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 an enclosed area. The exhaust contains posisonous carbon monoxide gas that can cause the loss of consciousness and may lead to death.

⚠ 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.

⚠ WARNING

- *Gasoline is extremely flammable and is explosive under certain conditions so work in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the work area or where gasoline is stored.*

⚠ WARNING

- *The battery gives off explosive gases; keep sparks, flames and cigarettes away. Provide adequate ventilation when charging.*
- *The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face shield.*
  - *—If electrolyte gets on your skin, flush with water.*
  - *—If electrolyte gets in your eyes, flush with water for at least 15 minutes and call a physican.*
- *Electrolyte is poisonous.*
  - *—If swallowed, drink large quantities of water or milk and follow with milk of magnesia or vegetable oil and call a physician.*

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 adviseable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

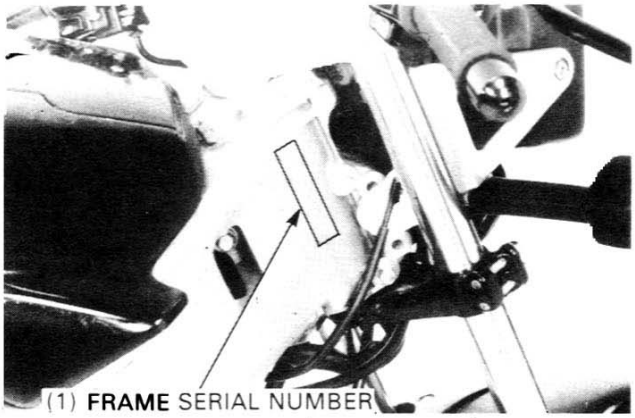
SERVICE RULES

1) Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalents. Parts that don't meet HONDA's design specifications may damage to the vehicle.
2) Use the special tools designed for this product to avoid damage and incorrect assembly.
3) Use only metric tools when servicing the vehicle. Metric bolts, nuts, and screws are not interchangeable with English fasteners.
4) Install new gaskets, O-rings, cotter pins, and lock plates when reassembling.
5) When tightening bolts or nuts, begin with the larger-diameter or inner bolts first. Then tighten to the specified torque diagonally in 1-5 steps, unless a particular sequence is specified.
6) Clean parts in non-flammable or high flash point solvent upon disassembly.
7) Lubricate any sliding surfaces before reassembly.
8) After reassembly, check all parts for proper installation and operation.

MODEL IDENTIFICATION

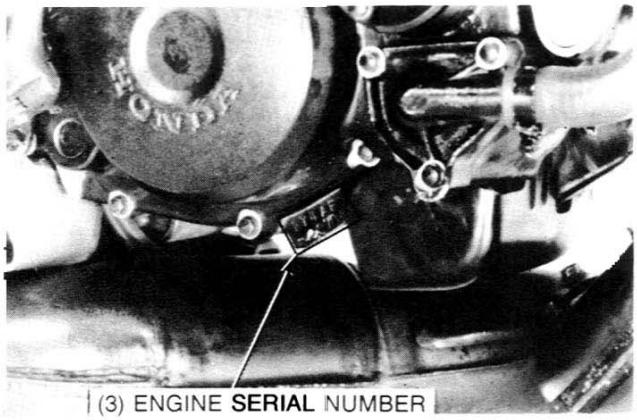
NSR 125 F

NSR 125 R



(1) FRAME SERIAL NUMBER

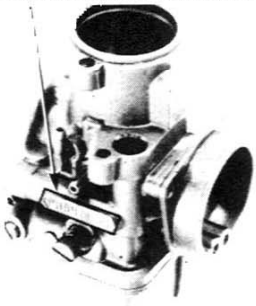
The frame serial number is stamped on the right side of the steering head.



(3) ENGINE SERIAL NUMBER

The engine serial number is stamped on the crankcase lower right side.

(2) CARBURETOR IDENTIFICATION NUMBER



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

SPECIFICATIONS

[R-Type] {R-Type Code}

ITEM				SPECIFICATIONS
DIMENSIONS	Overall length			2,010 mm (79.1 in) [2,060 mm (81.1 in) SW-FI-SD] {2,015 mm (79.3 in) F-BH}
	Overall width			680 mm (26.7 in) [690 mm (27.1 in)]
	Overall height			1,035 mm (40.7 in) [1,080 mm (42.5 in)]
	Wheelbase			1,350 mm (53.1 in)
	Seat height			780 mm (30.7 in)
	Footpeg height			345 mm (13.6 in)
	Ground clearance			135 mm (5.3 in)
	Dry weight			121 kg (266 lb) [127 kg (279,4 lb)]
	Curb weight			132 kg (290 lb) [138 kg (304 lb)]
FRAME	Type			Almi cast bolt on
	Front suspension, travel			Telescopic fork, 135 mm (5.3 in)
	Rear suspension, travel (at rear axle)			Pro link, 110 mm (4.3 in)
	Front tire size			100/80-17 52S
	Rear tire size			130/70-18 63S
	Cold tire pressure	Rider only	Front	200 kPa (2.00 kg/cm², 29 psi)
			Rear	225 kPa (2.25 kg/cm², 33 psi)
		Rider and one passenger	Front	200 kPa (2.00 kg/cm², 29 psi)
			Rear	250 kPa (2.50 kg/cm², 36 psi)
	Front brake, lining swept area			Hydraulic single disc, 61.4 cm² (9.5 sq in)
	Rear brake lining swept area			Hydraulic single disc, 48.9 cm² (7.6 sq in)
	Fuel capacity			10.0 lt. (2.6 US gal, 2,19 Imp gal)
	Fuel reserve capacity			2.0 lt. (0,52 US gal, 0,43 Imp gal)
	Caster angle			25°30'
	Trail lenght			97 mm (3.8 in)
	Fork oil capacity			280 cc (9.4 US oz, 7.8 Imp oz)
ENGINE	Type			Water cooled 2-stroke
	Cylinder arrengement			Single cylinder 18.5° inclined from vertical
	Bore and stroke			54.0 x 54.5 mm (2.13 x 2.15 in)
	Displacement			124.8 cm² (7.62 cu in)
	Compression ratio			7.0:1
	Transmission oil capacity			0,75 liters (0.79 US qt, 0.66 Imp qt) after disassembly
				0,70 liters (0.74 US qt, 0.62 Imp qt) after draining
	Engine oil tank capacity			1.0 liters (1.06 US qt, 0.88 Imp qt)
	Coolant capacity			1.1 liters (1,16 US qt, 0,96 Imp qt)
	Lubrication system			Separate lubrication
	Air filtration			Oiled urethane foam
	Cylindercompression			1,000 ± 20 kPa (10 ± 2 kg/cm², 142 ± 28 psi)
	Port timing	Intake	Open	Reed valve controlled
			Close	Reed valve controlled
		Exhaust	Open	75°-95° BBDC
			Close	73°-93° ABDC
		Scavenge	Open	64° BBDC
			Close	62° ABDC
	Engine dry weight			22 kg (49 lb)
	Idle speed			1.400 ± 100 min⁻¹ (rpm)
CARBURETOR	Type			Throttle valve
	Identification number			PHBH 28 FS
	Venturi diameter			28 mm
	Pilot screw initial opening			2.5 turns out {2 turns out SW}
	Float level			24 ± 0.5 mm (0.94 ± 0.02 in)

SPECIFICATIONS

[R-Type] {R-Type Code}

ITEM		SPECIFICATIONS
DRIVE TRAIN	Clutch	Wet multi plate
	Transmission	6-speed constant mesh
	Primary reduction	3,250 (65/20)
	Gear ratios I	3,090 (34/11)
	II	2.000 (30/15)
	III	1.470 (25/17)
	IV	1.210 (23/19)
	V	1.043 (24/23)
	VI	0.916 (22/24)
	Final reduction	2.692 (35/13)
	Gearshift pattern	1—N—2—3—4—5—6
ELECTRICAL	Ignition	CDI
	Ignition timing F mark	24.3° ± 2°/3,000 min^{-1} (rpm)
	Alternator	168W/5,000 min^{-1} (rpm) [276W/5,000 min^{-1} (rpm)]
	Spark plug	
	Spark plug gap	0.7-0.8 mm (0.028—0.031 in)
	Fuse	15A
LIGHTS	Headlight (high/low beam)	12V 35W/35W [12V 25W/25W × 2] {12V60W/55W-SW}
	Position light	12V 5W [12V 5W × 2]
	Brake/taillight	12V 21W/5W
	Turn signal light	12V 10W × 4
	Instrument light	12V 1.7W × 4
	Neutral indicator light	12V 3W
	Turn signal indicator light	12V 3W × 2
	High beam indicator light	12V 1.7W

	NGK	ND
Standard	BR9ECS	W27ESR-U
For extended high speed riding	BR10ES	W31ESR-U

TORQUE VALUES

ENGINE

ITEM	Q' ty	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Water pump impeller	1	7	12 (1.2, 9)	
Cylinder head nut	6	7	16 (1.6, 12)	
Cylinder nut	4	8	23 (2.3, 17)	
Clutch center lock nut	1	14	65 (6.5, 47)	
Primary drive gear	1	12	65 (6.5, 47)	
Shift drum center pin	1	8	22 (2.2, 16)	Allpy a locking agent to the threads
Shift drum stopper bolt	1	6	12 (1.2, 9)	
Flywheel nut	1	12	65 (6.5, 47)	
Balancer driven gear nut	1	14	60-70 (6.0-7.0, 43-51)	
Crankcase bolt	11	6	9 (0.9, 6.5)	
Transmission oil drain bolt	1	8	27 (2.7, 20)	
Starter motor bolt	2	8	27 (2.7, 20)	

FRAME

ITEM	Q' ty	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Fuel valve lock nut	1		10 (1.0, 7)	Apply a locking agent to the threads.
Engine mounting nut	3	10	37 (3.7, 27)	
Expansion chamber/silencer mounting nut	2	8	22 (2.2, 16)	
Expansion chamber joint nut	2	6	10 (1.0, 7)	
Front master cylinder holder bolt	2	6	10 (1.0, 7)	
Clutch lever bracket holder bolt	2	6	10 (1.0, 7)	
Front brake disc bolt	6	6	15 (1.5, 11)	
Front axle	1	12	55 (5.5, 40)	
Front axle pinch bolt	1	8	22 (2.2, 16)	
Fork slider socket bolt	2	10	28 (2.8, 20)	Apply a locking agent to the threads.
Lower fork pinch bolt	4	8	27 (2.7, 20)	
Upper fork pinch bolt	2	7	11 (1.1, 8)	
Fork tube cap	2	–	18 (1.8, 13)	
Front caliper bracket bolt	2	8	27 (2.7, 20)	
Steering adjustment nut	1	22	2 (0.2, 1.4)	
Steering stem nut	1	22	70 (7.0, 51)	

ITEM	Q'ty	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Wheel flange bolt	10	6	15 (1.5, 11)	
Brake disc bolt (REAR)	3	10	33 (3.3, 24)	
(FRONT)	6	6	1.5 (1.5, 11)	
Driven sprocket bolt	5	10	45 (4.5, 33)	
Rear axle nut	1	16	90 (9.0, 65)	
Shock absorber upper mounting bolt	1	14	15 (1.5, 11)	
Shock absorber upper mounting bolt lock nut	1	22	35 (3.5, 25)	
Shock absorber upper mounting nut	1	8	35 (3.5, 25)	
Shock absorber lower mounting bolt	1	8	35 (3.5, 25)	
Shock arm-to-swing arm nut	1	10	45 (4.5, 33)	
Shock link-to-frame nut	1	10	45 (4.5, 33)	
Shock arm-to-shock link nut	1	10	45 (4.5, 33)	
Drive chain slider screw	2	—	9 (0.9, 6.5)	
Swing arm pivot bolt lock nut	1	22	70 (7.0, 51)	
Swing arm pivot nut	1	14	70 (7.0, 51)	
Bleed valve	2	6	6 (0.6, 4.3)	
Master cylinder reservoir cap screw	4	4	1.5 (0.15, 1.1)	
Brake hose bolt	2	10	30 (3.0, 22)	
Caliper bracket pin bolt A	1	8	18 (1.8, 13)	
Caliper bracket pin bolt B	1	8	23 (2.3, 17)	
Brake lever pivot nut	1	6	10 (1.0, 7)	
Caliper inner plate bolt	2	10	55 (5.5, 40)	
Rear caliper bolt	2	8	30 (3.0, 22)	

Torque specifications listed on previous page are for important fasteners. Others should be tightened to standard torque values listed 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	5 (0.5, 3.6)	5 mm screw	4 (0.4, 2.9)
6 mm bolt and nut	10 (1.0, 7)	6 mm screw	9 (0.9, 6.5)
8 mm bolt and nut	22 (2.2, 16)	6 mm flange bolt and nut	12 (1.2, 9)
10 mm bolt and nut	35 (3.5, 25)	8 mm flange bolt and nut	27 (2.7, 20)
12 mm bolt and nut	55 (5.5, 40)	10 mm flange bolt and nut	40 (4.0, 29)

TOOLS

NEWLY PROVIDED

DESCRIPTION	NUMBER	REF. SECT.
Rotor puller	07JMC−KY40100	9
Lock nut wrench	07JMA−KY40100	12

SPECIAL

DESCRIPTION	NUMBER	REF. SECT.
Bearing remover set, 12 mm		5
−Remover handle		5
−Bearing remover		5
Mechanical seal driver attachment		5
Attachment, 28×30 mm		5
Clutch center holder		8
Crankcase puller		10
Universal bearing puller		10
Bearing remover		10
Remover handle		10
Crankshaft assembly collar A		10
Crankshaft assmbly shaft A		10
Crankcase assembly tool		10
−Cankcase assembly collar B		10
−Crankcase assembly shaft B		10
Ball race remover		11
Fork seal driver attachment		11
Steering stem driver		11
Steering stem socket		11
Shock absorber spring compressor		12
Bearing remover, 20 mm		12
Remover sliding weight		12

COMMON

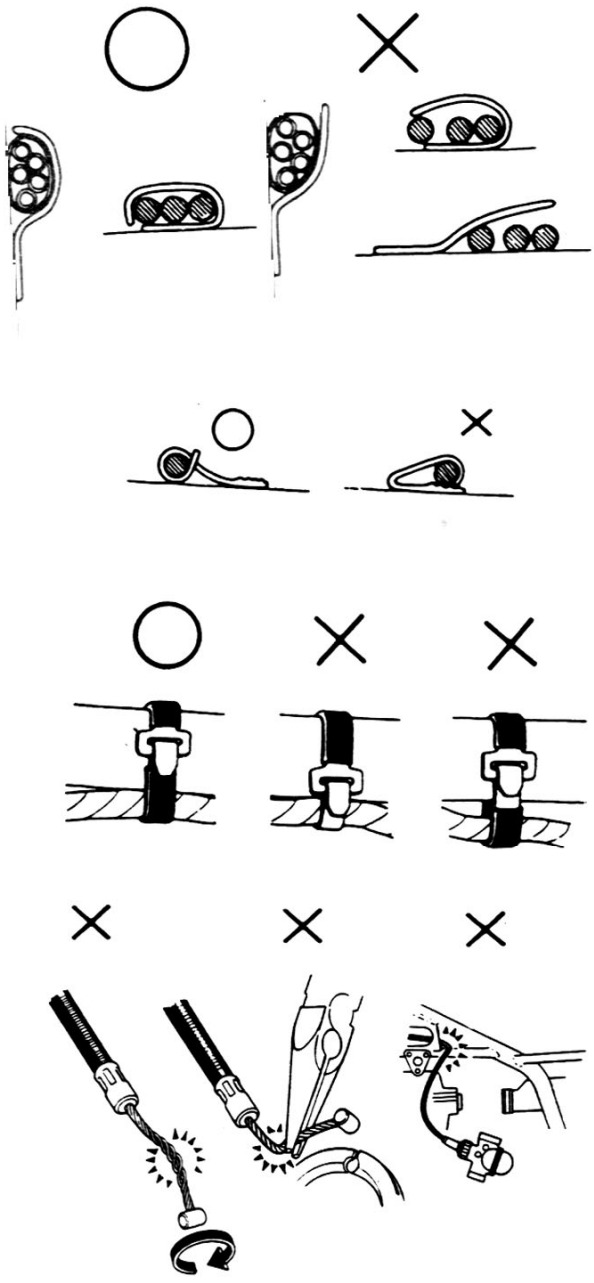
DESCRIPTION	NUMBER	REF. SECT.
Float level gauge	07401−0010000	4
Driver	07749−0010000	5, 10, 11, 12
Pilot, 12 mm	07746−0040200	5
Lock nut wrench, 20×24 mm	07716−0020100	8, 9
Extension bar	07716−0020500	8, 9
Flywheel holder	07725−0040000	8, 9
Attachment, 37×40 mm	07746−0010200	10, 11, 12
Attachment, 42×47 mm	07746−0010300	10
Attachment, 52×55 mm	07746−0010400	10
Attachment, 62×68 mm	07746−0010500	10

DESCRIPTION	NUMBER	REF. SECT.
Pilot, 15 mm	07746–0040300	10, 11
Pilot, 17 mm	07746–0040400	10, 12
Pilot, 20 mm	07746–0040500	10, 12
Pilot, 25 mm	07746–0040600	10, 12
Pilot, 22 mm	07746–0041000	10
Bearing remover shaft	07746–0050100	11, 12
Bearing remover head, 12 mm	07746–0050300	11
Bearing remover head, 17 mm	07746–0050500	12
Attachment, 32×35mm	07746–0010100	11, 12
Fork seal driver	07747–0010100	11
Digital multitester (KOWA)	07411–0020000	15, 19
Circuit tester (SANWA) or	07308–0020000	15, 16, 17, 18, 19
Circuit tester (KOWA)	TH5H	

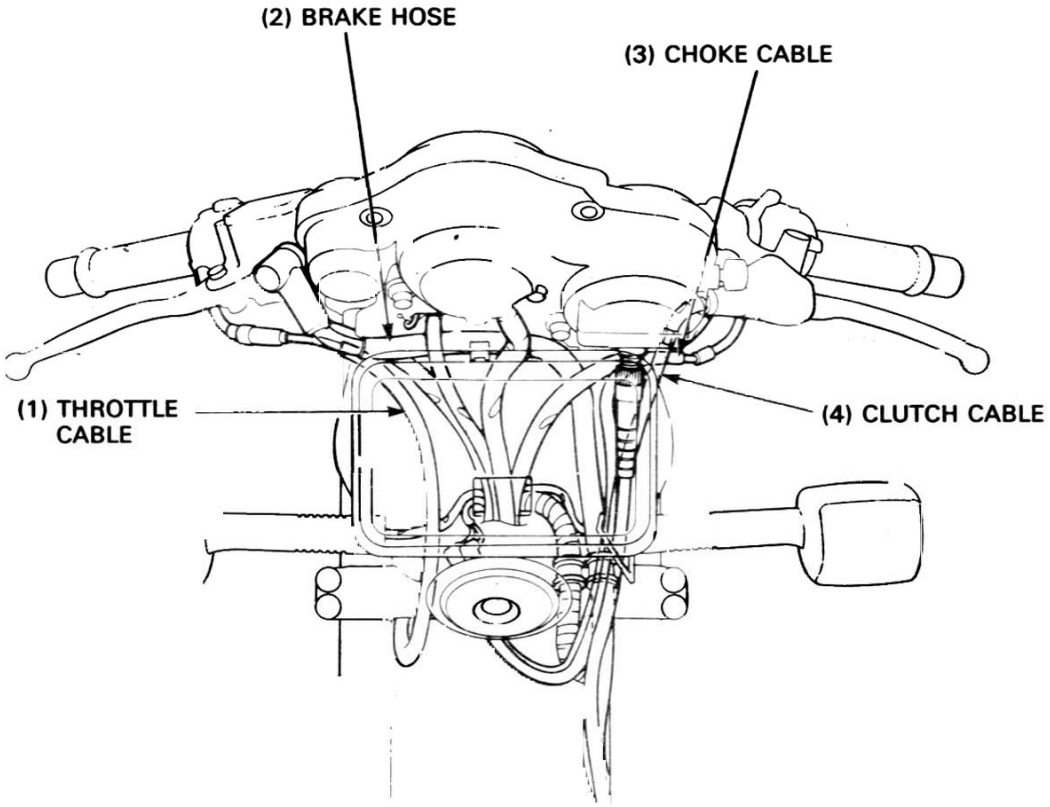
CABLE & HARNESS ROUTING

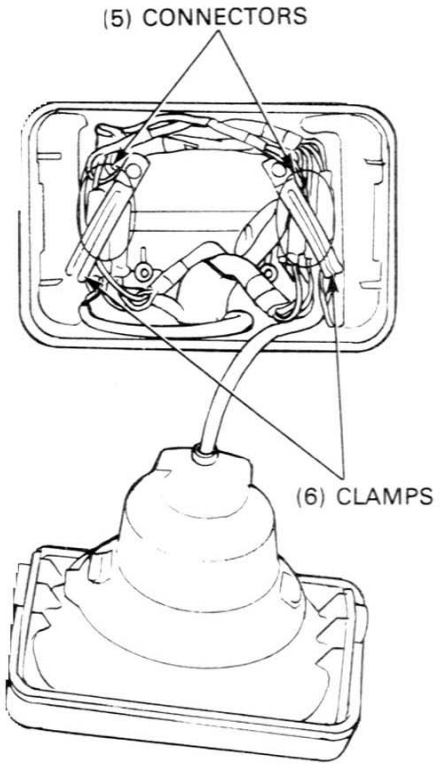
Note the following when routing cables and wire harnesses:

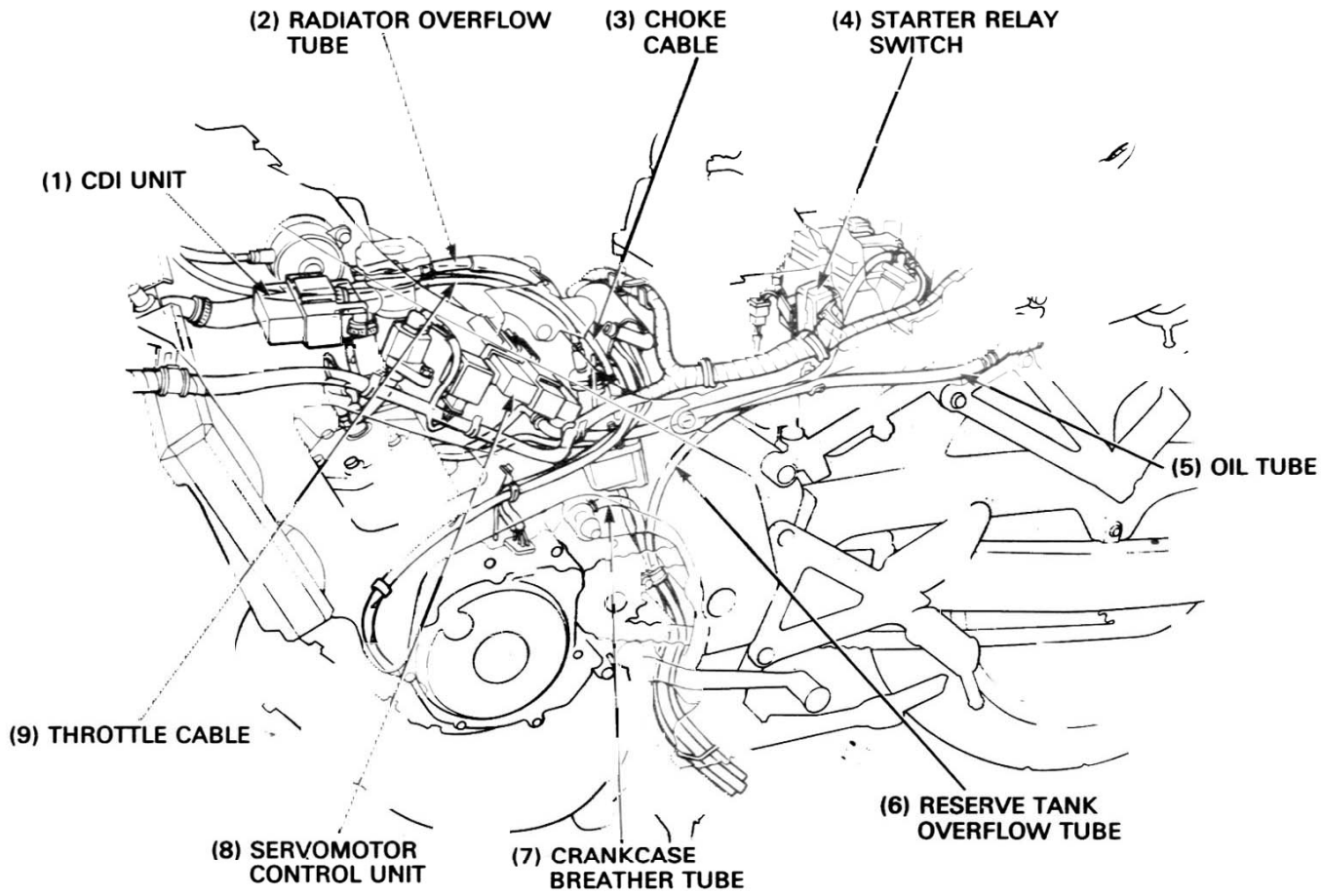
- A loose wire, harness of cable can be a safety hazard. After clamping, check each wire to be sure it is secure.
- Do not squeeze a wire against a weld or end of its clamp when a weld-on clamp is used.
- Secure wires and wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulased 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 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. Also avoid the projected ends of bolts and screws.
- Keep wire harnesses away from the exhaust pipe and other parts that get hot.
- Be sure grommets are seated in their grooves properly.
- After clamping, chek 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 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.

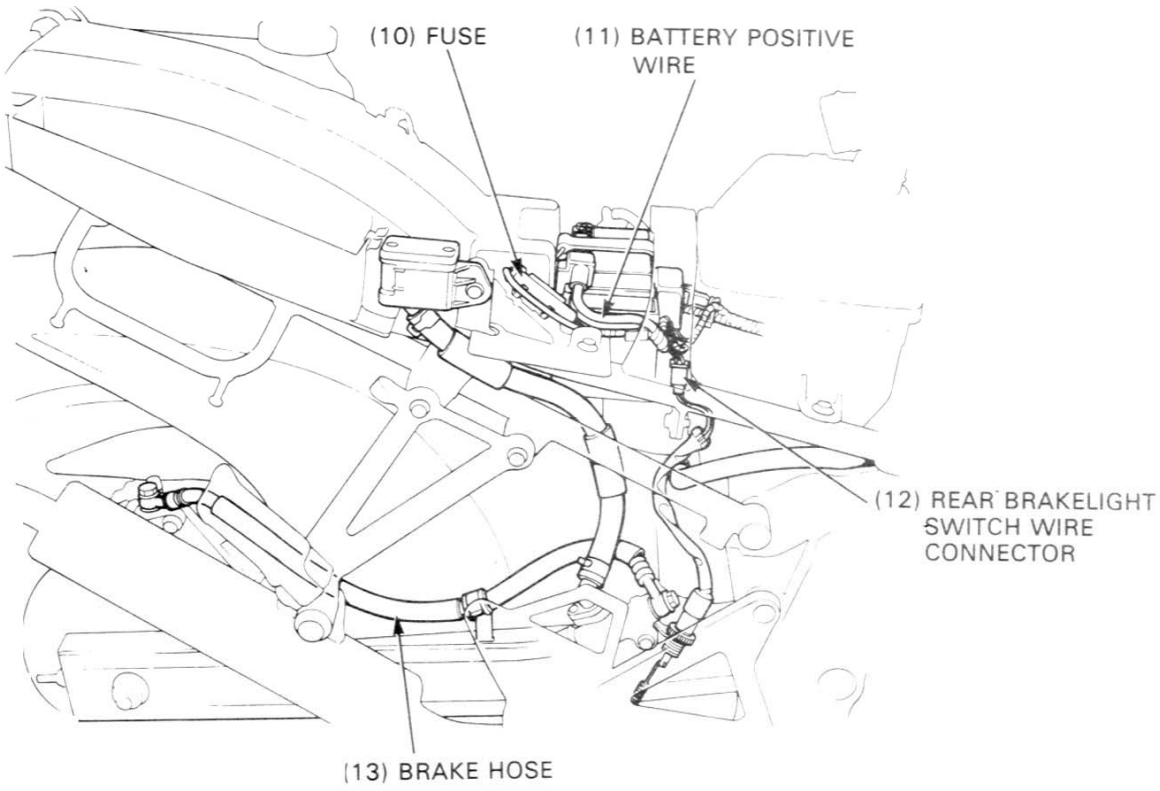


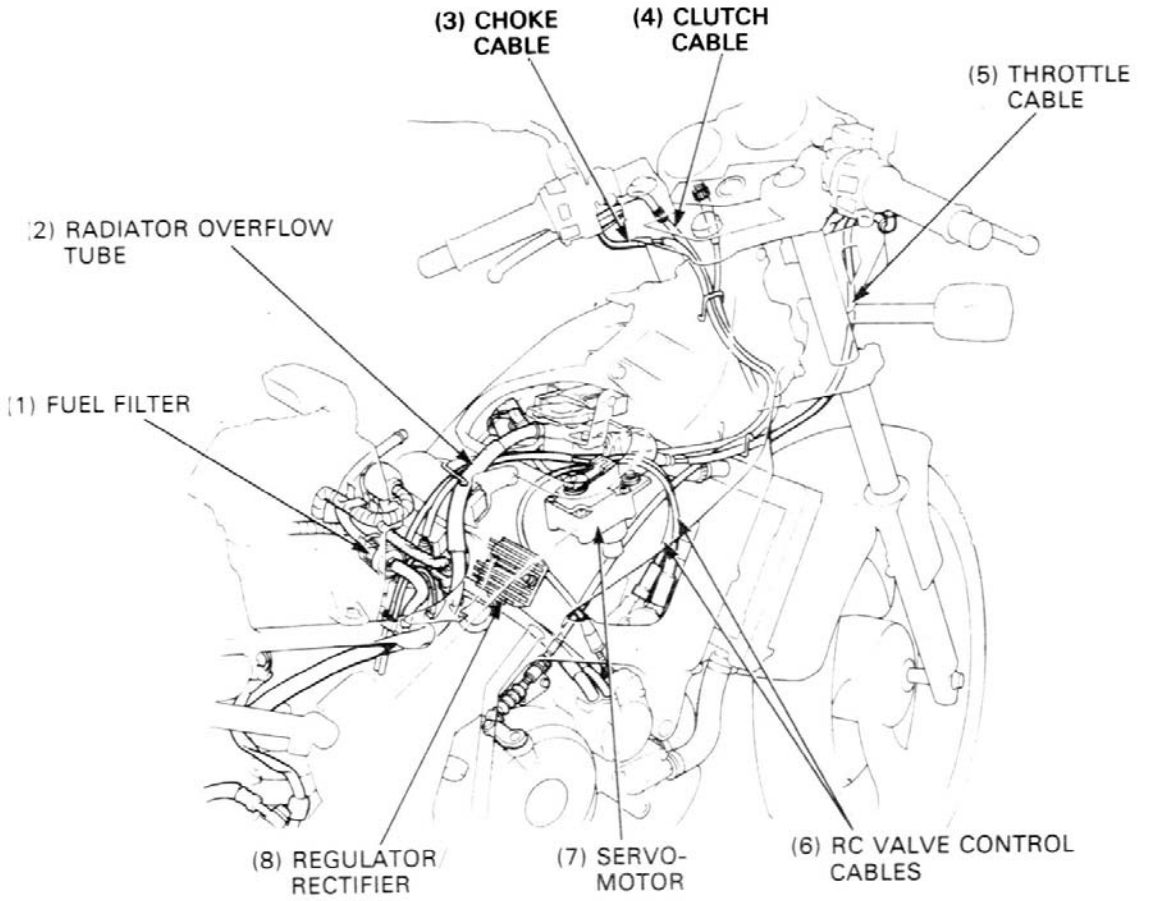
O: CORRECT
×: INCORRECT

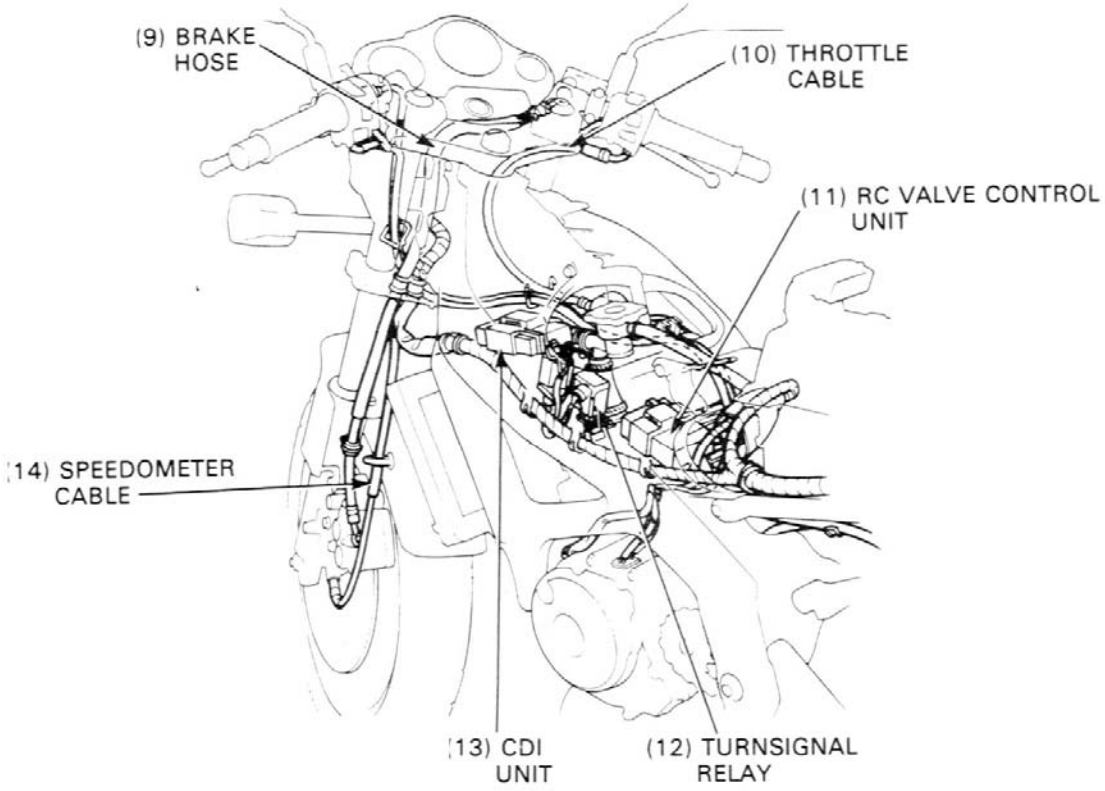

(2) BRAKE HOSE
(3) CHOKE CABLE
(1) THROTTLE CABLE
(4) CLUTCH CABLE

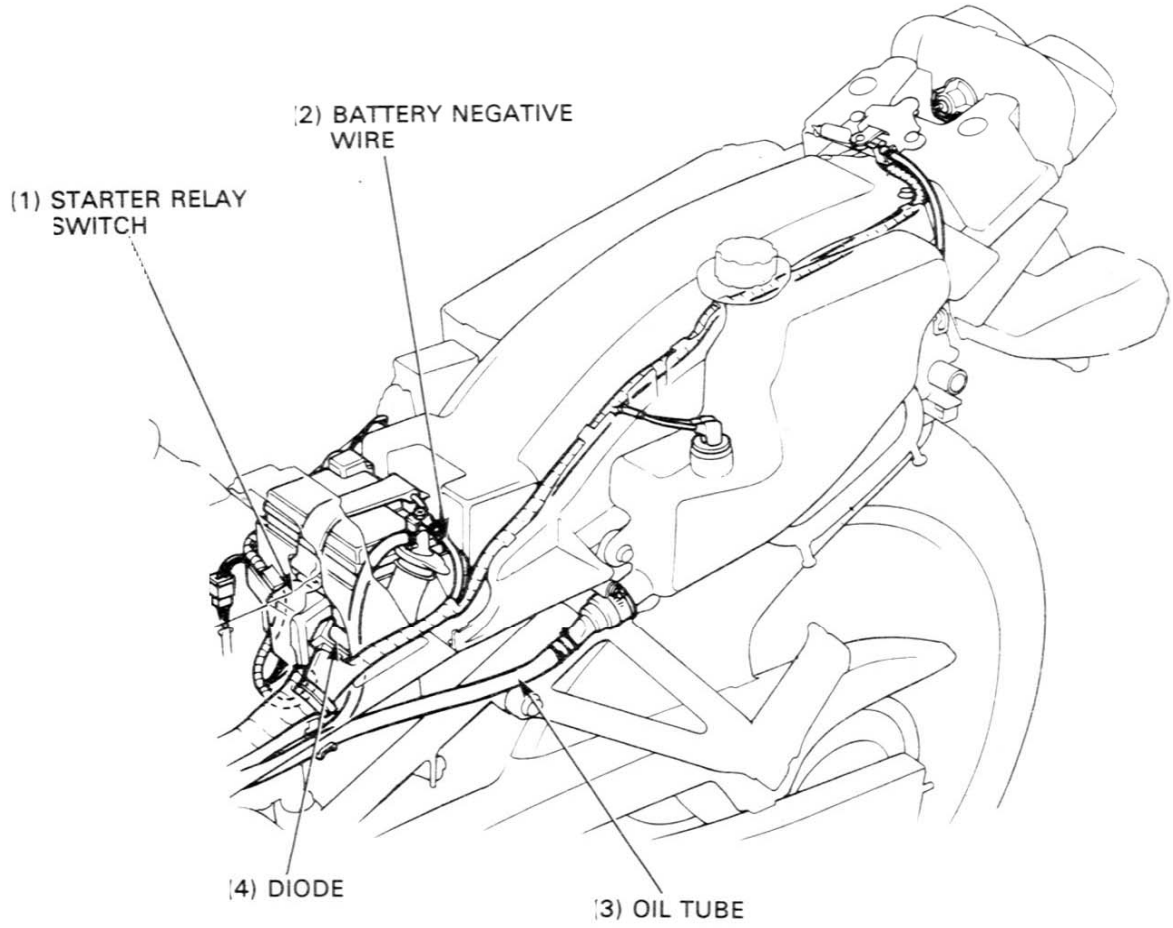

(5) CONNECTORS
(6) CLAMPS

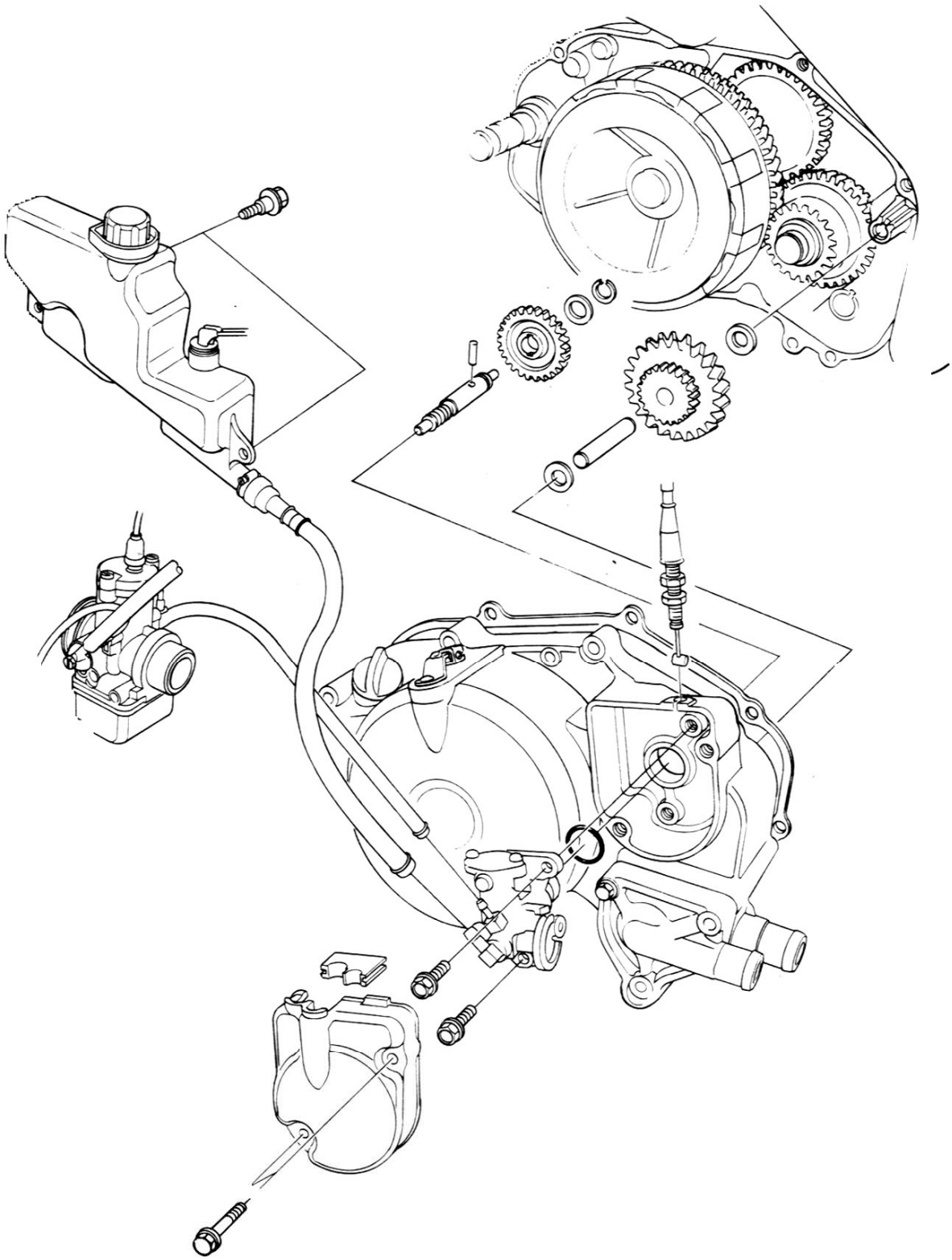

(2) RADIATOR OVERFLOW TUBE
(3) CHOKE CABLE
(4) STARTER RELAY SWITCH
(1) CDI UNIT
(5) OIL TUBE
(9) THROTTLE CABLE
(6) RESERVE TANK OVERFLOW TUBE
(8) SERVOMOTOR CONTROL UNIT
(7) CRANKCASE BREATHER TUBE


(10) FUSE
(11) BATTERY POSITIVE WIRE
(12) REAR BRAKELIGHT SWITCH WIRE CONNECTOR
(13) BRAKE HOSE


(3) CHOKE CABLE
(4) CLUTCH CABLE
(5) THROTTLE CABLE
(2) RADIATOR OVERFLOW TUBE
(1) FUEL FILTER
(8) REGULATOR RECTIFIER
(7) SERVO-MOTOR
(6) RC VALVE CONTROL CABLES


(9) BRAKE HOSE
(10) THROTTLE CABLE
(11) RC VALVE CONTROL UNIT
(14) SPEEDOMETER CABLE
(13) CDI UNIT
(12) TURNSIGNAL RELAY


(2) BATTERY NEGATIVE WIRE
(1) STARTER RELAY SWITCH
(4) DIODE
(3) OIL TUBE



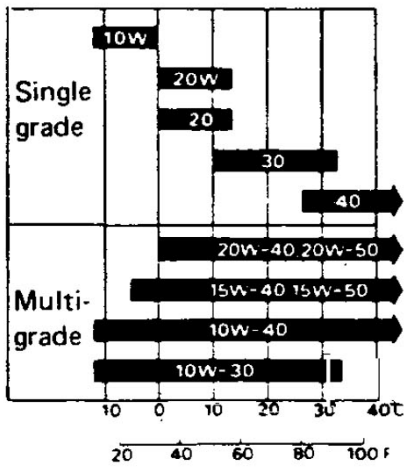
SERVICE INFORMATION

GENERAL

- Lubrication system service can be porformed with the engine in the frame.
- When removing and installing the oil pump, use care not to allow dust or dirt to enter the oil lines.
- Do not attempt to disassemble the oil pump.
- Bleed air from the oil pump if there is air in the oil tube (from the oil tank to the oil pump) or whenever the oil tube has been disconnected.
- Bleed air from the oil pass tube (from the oil pump to the carburetor) whenever oil lines have been disconnected.
- Refer to page 3-6 for the engine oil strainer cleaning.

SPECIFICATIONS

Engine oil recommendation:	Honda 2-stroke oil or equivalent
Engine oil tank capacity:	1.0 liters (1.06 US qt, 0.88 Imp qt)
Transmission oil capacity:	0.70 liters (0.74 US qt, 0.62 Imp qt) after draining
Transmission oil recommendation:	Honda 4-stroke oil or equivalent Viscosity: SAE 10W-40 API Service classification: SE or SF Other viscosities shown in the chart may be used when the average temperature in your riding area is within the indicated range.



TROUBLESHOOTING

Excessive smoke and or carbon on spark plug
- Pump not properly adjusted (excessive oil)
- Low quality engine oil
- Incorrect engine oil

Overheating
- Oil pump not adjusted properly (insufficient oiling)
- Low quality oil
- Incorrect engine oil

Seized piston
- No oil in tank or clogged oil line
- Pump not properly adjusted (insufficient oiling)
- Air in oil lines
- Faulty oil pump

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

OIL PUMP

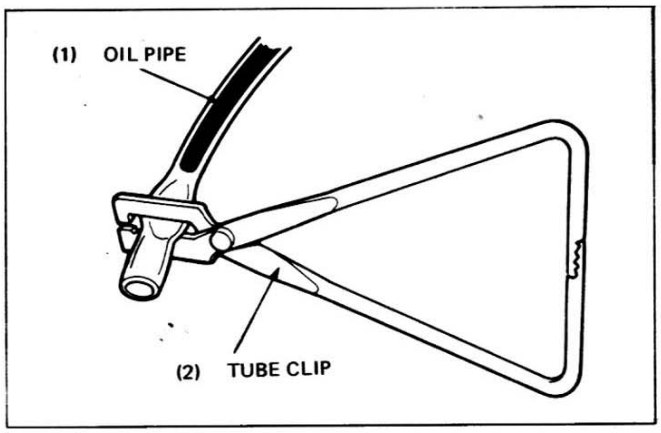
REMOVAL

NOTE

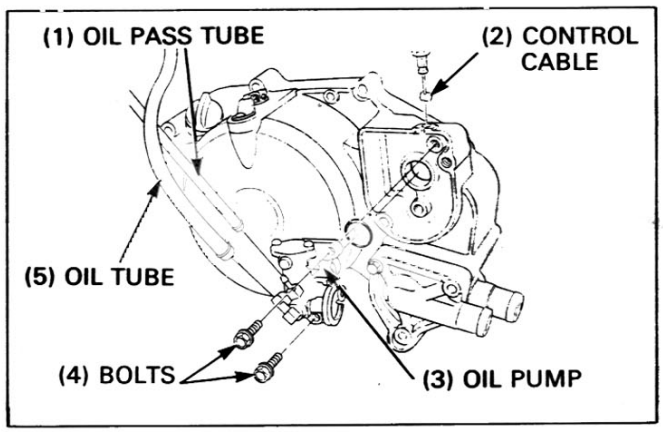
- Clean the oil pump and the crankcase before removing the oil pump.

Remove the oil pump cover.

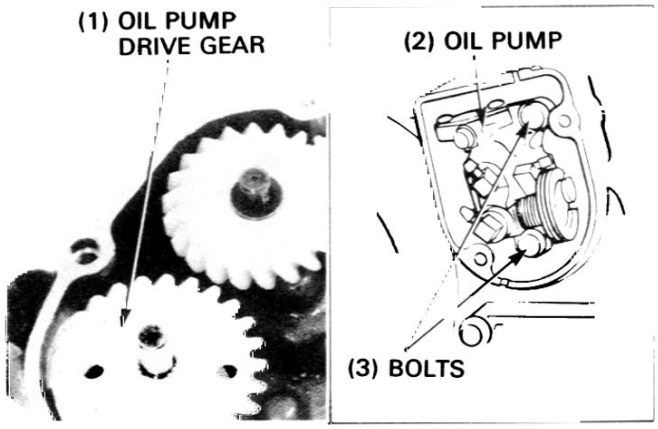
Clamp the oil tube and pass tube to prevent oil from flowing out.



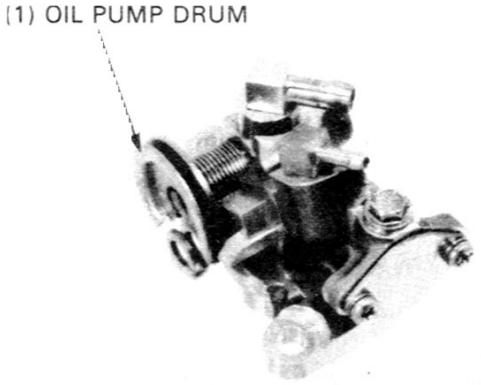
Disconnect the oil control cable from the oil pump drum.
Disconnect the oil tube and pass tube from the oil pump.
Remove the right crankcase cover (page8-3).



Remove the oil pump drive gear.
Remove the oil pump mounting bolts and oil pump from the right crankcase cover.



INSPECTION

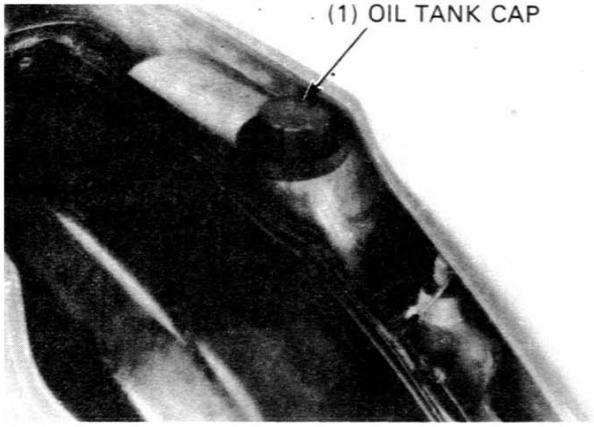


CAUTION

- *Do not disassemble the oil pump.*

Check the oil pump body for damage.
Check the oil pump drum for smooth operation.

AIR BLEEDING/INSTALLATION



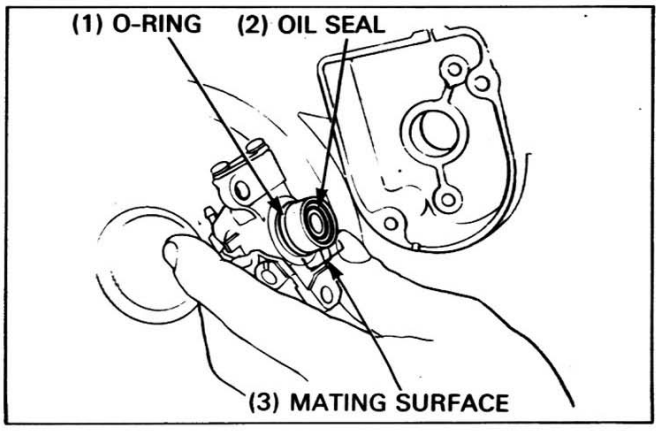
CAUTION

- *Air in the oil system will block or restrict oil flow and may result in severe engine damage.*
- *Bleed air from the system whenever the oil lines have been disconnected or there is air in the line.*

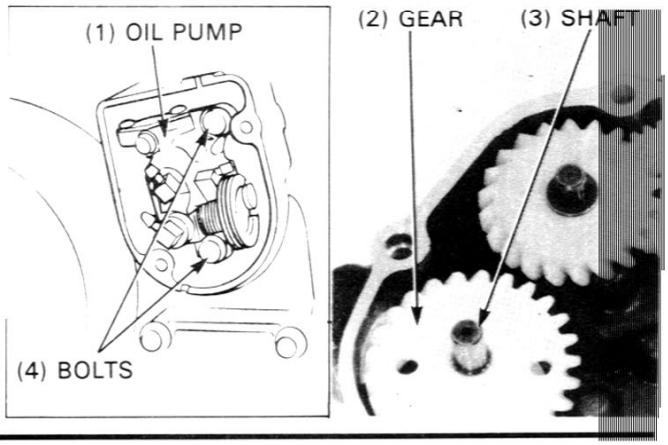
Remove the seat and oil tank cap, and fill the tank with the recommended engine oil.

RECOMMENDED OIL: HONDA 2-stroke oil or equivalent

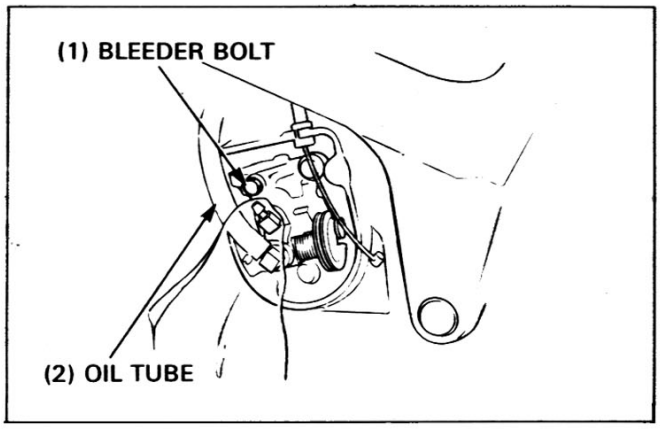
Check the oil seal and O-ring for damage or deterioration.
Check the right crankcase cover mating surface of the oil pump for damage.
Coat the O-ring with clean engine oil, and install the oil pump onto the right crankcase cover



Secure the oil pump with two mounting bolts.
Install the oil pump drive shaft into the oil pump and install the gear onto the shaft.
Install the right crankcase cover (page 8-16).



Make sure that the oil tube is filled with the oil and connect it to the oil pump.
Place a shop towel around the oil pump.
Loosen the bleeder bolt on the oil pump and allow the oil to flow out until air bubbles do not appear in the oil.
Tighten the bleeder bolt.



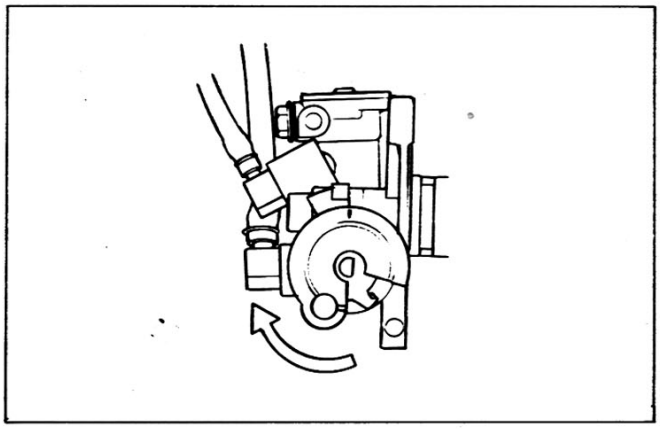
Drain the fuel from the carburetor.
Turn the fuel valve OFF and disconnect the fuel line from the fuel valve.
Connect the fuel line to the container filled with fuel-oil mixture (25-50 parts fuel to 1 part oil).
Remove the air cleaner case (page 4-5).
Start the engine and run for about 10 minutes with the oil pump drum turned to fully open position to force air out of the oil pass tube with oil.

⚠ WARNING

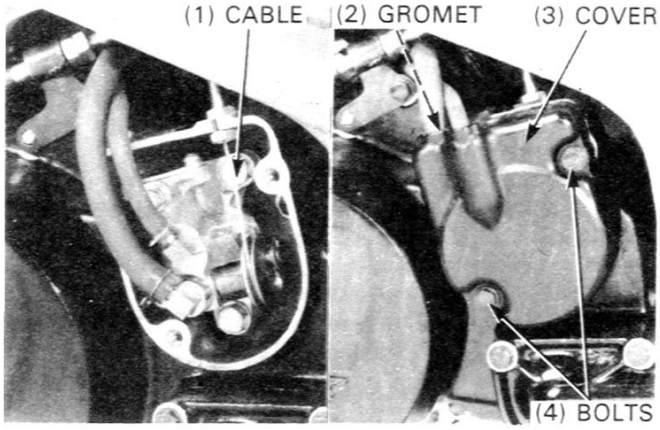
- ***If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in an enclosed area. The exhaust contains poisonous carbon monoxide gas that can cause the loss of consciousness and may lead to death.***

CAUTION

- *Use only the recommended engine oil (page 2-1).*
- *Do not race the engine.*



Connect the fuel line to the fuel valve.
Connect the oil control cable to the oil pump drum.
Adjust the oil control cable and install the oil pump cover with the grommet.
Secure the oil pump cover with the bolts.

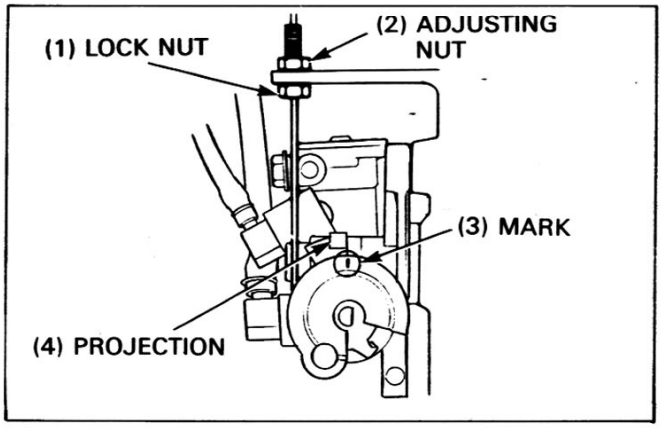


OIL PUMP CONTROL CABLE ADJUSTMENT

NOTE

- The oil pump control cable should be adjusted after the throttle grip free play adjustment.

Remove the oil pump cover.
Loosen the oil control cable lock nut and open the throttle fully.
Check that the aligning mark on the oil pump control drum is aligned with the index mark projection on the pump body.
Adjust if necessary by turning the adujusting nut.



CAUTION

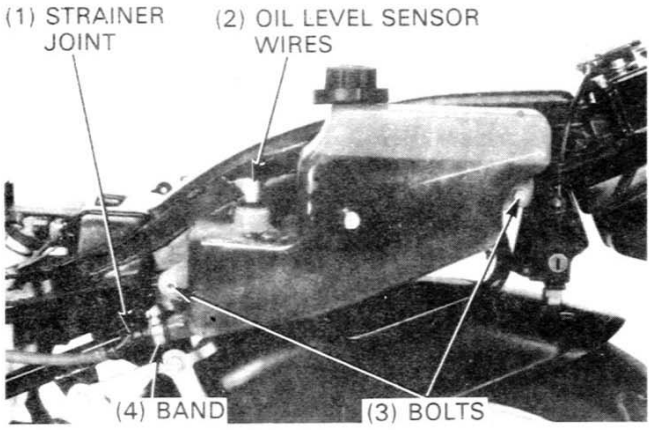
- *An adjustment within 1 mm (0.04 in) of index mark on the open side is acceptable. However, the aligning mark must never be on the closed side on the index mark, otherwise engine damage will occur because of insufficient lubrication.*

Tighten the control cable lock nut and install the oil pump cover.

OIL TANK

REMOVAL/INSTALLATION

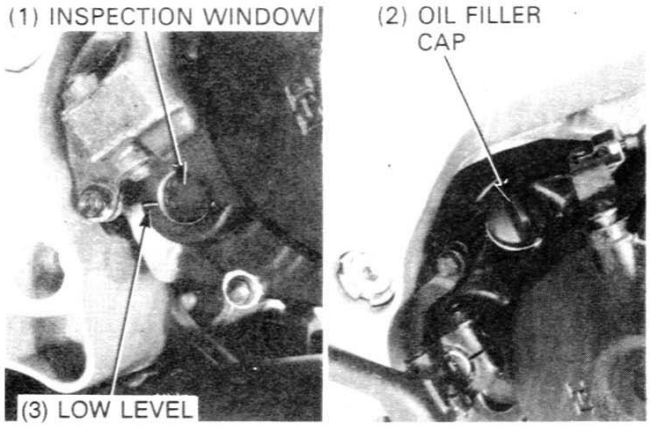
Remove the left fairing (page 4-3).
Disconnect the oil level sensor wires.
Loosen the oil strainer joint band, remove the strainer joint at the bottom of the oil tank and allow the oil to drain into a clean container.
Remove the two mounting bolts and oil tank.
Install the oil tank in the reverse order of removal.
After installation, fill the oil tank with the recommended engine oil and bleed air from system.



TRANSMISSION OIL

CHECK

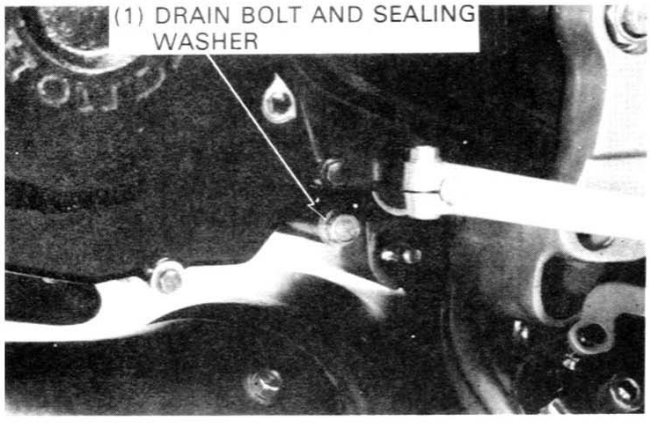
Place the motorcycle on firm, level ground and support it on its center stand.
Start the engine and let it idle for a few minutes, then stop the engine.
Check the oil level through the inspection window.
If the oil level is under the low level, remove the oil filler cap and fill the recommended transmission oil (see page 2-1) since to reached the upper part of the inspection window.



CHANGE

Remove the transmission oil filler cap.
Place the oil drain pan under the engine to catch the oil, and remove the oil drain bolt to drain the oil.
After the oil has been completely drained, check that the sealing washer on the drain bolt is in good condition and install the drain bolt.
Fill the crankcase with the recommended transmission oil up to the upper part of the ispection window.

OIL CAPACITY: 0.70 liter (0.74 US qt, 0.62 Imp qt) after draining

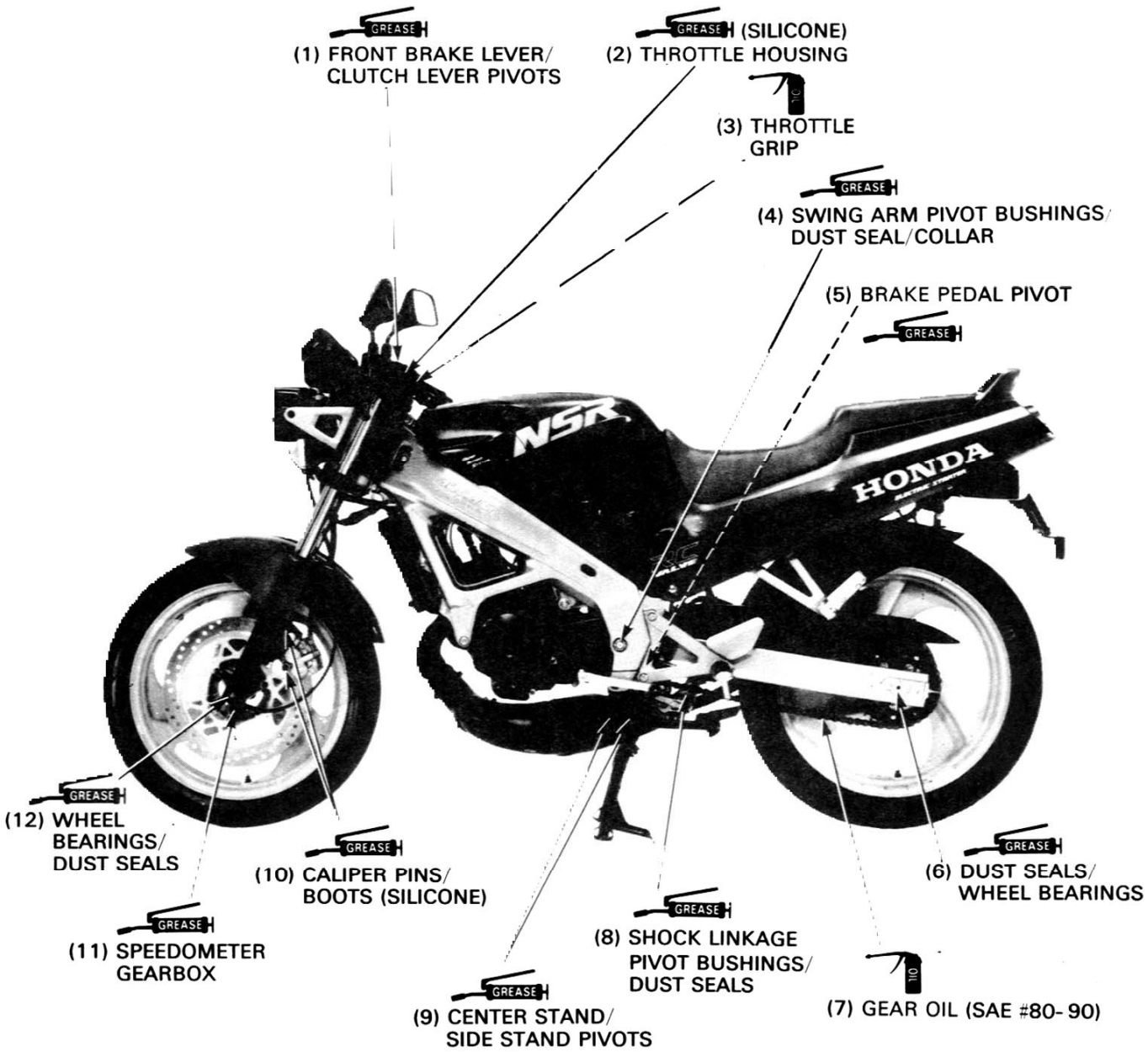


LUBRICATION POINTS

Use general purpose grease when no other specification is given. Apply oil or grease to any 2 sliding surfaces and cables not shown here.

CONTROL CABLE LUBRICATION

Periodically disconnect the throttle, oil control, choke and clutch cables at their upper ends. Thoroughly lubricate the cables and their pivot points with a commercially avaliable cable lubricant.



SERVICE INFORMATION

GENERAL

⚠ WARNING

If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in an enclosed area. The exhaust contain poisonous carbon monxide gas that can cause the loss of consciousness and may lead to death.

Gasoline is extreamely flammable and explosive under certain conditions. Work in a well ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the work area or where gasoline is stored.

SPECIFICATIONS

Engine

Throttle grip free play	2–6 mm (1/8–1/4 in)
Bystarter valve stroke	10–11 mm (0.39–0.43 in)
Spark plug gap	0.7–0.8 mm (0.028–0.031 in)
Spark plugs:	

	NGK	ND
Standard	BR9ECS	W27ESR–U
For extended high speed riding	BR10ES	W31ESR–U

Idle speed	1,400 ± 100 min^{-1} (rpm)
Cylinder compression	1,000 ± 200 kPa (10 ± 2 kg/cm^2, 142 ± 2 8 psi)
Ignition timing F mark	24.3° ± 2°/3,000 min^{-1} (rpm)

Frame

Drive chain slack	25–35 mm (1–1–3/8 in)
Clutch lever free play	10–20 mm (3/8–3/4 in)
Tires :	

		FRONT	REAR
Cold tire pressure kPa (kg/cm^2, psi)	Rider only	200 (2.00, 29)	225 (2.25, 33)
	Rider and one passenger	200 (2.00, 29)	250 (2.50, 36)
Tire size		100/80–17 52S	130/70–18 63S

Minimum tire thread depth Front: 1.5 mm (1/16 in)
Rear: 2.0 mm (3/32 in)

TORQUE VALUES

Rear axle nut	90 N·m (9.0 kg-m, 65 ft-lb)

MAINTENANCE SCHEDULE

Pereform the Pre-ride Insepction at each scheduled maintenance period.
I : INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY.
C : CLEAN R : REPLACE A : ADJUST L : LUBRICATE

	FREQUENCY	WHICHEVER COMES→		ODOMETER READING (NOTE 2)				
		FIRST	×1,000 km	1	4	8	12	REFER TO
		↓	×1,000 mi	0.6	2.5	5	7.5	PAGE
	ITEM	NOTES	MONTHS		6	12	18	
*	FUEL LINE				I	I	I	3-3
*	FUEL FILTER					I		3-3
*	THROTTLE OPERATION			I	I	I	I	3-3
*	CARBURETOR CHOKE				I	I	I	3-4
	AIR CLEANER	NOTE 1			C	C	C	3-5
	SPARK PLUG			I : EVERY 2,000 km (1,250 mi) R : EVERY 4,000 km (2,500 mi)				3-6
	TRANSMISSION OIL		2YEARS * R					2-5
*	ENGINE OIL LINES				I	I	I	3-6
*	ENGINE OIL STRAINER SCREEN						C	3-6
* *	OIL PUMP			I	I	I	I	2-4
*	CARBURETOR IDLE SPEED			I	I	I	I	3-7
	RADIATOR COOLANT					I		3-7
	RADIATOR CORE					I		3-7
	COOLING SYSTEM			I		I		3-8
* *	CYLINDER HEAD DECARBONIZATION					C		7-2
* *	CYLINDER EXHAUST PORT DECARBONIZATION					C		7-5
* *	MUFFLER DECARBONIZATION						C	
	DRIVE CHAIN			I, L EVERY 1,000 km (600 mi)				3-9
	BRAKE FLUID		MONTH : I 2 YEARS : R	I	I	I	I	3-10
	BRAKE PAD WEAR				I	I	I	3-10
	BRAKE SYSTEM			I	I			3-11
*	BRAKELIGHT SWITCH			I	I	I	I	3-11
*	HEADLIGHT AIM			I	I	I	I	3-11
	CLUTCH SYSTEM			I		I		3-11
	SIDE STAND				I	I	I	3-12
*	SUSPENSION			I		I		3-13
*	NUTS, BOLTS, FASTENERS			I	I	I	I	3-13
* *	WHEELS/TIRES			I	I	I	I	3-14
	STEERING HEAD BEARINGS			I		I		3-14

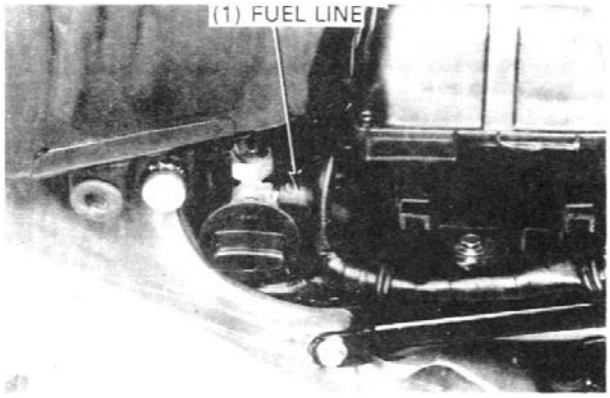
* : SHOULD BE SERVICED BY AN AUTHORIZED HONDA DEALER, UNLESS THE OWNER HAS PROPER TOOLS AND SERVICE DATA AND IS MECHANICALLY QUALIFIED.

* * : 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) For higher odometer reading, repeat at the frequency interval established here.

FUEL LINE

Remove the left faireing (page 4-3).
Check the fuel line for leakage or deterioration, and replace if necessary.

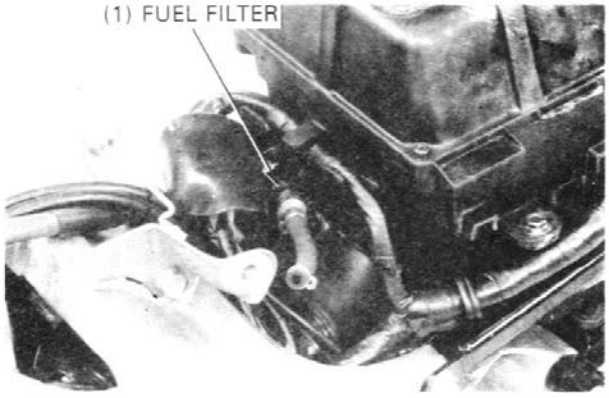


FUEL FILTER

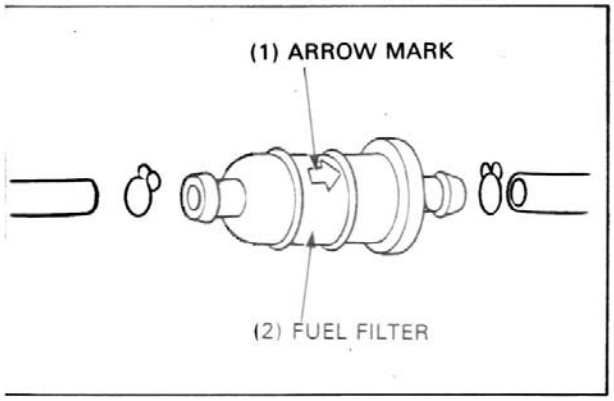
⚠ WARNING

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

Remove the fuel tank (page 4-3).
Check the fuel filter for clogging or being dirty, and replace with a new one if necessary.



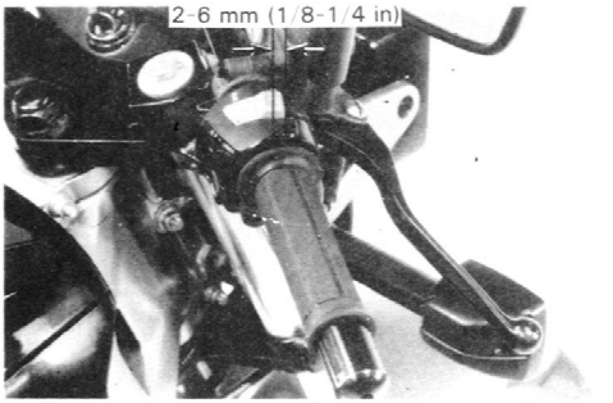
Install a new fuel filter with the arrow mark on the fiter pointing the carburetor side.
After installation, check for fuel free flow by turning the fuel valve ON.



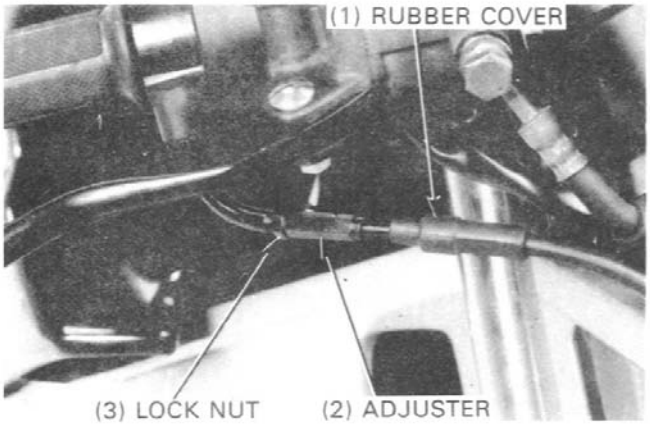
THROTTLE OPERATION

Check the throttle grip for smooth operation, complete opening and automatic closing in all steering positions.
Make sure there is no deterioration, damage or kinking in the throttle cables. Replace any damaged parts.
Lubricate the trottle cables (page 2-6) if throttle operation is not smooth.
Measure throttle grip free play at the throttle grip flange.

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

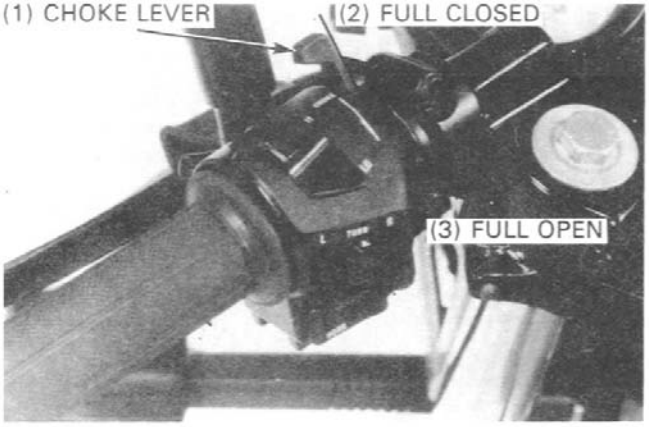


Adjust as follows:
Pull the rubber caver off the adjuster.
Loosen the lock nut and turn the adjuster as required.
Tighten the lock nut.
Recheck the throttle operration.



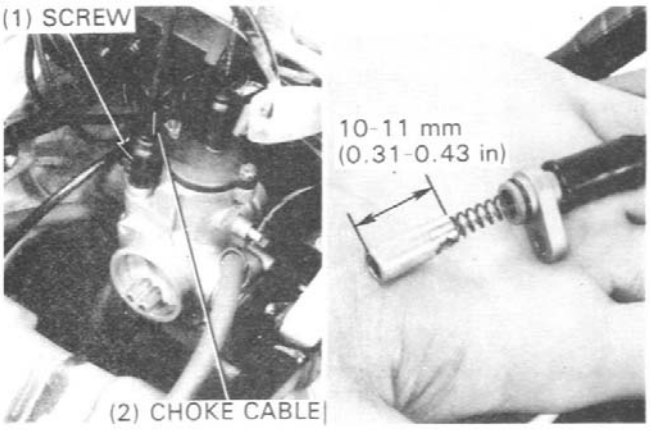
CARBURETOR CHOKE

This model choke system uses a fuel enrichening circuit controlled by a bystater valve. The bystarter valve opens the enrichening circuit when the choke lever on the handlebar is pulled back.



Remove the air cleaner case (page 4-5) and disconnect the choke cable by removing the screw.
Measure the bystarter valve stroke when the choke lever is pulled back all the way from the full closed position.

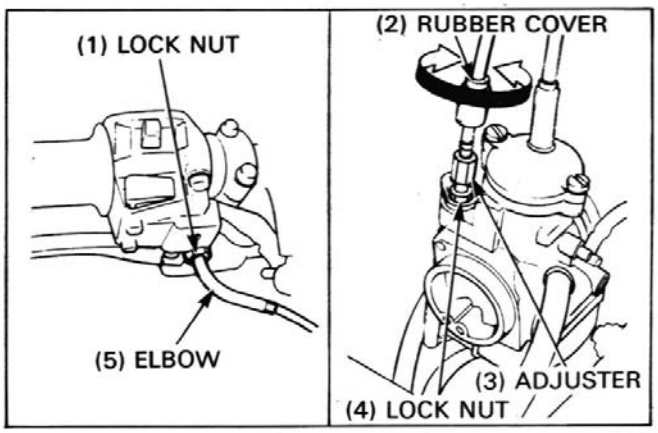
BYSTARTER VALVE STROKE: 10-11mm (0.39-0.43in)



If the valve stroke is out of specification, adjust following procedure below:
Minor adjustment is made with the cable's elbow at the left handle switch housing.
Loosen the lock nut and turn the elbow as requiered.
Tighten the lock nut.

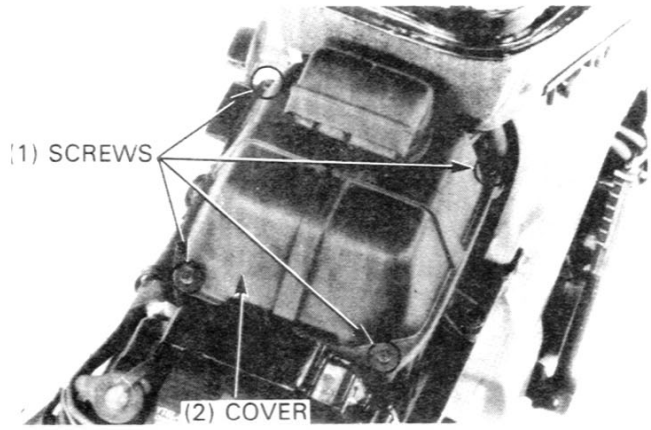
Majour adjustment is made with the lower adjuster.
Slide the rubber cover up, loosen the adjuster lock nut and turn the lower adjuster as required. Tighten the lock nut securely and recheck the valve stroke.

Install the air cleaner (page 4-5) and fuel tank (page 4-4).

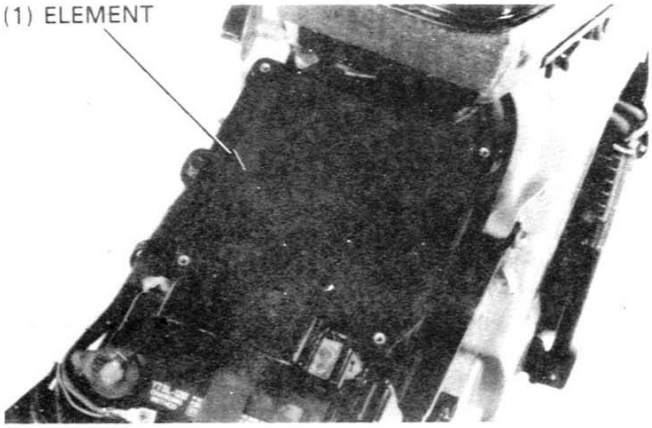


AIR CLEANER

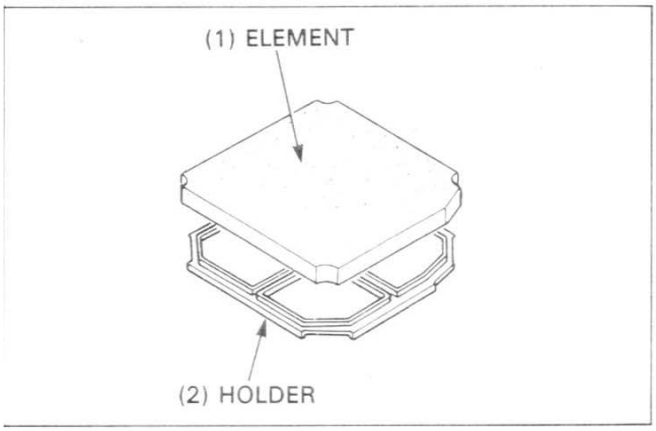
Remove the right and left fairings (page 4-3).
Remove the four air cleaner case cover attaching screws and the cover.



Remove the air cleaner element from the case.



Remove the element holder from the element.

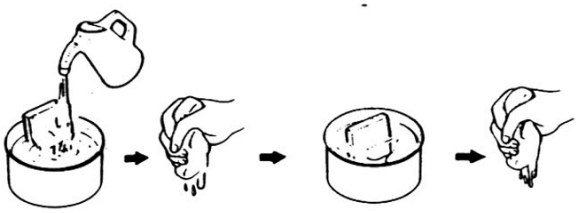


Wash the element in non-flammable or high flash point solvent.
squeeze out the solvent thoroughly, and allow to dry.

⚠ WARNING

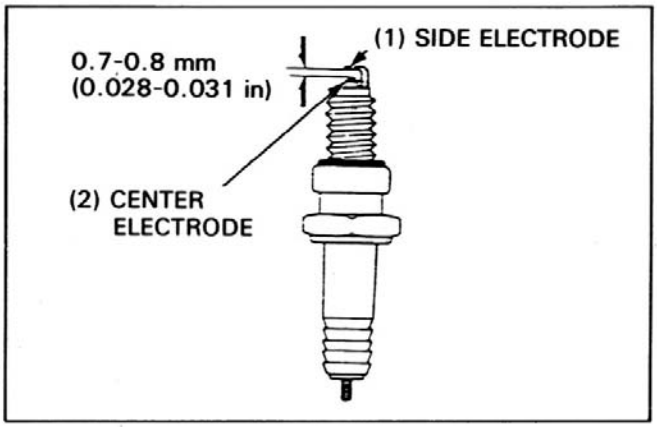
- ***Never use the gasoline or low flash point solvents for cleaning the air cleaner element. A fire or explosion could result.***

Soak the element in gear oil (SAE # 80-90) and squeeze out oil.
Install the element holders onto the element holder.
Install the air cleaner element into the air cleaner case.
Install the air cleaner case cover and secure it with the four screws.
Install the right and left fairings (page 4-3).



SPARK PLUG

Disconnect the spark plug cap and remove the spark plug. Visually inspect the spark plug electrodes for wear. The center electrode should have square edges and the side electrode should have a constant thickness. Discard the spark plug if there is apparent wear or if the insulator is cracked or chipped. Measure the gap with a wire-type feeler gauge and adjust if necessary by carefully bending the side electrode.



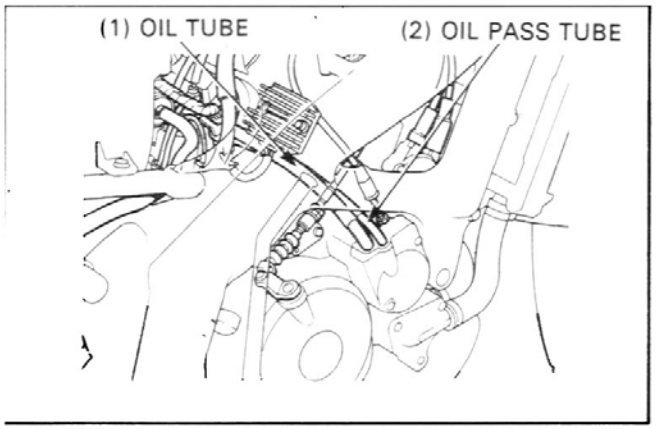
SPARK PLUG GAP : 0.7-0.8 mm (0.028-0.031 in)

SPARK PLUG :

	NGK	ND
Standard	BR9ECS	W27ESR-U
For extended high Speed riding	BR10ES	W31ESR-U

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.

Connect the spark plug cap to the plug.



ENGINE OIL LINE

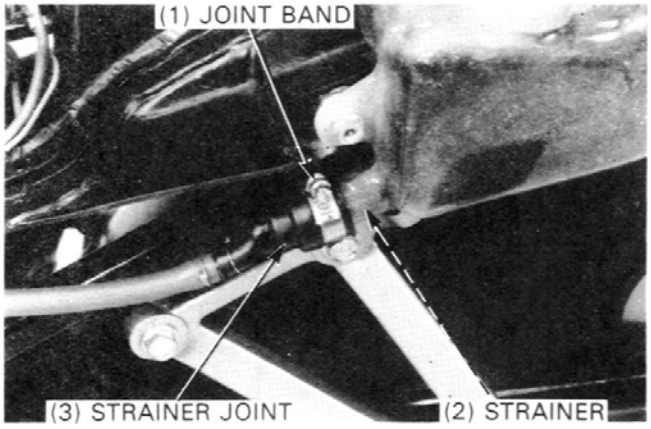
Check the engine oil line and replace any parts which show deterioration, damage or leakage.

Bleed the oil pump and oil lines, if they have air bubbles in them (page 2-3)

ENGINE OIL STRAINER SCREEN

Loosen the oil strainer joint band, remove the strainer joint at the bottom of the oil tank and allow the oil to drain into a clean container.

Remove the oil strainer from the strainer joint.



Clean the oil strainer with compressed air. Replace the oil strainer if necessary.

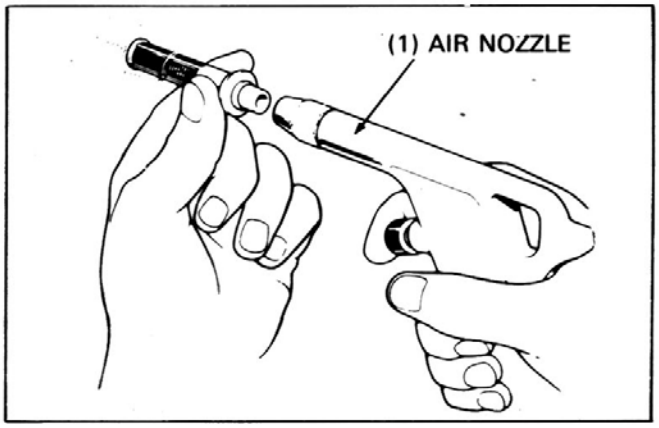
Reinstall the strainer into the strainer joint.

Install the joint onto the oil tank and tighten the joint band securely.

Fill the oil tank with the recommended oil and bleed air from the oil pump and oil lines (page 2-3).

OIL TANK CAPACITY: 1.0 lit (1.06 US qt, 0.88 Imp qt)

RECOMMENDED ENGINE OIL: Honda 2-stroke oil or equivalent



NOTE

- Connect the oil line securely and check for the oil leakage.

CARBURETOR IDLE SPEED

⚠ WARNING

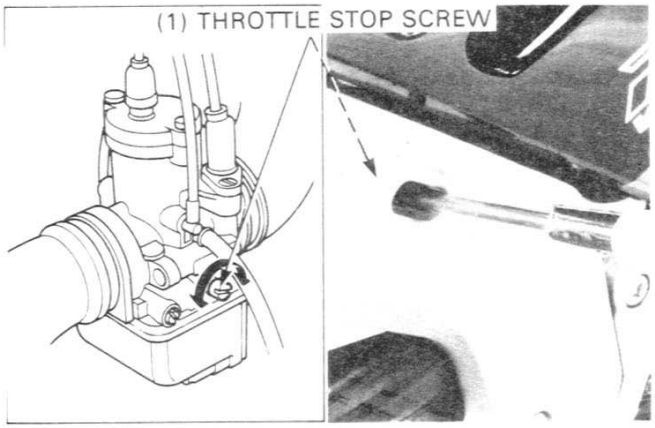
- ***If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in an enclosed area. The exhaust contains poisonous carbon monoxide gas that can cause the loss of consciousness and may lead to death.***

NOTE

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

Warm up the engine.
Place the motorcycle on its center stand and shift the transmission into neutral.
Check the idle speed and adjust by turning the throttle stop screw if necessary.

IDLE SPEED: 1,400 ± 100 min^{-1} (rpm)

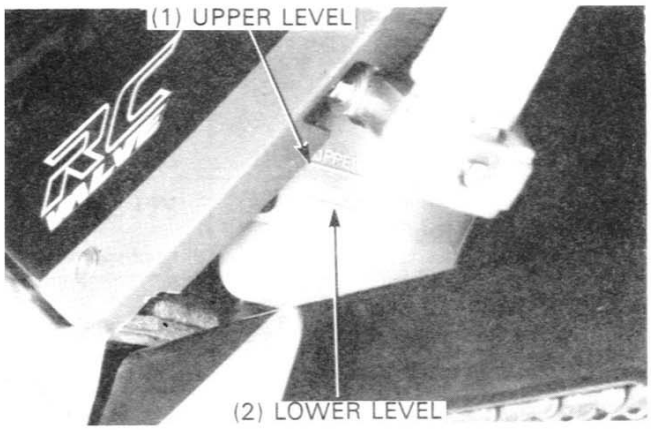


RADIATOR COOLANT

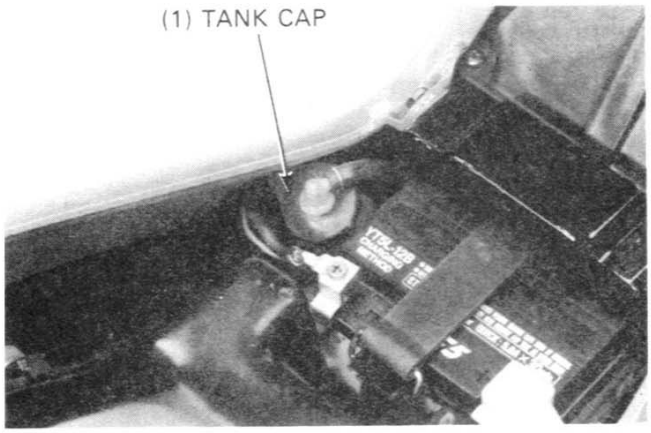
⚠ WARNING

If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in an enclosed area. The exhaust contains poisonous carbon monoxide gas that can cause the loss of consciousness and may lead to death.

Remove the right fairing (page 4-3).
Check the coolant level of the reserve tank with the engine running at normal operating temperature. The level should be between the "UPPER" and "LOWER" level lines.

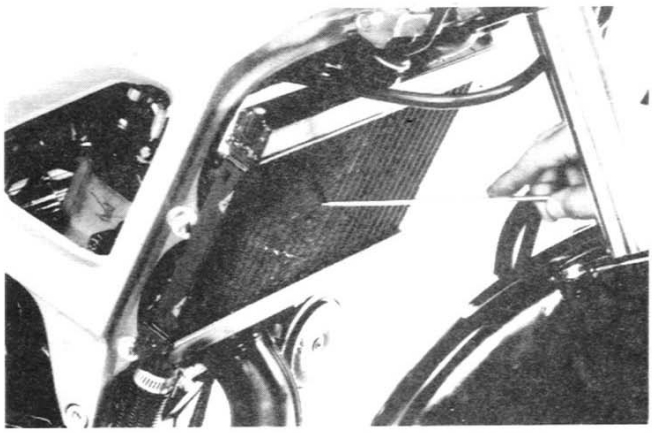


If necessary, remove the seat and reserve tank cap and fill to the "UPPER" level line with 50/50 mixture of distilled water and antifreeze.
Reinstall the reserve tank cap and seat.

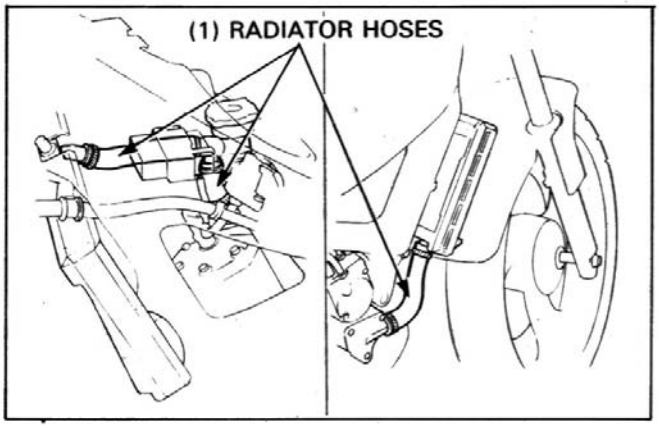


COOLING SYSTEM

Check the radiator core for clogging or damage.
Straighten the bent fins and collapsed tubes.
Remove the insects, mud or any obstructions with compressed air or low water pressure.
Replace the radiator if the air flow is restricted over more than 20% of the radiating surface.
For radiator replacement, refer to the page 5-7.



Check the cooling system hoses for cracks, deterioration or other demage, and replace if necessary.
Check that all hose clamps are secure.



CYLINDER COMPRESSION

Warm the engine up to the normal operating temperature.

⚠ WARNING

- ***If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in an enclosed area. The exhaust contains poisonous carbon monoxide gas that can cause the loss of consciousness and may lead to death.***

Remove the spark plug cap and spark plug.
Install the compression gauge to the spark plug hole.
Turn the engine stop switch "OFF".

Open the throttle all the way and crank the engine with the starter motor or by operating the kickstarter pedal several times.

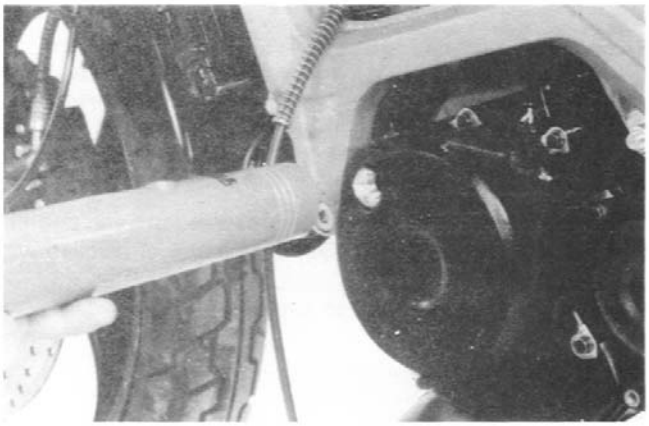
NOTE

- Be sure compression is not leaking at the gauge connection.
- Crank the engine until the gauge reading stops rising.

COMPRESSION PRESSURE;
1,000 ± 200 (10 ± 2 kg/cm², 142 ± 28 psi)

Low compression can be caused by:
- Faulty reed valve.
- Leaking cylinder head gasket.
- Worn piston rings and cylinder
- Worn cylinder.
- Damaged crankshaft oil seal.

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



IGNITION TIMING

NOTE

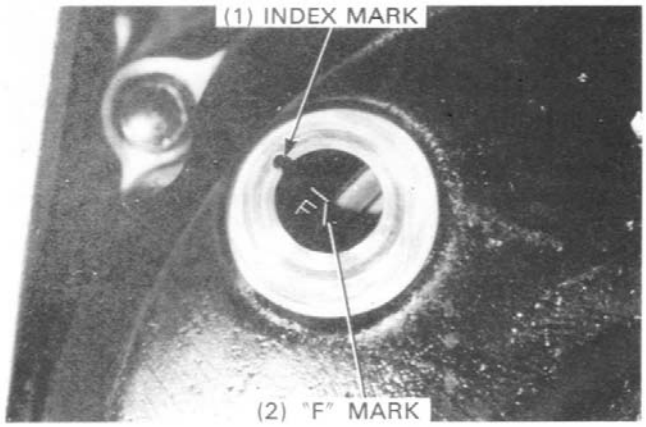
- The Capacitive Discharge Ignition system is factory pre-set and can not be adjusted. Ignition timing inspection procedures are given as follows.

Warm the engine up to the operating temperature.

⚠ WARNING

If the enigne must be running to do some work, make sure the area is well ventilated. Never run the engine in an enclosed area. The exhaust contains poisonous carbon monoxide gas that can cause the loss of conciousness and may lead to death.

Start the engine and raise the engine speed to 3,000 min^{-1} (rpm) by turning the throttle stop screw in.
Remove the timing hole cap.
Connect a timing light.
Inspect the ignition timing.
Timing is correct if the "F" mark on the alternator rotor is aligned with the index mark on the left crankcase cover at 3,000 min^{-1} (rpm).
If the ignition timing is incorrect, perform the system inspection (page 16-3).



DRIVE CHAIN

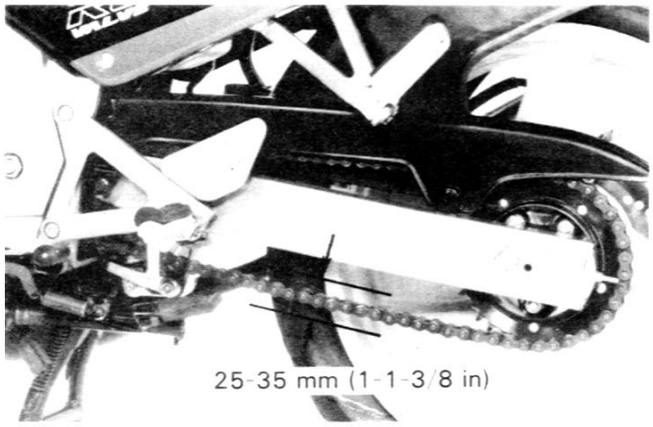
⚠ WARNING

- ***Never inspect or lubricate the drive chain while the engine is running.***

INSPECTION

Stop the engine and shift the transmission into neutral.
Measure the drive chain slack midway between the sprokets.

DRIVE CHAIN SLACK:25-35mm (1-1-3/8in)

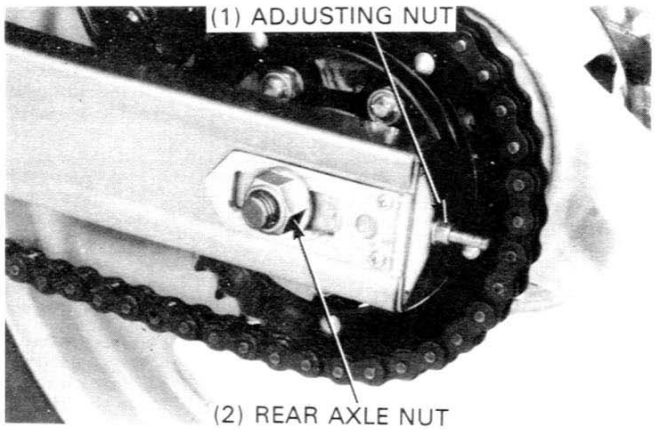


ADJUSTMENT

Loosen the rear axle nut and turn the both adjusting nuts in equal number of turns untill the correct drive chain slack is obtained.
Make sure that the same graduation scale on the both adjusters align with the rear ends of the slot in the adjuster plate.
Tighten the rear axle nut.

TORQUE:90N·m (9.0kg-m, 65ft-lb)

Tighten the adjusting nuts securely.

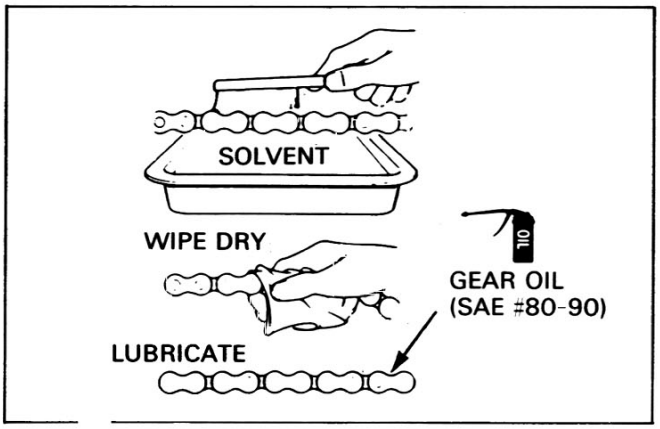


NOTE

- Drive chain and sproket must be replaced as a set with new ones if the specified chain slack can not be obtained with the chain adjusting nuts.

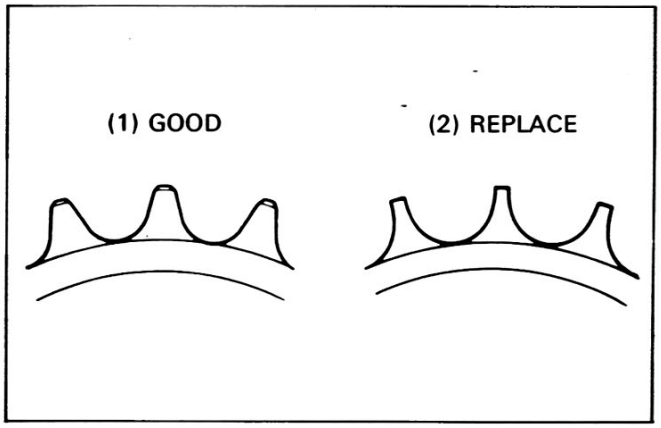
LUBRICATION AND CLEANING

If the drive chain extreamely dirty, clean the drive chain with kerosene.
Wipe dry and lubricate only with SAE # 80 or # 90 gear oil.



DRIVE SPROCKET

Inspect the drive chain and sprockets for damage or wear.
A drive chain with damaged rollers or loose pins must be replaced. Replace the sprocket which is damaged or excessively worn.



NOTE

- Never install a new drive chain on worn sprockets or a worn chain on new sprockets. Both chain and sprocket must be replaced as a set, or the new replacement chain or sprockets will wear rapidly.

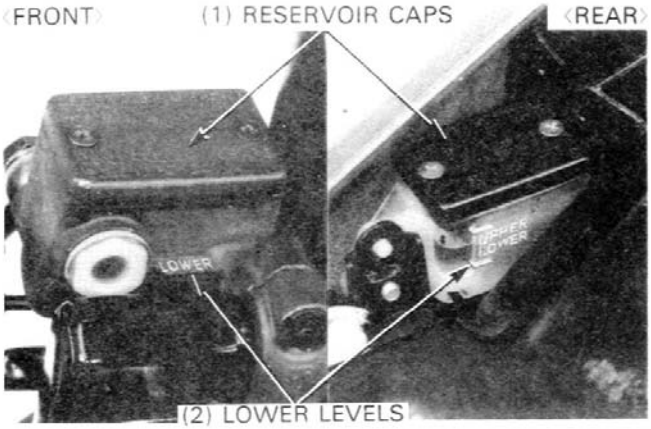
BRAKE FLUID

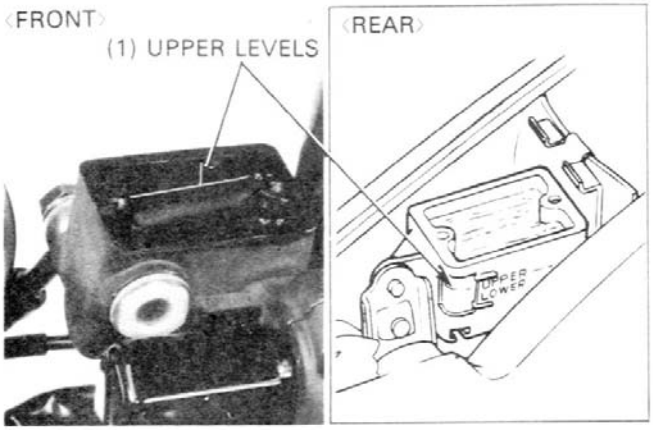
Check the brake fluid level if the level nears the lower level, remove the reservoir cap, set plate and diaphgram. Fill the reservoir to the upper level with DOT 4 brake fluid from a sealed container. Check the system for leaks.

CAUTION

- *Do not remove the reservoir cap until the handlebar has been turned so that the reservoir is level.*
- *Do not mix different type of fluid, as they are not compatible with each other.*
- *Do not allow foreign material to enter the system when filling the reservoir.*
- *Avoid spilling the fluid on painted, plastic or rubber parts.*

Refer to section 13 for brake breeding procedures.



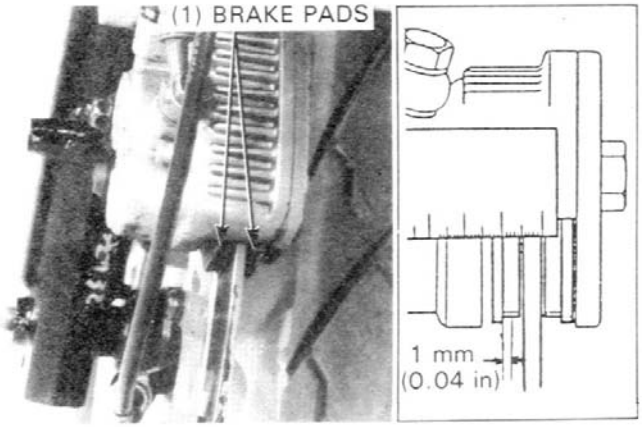


BRAKE PAD WEAR

CAUTION

- *Always replace the pads in pairs to assure even disc pressure.*

Front:
Check the brake pads for wear by measuring their thickness. Replace the pads if their thickness are less than 1mm (0.04in) (page 13-5).



Rear:
Check the rear brake pads for wear.
Replace the brake pads if the wear grooves in the brake pads reach the brake disc.
Refer to page 13-7 for replacement.