HOW TO USE THIS MANUAL

Follow the Maintenance Schedule (Section 3) recommendations to ensure that the vehicle is in peak operating condition and the emission levels are within the standard set by U.S. Environmental Protection Agency and 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 motorcycle, while sections 4 through 20 describe parts of the motorcycle, 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 21 TROUBLESHOOTING.

CONTENTS

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 can cause loss of consciousness and may lead to death.

⚠ WARNING

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

⚠ WARNING

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

⚠ 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 physician.*
- *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.*

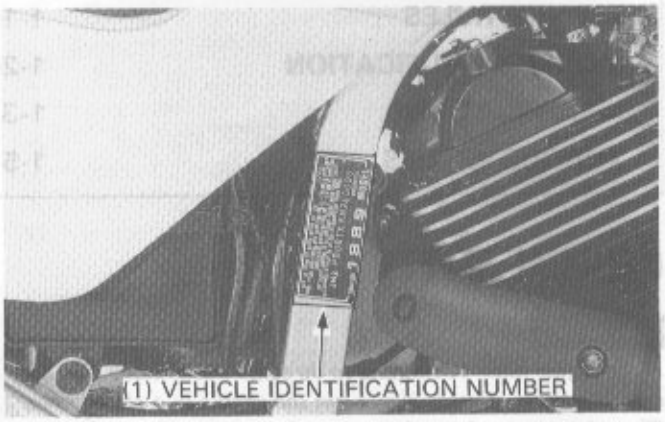
CAUTION

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

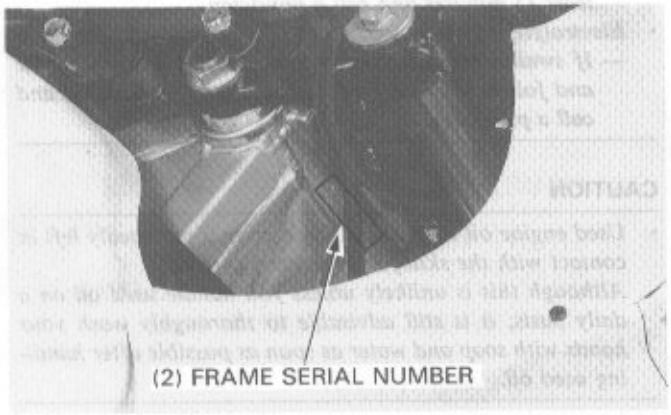
SERVICE RULES

1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalent. Parts that do not meet HONDA's design specifications may damage the motorcycle.
2. Use the special tools designed for this product.
3. Use only metric tools when servicing this motorcycle. Metric bolts, nuts, and screws are not interchangeable with English fasteners. The use of incorrect tools and fasteners may damage the motorcycle.
4. Install new gaskets, O-rings, cotter pins, lock plates, etc. when reassembling.
5. When tightening a series of bolts or nuts, begin with the 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.

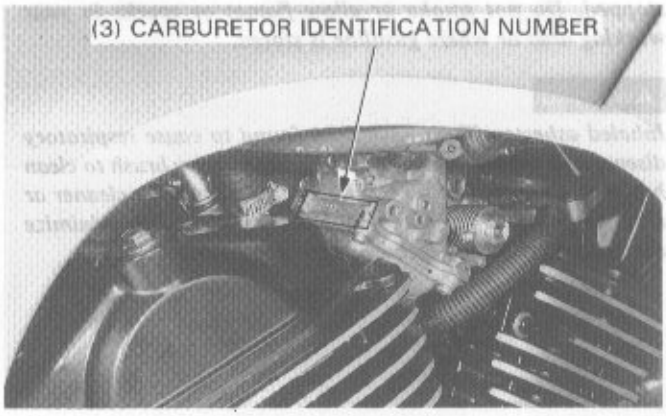
MODEL IDENTIFICATION



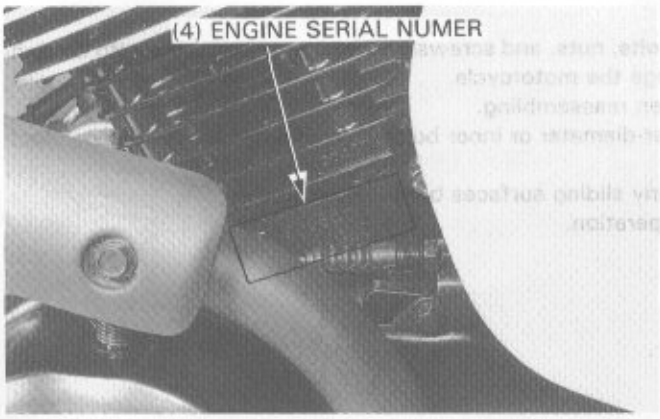
The vehicle identification number (VIN) is on the right side of the frame pipe.



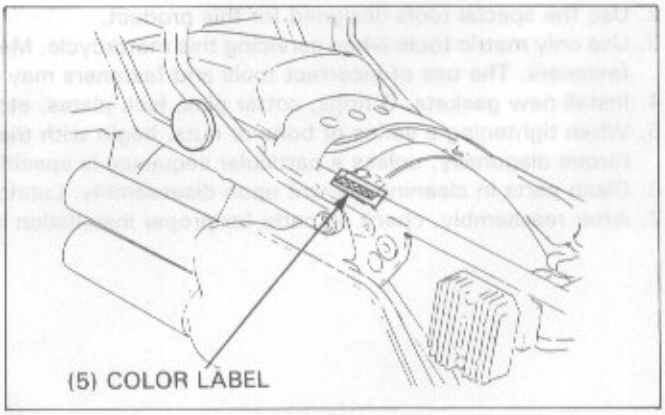
The frame serial number is stamped on the right side of the steering head.



The carburetor identification number is on the front carburetor body (right-side).



The engine serial number is stamped on the lower right side of the rear cylinder.



The color label is attached to the right frame tube under the seat. When ordering a color coded part, always specify its designated color code.

SPECIFICATIONS

ITEM				SPECIFICATIONS
DIMENSIONS	Overall length			2,265 mm (89.2 in)
	Overall width			865 mm (34.1 in)
	Overall height			1,265 mm (49.8 in)
	Wheelbase			1,505 mm (59.3 in)
	Seat height			850 mm (33.5 in)
	Ground clearance			225 mm (8.9 in)
	Dry weight			181 kg (399.0 lb)
	Curb weight			201 kg (443.1 lb)
FRAME	Type			Semi double cradle
	Front suspension, travel			Telescopic fork, 200 mm (7.9 in)
	Rear suspension, travel			Swing arm/Shock absorber, 187 mm (7.4 in)
	Front tire size			90/90–21 54S
	Rear tire size			130/80–17 65S
	Cold tire pressures	Up to 90 kg (200 lbs) load	Front	29 psi (2.00 kg/cm², 200 kPa)
			Rear	29 psi (2.00 kg/cm², 200 kPa)
		Up to vehicle capacity load	Front	29 psi (2.00 kg/cm², 200 kPa)
			Rear	29 psi (2.00 kg/cm², 200 kPa)
	Front brake			Hydraulic disc
	Rear brake			Internal expanding shoes
	Fuel capacity			18 liters (4.8 US gal, 4.0 Imp gal)
	Fuel reserve capacity			2.9 liters (0.77 US gal, 0.64 Imp gal)
	Caster angle			28°
	Trail			108 mm (4.3 in)
	Fork leg oil capacity			549 cm³ (185.7 US oz, 19.3 Imp oz)
ENGINE	Type			Water cooled 4-stroke
	Cylinder arrangement			2 cylinders, 52°V
	Bore and stroke			75.0 x 66.0 mm (2.95 x 2.60 in)
	Displacement			583.2 cm³ (35.59 cu in)
	Compression ratio			9.2 : 1
	Valve train			Silent, multi-link chain drive and OHC with rocker arms
	Oil capacity			2.8 lit (2.96 US qt, 2.46 Imp qt) after disassembly
				2.2 lit (2.32 US qt, 1.94 Imp qt) after draining
	Lubrication system			Forced pressure and wet sump
	Air filtration			Paper filter
	Cylinder compression			1177 kPa (12.0 kg/cm², 171 psi)
	Intake valve	Opens		10° (BTDC) at 1 mm lift
		Closes		40° (ABDC) at 1 mm lift
	Exhaust valve	Opens		40° (BBDC) at 1 mm lift
		Closes		10° (ATDC) at 1 mm lift
	Valve clearance (cold)	intake		0.15 mm (0.006 in)
		exhaust		0.20 mm (0.008 in)
	Engine dry weight			59.5 kg (131.17 lb)

< >: California model

ITEM		SPECIFICATIONS
CARBURETOR	Type	Piston valve, dual carburetor
	I.D. number	VDFHA <VDFJA>
	Main jet	FRONT: #120 REAR: #120
	Pilot screw opening	2-1/2 turns out
	Float level	7 mm (0.28 in)
	Idle speed	1,300 ± 100 rpm
DRIVE TRAIN	Clutch	Wet, multi-plate
	Transmission	5-speed constant mesh
	Primary reduction	1.888 (68/36)
	Final reduction	3.133 (47/15)
	Gear ratio I	2.571 (36/14)
	Gear ratio II	1.777 (32/18)
	Gear ratio III	1.380 (29/21)
	Gear ratio IV	1.125 (27/24)
	Gear ratio V	0.961 (25/26)
	Gear shift pattern	Left foot operated return system, 1—N—2—3—4—5
ELECTRICAL	Ignition	DC-CDI
	Ignition timing — Initial	10° BTDC at idle
	Ignition timing — Full advance	30° BTDC at 4,500 rpm
	Alternator	AC GENERATOR 0.31 kw/5,000 rpm
	Battery capacity	12V 12AH
	Spark plug	See table below
	Spark plug gap	0.8—0.9 mm (0.031—0.035 in)
	Fuse — Main	30A
	Fuse — Sub	10A x 3
		15A
	Starting system	Electrical stater
	Headlight	12V 60/55W
	Position light	12V 4W
	Turn signal light	12V 21W
	Stop & taillight	12V 21/5W
	Meter lights	12V 1.7W x 3
	Indicator light — Neutral	12V 3.4W
	Indicator light — High beam	12V 1.7W
	Indicator light — Turn signal	12V 3.4W
	Indicator light — Oil warning	12V 3.4W

Spark plug	NGK	ND
Standard	DPR8EA—9	X24EPR—U9
For cold climate (below 5°C/41°F)	DPR7EA—9	X22EPR—U9
For extended high speed driving	DPR9EA—9	X27EPR—U9

TORQUE VALUES

ENGINE

ITEM		Q'TY	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Oil pressure switch		1	—	12 (1.2, 9)	Apply sealant
Spark plug		1	12	14 (1.4, 10)	
Engine oil drain bolt		1	14	35 (3.5, 25)	
Oil filter		1	20	10 (1.0, 7)	
Fuel cup		1	24	4 (0.4, 2.9)	
Valve adjusting screw lock nut		6	7	23 (2.3, 17)	Apply oil
Drum stopper plate mounting bolt		1	6	12 (1.2, 9)	Apply locking agent
Primary drive gear mounting bolt		1	12	90 (9.0, 65)	UBS bolt
Oil pump driven sprocket bolt		1	6	15 (1.5, 11)	
Clutch lock nut		1	18	130 (13.0, 94)	
Clutch lifter plate bolt		1	6	10 (1.0, 7)	
Oil pass pipe bolt	(7 mm)	2	7	10 (1.0, 7)	
	(8 mm)	1	8	23 (2.3, 17)	
Flywheel bolt		1	12	130 (13.0, 94)	Left-hand threads/ UBS bolt
Starter clutch torx bolt		3	8	30 (3.0, 22)	Apply locking agent
Cylindr head cover bolt		4	6	10 (1.0, 7)	Special bolt
Camshaft holder	(8 mm bolt)	6	8	23 (2.3, 17)	
	(8 mm nut)	2	8	23 (2.3, 17)	
	(6 mm bolt)	4	6	10 (1.0, 7)	
Cylinder head	(10 mm nut)	8	10	48 (4.8, 35)	
	(8 mm bolt)	4	8	23 (2.3, 17)	
	(8 mm nut)	2	8	23 (2.3, 17)	
	(6 mm bolt)	2	6	10 (1.0, 7)	
Cam sprocket bolt		4	7	23 (2.3, 17)	
Cam chain tensioner mounting bolt		4	6	10 (1.0, 7)	
Connecting rod bearing cap nut		4	9	34 (3.4, 25)	
Bearing set plate		1	6	10 (1.0, 7)	Apply locking agent
Timing hole cap		1	14	10 (1.0, 7)	Apply MoS_2 grease
Crankcase hole cap		1	30	15 (1.5, 11)	Apply MoS_2 grease
Gearshift spindle return pin		1	8	23 (2.3, 17)	
Starter motor cable		2	6	10 (1.0, 7)	
Drive sprocket		2	6	10 (1.0, 7)	
Cylinder stud bolt	(10 x 193.5 mm)	2	10	40 (4.0, 29)	
	(10 x 197 mm)	6	10	40 (4.0, 29)	
	(8 x 197 mm)	2	8	25 (2.5, 18)	
Crankcase cover bolt	(6 x 35 mm)	12	6	12 (1.2, 9)	
	(6 x 45 mm)	13	6	12 (1.2, 9)	
Stator socket bolt		4	6	12 (1.2, 9)	
Thermostatic switch		1	—	18 (1.8, 13)	

FRAME

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Side cover	2	6	4.3 (0.43, 3)	
Lower cowling	2	6	10 (1.0, 7)	
Seat bolt	2	8	10 (1.0, 7)	
Air cleaner case	4	6	10 (1.0, 7)	
Exhaust pipe protectors	6	6	12 (1.2, 7)	
Choke lever	1	6	10 (1.0, 7)	

FRAME

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kg-m, ft-lb)	REMARKS
Rear axle nut	1	16	95 (9.5, 69)	
Spokes (front/rear)	—	B.C. 3.5	3.8 (0.38, 2.7)	
Swingarm/engine pivot nut	1	14	110 (11.0, 80)	Self-locking
Engine mounting nut (upper/lower)	2	10	55 (5.5, 40)	
Engine bracket nut	2	8	27 (2.7, 20)	
Exhaust pipe band bolt	1	8	22 (2.2, 16)	
Exhaust pipe joint nut	4	8	27 (2.7, 20)	Cap nut
Muffler mounting bolt (front)	1	8	40 (4.0, 29)	
(rear)	1	10	65 (6.5, 47)	With carrier
Rear carrier bolt (front/left)	1	8	45 (4.5, 33)	
(rear)	2	8	27 (2.7, 20)	
Turn signal stay bolt	2	8	27 (2.7, 20)	
Handlebar upper holder	4	8	26 (2.6, 19)	
Brake disc	6	8	40 (4.0, 29)	Apply oil
Front wheel hub cover	3	4	1.5 (0.15, 1.1)	
Front axle	1	16	65 (6.5, 47)	
Axle holder nut	4	6	12 (1.2, 9)	
Fork slider socket bolt	2	8	20 (2.0, 14)	
Fork leg pinch bolt (upper)	4	8	27 (2.7, 20)	
(lower)	4	8	35 (3.5, 25)	
Fork tube cap bolt	2	37	23 (2.3, 17)	
Gearshift pedal bolt	1	6	10 (1.0, 7)	
Steering bearing adjustment nut	1	26	3 (0.3, 2.2)	Tighten the nut with the steering stem pushed up.
Steering stem nut	1	24	100 (10.0, 72)	
Driven sprocket nut	6	10	44 (4.4, 32)	Apply oil
Shock absorber lower mount lock nut	1	14	68 (6.8, 49)	Apply locking agent
Shock absorber spring lock nut	1	50	90 (9.0, 65)	
Shock absorber mounting bolt (upper/lower)	2	10	45 (4.5, 33)	Self-locking
Shock arm-to-swing arm nut	1	12	105 (10.5, 76)	
Shock link-to-shock arm nut	1	10	65 (6.5, 47)	Self-locking
Shock link-to-frame nut	1	10	65 (6.5, 47)	Self-locking
Bleed valve	2	8	5.5 (0.55, 4)	
Caliper bolt	1	8	27 (2.7, 20)	
Brake hose joint	1	10	35 (3.5, 25)	
Brake joint nut	1	10	17 (1.7, 12)	
Caliper bracket bolt	2	8	27 (2.7, 20)	
Brake hose bolt	1	10	35 (3.5, 25)	
Caliper pivot bolt	1	8	23 (2.3, 17)	
Side stand pivot nut	1	10	40 (4.0, 29)	Self-locking
Fuel valve lock nut	1	18	40 (4.0, 29)	
Fuel tank mounting bolt	1	8	27 (2.7, 20)	
Rear step holder bracket	3	8	33 (3.3, 24)	
Right foot peg	1	12	85 (8.5, 61)	Apply locking agent
Left foot peg	1	10	65 (6.5, 47)	

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

STANDARD TORQUE VALUES

TYPE	TORQUE N·m (kg-m, ft-lb)	TYPE	TORQUE N·m (kg-m, ft-lb)
5 mm bolt and nut	5.3 (0.53, 4)	5 mm screw	4.3 (0.43, 3)
6 mm bolt and nut	10 (1.0, 7)	6 mm screw, 6 mm	
8 mm bolt and nut	22 (2.2, 16)	bolt with small head	9 (0.9, 7)
10 mm bolt and nut	35 (3.5, 25)	6 mm flange bolt and nut	12 (1.2, 9)
12 mm bolt and nut	55 (5.5, 40)	10 mm flange bolt, nut	40 (4.0, 29)

TOOLS

SPECIAL

DESCRIPTION	TOOL NUMBER	ALTERNATE TOOL	NUMBER	REFER TO SECTION
Oil filter wrench	07HAA–PJ70100			2
Oil pressure gauge	07506–3000000	Equivalent Commercially available in U.S.A		2
Oil pressure gauge attachment	07510–4220100			2
Valve clearance adjusting wrench	07908–KE90000	Valve adjust wrench	07908–KE90100	3
Vacuum gauge	07404–0030000	Vacuum gauge set	M937B–021–XXXXX	3
Compression gauge	07305–0010000			3
Clutch center holder	07923–KE10000	Clutch center holder	07HGB–001000A	7
Valve guide reamer (IN)	07984–2000001	Valve guide reamer	07984–200000C (U.S.A. only)	9
Valve guide reamer (EX)	07984–ZE20001	Valve guide reamer	07984–ZE2000C (U.S.A. only)	9
Valve guide driver attachment (IN)	07943–MF50100			9
Valve guide driver attachment (EX)	07943–MF50200			9
Bearing remover set	07936–3710001	Not available in U.S.A.		11
–remover handle	07936–3710100			
–bearing remover set	07936–3710600			
–remover sliding weight	07741–0010201	Remover weight	07936–3710200	
*Bearing driver attachment	07HMF–MM90400			11
Fork seal driver	07947–KA50100			13
Fork seal driver attachment	07947–KF00100			13
Steering stem socket	07916–3710100			13
Ball race remover	07953–MA00000	Adjustable bearing remover	07736–A01000A	13
Steering stem driver	07946–4300100	Steering stem dirver	07946–MB00000 with GN HT54	13
Needle bearing driver	07946–KA50000			14
Driver shaft	07946–MJ00100			14
Snap ring pliers	07914–3230001			2, 15

: The tools marked "" are new for this model.

COMMON

DESCRIPTION	TOOL NUMBER	ALTERNATE TOOL	NUMBER	REFER TO SECTION
Wrench, 10 x 12 mm	07708–0030200	Equivalent Commercially available in U.S.A		3
Spanner C, 5.8 x 6.1 mm	07701–0020300			3
Float level gauge	07401–0010000			4
Lock nut wrench, 17 x 27 mm	07716–0020300			7
Extention bar	07716–0020500	Equivalent commercially available in U.S.A.		7, 13, 14
Gear holder	07724–0010100	Not available in U.S.A.		7
Rotor puller	07733–0020001			8
Flywheel holder	07725–0040000			8
Valve guide driver, 5.5 mm (IN)	07742–0010100			9
Valve guide driver, 6.6 mm (EX)	07742–0010200	Valve guide driver	07942–6570100	9
Valve spring compressor	07757–0010000			9
Driver	07749–0010000			11, 13, 14
Attachment, 42 x 47 mm	07746–0010300			11, 13, 14
Attachment, 52 x 55 mm	07746–0010400			11
Pilot, 20 mm	07746–0040500			11
Pilot, 22 mm	07746–0041000			11
Pilot, 25 mm	07746–0040600			11
Bearing remover shaft	07746–0050100	Equivalent commercially available in U.S.A.		13, 14
Bearing remover head, 15 mm	07746–0050400			13
Attachment, 32 x 35 mm	07746–0010100			13, 14
Pilot, 15 mm	07746–0040300			13
Lock nut wrench, 30 x 32 mm	07716–0020400	Equivalent commercially available in U.S.A.		13
Bearing remover head, 17 mm	07746–0050500			14
Pin spanner	89201–KA4–811			14
Pin spanner	89202–KA4–811			14
Attachment, 37 x 40 mm	07746–0010200			14
Pilot, 17 mm	07746–0040400			14
Attachment, 24 x 26 mm	07746–0010700			14
TESTER:				
Digital multi-tester (KOWA)	07411–0020000		or KS–AHM–32–003 (U.S.A. only)	16, 17, 18, 19
Circuit tester (SANWA) or	07308–0020000			16, 17, 18, 19
Circuit tester (KOWA)	TH–5H			16, 17, 18, 19
Honda battery tester	07GMJ–0010000			16
Christie battery charger	MC1012/2	U.S.A. only		16

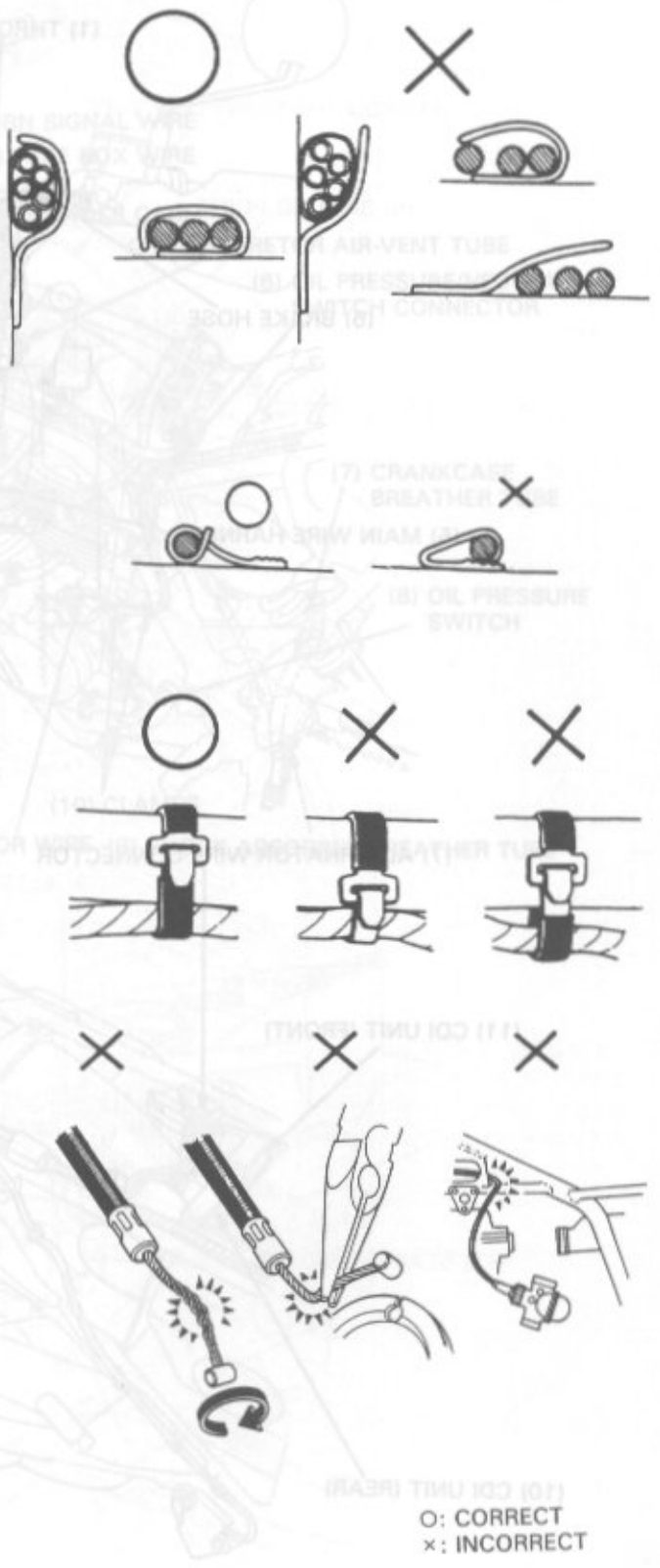
VALVE SEAT CUTTER

DESCRIPTION		TOOL NUMBER	REFER TO SECTION
Cutter holder	IN 5.5 mm	07781–0010101	9
	EX 6.6 mm	07781–0010201	
Float cutter	IN 28 mm (32°)	07780–0012100	
	EX 35 mm (32°)	07780–0012300	
Interior cutter	IN 30 mm (60°)	07780–0014000	
	EX 37.5 mm (60°)	07780–0014100	
Seat cutter	IN 27.5 mm (45°)	07780–0010200	
	EX 35 mm (45°)	07780–0010400	

CABLE AND 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.
- Do not squeeze wires against the 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 insulated surfaces contact the wires or wire harnesses.
- Route harnesses so they are not pulled taut or have no 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 insulators. 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 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 a long the handlebar 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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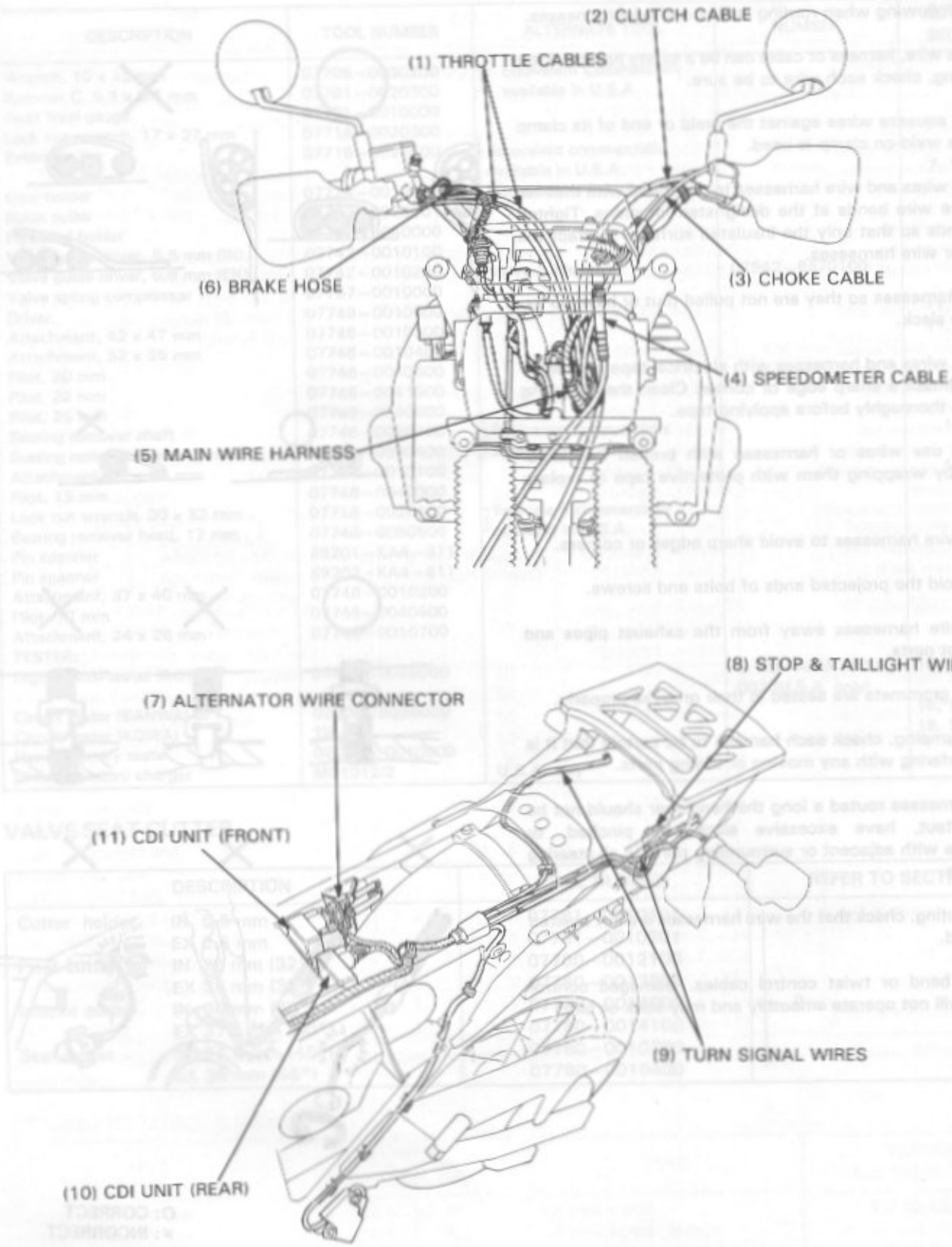
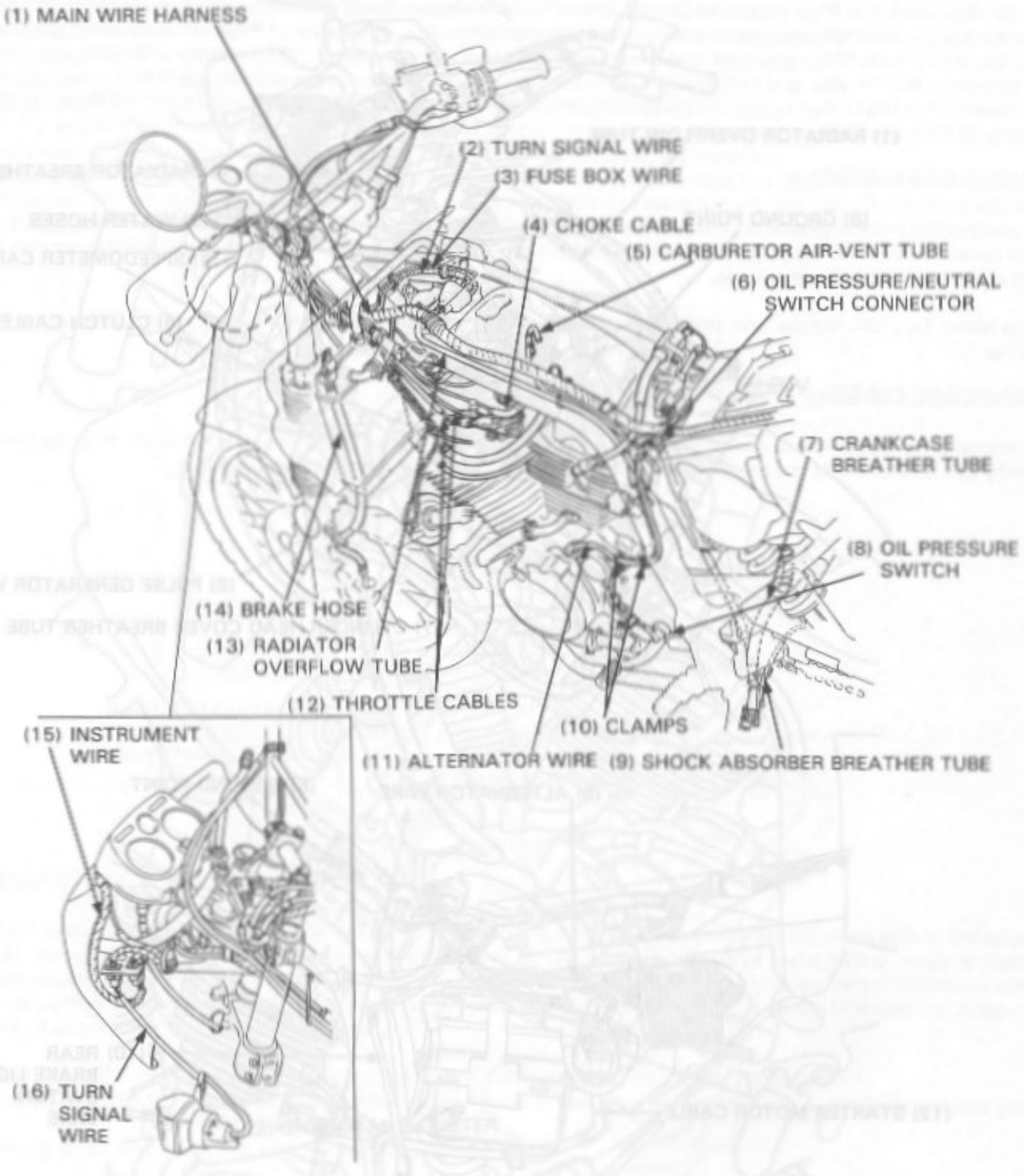
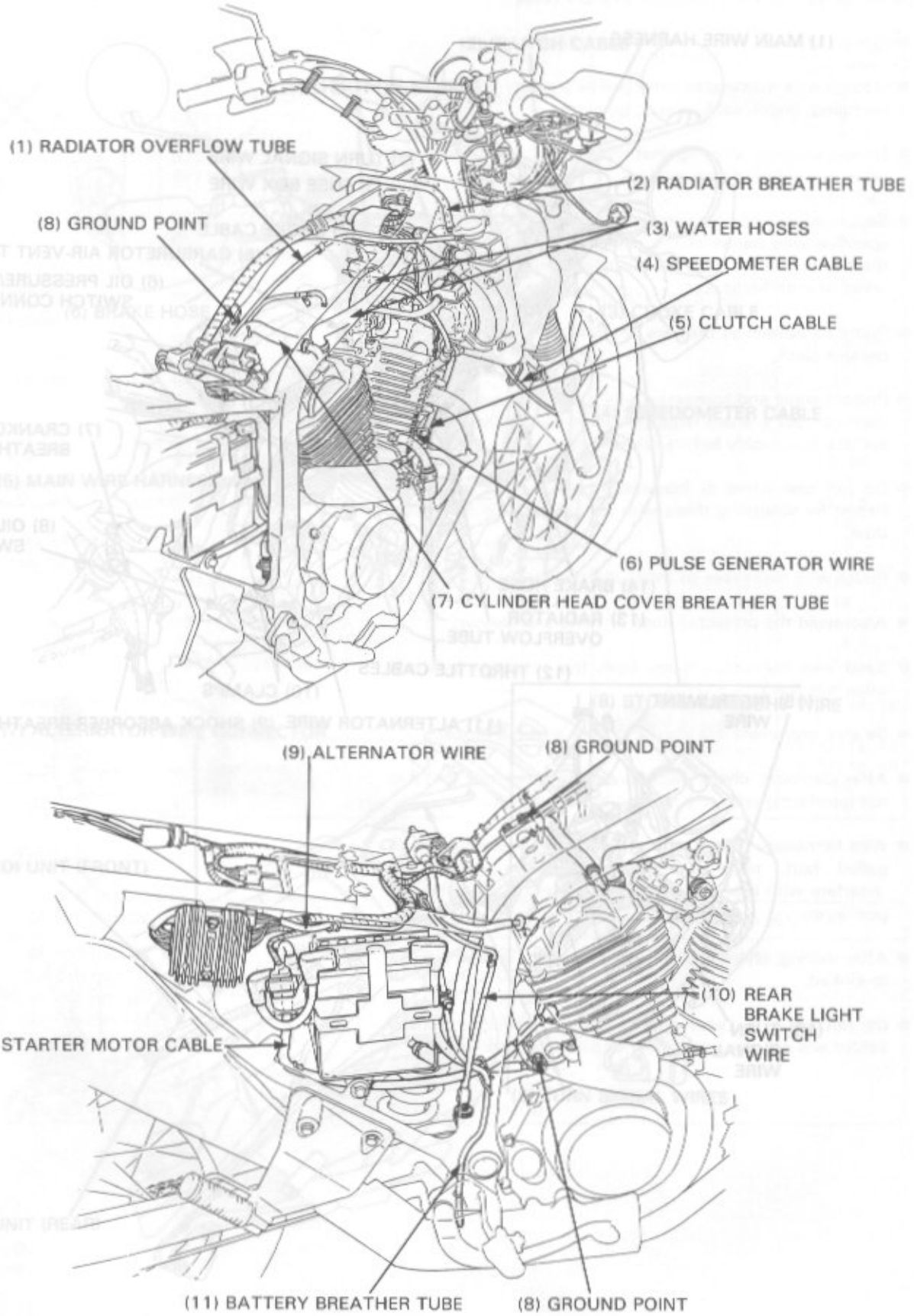
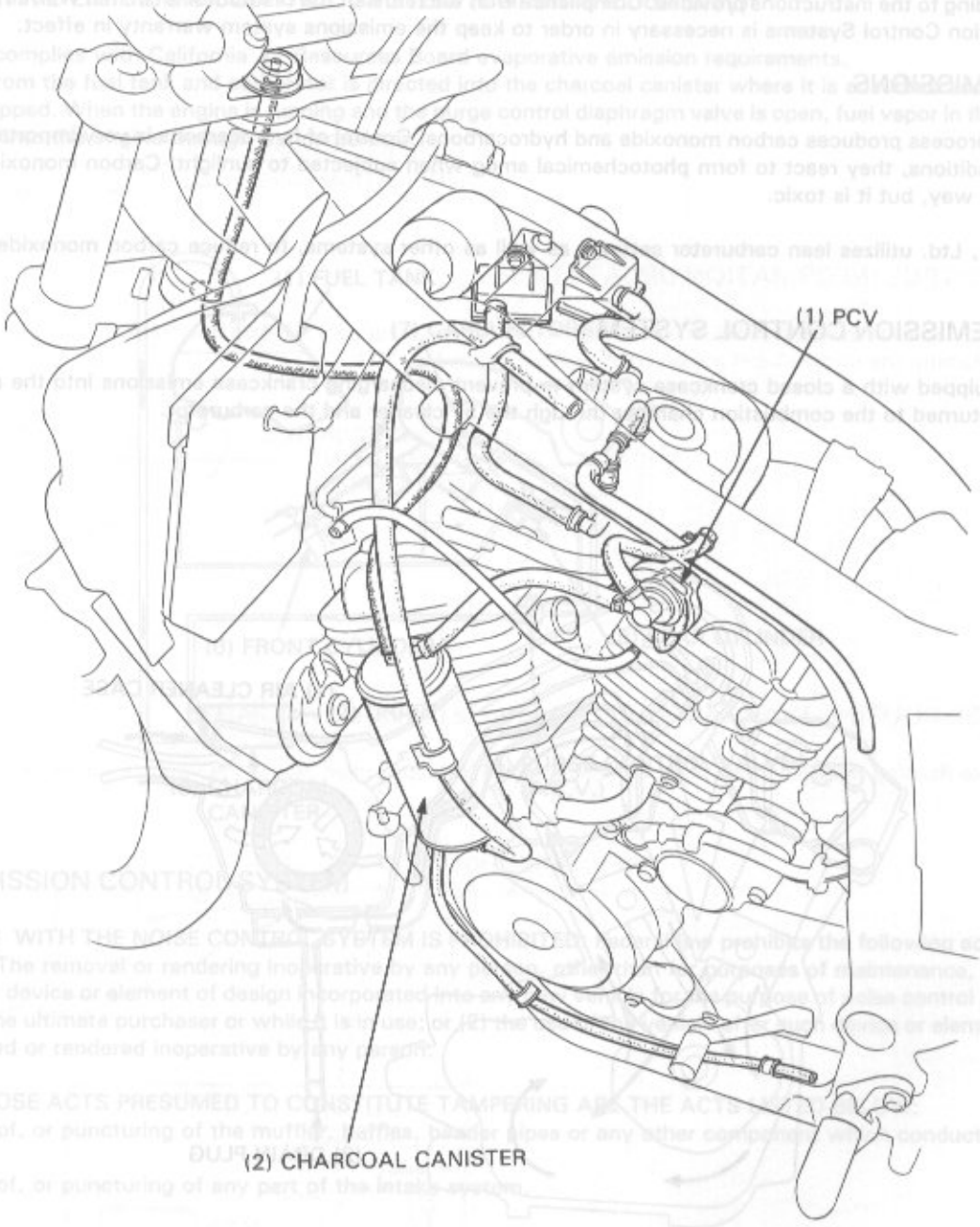

(2) CLUTCH CABLE
(1) THROTTLE CABLES
(6) BRAKE HOSE
(3) CHOKE CABLE
(4) SPEEDOMETER CABLE
(5) MAIN WIRE HARNESS
(8) STOP & TAILLIGHT WIRE
(7) ALTERNATOR WIRE CONNECTOR
(11) CDI UNIT (FRONT)
(9) TURN SIGNAL WIRES
(10) CDI UNIT (REAR)


(1) MAIN WIRE HARNESS
(2) TURN SIGNAL WIRE
(3) FUSE BOX WIRE
(4) CHOKE CABLE
(5) CARBURETOR AIR-VENT TUBE
(6) OIL PRESSURE/NEUTRAL SWITCH CONNECTOR
(7) CRANKCASE BREATHER TUBE
(8) OIL PRESSURE SWITCH
(9) SHOCK ABSORBER BREATHER TUBE
(10) CLAMPS
(11) ALTERNATOR WIRE
(12) THROTTLE CABLES
(13) RADIATOR OVERFLOW TUBE
(14) BRAKE HOSE
(15) INSTRUMENT WIRE
(16) TURN SIGNAL WIRE


(1) RADIATOR OVERFLOW TUBE
(2) RADIATOR BREATHER TUBE
(8) GROUND POINT
(3) WATER HOSES
(4) SPEEDOMETER CABLE
(5) CLUTCH CABLE
(6) PULSE GENERATOR WIRE
(7) CYLINDER HEAD COVER BREATHER TUBE
(9) ALTERNATOR WIRE
(8) GROUND POINT
(10) REAR BRAKE LIGHT SWITCH WIRE
(12) STARTER MOTOR CABLE
(11) BATTERY BREATHER TUBE
(8) GROUND POINT

CALIFORNIA MODEL ONLY



EMISSION CONTROL SYSTEMS

The U.S. Environmental Protection Agency and California Air Resources Board (CARB) require manufacturers to certify that their motorcycles comply with applicable exhaust emissions standards during their useful life, when operated and maintained according to the instructions provided, and that motorcycles 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 Limited Warranty for Honda Motorcycle Emission Control Systems is necessary in order to keep the emissions system warranty in effect.

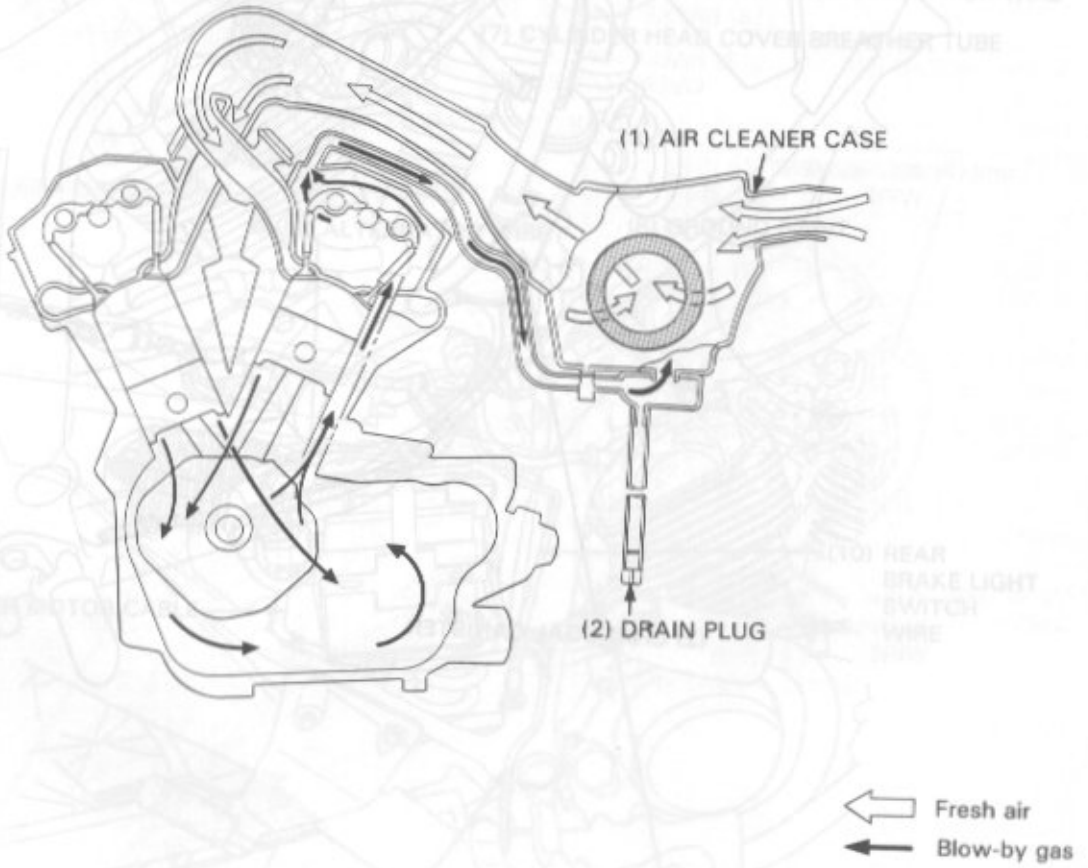
SOURCE OF EMISSIONS

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.

CRANKCASE EMISSION CONTROL SYSTEM

The engine is equipped with a closed crankcase system to prevent discharging crankcase emissions into the atmosphere. Blow-by gas is returned to the combustion chamber through the air cleaner and the carburetor.

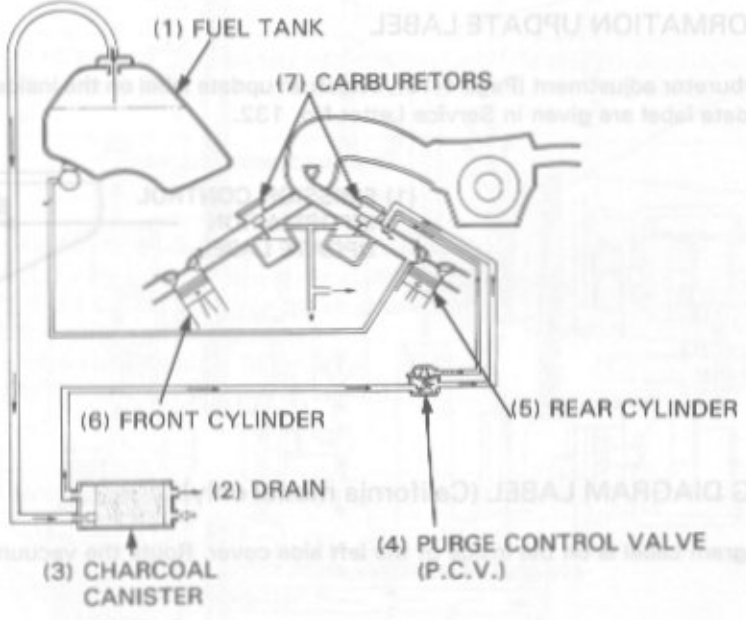


EXHAUST EMISSION CONTROL SYSTEM

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

EVAPORATIVE EMISSION CONTROL SYSTEM (California model only)

This model complies with California Air Resources Board evaporative emission requirements.
Fuel vapor from the fuel tank and carburetor is directed into the 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

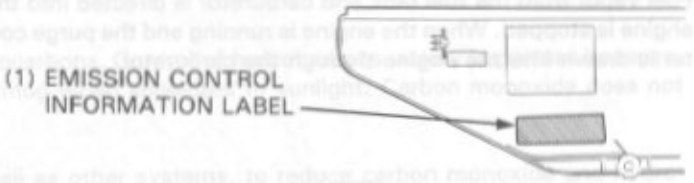
TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle 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 of 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.

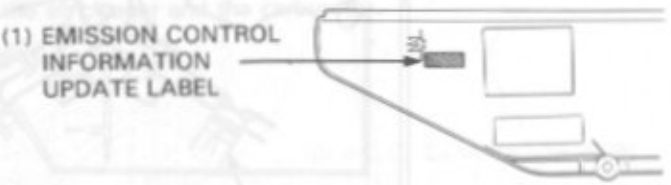
EMISSION CONTROL INFORMATION LABELS (U.S.A. only)

An Emission Control Information Label is located on the inside of the left side cover as shown. It contains basic tune-up specifications.



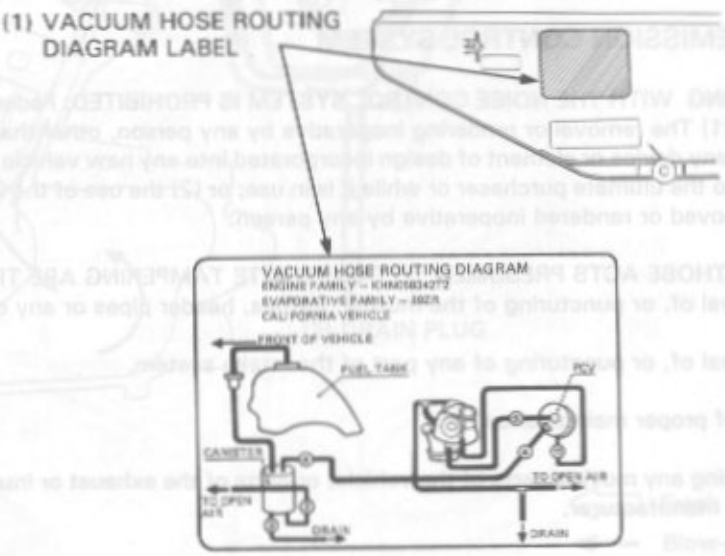
EMISSION CONTROL INFORMATION UPDATE LABEL

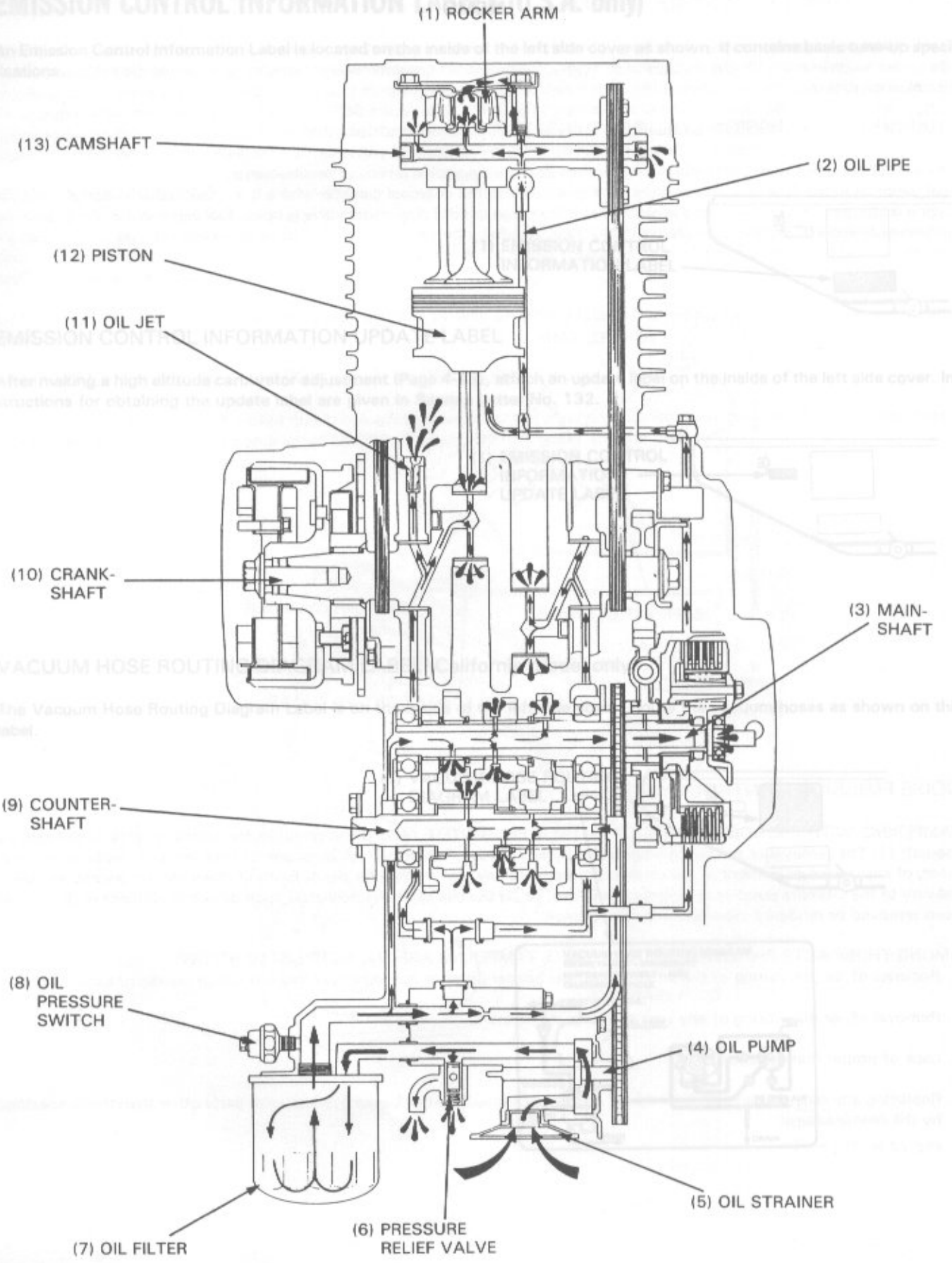
After making a high altitude carburetor adjustment (Page 4-19), attach an update label on the inside of the left side cover. Instructions for obtaining the update label are given in Service Letter No. 132.



VACUUM HOSE ROUTING DIAGRAM LABEL (California model only)

The Vacuum Hose Routing Diagram Label is on the inside of the left side cover. Route the vacuum hoses as shown on this label.




(1) ROCKER ARM
(13) CAMSHAFT
(2) OIL PIPE
(12) PISTON
(11) OIL JET
(10) CRANK-SHAFT
(3) MAIN-SHAFT
(9) COUNTER-SHAFT
(8) OIL PRESSURE SWITCH
(4) OIL PUMP
(5) OIL STRAINER
(7) OIL FILTER
(6) PRESSURE RELIEF VALVE

SERVICE INFORMATION

GENERAL

- It is necessary to remove the engine from the frame to service the oil pump.

CAUTION

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

SPECIFICATIONS

Oil capacity	2.8 lit (2.96 US qt, 2.46 Imp qt) after disassembly. 2.4 lit (2.54 US qt, 2.11 Imp qt) at oil filter and oil change. 2.2 lit (2.32 US qt, 1.94 Imp qt) after draining.
Recommended oil	HONDA 4 stroke oil or equivalent API service classification: SE or SF VISCOSITY: SAE 20 W–50/10 W–40

NOTE

- Use SAE 10 W–40 oil when the outside temperature is below 0° C (32° F).

Other viscosities shown in the chart may be used when the average temperature in your riding area is within the indicated range.

Oil pump

ITEM	STANDARD	SERVICE LIMIT
Rotor tip clearance	0.15 mm (0.006 in)	0.20 mm (0.008 in)
Pump body clearance	0.15–0.22 mm (0.006–0.009 in)	0.35 mm (0.014 in)
Pump end clearance	0.02–0.07 mm (0.001–0.003 in)	0.10 mm (0.004 in)
Oil pressure	490–588 kPa (5.0–6.0 kg/cm², 71–85 psi) at 5,000 rpm	—

TORQUE VALUES

Oil pressure switch	12 N·m (1.2 kg-m, 9 ft-lb)
Engine oil drain bolt	35 N·m (3.5 kg-m, 25 ft-lb)
Oil filter	10 N·m (1.0 kg-m, 7 ft-lb)

TOOLS

Special

Oil filter wrench	07HAA—PJ70100	
Oil pressure gauge	07506—3000000	Equivalent commercially available in U.S.A.
Oil pressure gauge attachment	07510—4220100	
Snap ring pliers	07914—3230001	

TROUBLESHOOTING

Oil level too low
- Normal oil consumption
- External oil leaks
- Worn piston rings

Oil contamination
- Oil not changed often enough
- Faulty head gasket
- Worn piston rings

Low oil pressure
- Faulty oil pump
- Clogged oil strainer
- Low oil level
- Faulty pressure relief valve
- Oil leaks

High oil pressure
- Faulty pressure relief valve
- Clogged oil filter or oil orifice

No oil pressure
- Too low oil level
- Broken oil pump drive or driven sprockets
- Broken oil pump drive chain
- Faulty oil pump
- Oil leaks