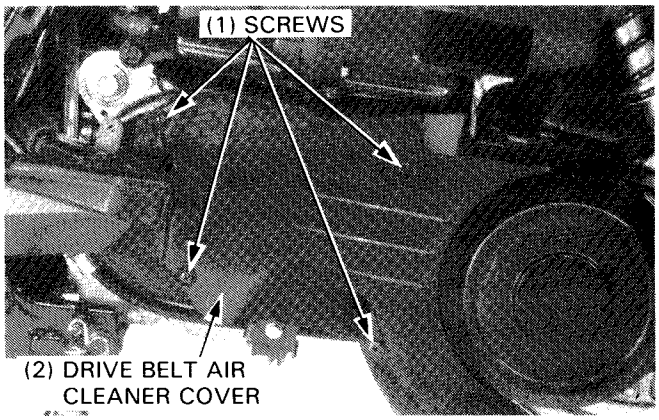
- Inspect and adjust valve clearance while the engine is cold (below 35°C/ 95°F).

Remove the right and left rear covers and frame center cover (page 13-2).

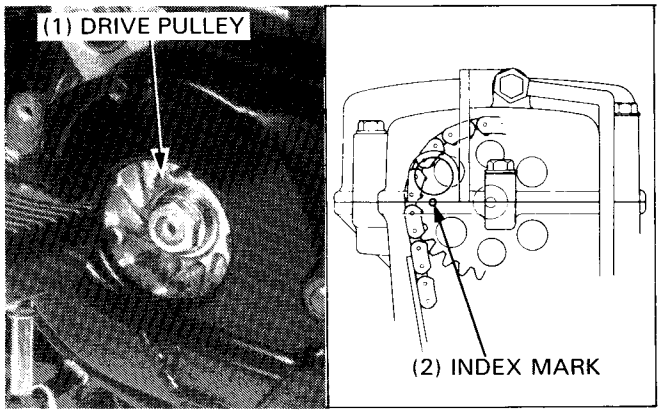
Remove the timing hole cap from the right side of the cylinder head cover.



Remove the four screws attaching the drive belt air cleaner cover to the left crankcase cover.



Rotate the drive pulley counterclockwise so that the index mark on the cam sprocket is aligned with the cylinder head mating surface as shown to bring the piston to TDC (Top Dead Center) on the compression stroke.

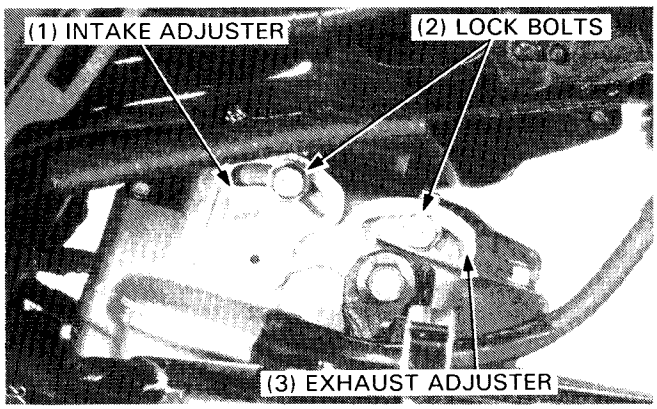


Loosen fully the valve adjuster lock bolts, located on the left side of the cylinder head.
Move the intake and exhaust adjusters outward (away from each other) fully, until resistance is felt.
Then move them inwards (towards each other) the equeivalent of one graduation. Tighten the adjuster lock bolts.

NOTE

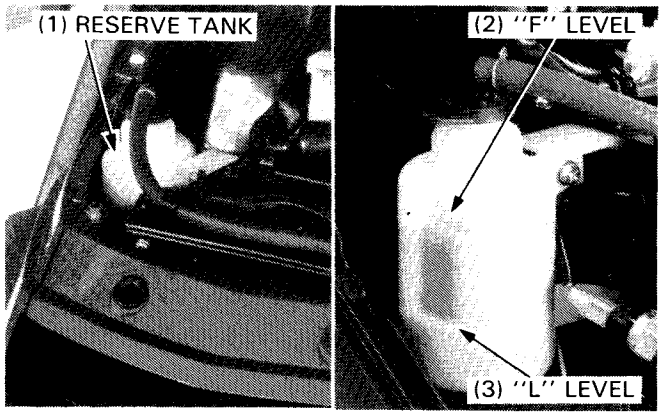
- One graduation on the adjusters equals 0.10 mm (0.004 in), which is the specified clearance.

Install the removed parts in the reverse order of removal.



RADIATOR COOLANT

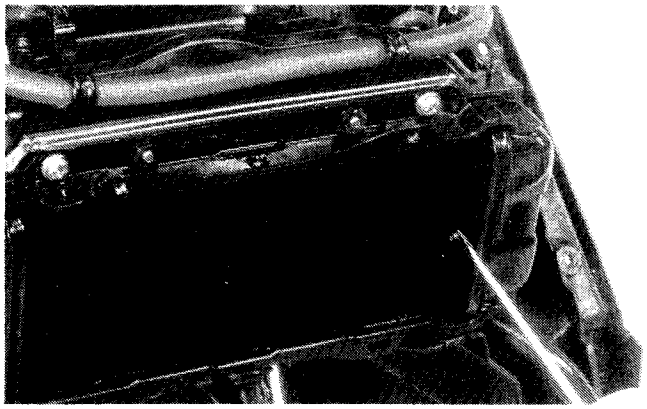
Place the scooter on its center stand.
Remove the radiator grille (Section 13).
Check the coolant level of the reserve tank with the engine running at normal operating temperature. The level should be between the "F" and "L" level lines.
If necessary, remove the reserve tank cap and fill to the "F" level line with a 50/50 mixture of distilled water and anti-freeze.
Reinstall the cap.



RADIATOR CORE

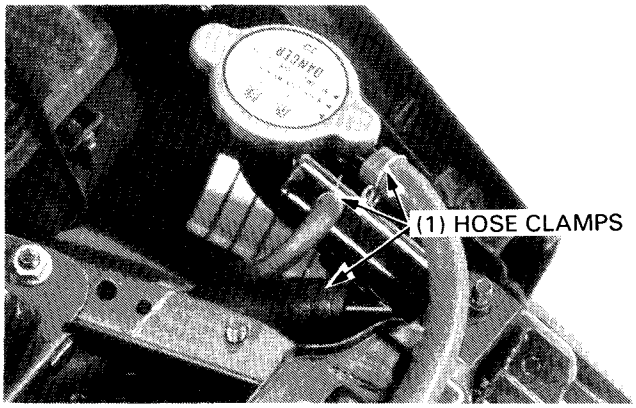
Remove the radiator grille (Section 13).
Remove the air duct.

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



COOLING SYSTEM HOSES & CONNECTIONS

Inspect the hoses for cracks or deterioration, and replace if necessary.
Check the tightness of all hose clamps.



CARBURETOR—IDLE SPEED

NOTE

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

Remove the inspection cover from the center cover.

Warm up the engine and place the motorcycle on its center stand. Connect a tachometer.
Turn the throttle stop screw to obtain the specified idle speed.

IDLE SPEED: 1,500 ± 100 rpm