HONDA

SERVICE MANUAL

87

SE50/50P

ELITE® 50S/50

IMPORTANT SAFETY NOTICE

WARNING *Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.*

CAUTION: *Indicates a possibility of personal injury or equipment damage if instructions are not followed.*

NOTE: Gives helpful information.

Detailed descriptions of standard workshop procedures, safety principles and service operations are not included. It is important to note that this manual contains some warnings and cautions against some specific service methods which could cause **PERSONAL INJURY** to service personnel or could damage a vehicle or render it unsafe. Please understand that those warnings could not cover all conceivable ways in which service, whether or not recommended by Honda, might be done or of the possibly hazardous consequences of each conceivable way, nor could Honda investigate all such ways.

Anyone using service procedures or tools, whether or not recommended by Honda, *must satisfy himself thoroughly* that neither personal safety nor vehicle safety will be jeopardized by the service methods or tools selected.

HOW TO USE THIS MANUAL

Follow the Maintenance Schedule recommendations to ensure that the vehicle is in peak operating condition.

Performing the first scheduled maintenance is very important.

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

Sections 1 through 3 apply to the whole motor scooter, while sections 4 through 15 describe parts of the motor scooter, grouped according to location.

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

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

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

HONDA MOTOR CO., LTD.
Service Publications Office

CONTENTS

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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 that may cause loss of consciousness and 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.

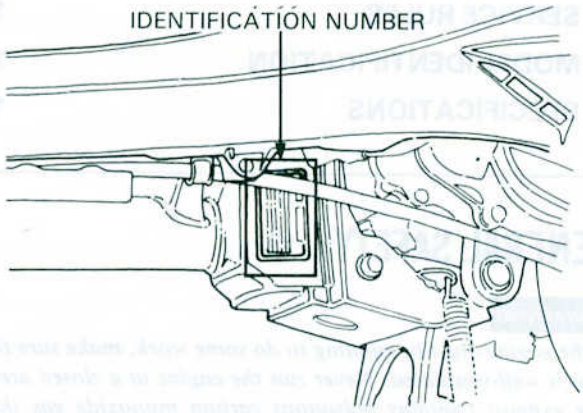
WARNING

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.

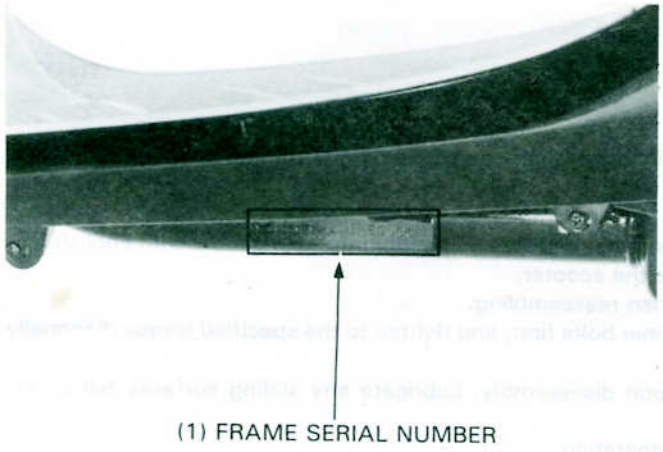
SERVICE RULES

1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalents. Parts that do not meet HONDA's design specifications may damage the scooter.
2. Use the special tools designed for this scooter.
3. Use only metric tools when servicing this scooter. Metric bolts, nuts, and screws are not interchangeable with English fasteners. The use of incorrect tools and fasteners may damage the scooter.
4. Install new gaskets, O-rings, cotter pins, lock plates, etc. when reassembling.
5. When tightening bolts or nuts, begin with larger-diameter or inner bolts first, and tighten to the specified torque diagonally in 2 or 3 steps, unless a particular sequence is specified.
6. Clean parts in non-flammable or high flash point solvent upon disassembly. Lubricate any sliding surfaces before reassembly.
7. After reassembly, check all parts for proper installation and operation.
8. Route all electrical wires as shown on pages 1-7 thru. 1-10, Cable and Harness Routing, and always away from sharp edges and areas where they might be pinched between moving parts.

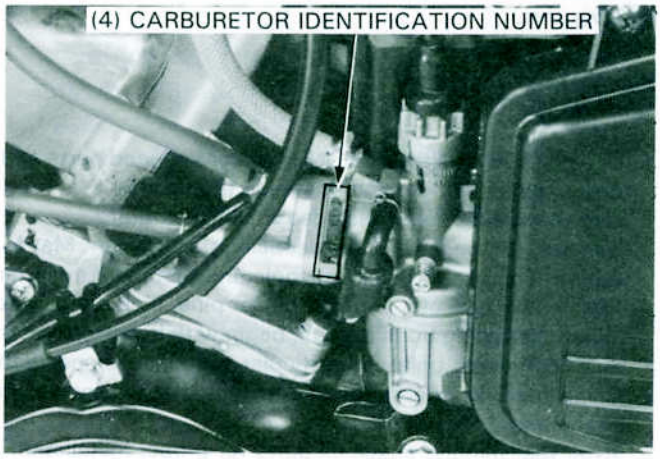
MODEL IDENTIFICATION



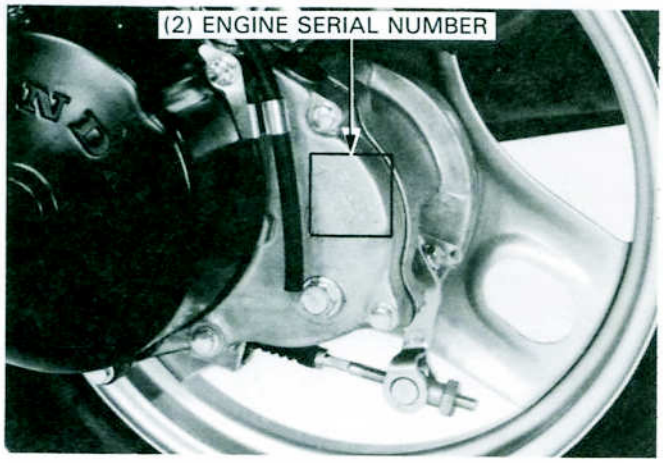
The vehicle identification number is on the frame tube in front of the right front cover.



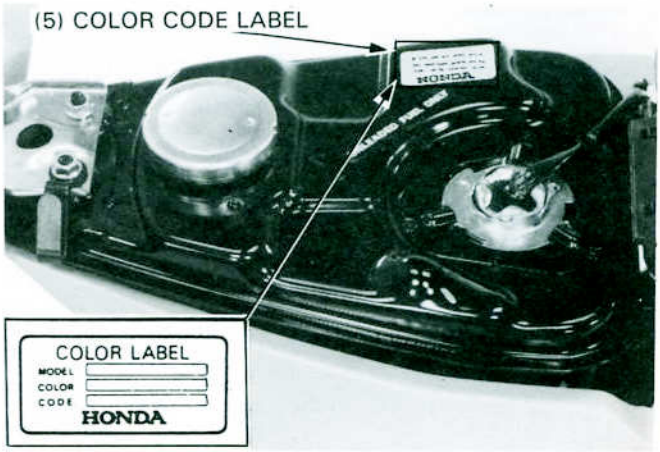
The frame serial number is stamped on the left side of the frame.



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



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



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

SPECIFICATIONS

ITEM			SPECIFICATIONS
DIMENSIONS	Overall length		1,610 mm (63.4 in)
	Overall width		585 mm (23.0 in)
	Overall height		1,030 mm (40.6 in)
	Wheelbase		1,180 mm (46.5 in)
	Ground clearance		110 mm (4.3 in)
	Dry weight		57.5 kg (126.8 lb)
FRAME	Type		Back bone
	Front suspension, travel		Trailing bottom link, 70 mm (2.8 in)
	Rear suspension, travel		Unit swing, 57 mm (2.2 in)
	Maximum weight capacity		82 kg (180 lb)
	Front tire size, pressure		2.75—10—4PR, 125 kPa (1.25 kg/cm², 18 psi)
	Rear tire size, pressure		2.75—10—4PR, 200 kPa (2.00 kg/cm², 28 psi)
	Front brake		Internal expanding shoe
	Rear brake		Internal expanding shoe
	Fuel capacity		2.9 liter (0.77 U.S. gal, 0.64 Imp. gal)
	Caster angle		27.8°
	Trail		70 mm (2.8 in)
ENGINE	Type		Air cooled 2-stroke engine
	Cylinder arrangement		Single cylinder 15° inclined from vertical
	Bore and stroke		41.0 x 37.4 mm (1.61 x 1.47 in)
	Displacement		49.4 cc (3.0 cu. in)
	Compression ratio		6.6 : 1
	Transmission oil capacity		0.09 liter (0.095 U.S. qt, 0.079 Imp. qt)
	Oil tank capacity		0.9 liter (0.95 U.S. qt, 0.79 Imp. qt)
	Lubrication system		Mixing with fuel and oil
	Air filtration		Oiled polyurethane foam
	Port timing:		
	Intake	Open	Reed valve controlled
		Close	Reed valve controlled
	Exhaust	Open	78° (B.B.D.C.)
		Close	78° (A.B.D.C.)
	Scavenge	Open	57° (B.B.D.C.)
		Close	78° (A.B.D.C.)
	Engine dry weight		14.7 kg (32.41 lb)
	Idle speed		1,800 ± 100 rpm
CARBURETION	Carburetor type		Piston valve
	Identification number	SE50:	PA31E
		SE50P:	PA31D
	Air screw initial setting	SE50:	1-3/4 turns out
		SE50P:	1-1/2 turns out
	Float level		12.2 mm (0.48 in)
DRIVE TRAIN	Clutch type		Automatic dry centrifugal clutch
	Primary reduction		V-Belt
	Gear ratio	SE50:	2.4—1.1 : 1
		SE50P:	2.4—0.8 : 1
	Final reduction	SE50:	10.243 : 1
		SE50P:	11.097 : 1

ITEM		SPECIFICATIONS	
ELECTRICAL	Ignition	CDI	
	Starting system	Kick and electric starter	
	Alternator	12V-96W/5,000 rpm	
	Spark plug:	NGK	ND
	Standard	BPR 6 HSA	W 20 FPR-L
	For cold climate (below 5°C/41°F)	BPR 4 HSA	W 14 FPR-L
	For extended high speed riding	BPR 8 HSA	W 24 FPR-L
	Spark plug gap	0.6—0.7 mm (0.024—0.028 in)	
	Ignition timing "F" mark	17° B.T.D.C. at 1,800 ± 100 rpm	
	Battery capacity	12V 3AH	
	Fuse capacity	10A	
LIGHTS	Headlight Low/High	12V—25/25W	
	Tail/stoplight	12V—3/32 cp	
	Turn signal Front/Rear	12V—32/32 cp	
	Speedometer light	12V—3.4W	
	High beam indicator	12V—1.7W	
	Turn signal indicator	12V—3.4W	

TORQUE VALUES

ENGINE

Item	Q'ty	Thread Dia (mm)	Torque N·m (kg-m, ft-lb)	Remarks
Cylinder head bolt	4	6	8–12 (0.8–1.2, 6–9)	
Flywheel nut	1	10	35–40 (3.5–4.0, 25–29)	
Driven gear nut	1	10	35–40 (3.5–4.0, 25–29)	
Intake pipe bolt	4	6	8–12 (0.8–1.2, 6–9)	
Clutch outer nut	1	10	35–40 (3.5–4.0, 25–29)	
Carburetor bolt	2	6	8–12 (0.8–1.2, 6–9)	
Clutch lock nut	1	28	50–60 (5.0–6.0, 36–43)	
Exhaust muffler mount bolt	2	8	24–30 (2.4–3.0, 17–22)	
Exhaust pipe joint (nut)	1		10–14 (1.0–1.4, 7–10)	
(cap nut)	1		10–14 (1.0–1.4, 7–10)	
Spark plug	1	——	11–17 (1.1–1.7, 8–12)	

CHASSIS

Item	Q'ty	Thread Dia (mm)	Torque N·m (kg-m, ft-lb)	Remarks
Handle post nut	1	10	40–50 (4.0–5.0, 29–36)	
Front axle nut	1	10	40–50 (4.0–5.0, 29–36)	
Steering stem lock nut	1	25.4	60–80 (6.0–8.0, 43–58)	
Front brake arm bolt	1	5	4–7 (0.4–0.7, 3–5)	
Front shock absorber upper mounting bolt	2	8	24–30 (2.4–3.0, 17–22)	
Front shock absorber lower mounting bolt	2	8	0.8–1.2 (0.08–0.12, 0.6–0.9)	
Front shock absorber lower mounting nut	2	8	15–20 (1.5–2.0, 11–14)	
Pivot arm bolt/nut	2	8	24–30 (2.4–3.0, 17–22)	
Front shock absorber damper rod lock nut	1	8	15–25 (1.5–2.5, 11–18)	—Apply locking agent to the nut threads.
Engine mounting bolt	1	8	32–38 (3.2–3.8, 23–27)	
Engine mounting bracket bolt	1	10	35–45 (3.5–4.5, 25–33)	
Rear axle nut	1	14	100–120 (10.0–12.0, 72–87)	
Rear shock absorber upper mounting nut	1	10	30–45 (3.0–4.5, 22–33)	
Rear shock absorber lower mounting bolt	1	8	20–30 (2.0–3.0, 14–22)	
Rear shock absorber damper rod lock nut	1	8	15–25 (1.5–2.5, 11–18)	—Apply locking agent to the nut threads.
Rear brake arm bolt	1	5	4–7 (0.4–0.7, 3–5)	

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

STANDARD TORQUE VALUES

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

TOOLS

SPECIAL

Description	Tool Number	Alternate Tool	Tool number	Ref.Sec
Vacuum pump (U.S.A. only)	A937X–041–XXXXX	Vacuum pump (U.S.A. only: Included in turbo kit)	ST–AH–260–MC7	4
*Lock nut wrench, 39 mm	07GMA–KS40100	39 mm socket		8
*Universal bearing puller	07631–0010000	Equivalent commercially available in U.S.A.		10
Lock nut wrench	07916–1870100	Equivalent commercially available in U.S.A.		12
Lock nut wrench	07916–KM10000			12
Attachment, 28 x 30 mm	07946–1870100			12
Clutch spring compressor	07960–KM10000			8
Assembly collar	07965–GM00100	Assembly collar	07965–1480100	9, 10
Assembly bolt	07965–GM00300	Assembly bolt	07965–1480100	9, 10
Shock absorber compressor attachment	07967–GA70101	Shock absorber attachment	07967–GA70001	12
Rear shock attachment B	07967–GA70200	Not available in U.S.A.		13
Bearing remover, 15 mm	07936–KC10500			9
Bearing remover, 12 mm	07936–1660100			9
Bearing remover, 17 mm	07936–3710300			8
Remover handle	07936–3710100			8, 9
Remover weight	07741–0010201	Remover weight	07936–3710200	8, 9
Shock absorber compressor spring attachment	07967–KM10100			12
Ball race remover	07946–GA70000		07736–A01000A	12
Bearing driver	07945–GC80000			8
Case puller	07935–GK80000	Case puller	07935–8050002	10
Thread protector	07931–1870000			10

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

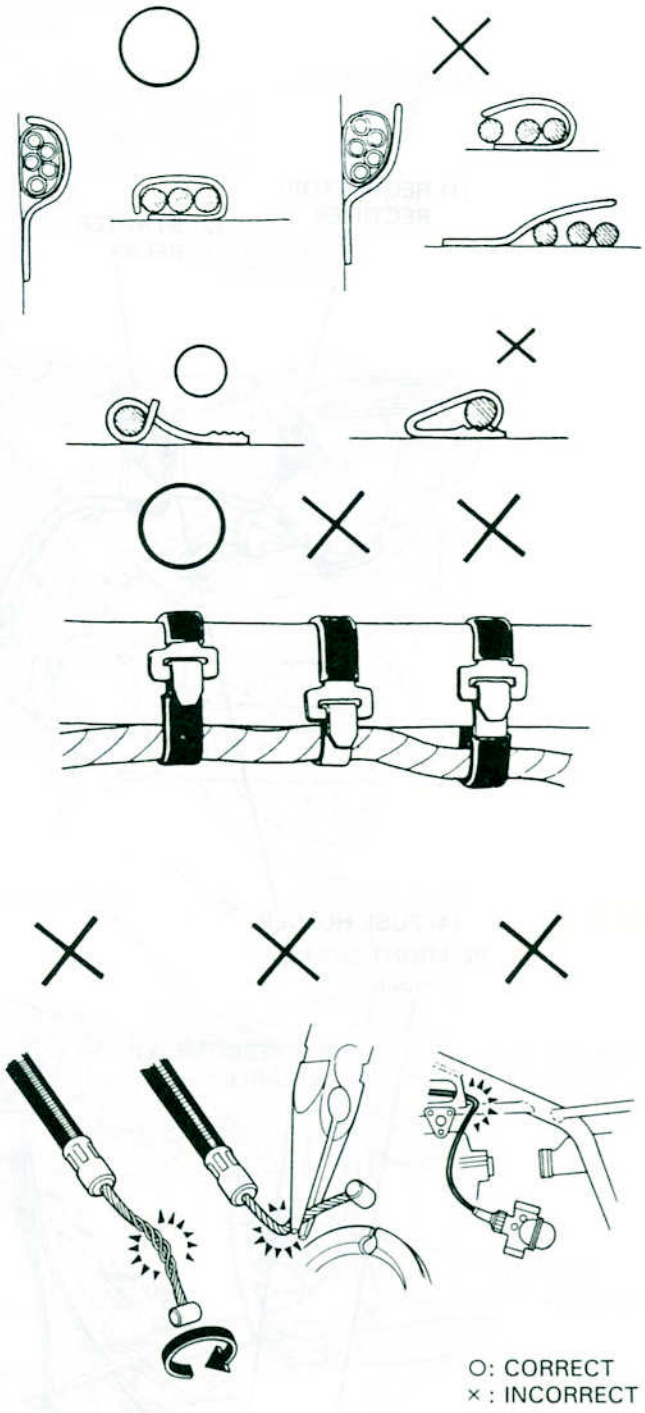
COMMON

Description	Tool Number	Alternate Tool	Tool number	Ref.Sec
Float level gauge	07401–0010000			4
Clutch center holder	07724–0050001	Equivalent commercially available in U.S.A.		8
Universal holder	07725–0030000			7, 8
Flywheel puller	07733–0010000	Flywheel puller	07933–0230000	7
Attachment, 32 x 35 mm	07746–0010100			9
Attachment, 37 x 40 mm	07746–0010200			9, 10
Attachment, 42 x 47 mm	07746–0010300			10
Attachment, 24 x 26 mm	07746–0010700			8
Pilot, 10 mm	07746–0040100			12
Pilot, 12 mm	07746–0040200			9
Pilot, 15 mm	07746–0040300			9
Pilot, 17 mm	07746–0040400			9, 10
Pilot, 20 mm	07746–0040500			10
Driver	07749–0010000			8, 9, 10, 12
Bearing remover shaft	07746–0050100	Equivalent commercially available in U.S.A.		12
Bearing remover head, 10 mm	07746–0050200			12
Shock absorber compressor	07959–3290001			12, 13

CABLE & HARNESS ROUTING

Note the following when routing cables and wire harnesses.

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



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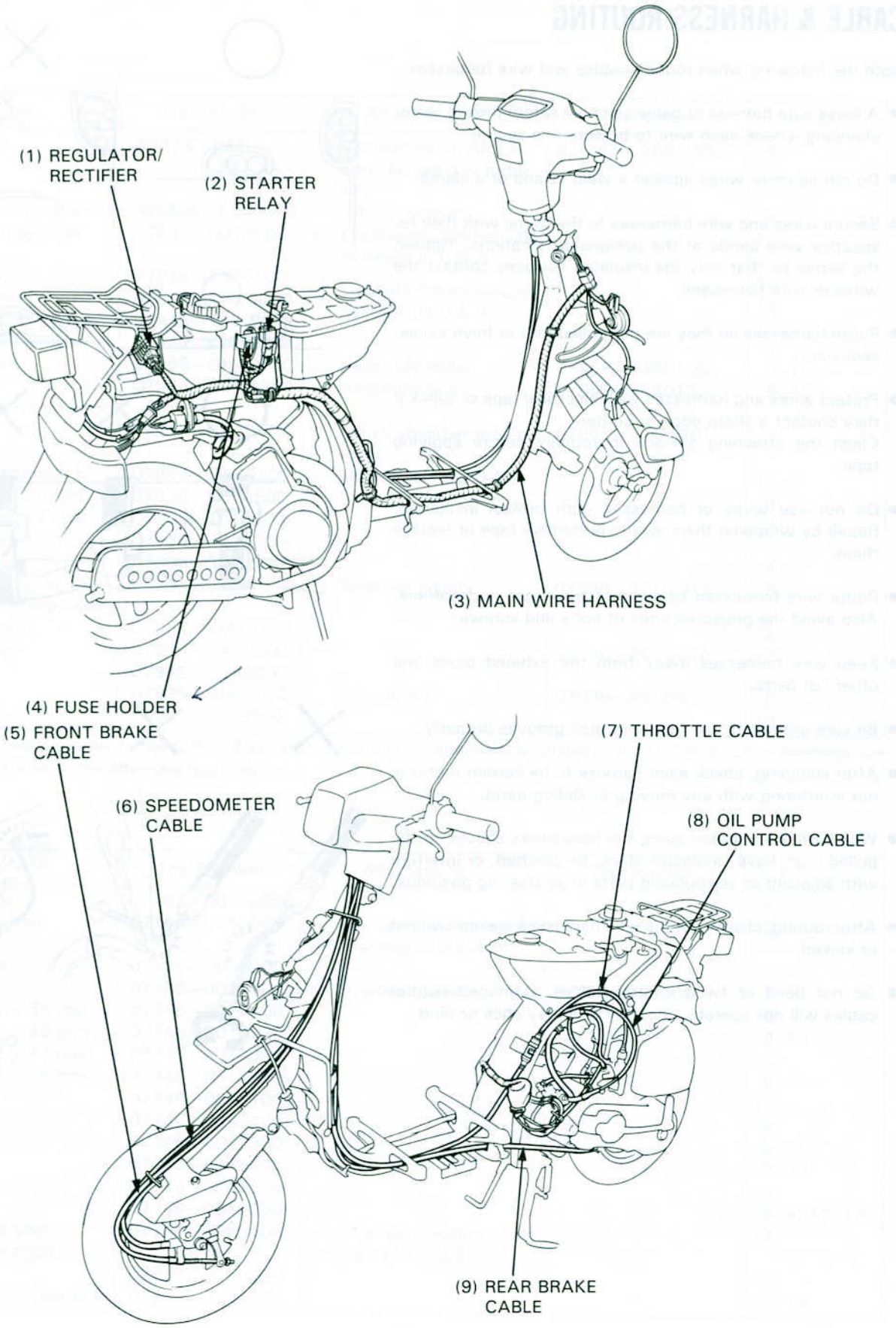
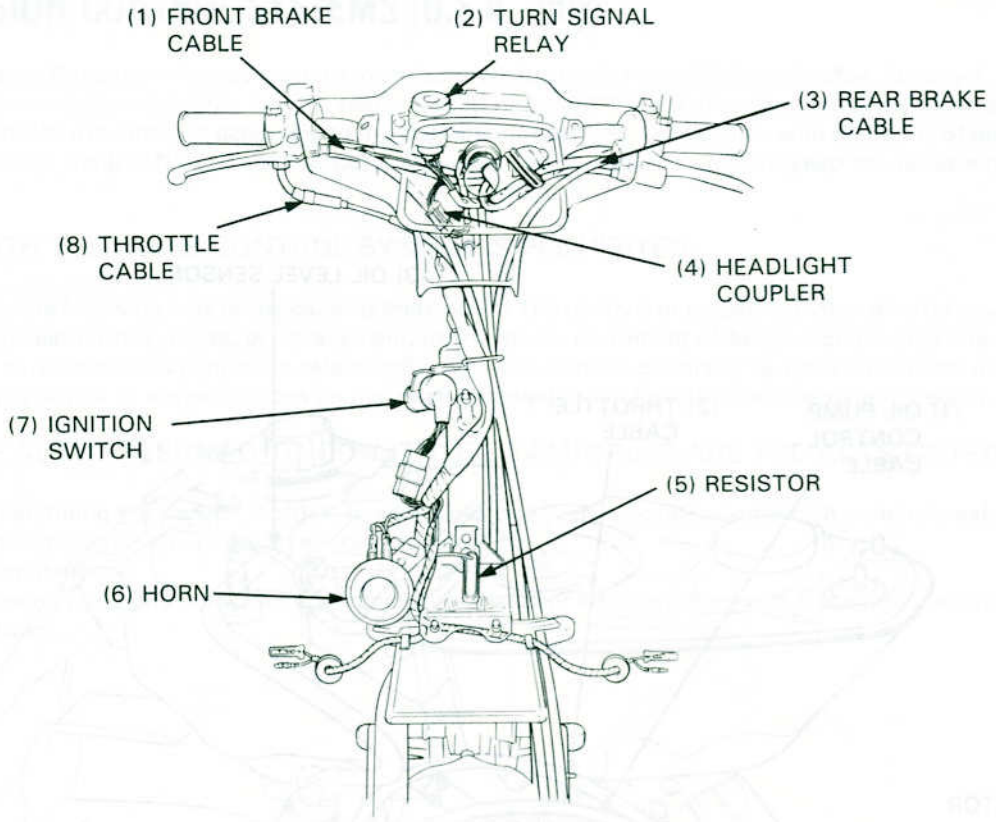
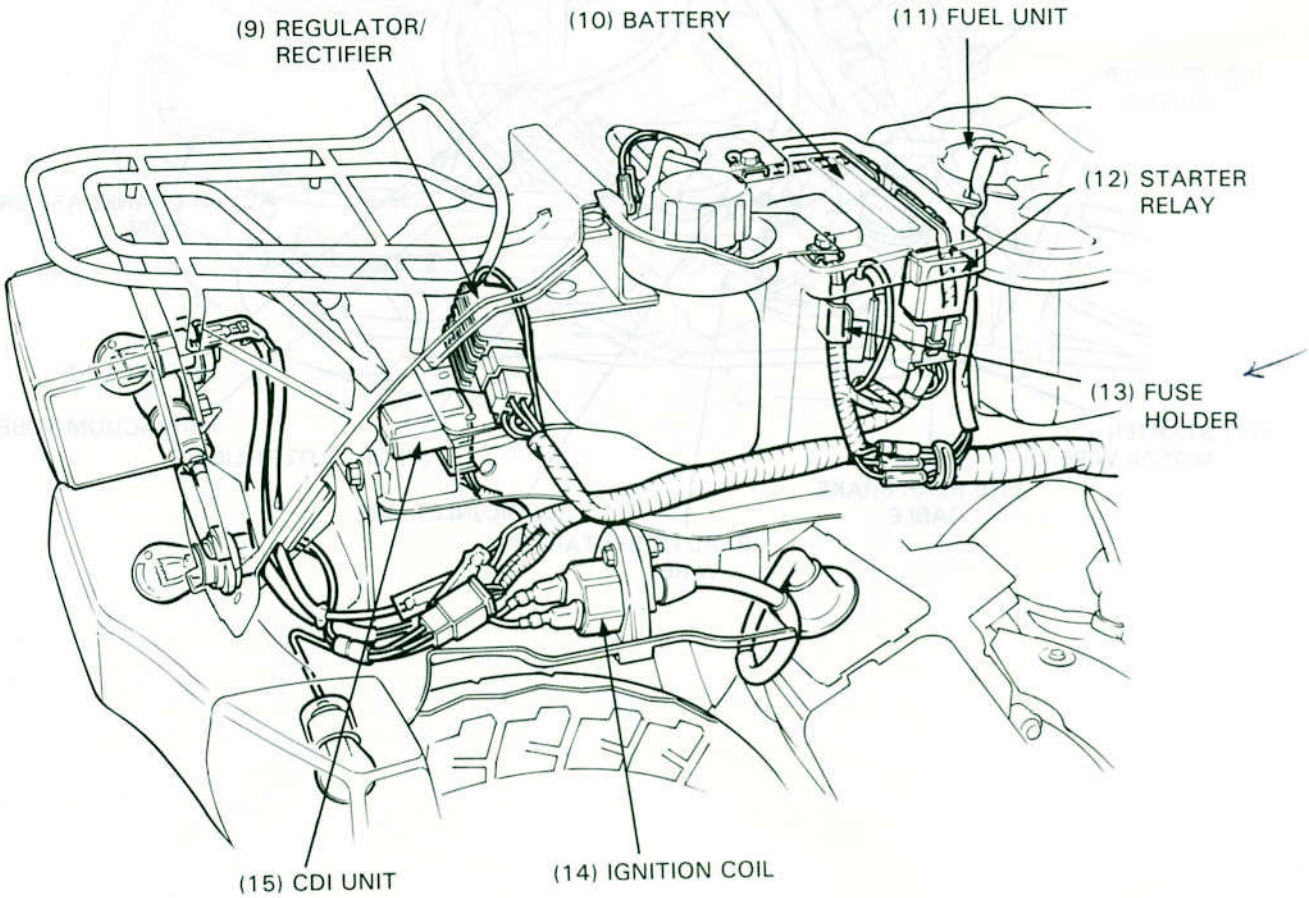
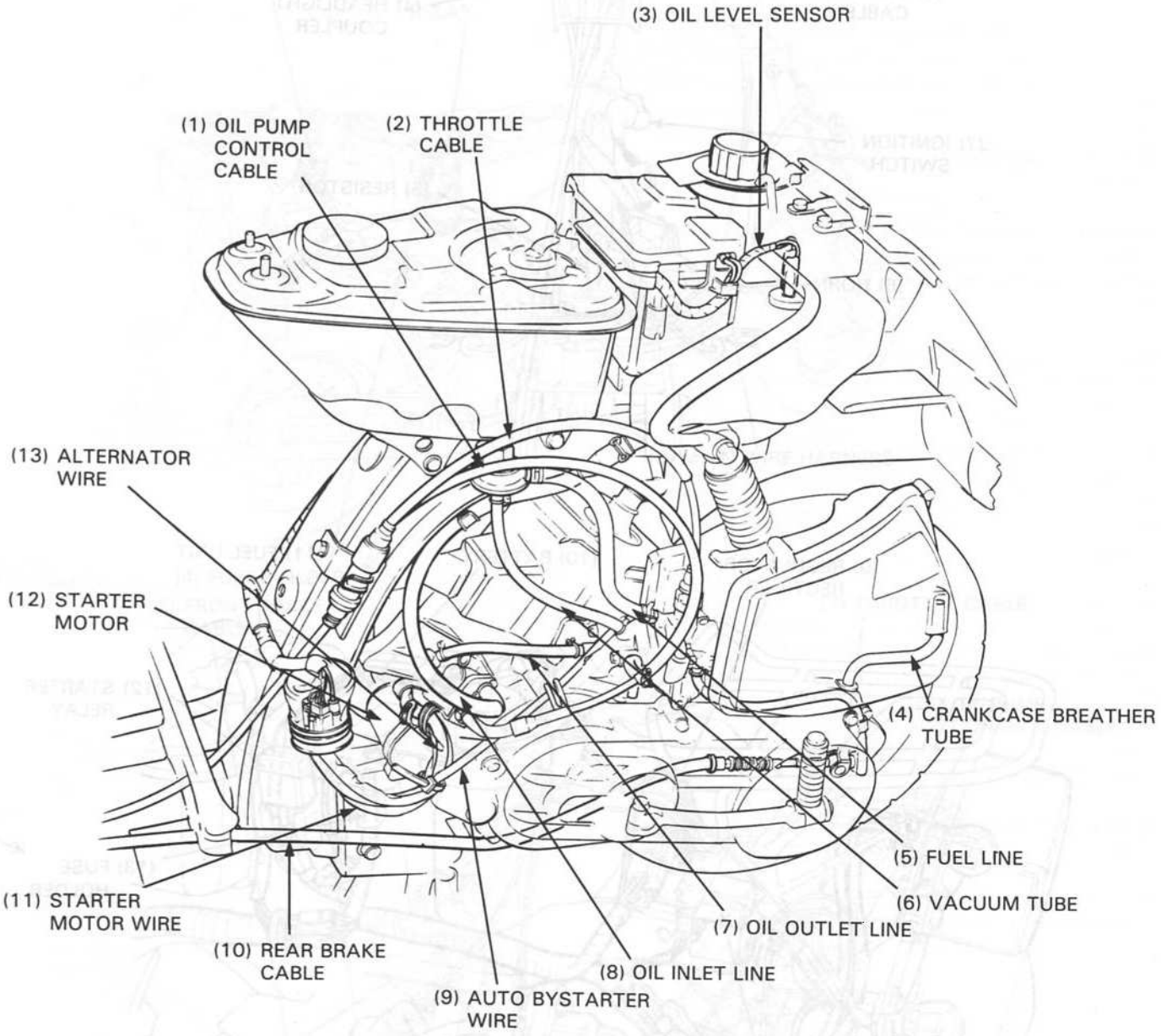
× : INCORRECT


(1) REGULATOR/
RECTIFIER
(2) STARTER
RELAY
(3) MAIN WIRE HARNESS
(4) FUSE HOLDER
(5) FRONT BRAKE
CABLE
(6) SPEEDOMETER
CABLE
(7) THROTTLE CABLE
(8) OIL PUMP
CONTROL CABLE
(9) REAR BRAKE
CABLE


(1) FRONT BRAKE CABLE
(2) TURN SIGNAL RELAY
(3) REAR BRAKE CABLE
(8) THROTTLE CABLE
(4) HEADLIGHT COUPLER
(7) IGNITION SWITCH
(5) RESISTOR
(6) HORN


(9) REGULATOR/ RECTIFIER
(10) BATTERY
(11) FUEL UNIT
(12) STARTER RELAY
(13) FUSE HOLDER
(15) CDI UNIT
(14) IGNITION COIL


(3) OIL LEVEL SENSOR
(1) OIL PUMP CONTROL CABLE
(2) THROTTLE CABLE
(13) ALTERNATOR WIRE
(12) STARTER MOTOR
(4) CRANKCASE BREATHER TUBE
(5) FUEL LINE
(6) VACUUM TUBE
(7) OIL OUTLET LINE
(11) STARTER MOTOR WIRE
(10) REAR BRAKE CABLE
(8) OIL INLET LINE
(9) AUTO BYSTARTER WIRE

NOISE EMISSION CONTROL SYSTEMS (U.S.A. only)

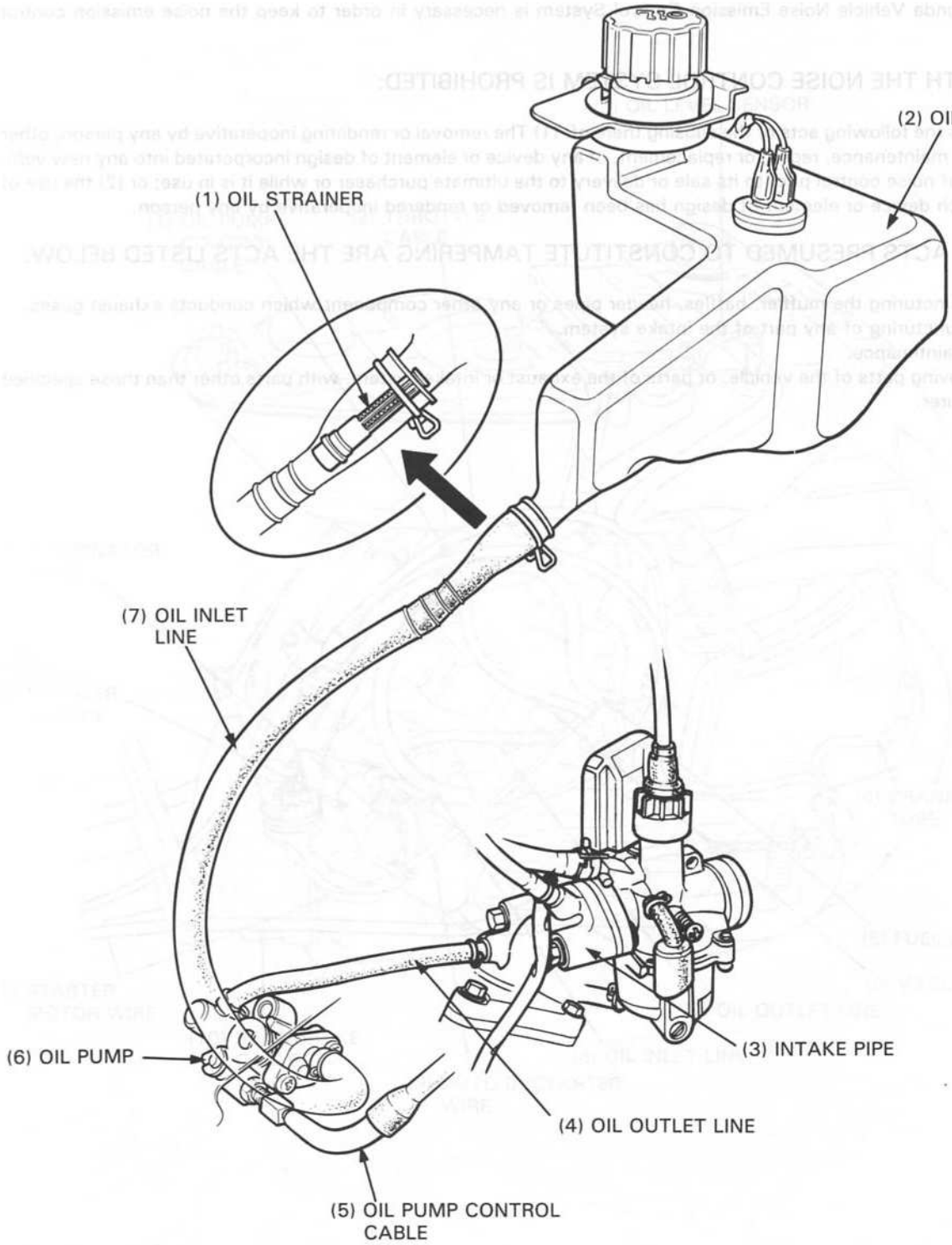
The U.S. Environmental Protection Agency requires manufacturers to certify that vehicles built after January 1, 1983 comply with applicable noise emission standards for one year or 3,730 miles (6,000 km) after the time of sale to the ultimate purchaser, when operated and maintained according to the instructions provided. Compliance with the terms of the Distributor's Warranty for the Honda Vehicle Noise Emission Control System is necessary in order to keep the noise emission control system in effect.

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED:

Federal law prohibits the following acts or the causing there of: (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.


(1) OIL STRAINER
(2) OIL TANK
(3) INTAKE PIPE
(4) OIL OUTLET LINE
(5) OIL PUMP CONTROL CABLE
(6) OIL PUMP
(7) OIL INLET LINE

SERVICE INFORMATION

GENERAL

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

TROUBLESHOOTING

Excessive smoke and/or carbon on spark plug
- Faulty oil pump
- Low quality engine oil

Overheating
- Faulty oil pump
- Low quality oil

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

Oil not flowing out of tank
- Clogged oil tank cap breather hole
- Clogged oil strainer

OIL PUMP

REMOVAL

Remove the frame side covers and center cover (pages 11-2 and 11-3).

NOTE

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

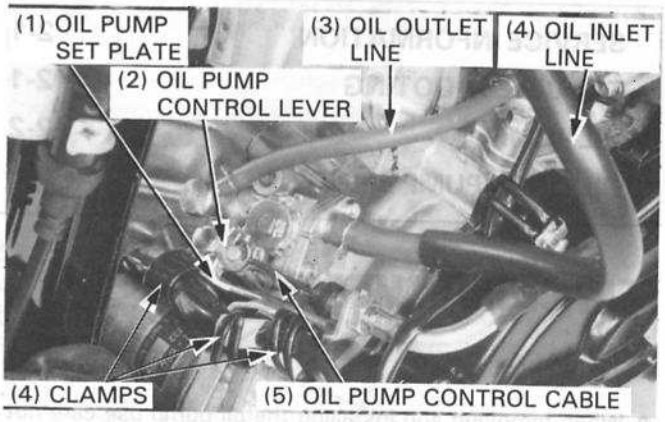
Disconnect the oil pump control cable from the oil pump control lever and set plate.
Disconnect the oil inlet line first, then the oil outlet line.

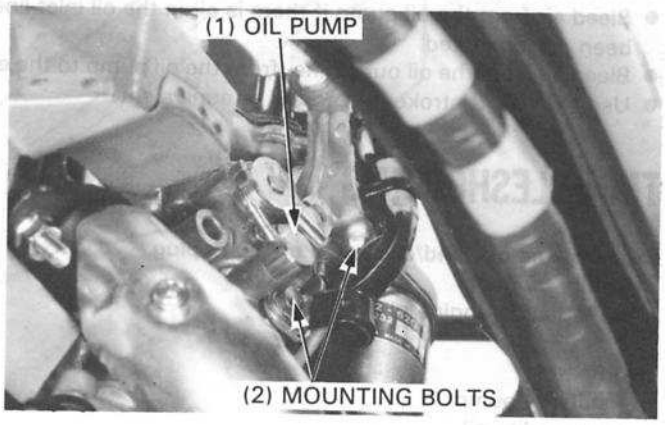
NOTE

- Plug the oil inlet line to prevent oil from flowing out.

Loosen the clamps on the oil pump set plate.

Remove the oil pump set plate mounting bolts.
Remove the oil pump from the crankcase.



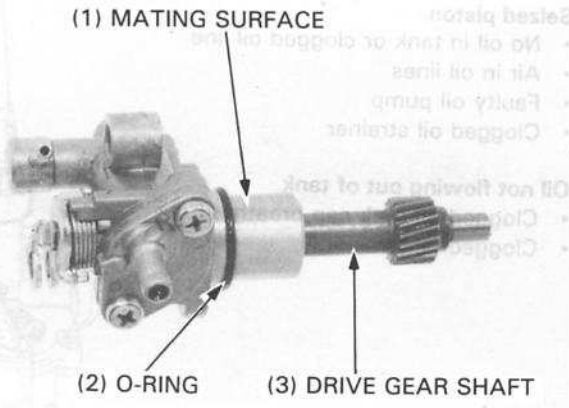


INSPECTION

Inspect for the following items:
- Damage to crankcase mating surfaces.
- Damage to pump body.
- Worn or damaged pump gears.
- Oil leaks.
- Weak O-ring.

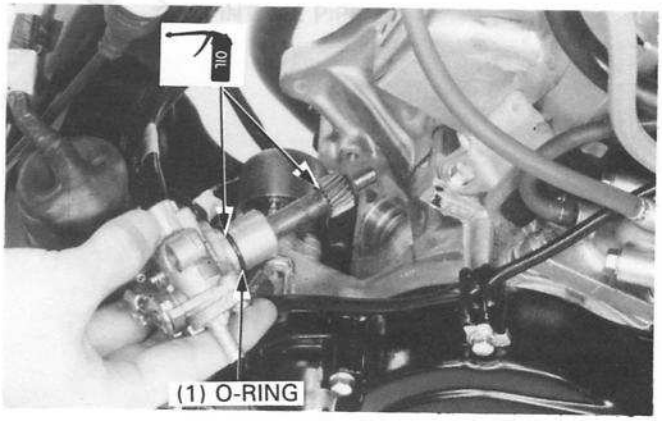
CAUTION

- *Do not disassemble the oil pump.*



INSTALLATION

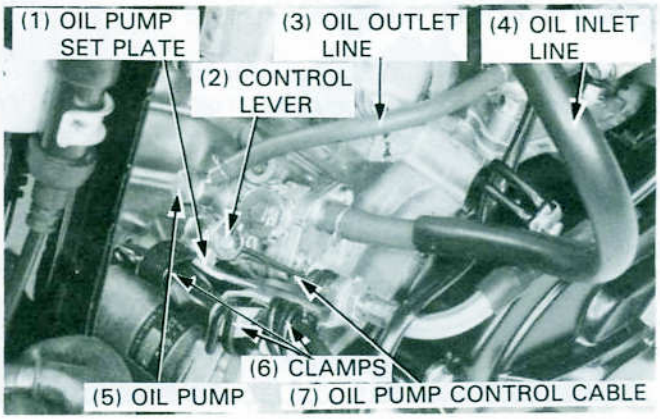
Lubricate a new O-ring and install it in the crankcase.
Lubricate the oil pump gear and install the pump.



Be sure the pump is properly seated, then install the pump set plate and tighten the attaching bolt securely.
Reconnect the oil inlet and outlet lines.
Clamp the wires on the oil pump set plate.

NOTE

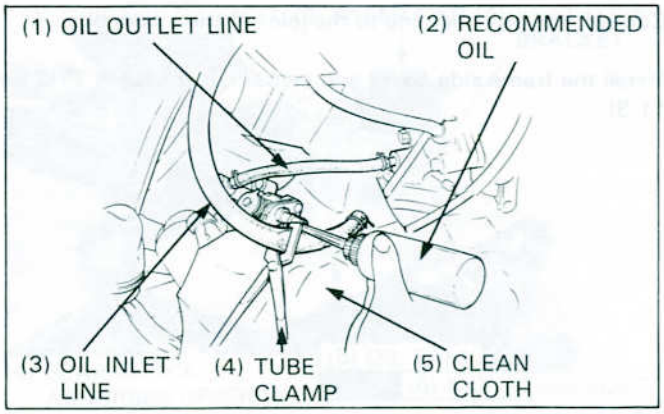
- After installation, perform the following inspections and adjustments:
  - Oil pump bleeding.
  - Oil outlet line bleeding.
  - Check for oil leaks.



OIL LINES/PUMP BLEEDING

CAUTION

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



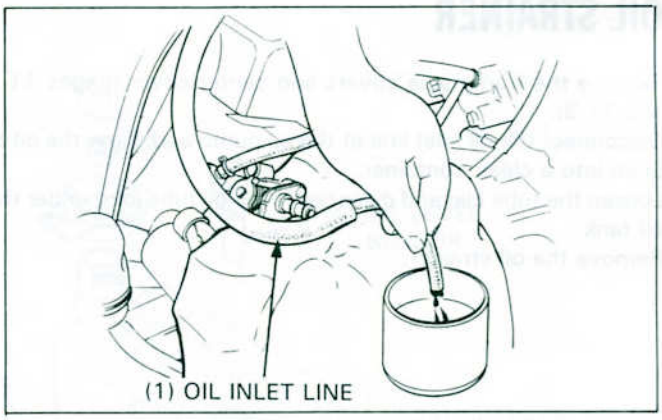
OIL INLET LINE/OIL PUMP

Remove the frame side covers and center cover (pages 11-2 and 11-3).
Fill the oil tank with the recommended oil.

Place a piece of clean cloth around the oil pump and disconnect the oil inlet line from the pump.

Fill the oil pump by pumping clean oil through the joint (about 3 cc).

Drain the oil in a clean container until there is no air bubble in the oil flow from the oil inlet line. Hold the tube end and quickly connect it to the oil pump joint.
Then bleed the outlet line.

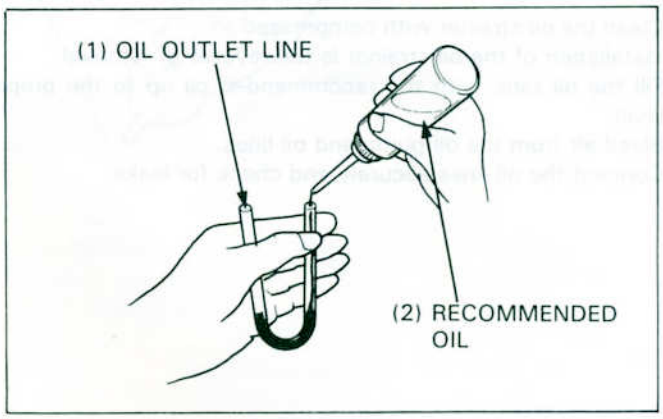


OIL OUTLET LINE

WARNING

- *Perform this operation in a well ventilated area.*

Remove the oil outlet line and close the joint of the intake pipe. Bend the oil outlet line in "U" form with both the ends parallel, and fill the oil outlet line with clean oil by squeezing bottle as shown.



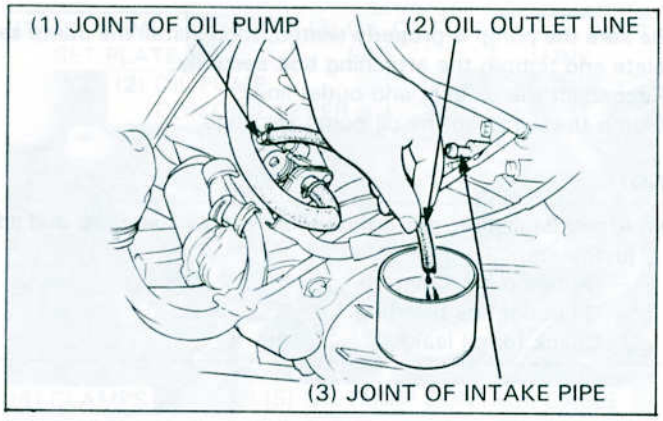
Connect the oil outlet line to the joint of the oil pump.

Start the engine and allow it to idle with the oil control lever in the fully open position, making sure that oil is flowing out from the oil outlet line.

IDLE SPEED: 1,800 ± 100 rpm

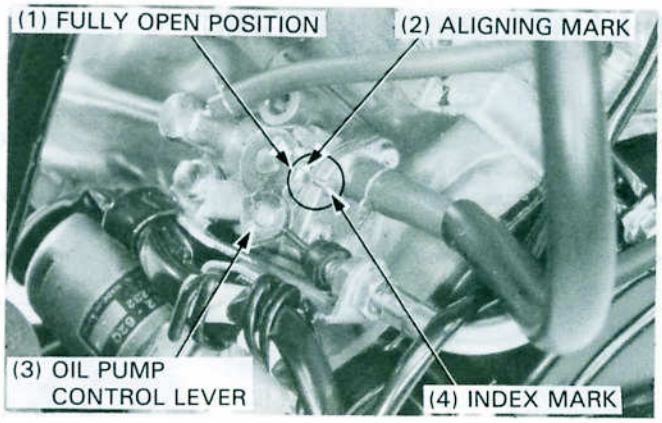
CAUTION

- *Do not raise the engine speed unnecessarily.*
- *If oil does not flow out within 1 minute, stop the engine and bleed air from the oil inlet line and oil pump again and then re-check.*



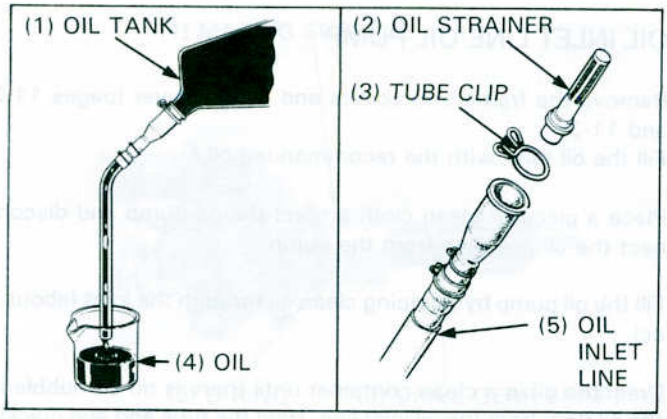
Connect the oil outlet line to the joint of the intake pipe.

Install the frame side cover and center cover (pages 11-2 and 11-3).

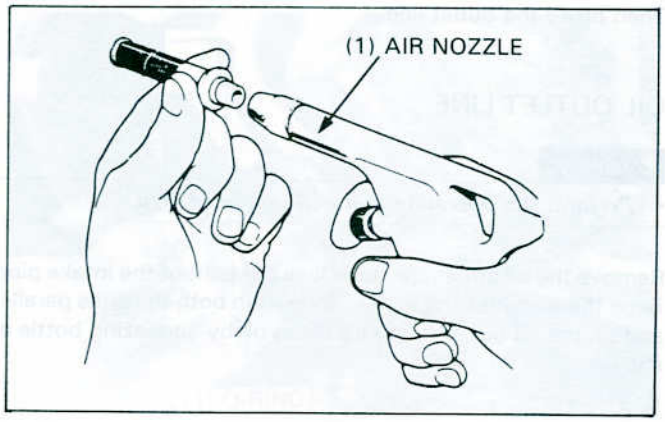


OIL STRAINER

Remove the frame side covers and center cover (pages 11-2 and 11-3).
Disconnect the oil inlet line at the oil pump and allow the oil to drain into a clean container.
Loosen the tube clip and disconnect the oil tube joint under the oil tank.
Remove the oil strainer.



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

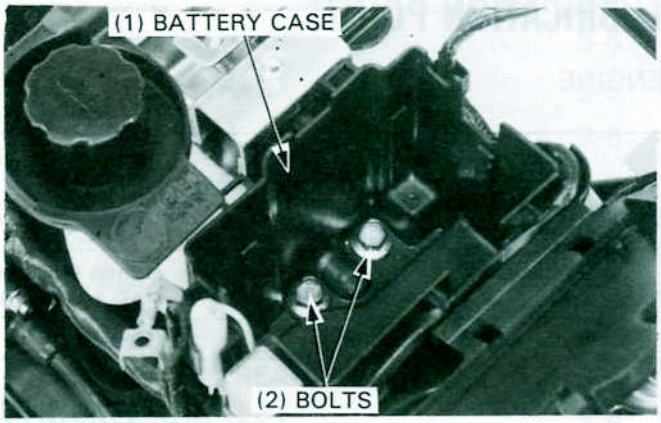


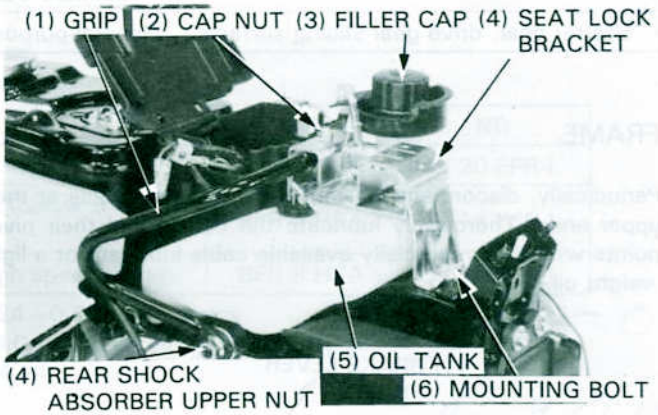
OIL TANK

REMOVAL

Remove the following parts:
- frame side covers (page 11-2).
- battery (page 14-3).
- oil level sensor wires (page 14-12).
- regulator/rectifier (page 14-4).
- rear fender (page 14-18).

Disconnect the oil inlet line at the oil pump and allow oil to drain into a clean container.
Remove the starter relay and fuse holder.
Remove the two bolts and battery case.
Remove the oil filler cap.
Remove the rear shock absorber upper mounting nut.
Remove the grip mounting cap nut and grip.
Remove the seat lock bracket mounting bolt.
Remove the oil tank.





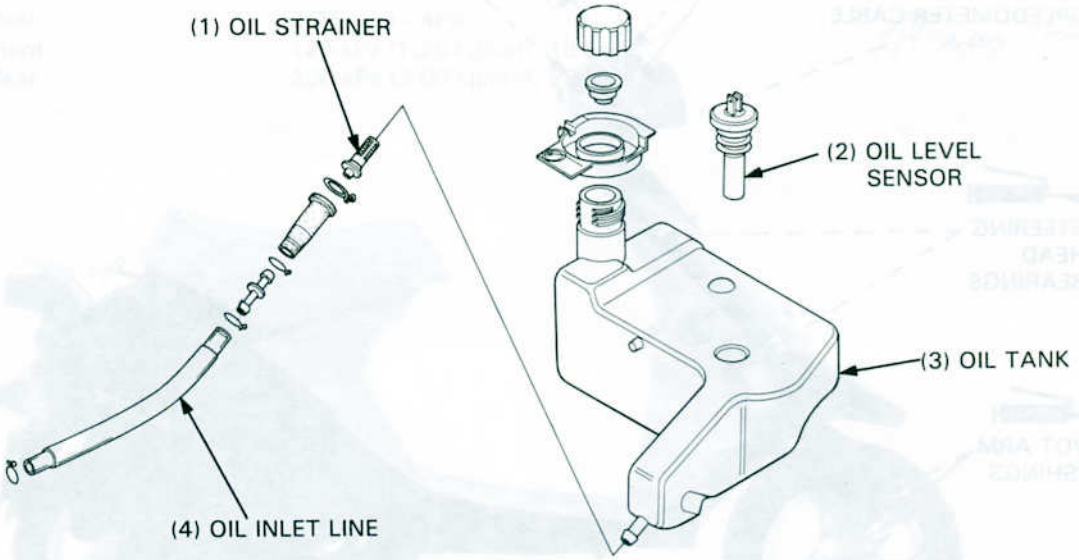
INSTALLATION

Install the oil tank in the reverse order of removal.
Tighten the rear shock absorber upper mounting nut.

TURQUE: 30—45 N·m (3.0—4.5 kg-m, 22—33 ft-lb)

NOTE

- Route the oil inlet line properly (page 1-10).
- After installing the tank, bleed air from the oil tank.



CONTROL CABLE LUBRICATION

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

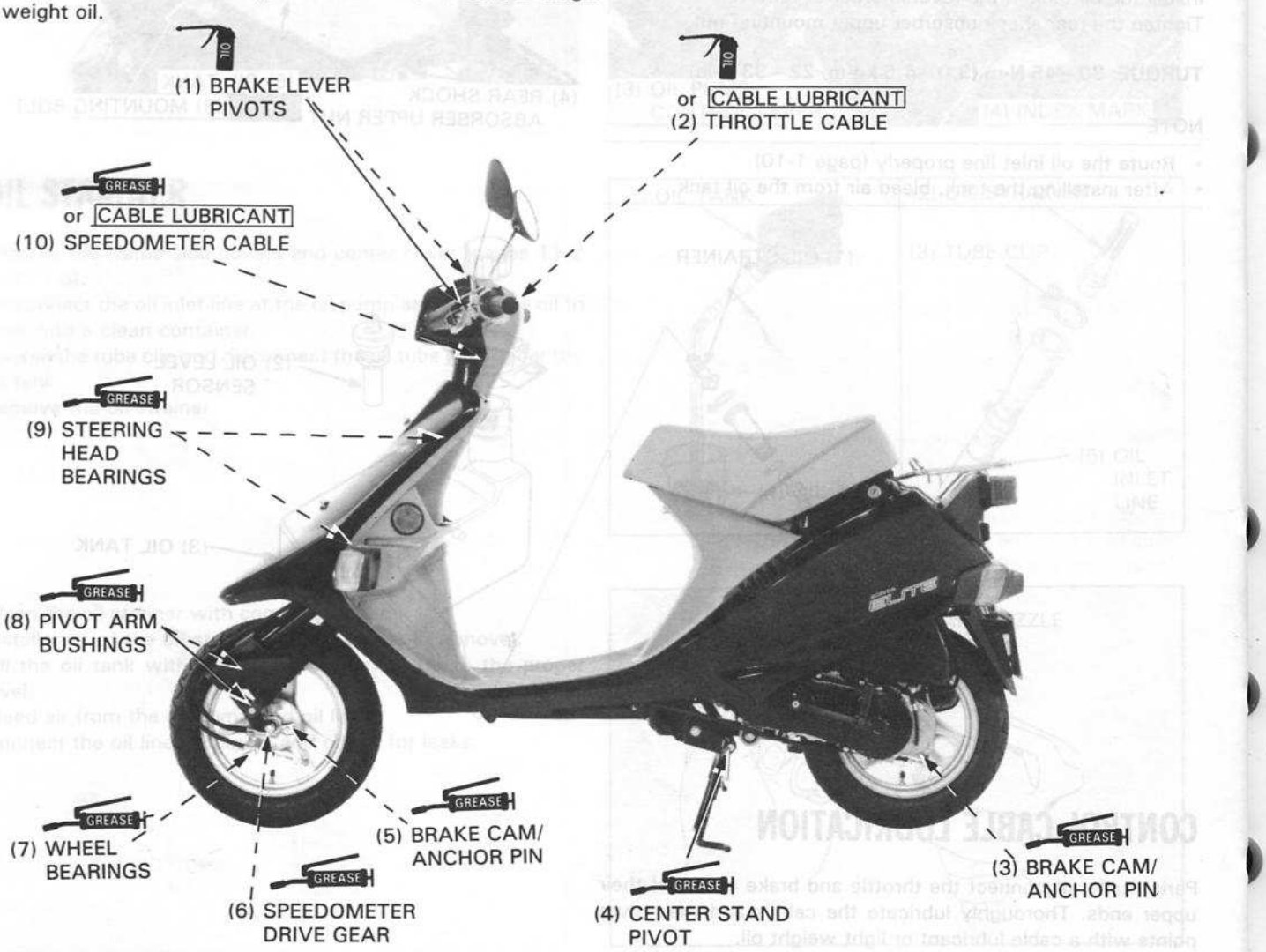
LUBRICATION POINTS

ENGINE

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

FRAME

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

Spark plug

	NGK	ND
Standard	BPR 6 HSA	W 20 FPR-L
For cold climate (below 5°C, 41°F)	BPR 4 HSA	W 14 FPR-L
For extended high speed riding	BPR 8 HSA	W 24 FPR-L

Spark plug gap		0.6—0.7 mm (0.024—0.028 in)
Compression		800—1,200 kPa (8.0—12.0 kg/cm², 114—171 psi)
Throttle free play		2—6 mm (1/8—1/4 in)
Idle speed		1,800 ± 100 rpm
Brake lever free play		
	Front	10—20 mm (3/8—3/4 in)
	Rear	10—20 mm (3/8—3/4 in)
Tire size	Front	2.75—10—4PR
	Rear	2.75—10—4PR
Tire pressure	Front	125 kPa (1.25 kg/cm², 18 psi)
	Rear	200 kPa (2.00 kg/cm², 28 psi)

MAINTENANCE SCHEDULE

The following items require some mechanical knowledge. Certain items (particularly those marked * and **) may require more technical information and tools. Consult your authorized Honda scooter dealer.

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

	ITEM / FREQUENCY	WHICHEVER COMES FIRST ➡ / EVERY ⬇	ODOMETER READING (NOTE 2) 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
*	FUEL LINE		—	I	I	I	3-3
*	THROTTLE OPERATION		—	I	I	I	3-3
**	OIL PUMP AND OIL LINE		—	I	I	I	2-2
	AIR CLEANER	NOTE 1	—	C	C	C	3-3
	SPARK PLUG	NOTE 3	EVERY 1,000 mi (1,600 km) R				3-4
**	DECARBONIZING	NOTE 3	EVERY 2,000 mi (3,200 km) C				6-3, 5
*	CARBURETOR-IDLE SPEED		I	I	I	I	3-5
	BRAKE SHOE WEAR		—	I	I	I	3-6
	BRAKE SYSTEM		I	I	I	I	3-6
*	BRAKE LIGHT SWITCH		—	I	I	I	
*	HEADLIGHT AIM		—	I	I	I	3-7
**	CLUTCH SHOE WEAR		—	—	I	—	8-12
*	SUSPENSION		—	I	I	I	3-7
*	NUTS, BOLTS, FASTENERS		I	—	I	—	3-8
**	WHEELS/TIRES		—	I	I	I	3-8
**	STEERING HEAD BEARING		I	—	—	I	3-8

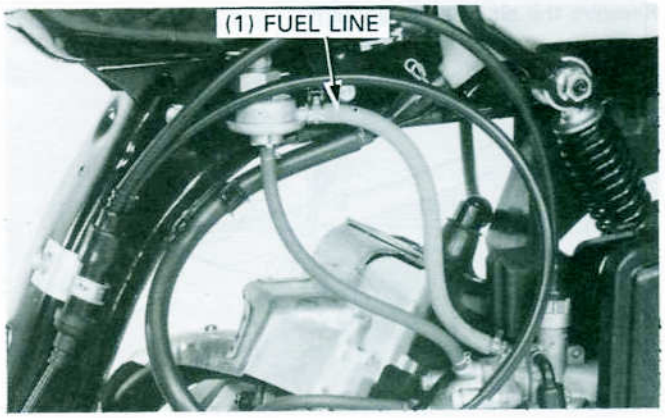
* SHOULD BE SERVICED BY AN AUTHORIZED HONDA SCOOTER DEALER UNLESS THE OWNER HAS PROPER TOOLS AND SERVICE DATA, AND IS MECHANICALLY QUALIFIED.

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

NOTES: (1) Service more frequently when riding in dusty areas.
(2) For higher odometer readings, repeat at the frequency interval established here.
(3) HONDA 2 STROKE MOTORCYCLE OIL has been specifically tested in and is recommended for this engine. The use of other oils may cause excessive carbon build-up in the engine and exhaust system, resulting in loss of power and possible engine damage.

FUEL LINE

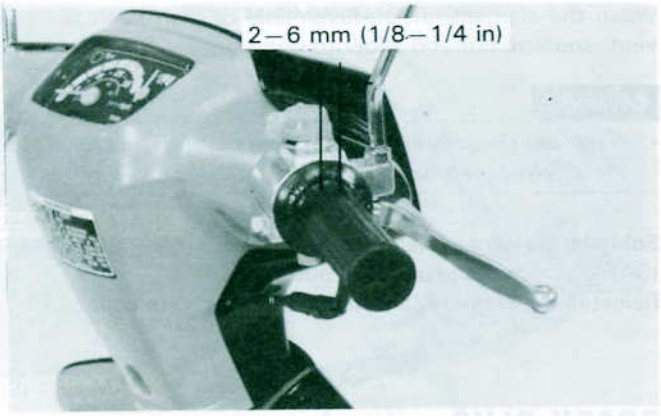
Remove the frame side covers and center cover (pages 11-2 and 11-3).
Inspect the fuel line for damage or deterioration.
Check that the fuel line is intact and has clamps at each connection.
Replace any parts that are damaged, leaking or show signs of deterioration.



THROTTLE OPERATION

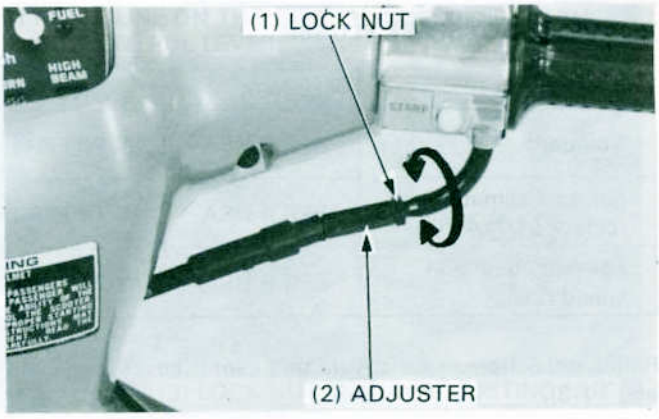
Check for smooth throttle grip full opening and automatic full closing in all steering positions.
Make sure there is no deterioration, damage or kinking in the throttle cable.
Replace any damaged parts.
Remove the right handlebar switch housing.
Disconnect the throttle cable upper end.
Thoroughly lubricate the cable with a commercially available cable lubricant or grease.
Install the throttle cable in the reverse order of removal.
Measure the throttle grip free play at the throttle grip flange.

FREE PLAY: 2—6 mm (1/8—1/4 in)



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

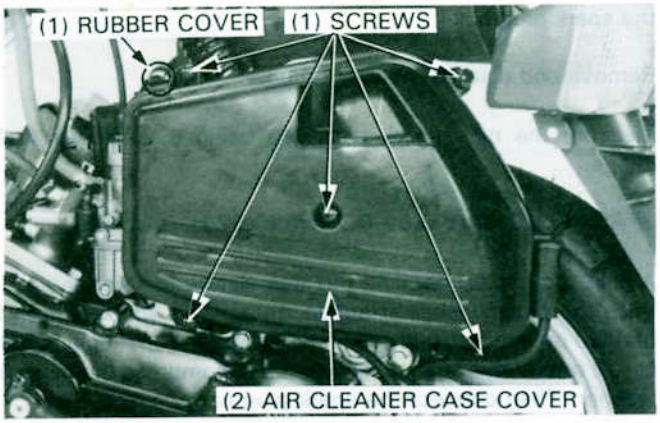
Replace the throttle cable when the above procedure is no longer effective.



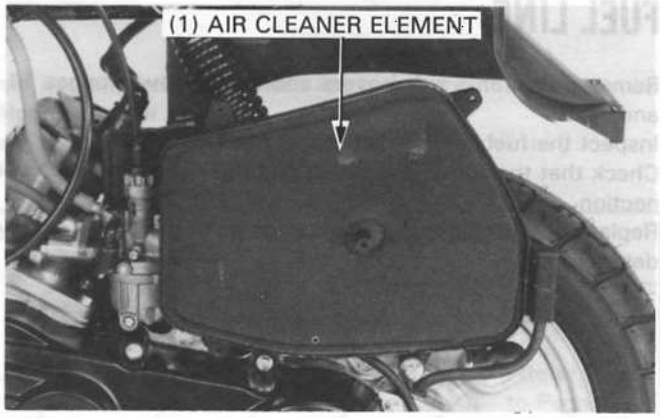
AIR CLEANER ELEMENT

Remove the frame side covers (page 11-2).
Remove the rubber cover from the air cleaner case.

Remove the five air cleaner case cover attaching screws and remove the air cleaner case cover.



Remove the air cleaner element.

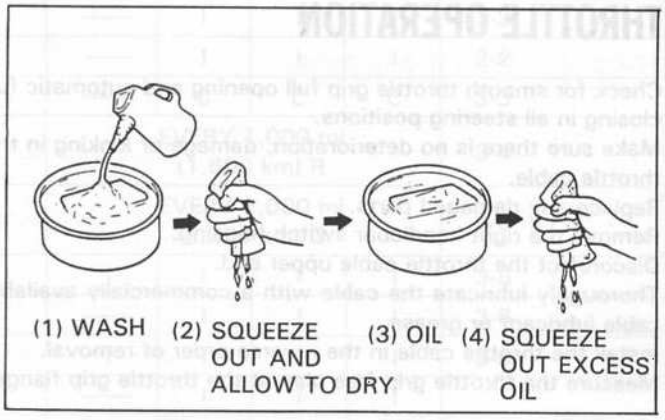


Wash the element in non-flammable or high flash point solvent, squeeze out and allow to dry.

WARNING

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

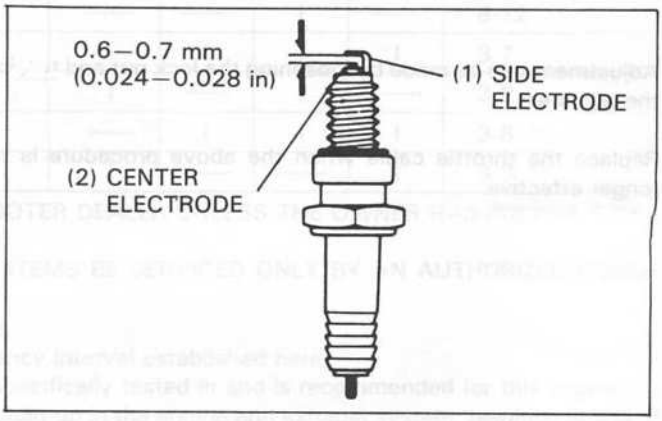
Soak the element in clean motor oil (SAE 10W—40) or gear oil (SAE #80—90) and squeeze out excess.
Reinstall the element, and the air cleaner case cover.



SPARK PLUG

RECOMMENDED SPARK PLUGS:

	NGK	ND
Standard	BPR 6 HSA	W 20 FPR-L
For cold climate (below 5°C, 41°F)	BPR 4 HSA	W 14 FPR-L
For extended high speed riding	BPR 8 HSA	W 24 FPR-L



Remove the frame side covers and center cover (pages 11-2 and 11-3).

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

Remove and discard the spark plug.

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

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

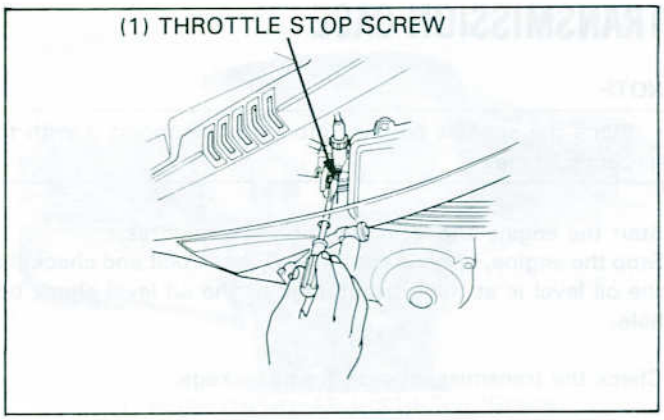
Adjust the gap by bending the side electrode carefully.
With the plug washer attached, thread the spark plug in by hand to prevent cross threading. Tighten the spark plug another 1/2 turn with a spark plug wrench to compress the new plug washer. Then connect the spark plug cap.

CARBURETOR

IDLE SPEED ADJUSTMENT

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

IDLE SPEED: 1,800 ± 100 rpm



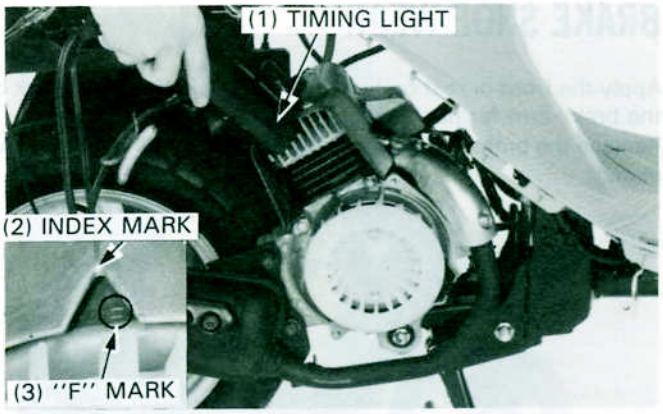
IGNITION TIMING

NOTE

- The CDI ignition timing is not adjustable. If the ignition timing is not correct, check the CDI unit and alternator and replace any faulty parts.

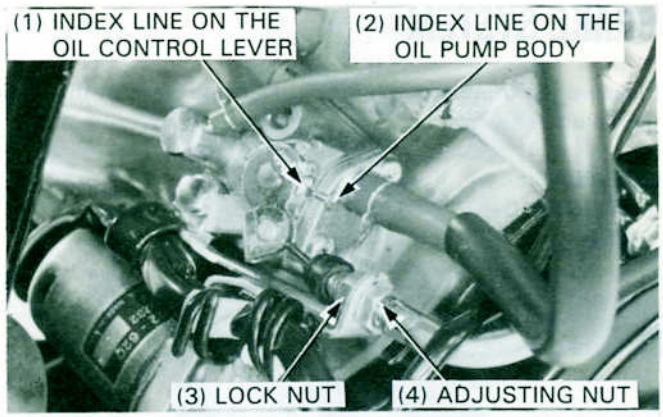
Remove the frame side covers (page 11-2).
Remove the fan cover (page 7-2).
Check the ignition timing with a timing light.
Timing is correct if the index mark aligns with the "F" mark at 1,800 rpm.

IGNITION TIMING: 17° B.T.D.C. at 1,800 ± 100 rpm



OIL PUMP

Remove the frame side covers and center cover (pages 11-2 and 11-3).
With the throttle grip fully open, be sure that the index line on the oil pump control lever aligns with the index line on the oil pump body, or within 1 mm (0.04 in) to the throttle open side.
Start the engine.
Slightly open the throttle grip from idling position.
Be sure that the oil pump control lever operates while the engine speed increases.
Adjustment can be made by loosening the lock nut on the oil pump control cable and turning the adjusting nut.



NOTE

- Do not adjust the oil pump control cable so that its index mark is off to the throttle close side from the index line on the oil pump body, or oil delivery decreases and causes damage to the engine. Off to the open side within 1 mm (0.04 in) is acceptable.

- If the oil pump control lever is excessively opened, it causes white smoke or hard engine start-up.
- If the oil pump control lever is insufficiently opened, it causes overheated piston/cylinder, with premature wear.

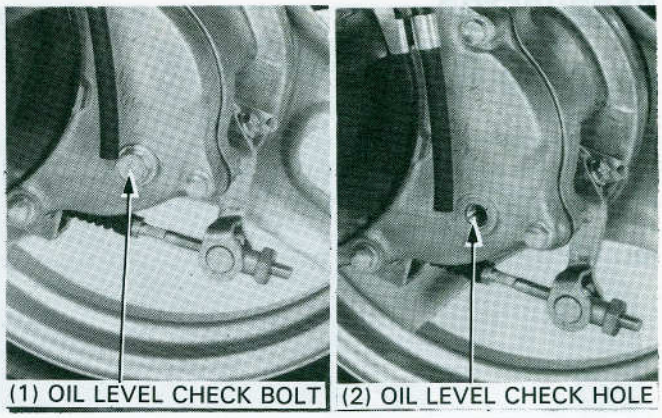
TRANSMISSION CASE

NOTE

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

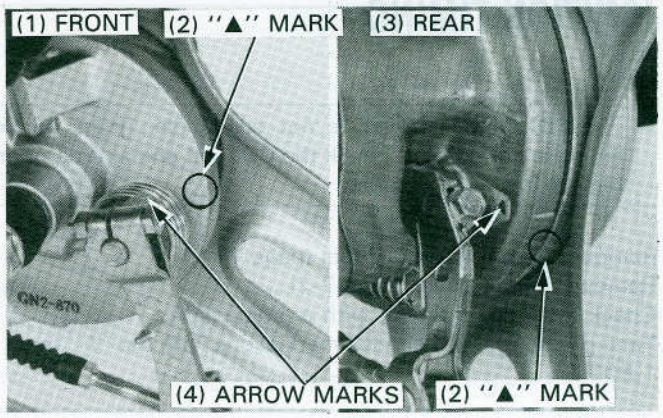
Start the engine and let it idle for a few minutes.
Stop the engine, remove the oil level check bolt and check that the oil level is at the bottom edge of the oil level check bolt hole.

Check the transmission case for oil leakage.



BRAKE SHOE WEAR

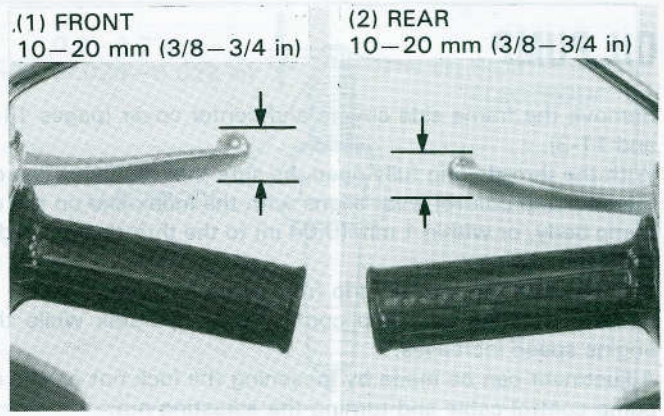
Apply the front or rear brake fully and check the arrow mark on the brake arm for position.
Replace the brake shoes if the arrow mark aligns with the "▲" mark.



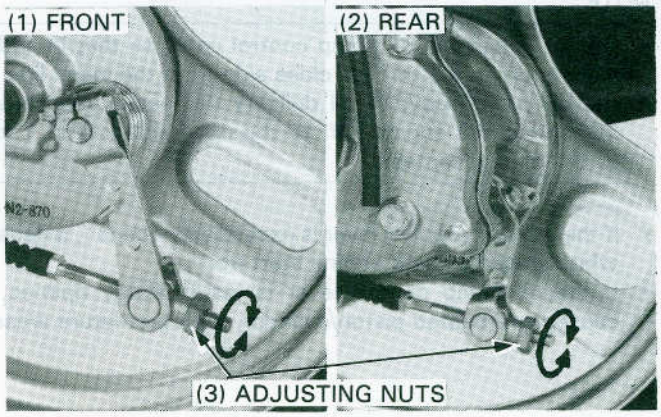
BRAKE SYSTEM

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

FREE PLAY:
FRONT: 10—20 mm (3/8—3/4 in)
REAR: 10—20 mm (3/8—3/4 in)



If adjustment is necessary, turn the brake cable adjusting nuts.



HEADLIGHT AIM

Place the scooter on level ground and support it with the center stand.
Start the engine and allow it to idle.
Make sure that the headlight and taillight are on.
Check the operation of the headlight dimmer (Lo-Hi) switch.
Adjust the headlight beam by turning the horizontal adjusting screws.

CAUTION

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

(1) HORIZONTAL ADJUSTING SCREWS

SUSPENSION

FRONT

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

REAR

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

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

NUTS, BOLTS, FASTENERS

Tighten bolts, nuts and fasteners at the regular intervals shown in the Maintenance Schedule (page 3-2).
Check that all chassis nuts and bolts are tightened to their correct torque values (page 1-5).
Check that all cotter pins and safety clips are in place.

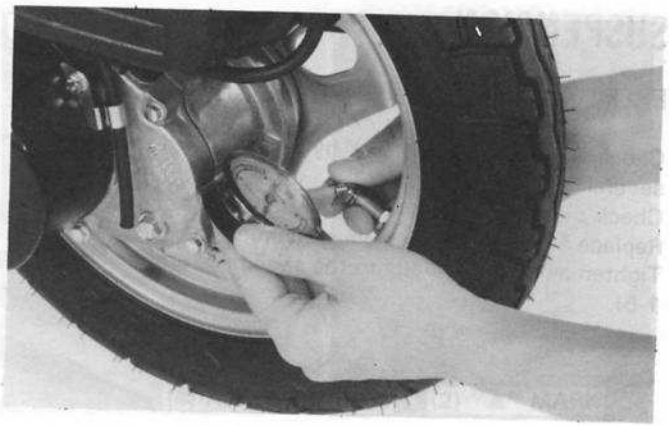
WHEELS/TIRES

Check the tire pressures when the tires are COLD.

TIRE PRESSURES:
FRONT: 125 kPa (1.25 kg/cm², 18 psi)
REAR: 200 kPa (2.00 kg/cm², 28 psi)

TIRE SIZES:
FRONT: 2.75—10—4 PR
REAR: 2.75—10—4 PR

Check the tires for wear, damage or imbedded objects.

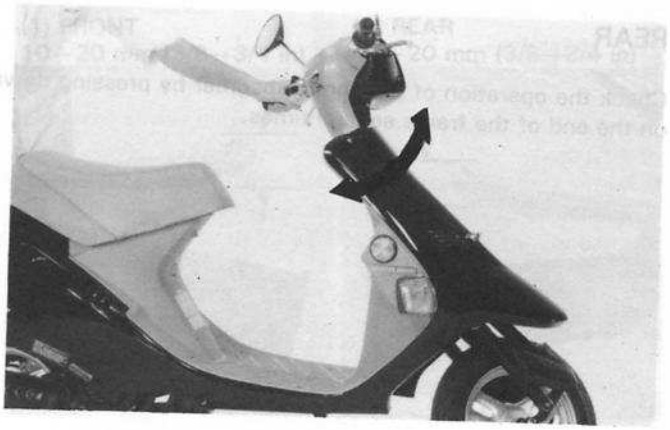


STEERING HEAD BEARINGS

NOTE

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

Place the scooter on the center stand.
Raise the front wheel off the ground by placing a support under the frame.
Check that the handlebar rotates freely.
If the handlebar moves unevenly, binds, or has vertical movement, adjust the steering head bearings by turning the steering head bearing adjusting nut (page 12-19).



COMPRESSION TEST

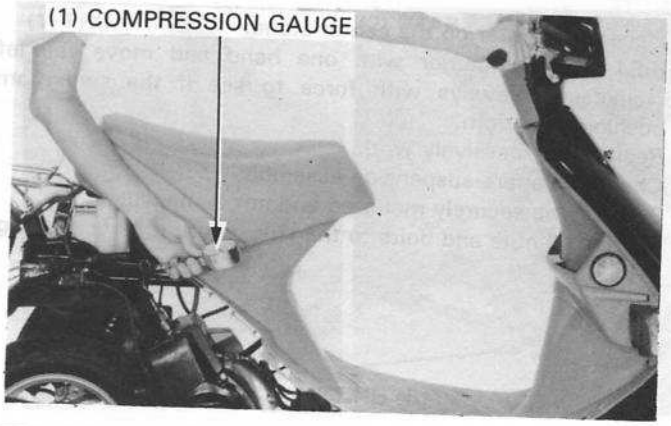
Remove the frame side covers (page 11-2).
Warm up the engine.
Stop the engine and remove the spark plug.
Insert a compression gauge.
Open the throttle grip fully and operate the starter motor several times.

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

Low compression can be caused by:
- Leaking cylinder head gasket
- Worn piston rings
- Worn cylinder

High compression can be caused by:
- Carbon deposits in combustion chamber or on top of the piston.

COMPRESSION GAUGE (COMMERCIALLY AVAILABLE IN U.S.A.)



MEMO