

HOW TO USE THIS MANUAL

This manual is based on the '83 VT750C. Any information that differs between the after '83 models is called out in the text or in a note.

Follow the Maintenance Schedule (Section 3) recommendations to ensure that the vehicle is in peak operating condition and the emission levels are within the standards set by the U.S. Environmental Protection Agency. 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 21 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 are not familiar with this motorcycle, read the Technical Features in section 23.

If you don't know the source of the trouble, go to section 24, Troubleshooting.

All information, illustrations, directions and specifications included in this publication are based on the latest product information available at the time of approval for printing. HONDA MOTOR CO., LTD. reserves the right to make changes at any time without notice and without incurring any obligation whatever. No part of this publication may be reproduced without written permission.

HONDA MOTOR CO., LTD.
 SERVICE PUBLICATIONS OFFICE

	GENERAL INFORMATION	1
	LUBRICATION	2
	MAINTENANCE	3
ENGINE	FUEL SYSTEM	4
	ENGINE REMOVAL/INSTALLATION	5
	COOLING SYSTEM	6
	CLUTCH SYSTEM	7
	ALTERNATOR/STARTER CLUTCH	8
	GEARSHIFT LINKAGE	9
	CYLINDER HEAD/VALVE	10
	CYLINDER/PISTON	11
	CRANKCASE	12
	CRANKSHAFT/TRANSMISSION	13
	FINAL DRIVE	14
CHASSIS	FRONT WHEEL/SUSPENSION	15
	REAR WHEEL/SUSPENSION/BRAKE	16
	HYDRAULIC BRAKES	17
ELECTRICAL	BATTERY/CHARGING SYSTEM	18
	IGNITION SYSTEM	19
	ELECTRIC STARTER	20
	SWITCHES	21
	WIRING DIAGRAM	22
	TECHNICAL FEATURES	23
	TROUBLESHOOTING	24

I. GENERAL INFORMATION

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

GENERAL SAFETY

WARNING

If the engine must be running to do some work, make sure the area is well-ventilated. Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas.

WARNING

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

WARNING

The battery electrolyte contains sulfuric acid. Protect your eyes, skin and clothing. In case of contact, flush thoroughly with water and call a doctor if electrolyte gets in your eyes.

WARNING

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

SERVICE RULES

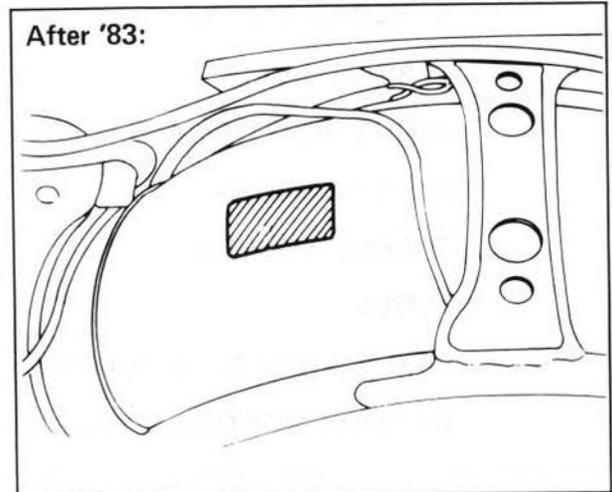
1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalents. Parts that do not meet HONDA's design specifications may damage the motorcycle.
2. Use the special tools designed for this product.
3. Use only metric tools when servicing this motorcycle. Metric bolts, nuts, and screws 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 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.

GENERAL INFORMATION

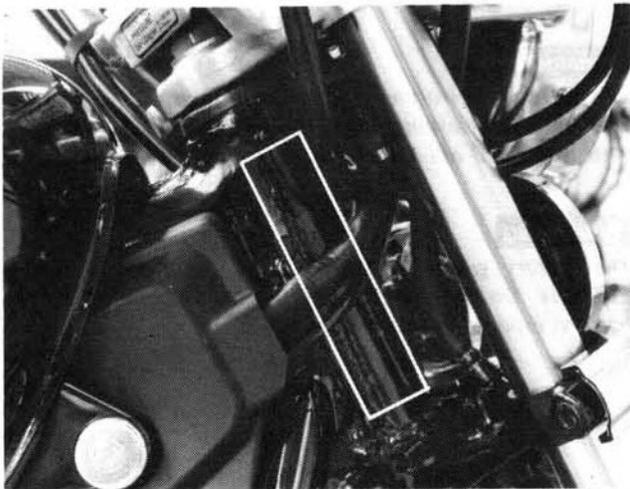
MODEL IDENTIFICATION



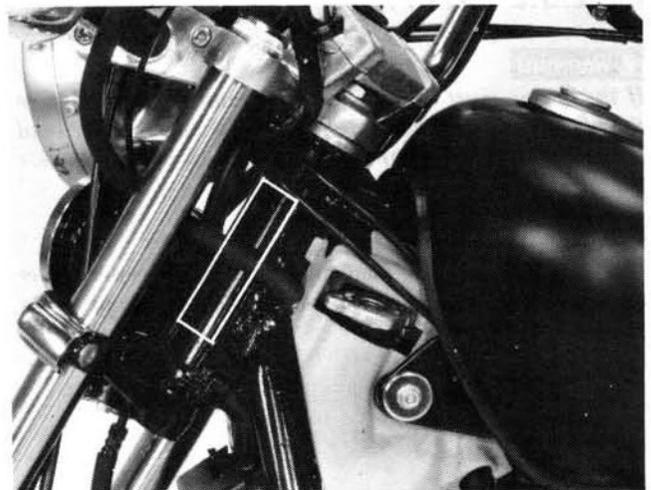
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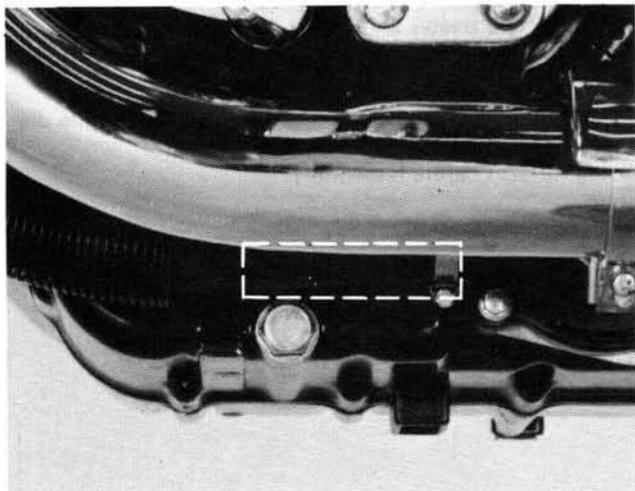
The color label is attached to the rear fender under the seat.



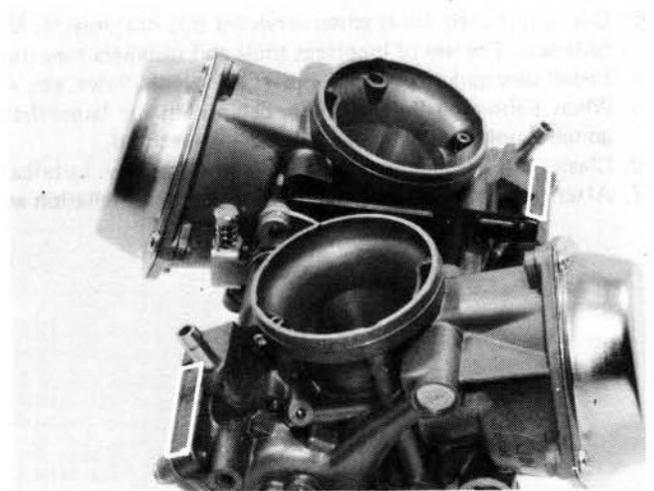
The frame serial number is stamped on the steering head right side.



The vehicle identification number (VIN) is on the steering head left side.



The engine serial number is stamped on the lower left crankcase.



The carburetor identification number is on the carburetor body intake side.

SPECIFICATIONS

ITEM			
DIMENSIONS	Overall length	2,190 mm (86.2 in)	
	Overall width	860 mm (33.8 in)	
	Overall height	1,200 mm (47.2 in)	
	Wheelbase	1,525 mm (60.0 in)	
	Seat height	760 mm (29.9 in)	
	Foot peg height	330 mm (13.0 in)	
	Ground clearance	150 mm (5.90 in)	
	Dry weight	211 kg (465 lb)	
	Curb weight	225 kg (496 lb)	
FRAME	Type	Double cradle	
	Front suspension, travel	Telescopic fork 145 mm (5.7 in)	
	Rear suspension, travel	Swingarm/Shock absorber, 103 mm (4.1 in)	
	Gross vehicle weight rating	395 kg (870 lb)	
	Vehicle capacity load	168 kg (370 lb)	
	Front tire size	110/90-19 62H	
	Rear tire size	140/90-15 70H	
	Cold tire pressures	Up to 90 kg (200 lbs) load	Front Rear
		Up to vehicle capacity load	Front Rear
		Front brake, lining swept area	Double disc 868 cm ² (134.5 sq in)
	Rear brake, lining swept area	Drum 201 cm ² (31.2 sq in)	
	Fuel capacity	12.5 liters (3.3 US gal, 2.75 Imp gal)	
	Fuel reserve capacity	2.0 liters (0.53 US gal, 0.44 Imp gal)	
	Caster angle	32°	
	Trail	139 mm (5.5 in)	
	Front fork oil capacity	470 cc (28.68 cu in)	
	Front fork air pressure	0-6 psi (0-40 kPa, 0-0.4 kg/cm ²)	
ENGINE	Type	Water cooled twin 4-stroke SOHC engine	
	Cylinder arrangement	2 cylinders 45° V	
	Bore and stroke	'83: 79.5 x 75.5 mm (3.13 x 2.97 in)	
		After '83: 76.5 x 75.5 mm (3.01 x 2.97 in)	
	Displacement	'83: 749.5 cm ³ (45.72 cu in)	
		After '83: 694.5 cm ³ (42.34 cu in)	
	Compression ratio	'83: 9.8 : 1	
		After '83: 9.6 : 1	
	Valve train	Silent, multi-link chain drive and OHC with rocker arms	
	Maximum horsepower	'83: 66 BHP/7,500 rpm	
		After '83: 62 BHP/7,500 rpm	
	Maximum torque	'83: 6.8 kg-m (49.4 ft-lb)/6,000 rpm	
		After '83: 6.3 kg-m (45.8 ft-lb)/6,000 rpm	
	Oil capacity	3.5 liters (3.7 US qt, 3.1 Imp qt) after disassembly	
		3.0 liters (3.2 US qt, 2.6 Imp qt) after draining	
	Coolant capacity	1.7 liters (1.8 US qt, 1.5 Imp qt)	
	Lubrication system	Forced pressure and wet sump	
	Air filtration	Urethane foam	
	Cylinder compression	12 ± 2 kg/cm ² (171 ± 28 psi)	
	Intake valve	Opens	'83, '84: 10° (BTDC)
Closes		'83, '84: 40° (ABDC)	
Opens		After '84: 5° (BTDC)	
Closes		After '84: 45° (ABDC)	
Exhaust valve	Opens	40° (BBDC)	
	Closes	10° (ATDC)	
Valves	Hydraulic tappet		
Engine weight	'83: 78 kg (172 lb)		
Idle speed	'83: 900 ± 100 rpm		
	After '83: 1000 ± 100 rpm		

GENERAL INFORMATION

ITEM			
CARBURETION	Carburetor type	36 mm (1.42 in) Vertical	
	Identification number	VD7AA VD7CA [Calif: VD7BA] VD7CB [Calif: VD7BB]	
	'83:		
	'84:		
	After '84:		
	Pilot screw initial setting	See page 4-12	
	Float level	7.5 mm (0.30 in)	
DRIVE TRAIN	Clutch	Wet, multi-plate	
	Transmission	5-speed with over drive	
	Primary reduction	1.737 : 1	
	Secondary reduction	0.806 : 1	
	Third reduction	1.188 : 1	
	Final reduction	3.400 : 1	
	Gear ratio I	2.294 : 1	
	Gear ratio II	1.619 : 1	
	Gear ratio III	1.292 : 1	
	Gear ratio IV	1.074 : 1	
	Gear ratio V	0.896 : 1	
	Over drive	0.750 : 1	
Gear shift pattern	Left foot operated return system, 1-N-2-3-4-5-OD		
Final drive gear oil capacity	'83:	170 cc (5.8 oz) after disassembly	
	After '83:	130 cc (4.4 oz) after draining	
		150 cc (5.1 oz) after disassembly	
		130 cc (4.4 oz) after draining	
ELECTRICAL	Ignition	Full transistor ignition	
	Ignition timing "F" mark	'83, '84:	5° BTDC at idle
		After '84:	10° BTDC at idle
	Full advance	'83, '84:	26° BTDC at 3,500 rpm
		After '84:	26° BTDC at 4,000 rpm
	Pulse air gap		0.3-0.9 mm (0.012-0.035 in)
	Starting system		Starting motor
	Alternator		340 W/5,000 rpm
	Battery capacity		12V-16AH
	Spark plug		NGK
		ND	
	Standard	DPR8EA-9	X24EPR-U9
	For cold climate (Below 5°C, 41°F)	DPR 7EA-9	X22EPR-U9
	For extended high speed riding	DPR 9EA-9	X27EPR-U9
Spark plug gap		0.8-0.9 mm (0.031-0.035 in)	
Firing order		Front-225°-Rear-495°-Front	
Fuse/Main fuse		10A, 15A/30A	
LIGHTS	Headlight (high/low beam)	60/55W	
	Tail/stoplight	8/27W 3/32 cp SAE NO. 1157	
	Front turn signal/running light	23/8W x 2 32/3 cp x 2 SAE NO. 1034	
	Rear turn signal	23W 32 cp SAE NO. 1073	
	Instrument lights	3W x 3	
	Neutral indicator	3W	
	Turn signal indicator	3W x 2	
	High beam indicator	3W	
	Oil pilot lamp	3W	
	Tail light warning lamp	3W	
	Fuel warning lamp	3W	
O.D. indicator lamp	3W		

TORQUE VALUES

● ENGINE

Item	Q'ty	Thread Dia. (mm)	Torque N-m (kg-m, ft-lb)	Remarks
Cylinder head cover cap nuts	8	10	35-45 (3.5-4.5, 25-33)	Include the cam chain cover.
cap nuts	4	8	20-25 (2.0-2.5, 14-18)	
bolts	12	8	20-25 (2.0-2.5, 14-18)	
Oil pipe	3	6	10-14 (1.0-1.4, 7-10)	Apply molybdenum disulfide grease to the threads.
Spark plug sleeves	2	30	10-15 (1.0-1.5, 7-11)	
Cam sprocket bolts	4	6	16-20 (1.6-2.0, 12-14)	Special
Connecting rod bearing cap nuts	4	9	41-45 (4.1-4.5, 30-33)	
Output drive shaft bolt	1	10	35-45 (3.5-4.5, 25-33)	Special
Countershaft bolt	1	10	35-45 (3.5-4.5, 25-33)	
Output gear case cap nuts	3	8	21-25 (2.1-2.5, 15-18)	Socket bolt
lock nuts	3	8	21-25 (2.1-2.5, 15-18)	
bolts	4	8	30-40 (3.0-4.0, 22-29)	
Output gear bearing lock nuts				
(Inner)	2	—	70-80 (7.0-8.0, 51-58)	
(Outer)	2	—	90-110 (9.0-11.0, 65-80)	
Center shift fork bolt	1	7	16-20 (1.6-2.0, 12-14)	Apply engine oil to the O-ring
Engine oil drain plug	1	14	30-40 (3.0-4.0, 22-29)	
Engine oil filter	1	20	15-20 (1.5-2.0, 11-14)	
Oil pressure switch	1	—	10-14 (1.0-1.4, 7-10)	
Primary gear bolt	1	12	80-100 (8.0-10.0, 58-72)	Apply 3-BOND® (No. 1211) or its equivalent to the bolt threads.
Clutch center lock nut	1	22	45-55 (4.5-5.5, 33-40)	
Clutch cover bolts	7	6	8-12 (0.8-1.2, 6-9)	Socket bolts
Crankcase	12	8	20-25 (2.0-2.5, 14-18)	
Right crankcase cover	14	6	8-12 (0.8-1.2, 6-9)	Socket bolts
Left crankcase cover	9	6	8-12 (0.8-1.2, 6-9)	
Flywheel bolt	1	12	80-100 (8.0-10.0, 58-72)	Left-hand threads
Starter clutch torx bolts	6	8	18-25 (1.8-2.5, 13-18)	
Neutral switch	1	14	10-14 (1.0-1.4, 7-10)	Apply LOCTITE® #200 or its equivalent to the bolt threads.
Timing cap	1	45	15-20 (1.5-2.0, 11-14)	
				Apply molybdenum disulfide grease to the threads.

● CHASSIS

Item	Q'ty	Tread Dia. (mm)	Torque N-m (kg-m, ft-lb)	Remarks
Handlebar upper holder	4	8	20-30 (2.0-3.0, 14-22)	
Caliper mounting bolts	4	10	30-40 (3.0-4.0, 22-29)	
Front axle	1	12	55-65 (5.5-6.5, 40-47)	
Axle pinch bolt	1	8	18-28 (1.8-2.8, 13-20)	
Front fork socket bolts	2	8	15-25 (1.5-2.5, 11-18)	
Fork tube caps	2	31	15-30 (1.5-3.0, 11-22)	
Steering bearing adjustment nuts	1	26	14-16 (1.4-1.6, 10-12)	
Steering stem nut	1	24	80-120 (8.0-12.0, 58-87)	
Front fork top pinch bolts	2	7	9-13 (0.9-1.3, 7-9)	
Front fork bottom pinch bolts	2	10	45-55 (4.5-5.5, 33-40)	

GENERAL INFORMATION

Item	Q'ty	Tread Dia. (mm)	Torque N-m (kg-m, ft-lb)	Remarks
Rear axle nut	1	16	60-80 (6.0-8.0, 43-58)	
Axle pinch bolt	1	8	20-30 (2.0-3.0, 14-22)	
Brake arm	1	8	24-30 (2.4-3.0, 17-22)	
Socket absorber mount nuts	4	10	30-40 (3.0-4.0, 22-29)	
Swingarm left pivot bolt	1	35	100-130 (10.0-13.0, 72-94)	
Swingarm right pivot bolt	1	23	10-14 (1.0-1.4, 7-10)	
Swingarm pivot lock nut	1	35	100-130 (10.0-13.0, 72-94)	
Front brake caliper bracket	2	10	30-40 (3.0-4.0, 22-29)	
Front brake caliper bolts	2	8	20-25 (2.0-2.5, 14-18)	
Front brake caliper pivot bolts	2	10	25-30 (2.5-3.0, 18-22)	
Front brake disc	5	8	35-40 (3.5-4.0, 25-29)	
Brake hose bolts	5	10	25-35 (2.5-3.5, 18-25)	
Brake panel stop bolt	1	8	18-25 (1.8-2.5, 13-18)	
Engine hanger bolts	1	8	20-30 (2.0-3.0, 14-22)	
	2	10	45-60 (4.5-6.0, 23-43)	
	1	12	60-80 (6.0-8.0, 43-58)	
Final drive flange	5	10	50-60 (5.0-6.0, 36-43)	
Final gear case nuts	3	10	60-70 (6.0-7.0, 43-51)	UBS
Gear case cover bolts	2	10	35-45 (3.5-4.5, 25-33)	
	6	8	23-28 (2.3-2.8, 17-20)	
Exhaust pipe joint nuts	4	6	8-14 (0.8-1.4, 6-10)	
Exhaust pipe clamp bolts	4	8	18-28 (1.8-2.8, 13-20)	
Sub-frame bolts	Upper 2	10	70-80 (7.0-8.0, 51-58)	Socket bolt
	Lower 2	10	35-45 (3.5-4.5, 25-33)	
Pinion nut	1	16	100-120 (10-12, 72-87)	
Pinion bearing retainer	1	—	100-120 (10-12, 72-87)	
Clutch fluid reservoir cover	2	4	1-2 (0.1-0.2, 0.7-0.9)	
Clutch lever pivot nut	1	6	5-7 (0.5-0.7, 4-5)	

Torque specifications listed above are for important fasteners. Others should be tightened to standard torque values listed on belows.

• 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	4-6 (0.4-0.6, 3-4)	5 mm screw	3-5 (0.3-0.5, 2-4)
6 mm bolt and nut	8-12 (0.8-1.2, 6-9)	6 mm screw	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	20-30 (2.0-3.0, 14-22)
12 mm bolt and nut	50-60 (5.0-6.0, 36-43)	10 mm flange bolt and nut	30-40 (3.0-4.0, 22-29)

TOOLS

● SPECIAL

Description	Part No.	Remarks/Alternative tool	Part No.	Ref. Sect.
Oil filter wrench	07912-MB00000	These tools are new and have not been used.		2
Hydraulic tappet bleeder	07973-ME90000			10
Main bearing remover attachment	07946-ME90100			13
Main bearing driver attachment	07946-ME90200			13.
Pinion joint holer	07926-ME90000			14
S/A lock nut wrench	07908-ME90000			17
Oil pressure gauge	07506-3000000	Equivalent commercially available in U.S.A.		2
Oil pressure gauge attachment	07510-4220100			2
Vacuum gauge set	07404-0020000	Vacuum gauge set (U.S.A. only)	M937B-021-XXXX	3
Hand vacuum pump/gauge	ST-AH-260-MC7	Hand vacuum pump/gauge (U.S.A. only)	A973X-041-XXXX	4
Valve guide driver, 7 mm	07942-8230000			4
Snap ring pliers	07914-3230001			7, 15, 16
Shaft holder	07923-6890101			7, 12, 13
Gear holder	07924-MC70001	Modify 07924-4150000 or 07924-MC70000		7, 10
Torx bit	_____	Equivalent commercially available in U.S.A.		8
Fork tube holder attachment	07930-KA50100			10
Valve guide driver attachment (IN)	07943-6570100			10
(EX)	07943-6890100			10
Valve guide reamer	07984-6570100			10
Valve guide remover, 6.1 mm	07942-6570100			10
Lock nut wrench, 30/64 mm	07916-MB00000			13, 14
Remover handle	07936-3710100			13, 17
Bearing remover, 17 mm	07936-3710300			13
Bearing remover, 20 mm	07936-3710600			13
Attachment	07946-3710200			13
Driver	07949-3710000			13, 14
Damper compressor	07964-3710000			13
Ring gear Dis/Assembly tool	07965-3710100			13
Main bearing remover/driver	07973-MC70000			13
Driver	07947-4630300	Fork seal driver Attachment, 37x40 mm	07947-3710101	14
			07746-0010200	14
Pinion puller	07935-MB00000	Pinion puller	07931-4630200	14
		Pinion puller attachment kit	07931-MB00000	14
Attachment	07945-3330300			14
Attachment	07947-6340201			14
O-ring guide	07973-4630200			14
Steering stem socket	07916-3710100			15

Description	Part No.	Remarks/Alternative tool	Part No.	Ref. Sect.
Hex wrench, 6 mm	07917-3230000	Equivalent commercially available in U.S.A.		15
Steering stem driver	07946-MB00000	Steering stem driver	07946-3710100	15
		Shock absorber compressor attachment (Collar)	07964-MB00200	15
Fork seal driver	07947-4630100			15
Swingarm bearing remover	07936-4150000	Swingarm pivot remover	07936-3710500	17
Shockabsorber compressor attachment	07959-MB10000			17
Socket bit, 10 mm	07917-3710000			17

● COMMON

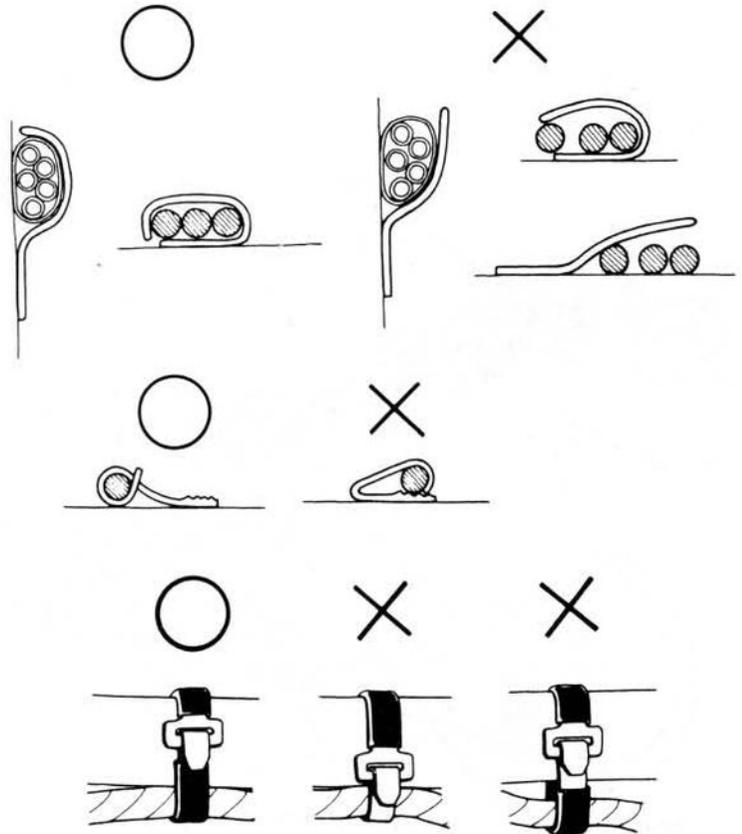
Description	Part No.	Remarks/Alternative tool	Part No.	Ref. Sect.
Float level gauge	07401-0010000			4
Lock nut wrench 17 x 27 mm	07716-0020300			7
Extension bar	07716-0020500			7, 15
Attachment, 37 x 40 mm	07746-0010200			7, 14
Pilot, 35 mm	07746-0040800			7
Driver	07749-0010000			7, 13, 14, 15, 17
Rotor puller	07733-0020001	Rotor puller	07933-3950000	8
Valve guide driver	07742-0010200	Valve guide driver	07942-6570100	10
Valve spring compressor	07757-0010000	Valve spring compressor	07957-3290001	10
Remover weight	07741-0010201	Remover weight	07936-3710200	13, 17
Attachment, 32 x 35 mm	07746-0010100			13, 14, 17
Attachment, 42 x 47 mm	07746-0010300			13, 14, 15, 17
Attachment, 52 x 55 mm	07746-0010400			13, 14
Attachment, 62 x 68 mm	07746-0010500			13
Pilot, 17 mm	07746-0040400			13, 17
Pilot, 25 mm	07746-0040600			13
Pilot, 30 mm	07746-0040700			13, 14
Attachment, 30 mm I.D.	07746-0030300			13
Driver	07746-0030100			14
Attachment, 25 mm I.D.	07746-0030200			14
Lock nut wrench, 30 x 32 mm	07716-0020400	Equivalent commercially available in U.S.A.		15
Pilot, 15 mm	07746-0040300			15
Bearing remover expander	07746-0050100	Equivalent commercially available in U.S.A.		15, 17
Bearing remover collect, 15 mm	07746-0050400	Equivalent commercially available in U.S.A.		15, 17
Shock absorber compressor	07959-3290001			17
Bearing remover collet, 17 mm	07746-0050500	Equivalent commercially available in U.S.A.		17
Socket bit, 17 mm	07703-0020500	Equivalent commercially available in U.S.A.		17

CABLE & HARNESS ROUTING

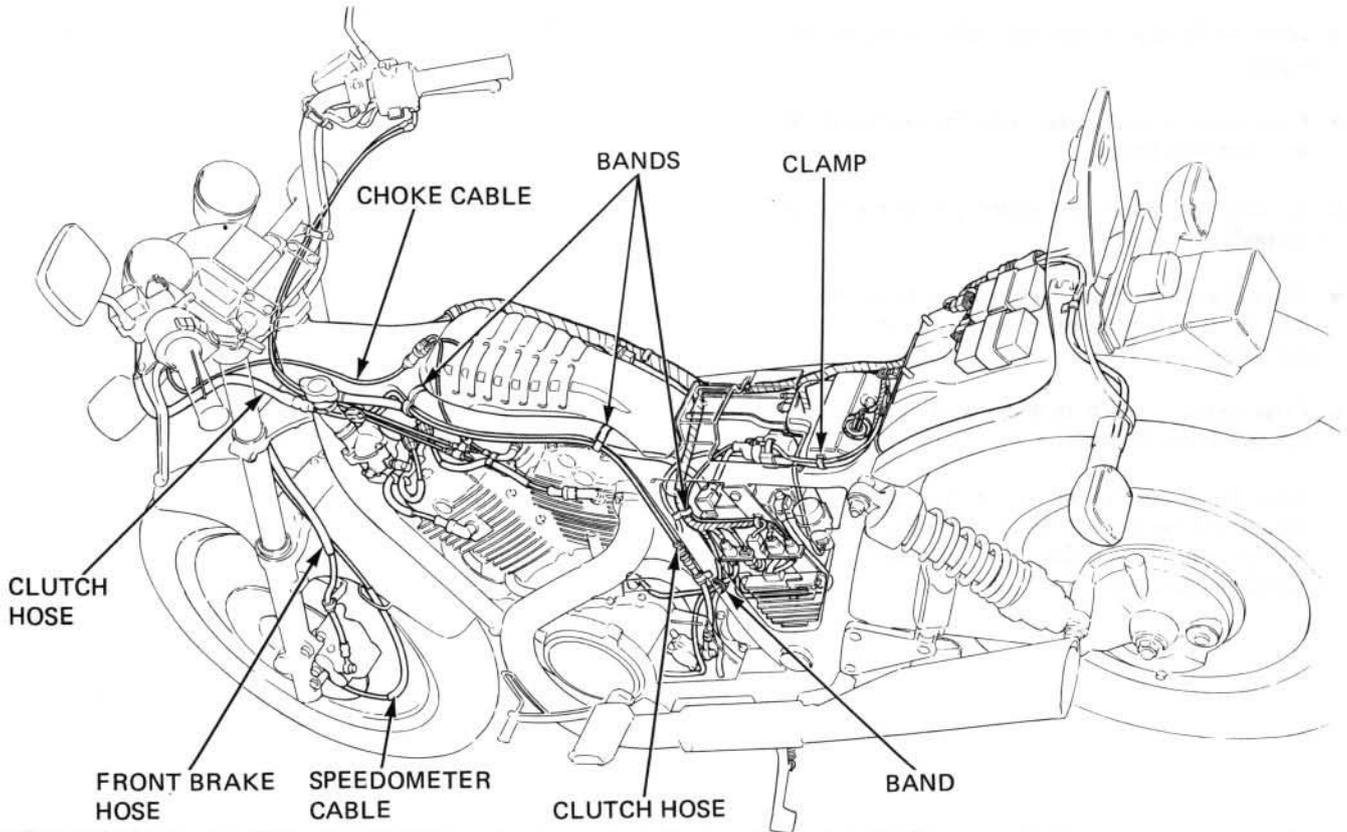
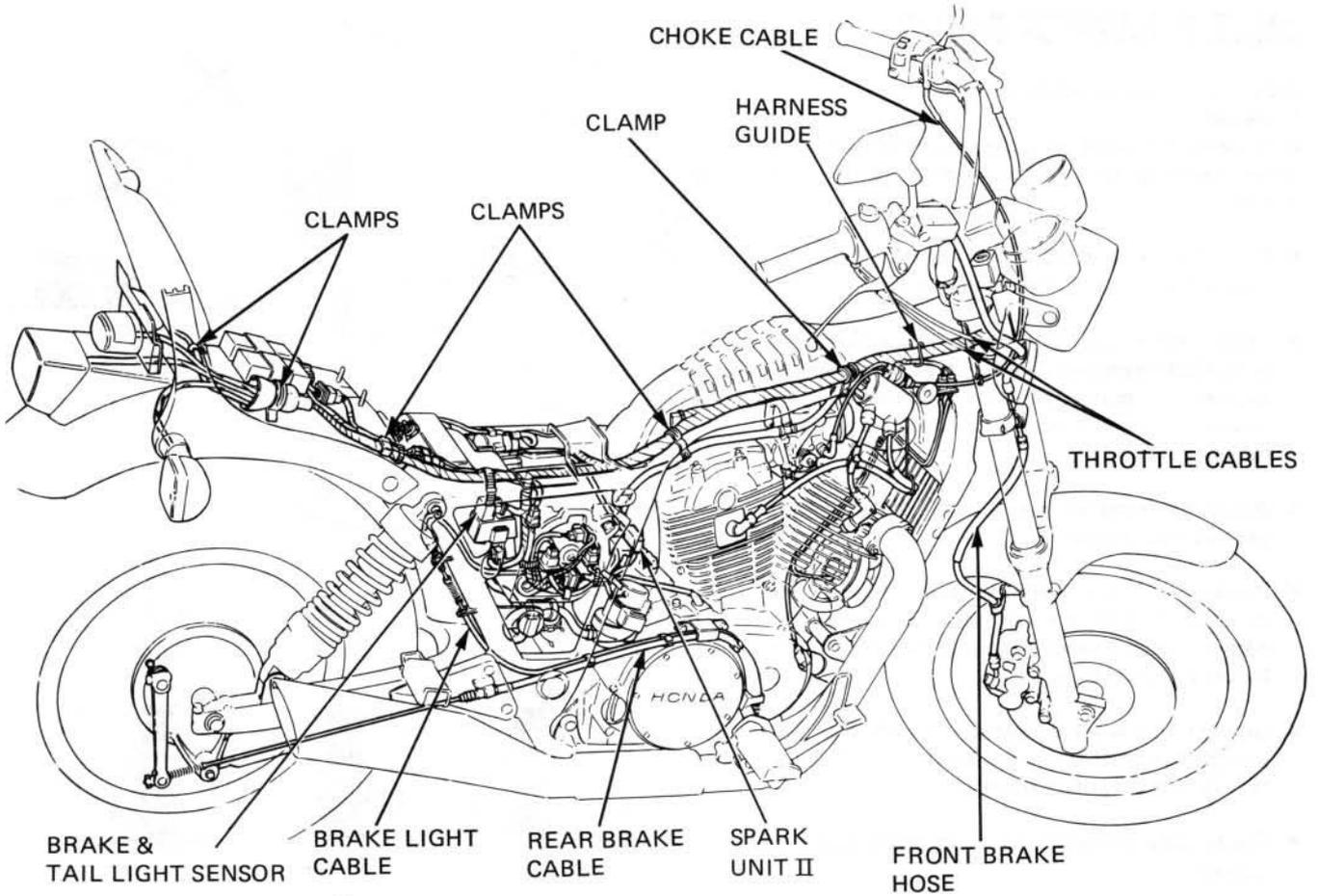
Note the following when routing cables and wire harnesses.

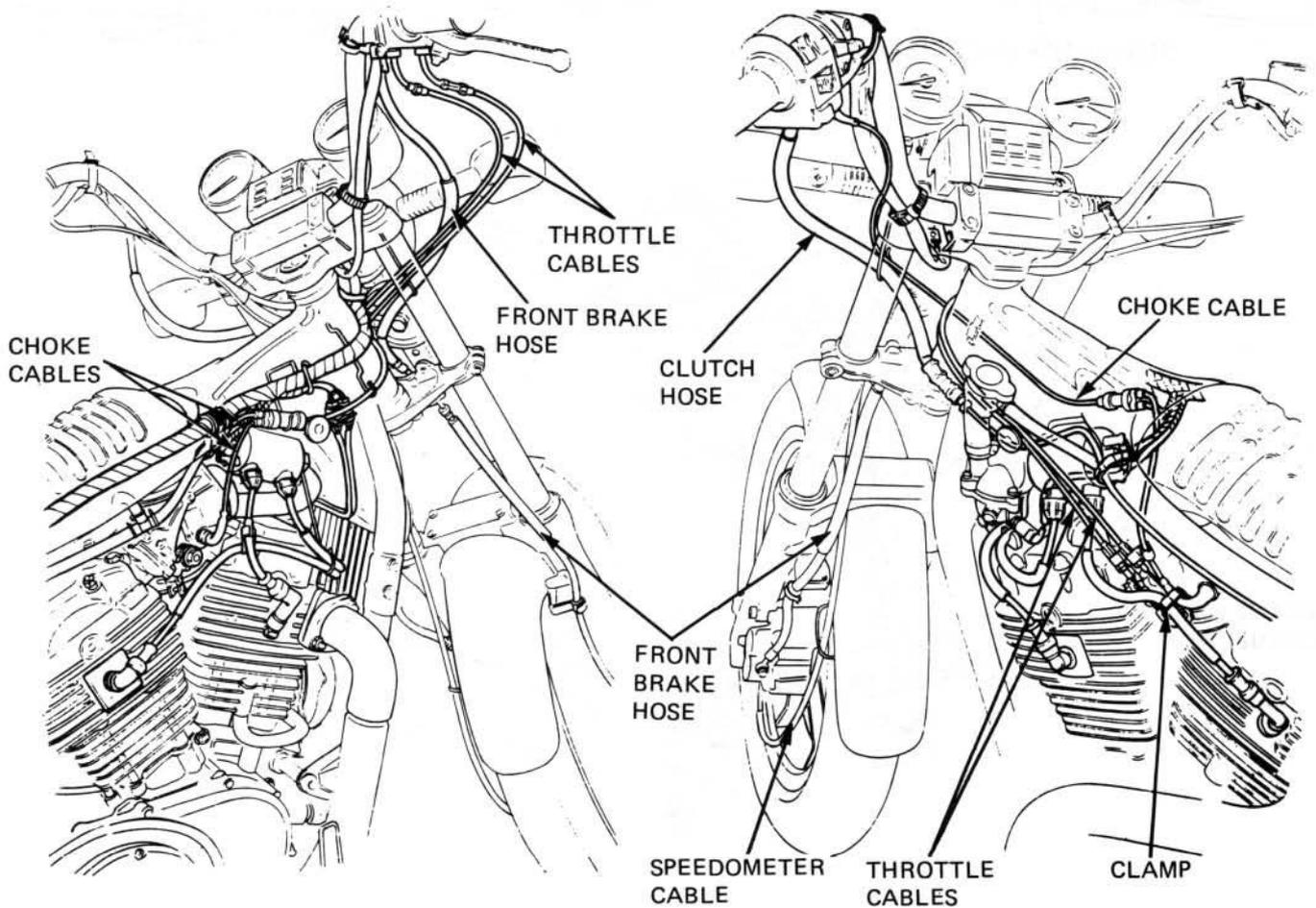
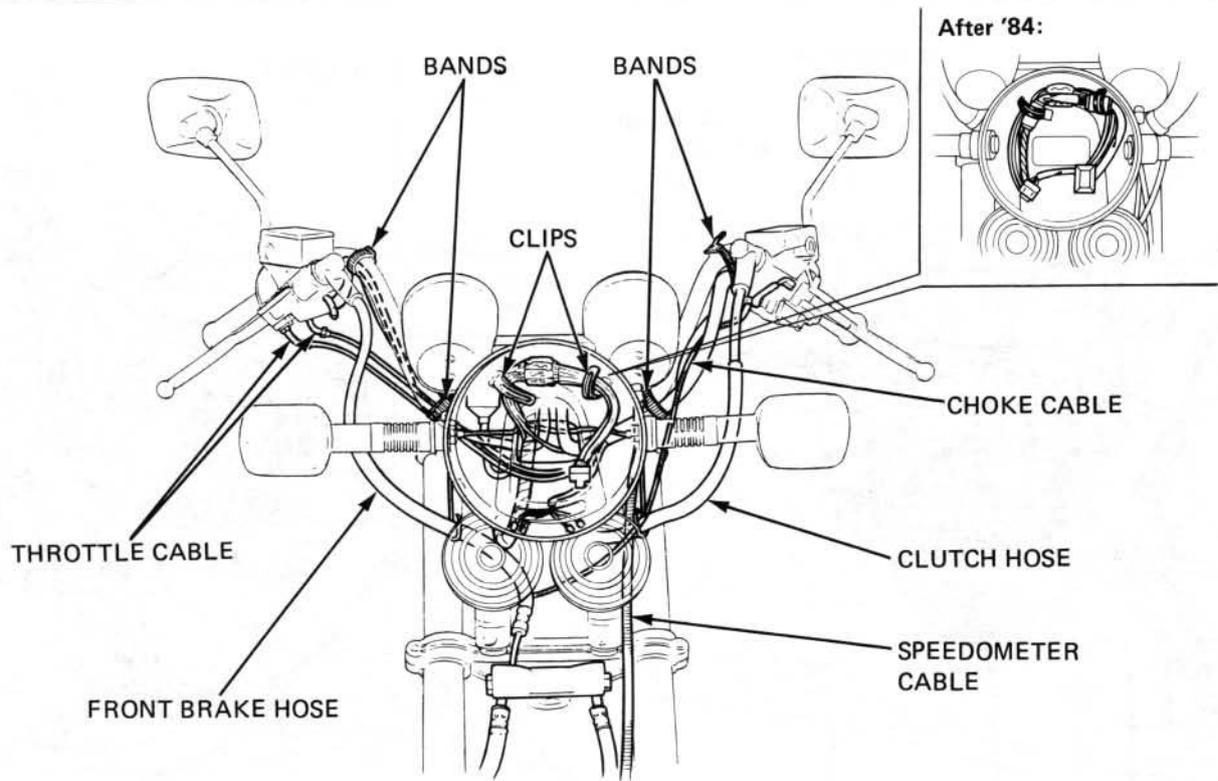
A loose wire, harness or cable can be safety hazard. After clamping, check each wire to be sure it is secure.

- Do not squeeze wires against the weld or 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 that or have excessive slack.
- Protect wires and harnesses with electrical tape or tube if they are contact a sharp edge or corner. Clean the attaching surface thoroughly before applying tape.
- Do not use wires or harnesses with a broken insulator. Repair by wrapping them with a 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.
- After routing, check that the wire harnesses are not twisted or kinked.
- Wire harnesses routed along the handlebars should not be pulled taut, have excessive slack, be pinched, or interfere with adjacent or surrounding parts in all steering positions.

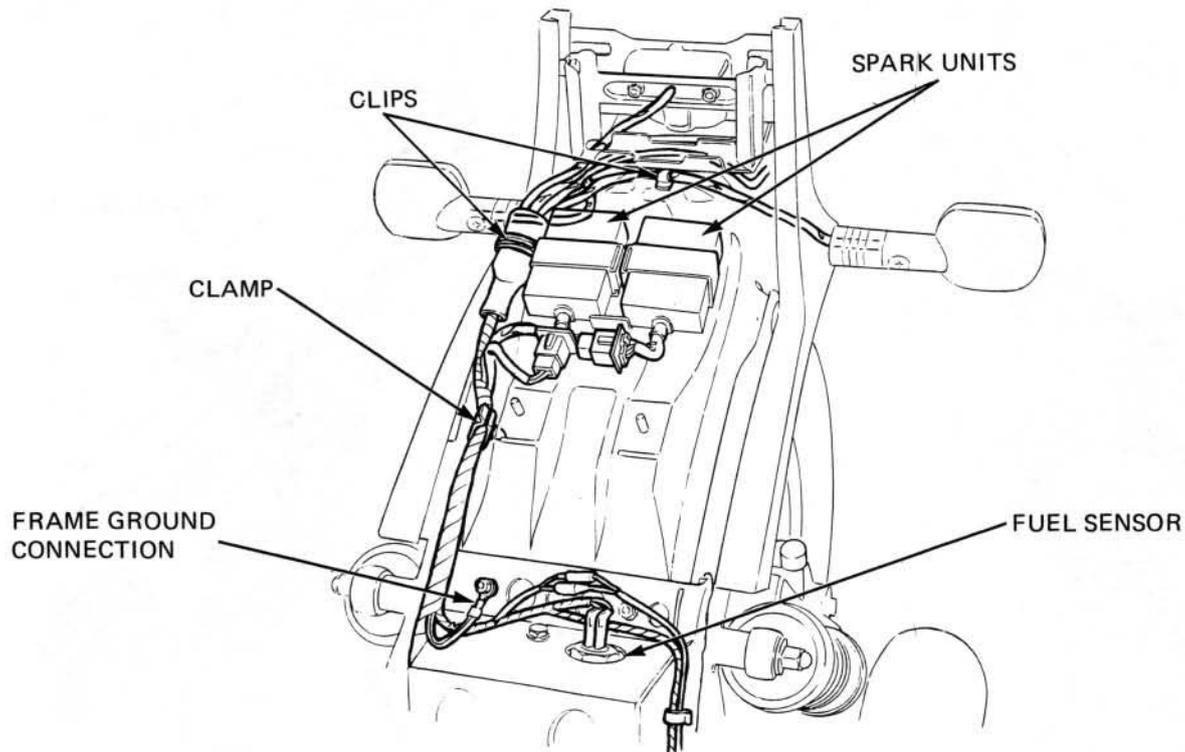
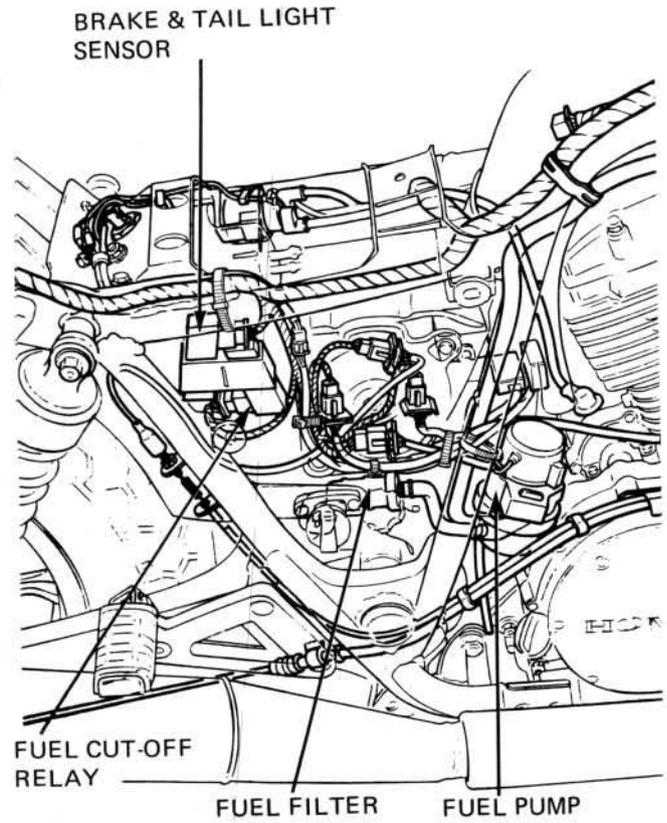
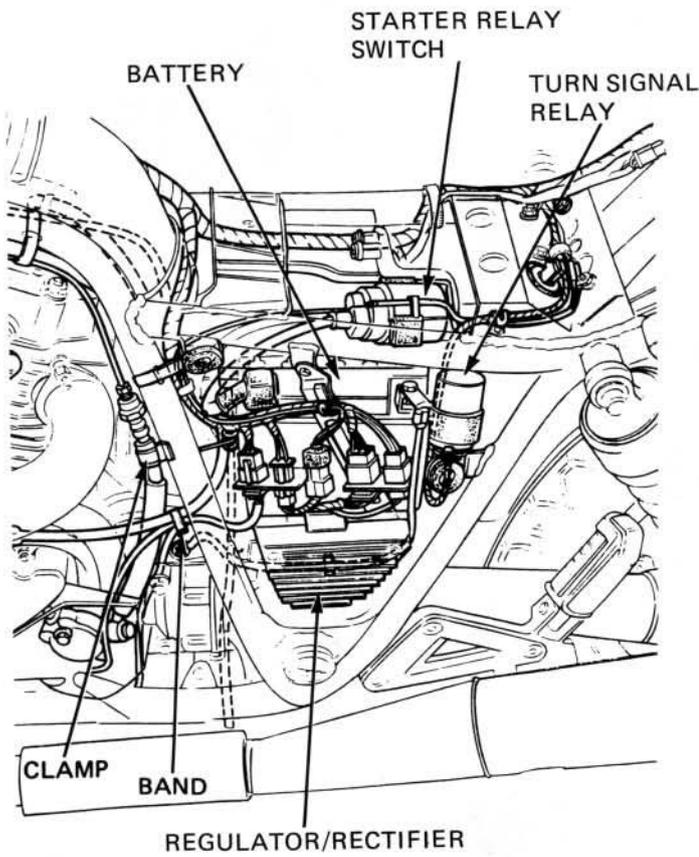


GENERAL INFORMATION





GENERAL INFORMATION



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 Warranties for Honda Motorcycle Emission Control Systems is necessary in order to keep the emission warranty in effect.

Source Of Emissions

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

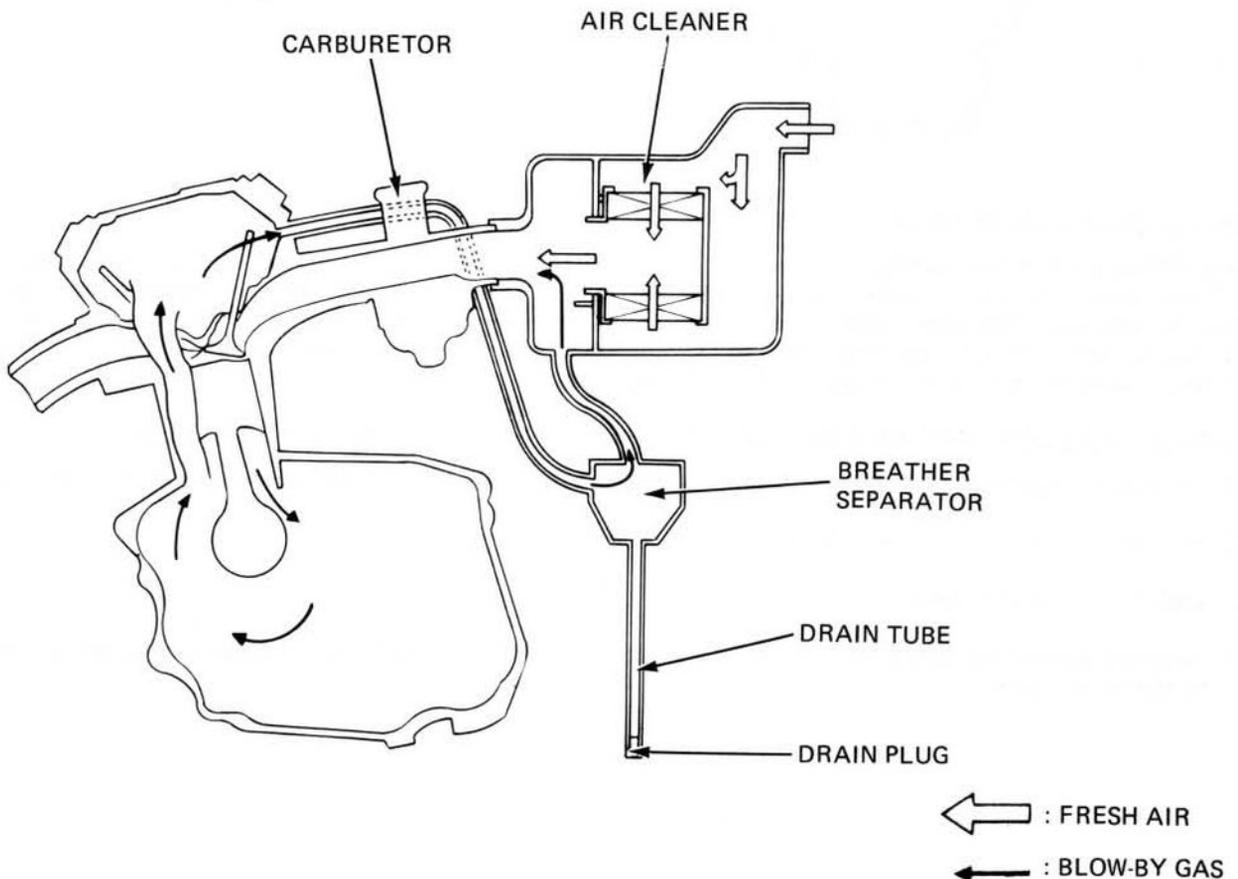
Honda Motor Co., Ltd. utilizes lean carburetor settings as well as other systems, to reduce carbon monoxide and hydrocarbons.

EXHAUST EMISSION CONTROL SYSTEM

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

CRANKCASE EMISSION CONTROL SYSTEM

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

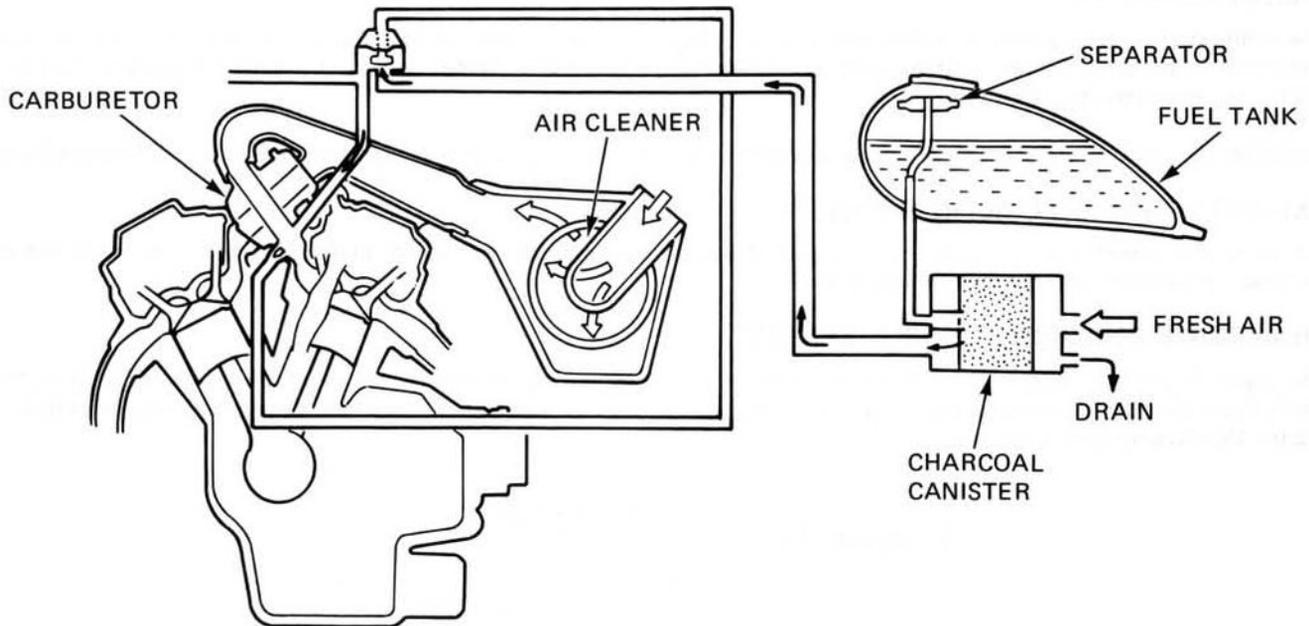


GENERAL INFORMATION

EVAPORATIVE EMISSION CONTROL SYSTEM (After '83: California model only)

This model complies with California Air Resources Board requirements for evaporative emission regulations.

Fuel vapor from the fuel tank is routed into a charcoal canister where it is absorbed and stored while the engine is stopped. When the engine is running and the purge control diaphragm valve is open, fuel vapor in the charcoal canister is drawn into the engine through the carburetor.



NOISE EMISSION CONTROL SYSTEM

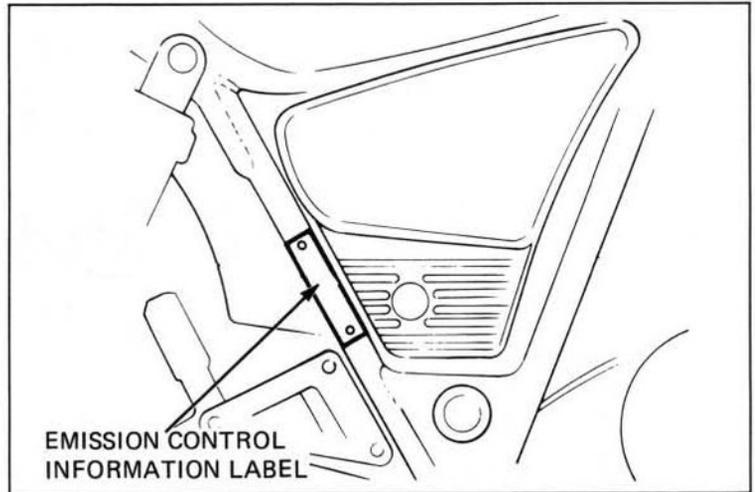
TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle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

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

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

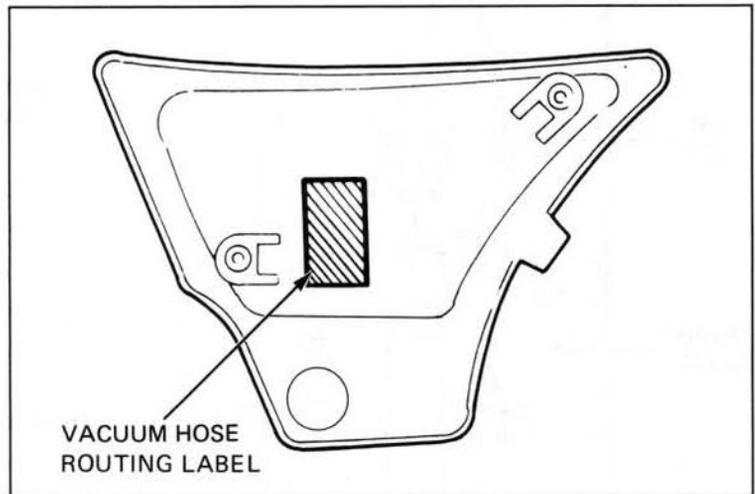
EMISSION CONTROL INFORMATION LABEL

An Emission Control Information Label is located on the rear down tube behind the right side cover as shown. It gives basic tune-up specifications.

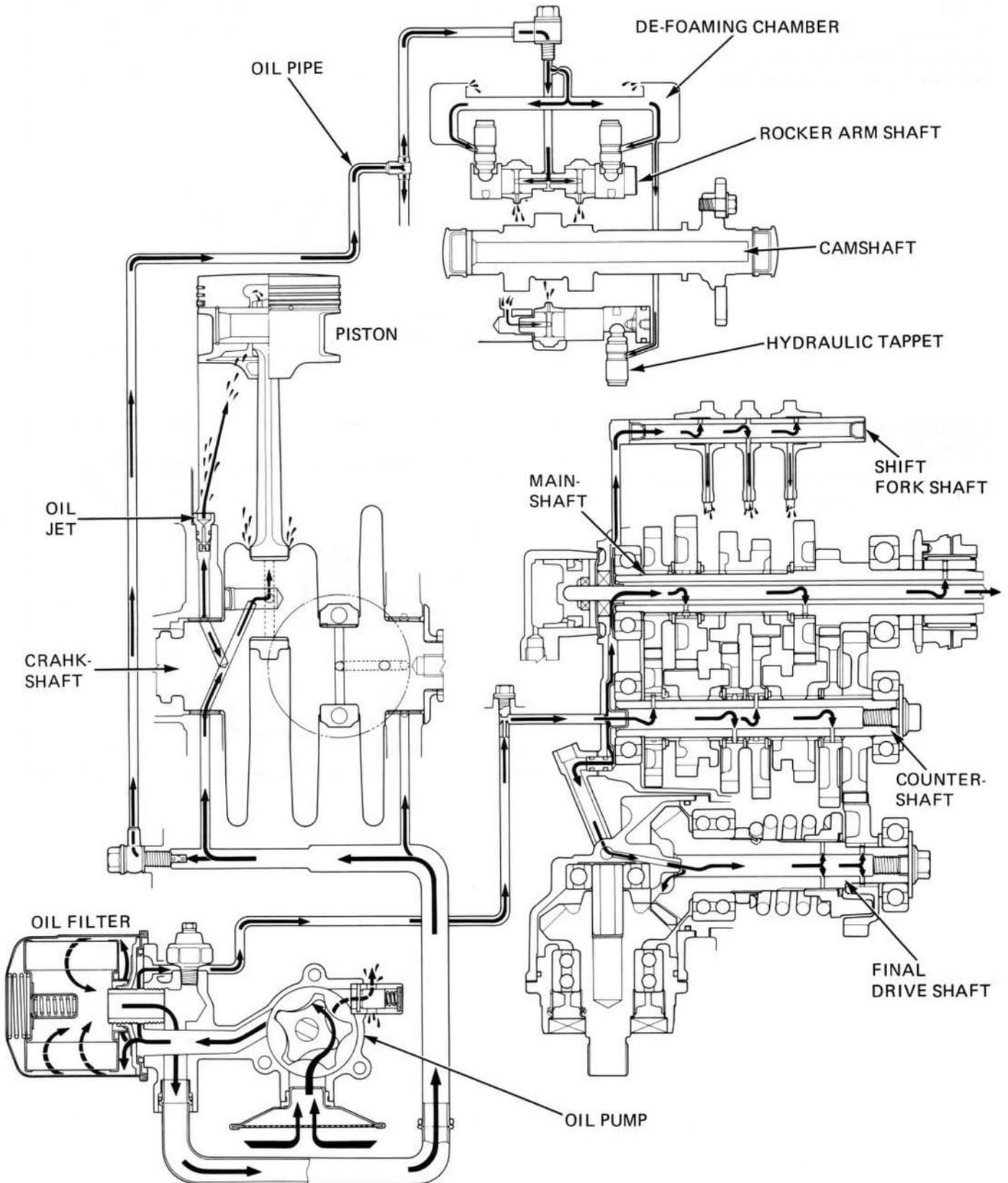


VACUUM HOSE ROUTING LABEL
(After '83: California model)

The Vacuum Hose Routing Label is attached to the inside of the left side cover.



LUBRICATION



2. LUBRICATION

SERVICE INFORMATION	2-1	OIL STRAINER & OIL PUMP	2- 4
TROUBLESHOOTING	2-2	FINAL DRIVE OIL	2-11
ENGINE OIL LEVEL	2-3	CONTROL CABLE LUBRICATION	2-11
ENGINE OIL & FILTER CHANGE	2-3	LUBRICATION POINTS	2-12
OIL PRESSURE CHECK	2-4		

SERVICE INFORMATION

GENERAL

- To remove the oil pump, the following parts must be removed:
- Front cylinder exhaust pipe (Section 5).
- Right sub-frame (Section 5).
- Clutch assembly (Section 7).
- Gear shift linkage (Section 8).

SPECIFICATIONS

Engine oil

Oil capacity	3.0 liter (3.2 US qt, 2.6 Imp qt) after draining 3.5 liter (3.7 US qt, 3.1 Imp qt) after disassembly
Oil recommendation	<p>Use Honda 4-Stroke Oil or equivalent. API Service Classification: SE or SF. Viscosity: SAE 10W-40</p> <p>Other viscosities shown in the chart may be used when the average temperature in your riding area is within the indicated range.</p> <div style="text-align: right;"> <p>OIL VISCOSITIES</p> <p>The chart shows four horizontal bars representing temperature ranges for different oil grades. The top bar is SAE 20W-50, the second is SAE 20W-40, the third is SAE 10W-40, and the bottom is SAE 10W-30. The x-axis has two scales: Fahrenheit (0 to 100) and Celsius (-20 to 40).</p> </div>
Oil pressure (at oil pressure switch)	5.4 ± 0.7 kg/cm ² (62.6 ± 9.9 psi) at 6,000 rpm (80°C/176°F)
Oil pump delivery	36 liter (38.1 U.S. qt)/min. at 6,000 rpm

Oil pump service data

	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)

Final drive gear

	'83:	After '83:
Oil capacity	170 cc (5.7 oz.) after disassembly 130 cc (4.4 oz.) after draining	150 cc (5.1 oz.) after disassembly 130 cc (4.4 oz.) after draining
Recommended oil	Hypoid gear oil: Above 5°C/41°F SAE #90 Below 5°C/41°F SAE #80	Hypoid gear oil: SAE 80

LUBRICATION

TORQUE VALUES

Engine oil drain plug	30–40 N·m (3.0–4.0 kg·m, 22–29 ft·lb)	
Engine oil filter	15–20 N·m (1.5–2.0 kg·m, 11–14 ft·lb)	
Oil pressure switch	10–14 N·m (1.0–1.4 kg·m, 7–10 ft·lb)	– Apply 3-BOND® No. 1211 or its equivalent to the bolt threads.
Oil pump	8–12 N·m (0.8–1.2 kg·m, 6–9 ft·lb)	
Oil pump driven sprocket	8–12 N·m (0.8–1.2 kg·m, 6–9 ft·lb)	

TOOLS

Special

Oil pressure gauge	07506–3000000	— or commercially available.
Oil pressure gauge attachment	07510–4220100	
Oil filter wrench	07912–MB00000	

TROUBLESHOOTING

Oil level too low – high oil consumption

1. External oil leaks.
2. Worn piston rings.
3. Worn valve guide or seal.

Oil contamination

1. Oil or filter not changed often enough.
2. Head gasket faulty.
3. Worn piston rings.

Low oil pressure

1. Oil level low.
2. Pressure relief valve stuck open.
3. Plugged oil pick-up screen.
4. Oil pump worn.
5. External oil leaks.

High oil pressure

1. Pressure relief valve stuck open.
2. Plugged oil filter, gallery, or metering orifice.
3. Incorrect oil being used.

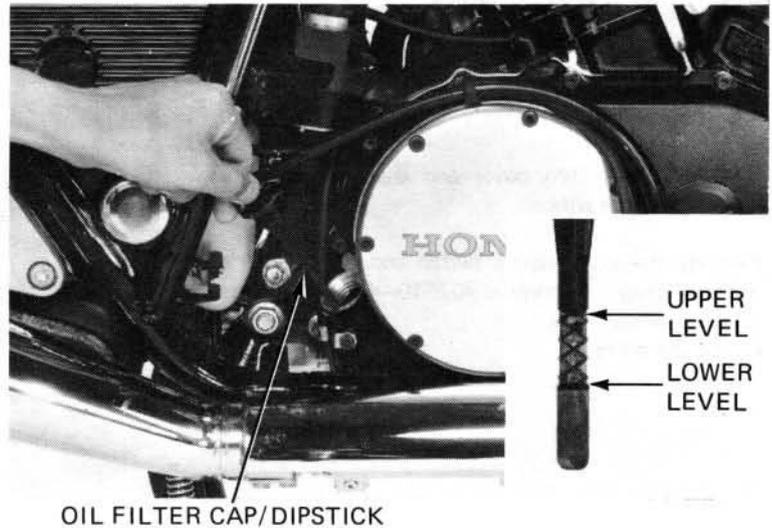
No oil pressure

1. Oil level low.
2. Oil pump drive chain broken.
3. Oil pump faulty.
4. Internal oil leakage.

ENGINE OIL LEVEL

Place the motorcycle on its center stand.
Check the oil level with the filler cap/dipstick.
Do not screw it in when making this check.

If the oil level is below or near the lower level mark on the dipstick, add the recommended oil (page 2-1) up to the upper level line.



ENGINE OIL & FILTER CHANGE

NOTE:

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

Remove the oil filler cap, and drain plug and drain the oil. Remove the oil filter with a filter wrench. Discard the oil filter.

Check that the sealing washer on the drain plug is in good condition and install it.

TORQUE: 30–40 N·m
(3.0–4.0 kg·m, 22–29 ft·lb)

Apply oil to the new oil filter O-ring and install the new oil filter.

Torque the oil filter with a filter wrench after placing the motorcycle on its side stand.

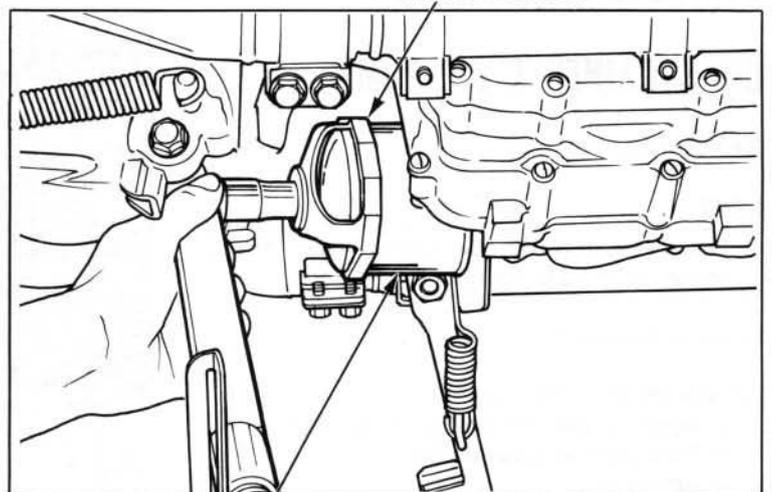
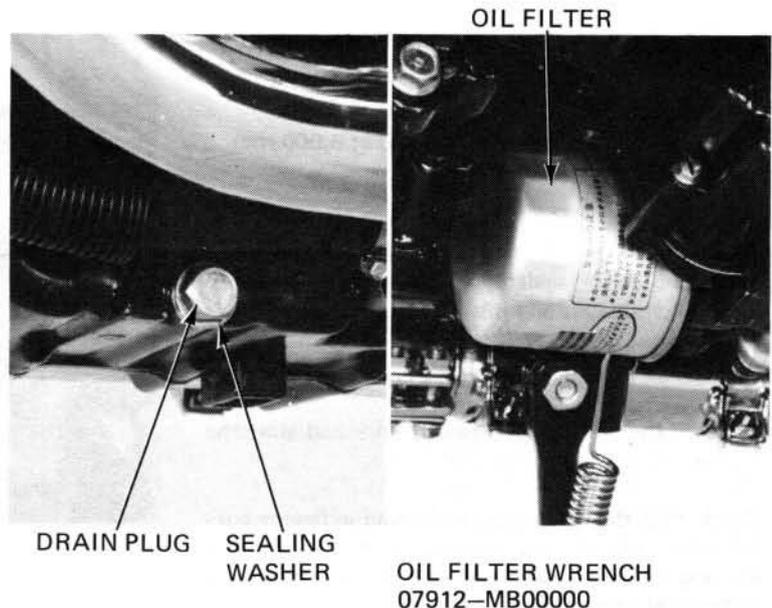
TORQUE: 15–20 N·m
(1.5–2.0 kg·m, 11–14 ft·lb)

After tightening the oil filter, place the motorcycle back on its center stand.

Fill the crankcase with 3.0 liters (3.2 US qt, 2.6 Imp. qt.) of the recommended oil (page 2-1).

Install the oil filler cap/dipstick.

Start the engine and let it idle for 2–3 minutes. Stop the engine and check that the oil level is at the upper level mark on the dipstick. Make sure there are no oil leaks.



OIL FILTER
15–20 N·m (1.5–2.0 kg·m, 11–14 ft·lb)

LUBRICATION

OIL PRESSURE CHECK

Warm the engine up to normal operating temperature (approximately 80°C/176°F).
Stop the engine.

Remove the switch cover and disconnect the oil pressure switch wire.

Remove the oil pressure switch and connect an oil pressure gauge attachment (07510-4220100) to the pressure switch hole.
Check the oil level.

Start the engine and check the oil pressure at 6,000 rpm.

OIL PRESSURE:

$5.4 \pm 0.7 \text{ kg/cm}^2$ (62.6 ± 9.9 psi) at 6,000 rpm
(80°C/176°F)

Stop the engine.

Apply 3-BOND® sealant or equivalent to the pressure switch threads and install.

TORQUE: 10–14 N·m

(1.0–1.4 kg·m, 7–10 ft·lb)

Connect the oil pressure switch wire and start the engine.

Check that the oil pressure warning indicator goes out after one or two seconds. If the oil pressure warning indicator stays on, stop the engine immediately and determine the cause.

OIL STRAINER & OIL PUMP

REMOVAL

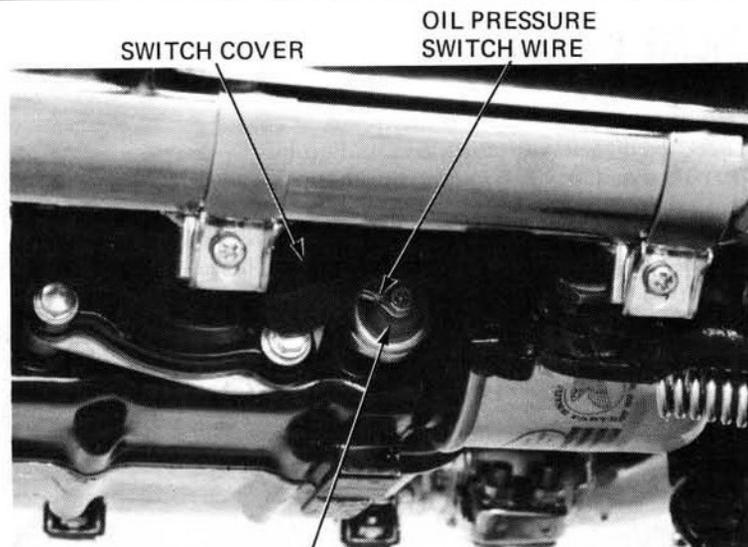
NOTE:

The oil strainer can be removed with the engine mounted in the frame.

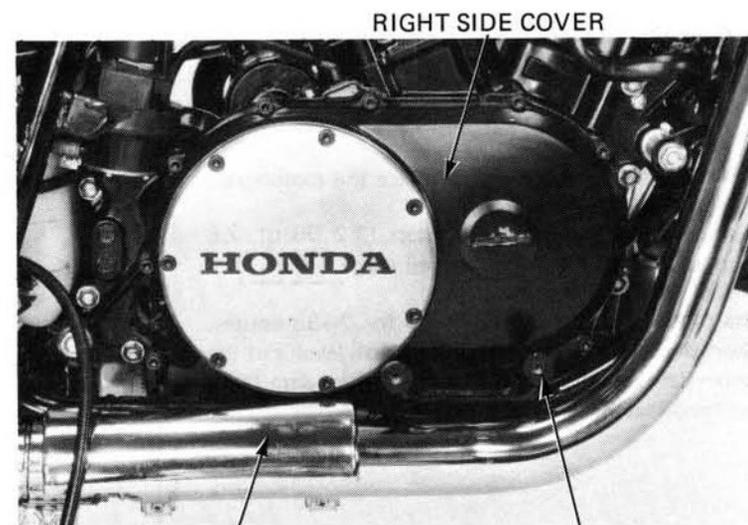
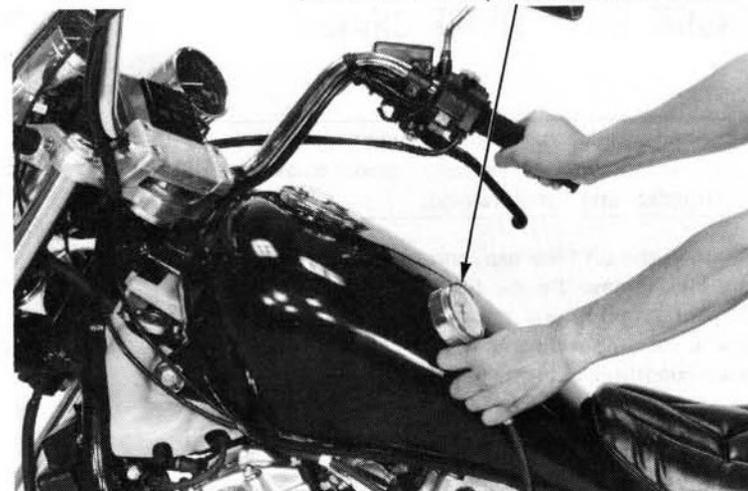
Drain the engine oil.

Remove the following parts:

- right foot peg with the rear brake pedal.
- front cylinder exhaust pipe.
- sub-frame.
- right side cover.



OIL PRESSURE SWITCH
OIL PRESSURE GAUGE
07506-3000000 (Not available in U.S.A.)

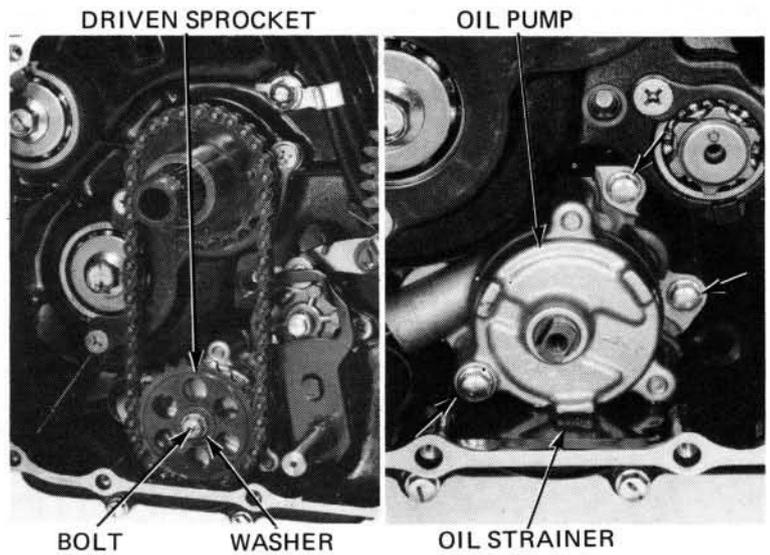


EXHAUST PIPE SUB-FRAME

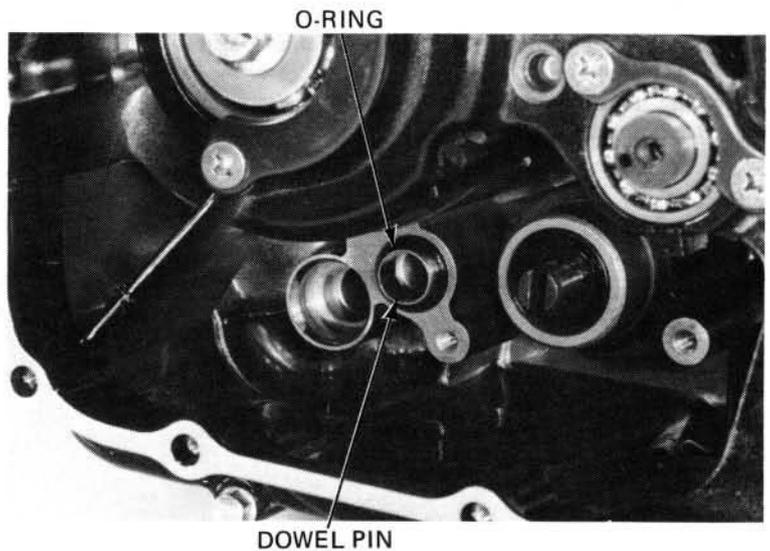
Remove the following parts:

- clutch assembly (page 7-11).
- oil pump driven sprocket by removing the bolt and washer.
- gear shift linkage (page 9-2).

Pull the oil strainer downward out of the oil pump. Remove the oil pump by removing the mounting bolts and remove the oil strainer.



Remove the O-ring and dowel pin.



OIL STRAINER CLEANING

Clean the oil strainer with non-flammable solvent.

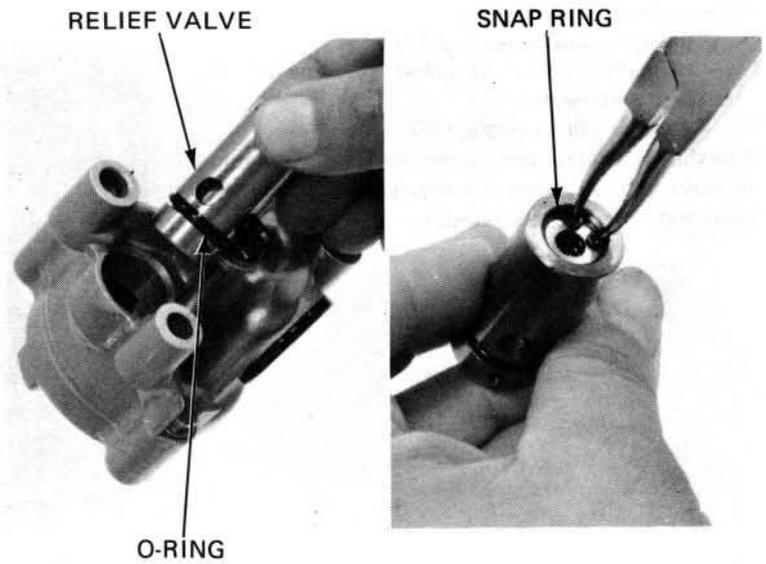


LUBRICATION

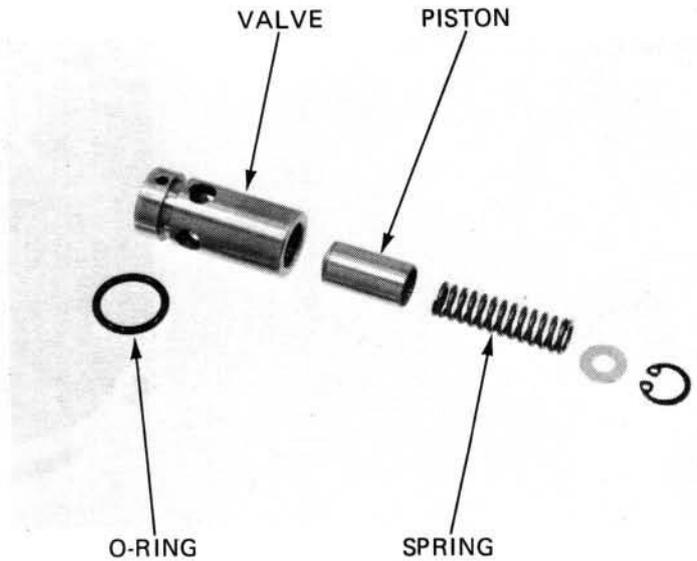
RELIEF VALVE CHECK

Remove the relief valve from the oil pump. Make sure the O-ring is in good condition.

Remove the relief valve snap ring and disassemble the relief valve.

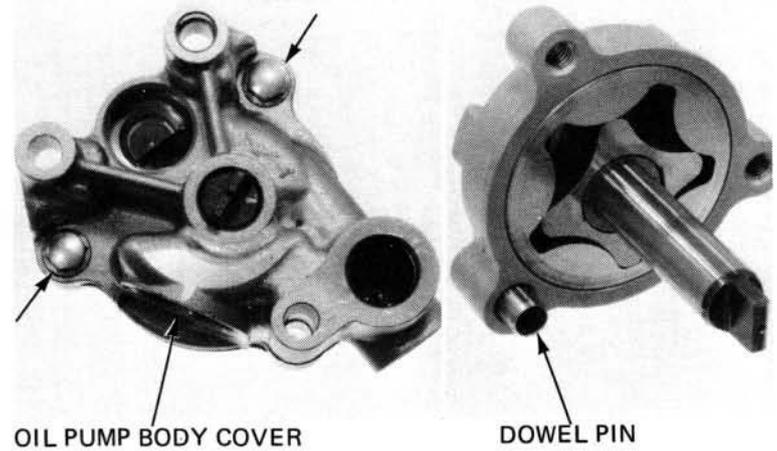


Check the spring and piston for wear or damage. Check the valve for clogging or damage. Assemble the parts in the reverse order of disassembly. Be sure to use new O-rings.



OIL PUMP DISASSEMBLY

Remove the oil pump body cover and remove the dowel pin.



Measure the rotor tip clearance.

STANDARD: 0.15 mm (0.006 in)

SERVICE LIMIT: 0.20 mm (0.008 in)



Measure the pump body clearance.

STANDARD: 0.15–0.22 mm (0.006–0.009 in)

SERVICE LIMIT: 0.35 mm (0.014 in)

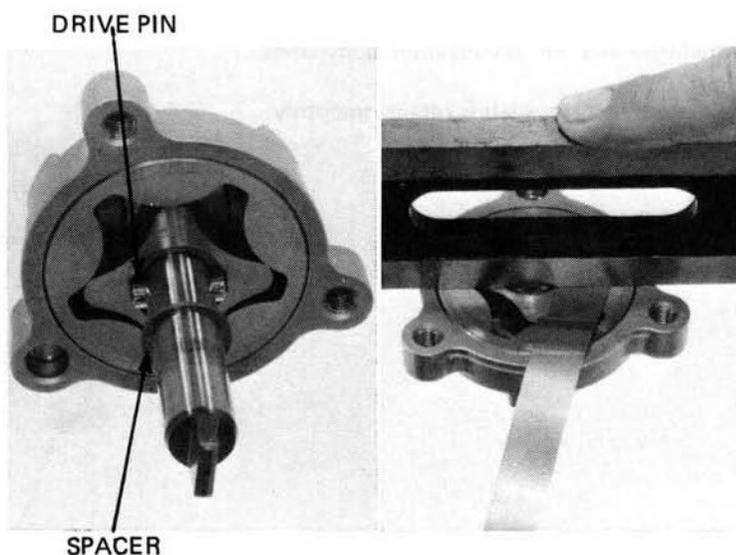


Remove the spacer and drive pin from the rotor shaft.

Remove the rotor shaft and measure the pump end clearance.

STANDARD: 0.02–0.07 mm (0.001–0.003 in)

SERVICE LIMIT: 0.10 mm (0.004 in)

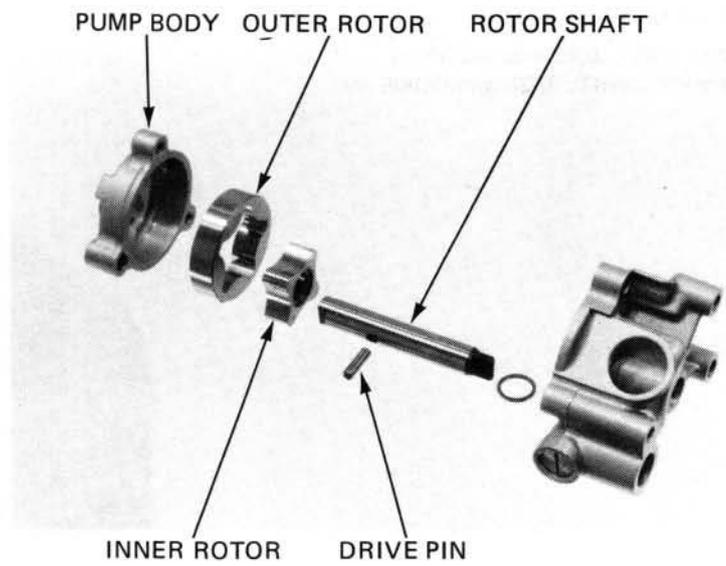


LUBRICATION

ASSEMBLY

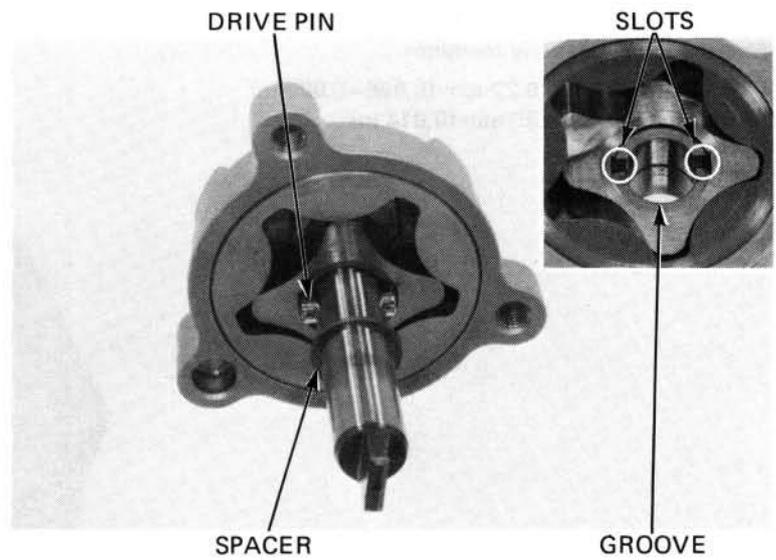
Install the outer rotor into the body and insert the rotor shaft.

Insert the drive pin into the rotor shaft.



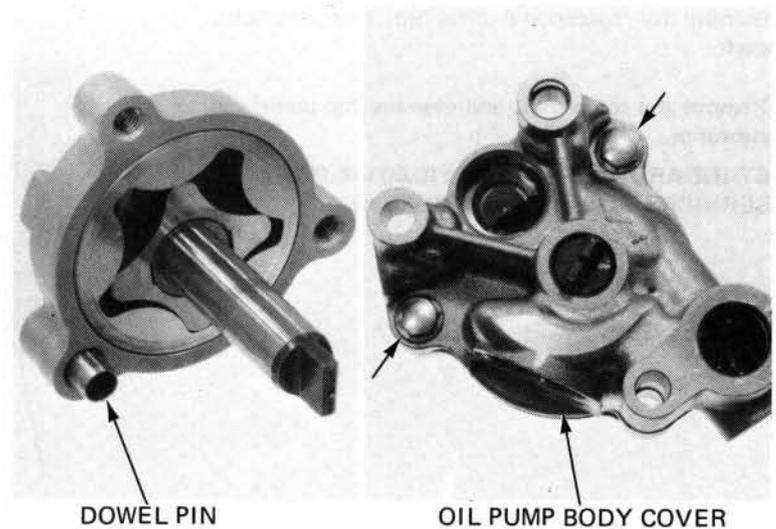
Align the slots in the inner rotor with the drive pin.

Place the spacer into the inner rotor groove.



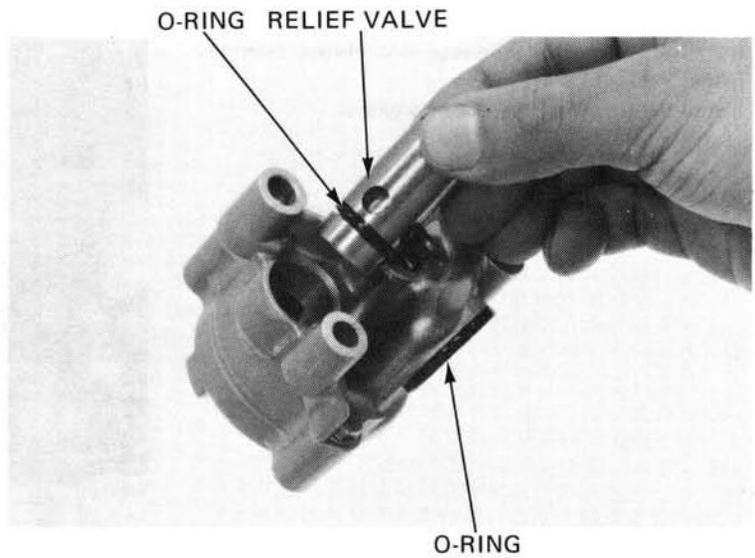
Install the dowel pin and oil pump body cover.

Make sure the rotor shaft is rotating smoothly.



Install the relief valve with a new O-ring into the oil pump body.

Install a new O-ring into the oil strainer hole.



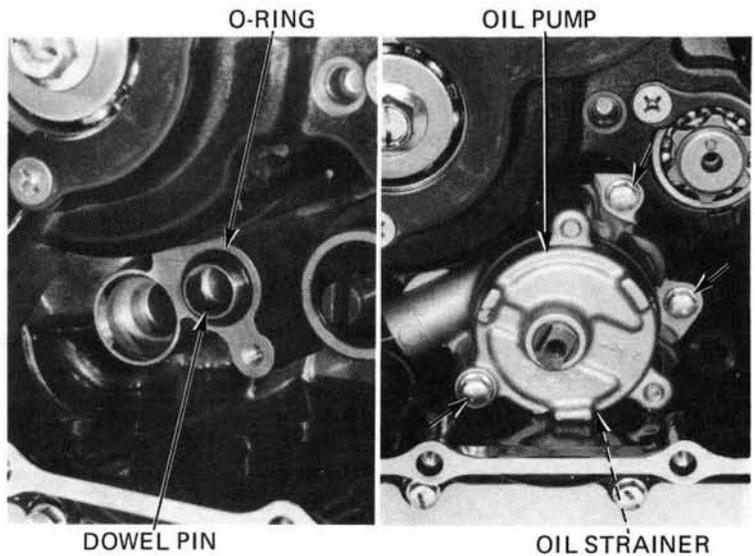
INSTALLATION

Install the dowel pin and a new O-ring.

Put the oil strainer into the crankcase, and then install the oil pump. Tighten the bolts.

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

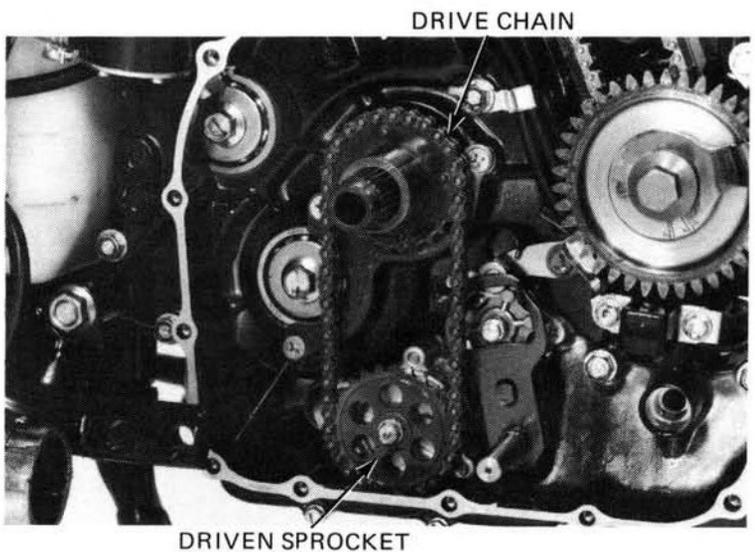
Install the oil strainer.



Place the oil pump driven sprocket into the drive chain. The "IN" mark on the driven sprocket should face the crankcase.

Install the washer and tighten the bolt.

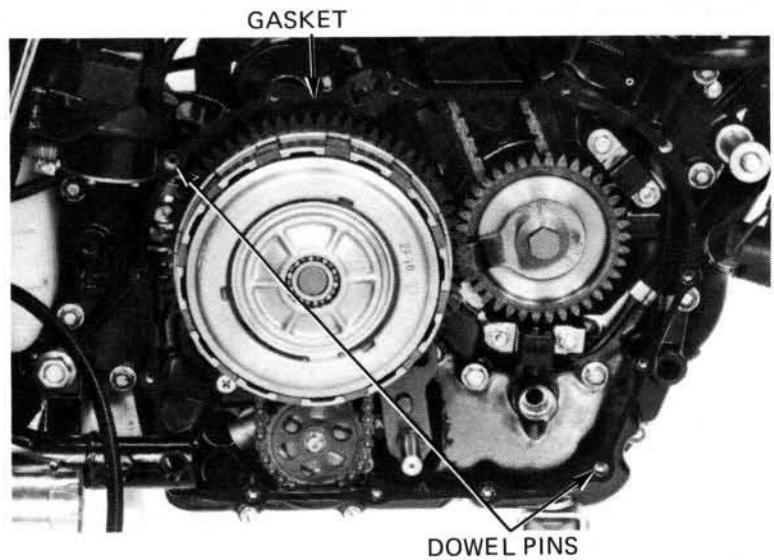
TORQUE: 8–12 N·m
(0.8–1.2 kg·m, 6–9 ft·lb)



LUBRICATION

Install the gear shift linkage and clutch assembly (pages 7-17 and 9-4).

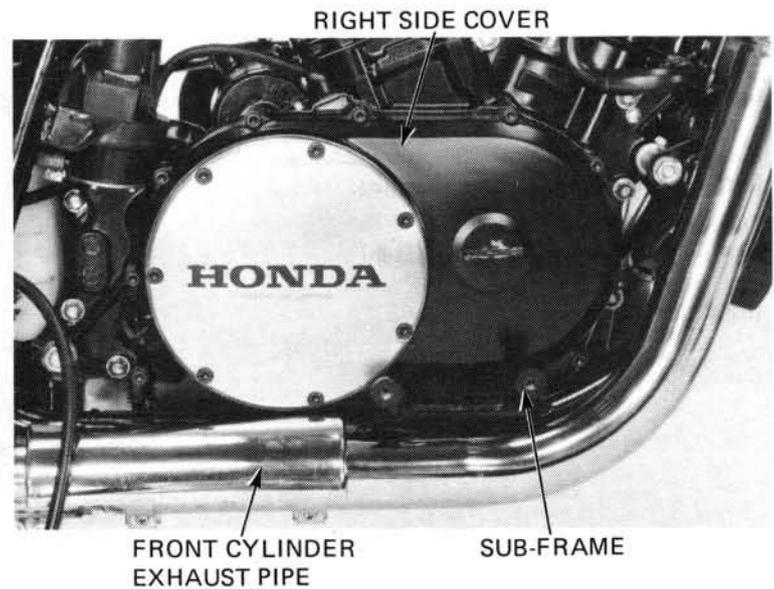
Install the dowel pins and a new gasket.



Install the following parts:

- right side cover.
- right sub-frame.
- front cylinder exhaust pipe.
- right foot peg with the rear brake pedal.

Fill the engine with the recommended oil (page 2-3).



FINAL DRIVE OIL

CHECK

Place the motorcycle on its center stand on level ground.

Remove the oil filler cap.

Check that the oil level reaches the lower edge of the oil filler cap hole.

Check for leaks, if the level is low. Pour fresh oil through the oil filler hole until it reaches the lower edge.

CHANGE

Remove the oil filler cap and drain bolt to drain all oil from the final gear case.

Install the drain bolt securely.

Fill the gear case with the recommended oil up to the correct level (above).

OIL CAPACITY: 130 cc (4.4 oz)

RECOMMENDED OIL:

'83:

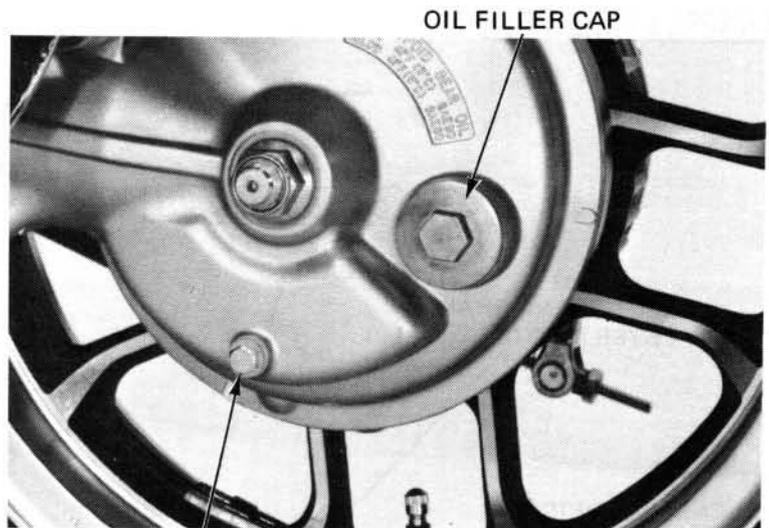
HYPOID GEAR OIL API,

GL-5 SAE #90 (Above 5°C/41°F)

SAE #80 (Below 5°C/41°F)

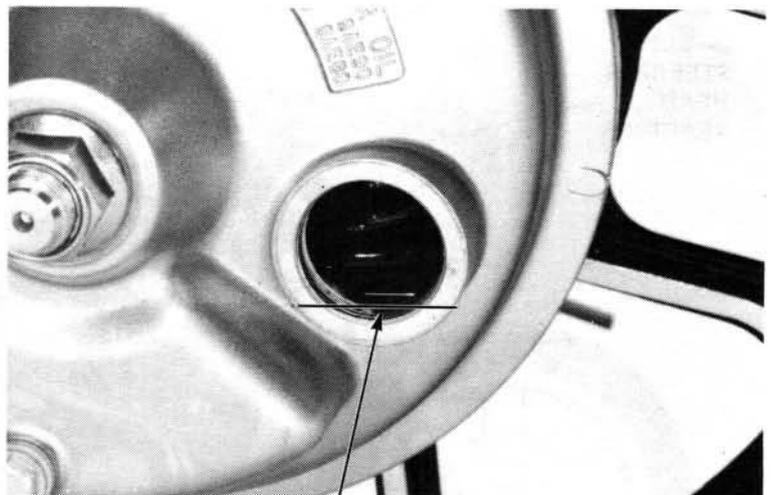
After '83:

HYPOID GEAR OIL: SAE #80



OIL FILLER CAP

OIL DRAIN BOLT



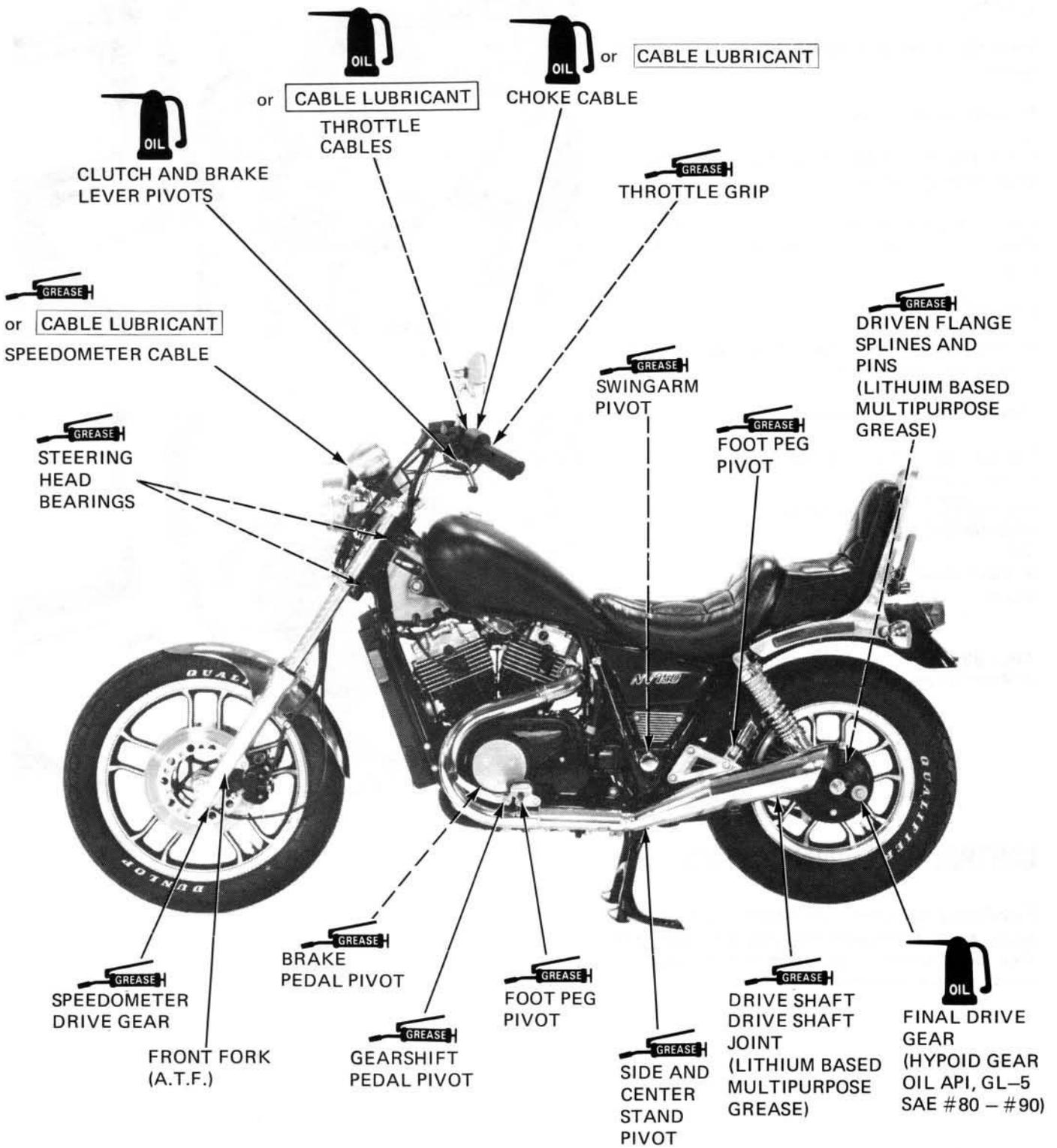
OIL LEVEL

CONTROL CABLE LUBRICATION

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

LUBRICATION

LUBRICATION POINTS



3. MAINTENANCE

SERVICE INFORMATION	3-1	CYLINDER COMPRESSION	3-11
MAINTENANCE SCHEDULE	3-3	EVAPORATIVE EMISSION CONTROL SYSTEM	3-12
< ENGINE >		< CHASSIS >	
FUEL LINES	3-4	BATTERY	3-13
FUEL FILTER	3-4	BRAKE FLUID	3-13
THROTTLE OPERATION	3-5	BRAKE SHOE/PAD WEAR	3-14
CARBURETOR CHOKE	3-6	BRAKE SYSTEM	3-14
AIR CLEANER	3-7	BRAKE LIGHT SWITCH	3-16
CRANKCASE BREATHER	3-7	HEADLIGHT AIM	3-16
SPARK PLUGS	3-8	CLUTCH	3-16
IGNITION SYSTEM	3-8	SIDE STAND	3-17
CARBURETOR SYNCHRONIZATION	3-9	SUSPENSION	3-17
CARBURETOR IDLE SPEED	3-10	WHEELS	3-18
RADIATOR COOLANT	3-10	STEERING HEAD BEARINGS	3-19
RADIATOR CORE	3-11	NUTS, BOLTS, FASTENERS	3-19
COOLING SYSTEM HOSES & CONNECTIONS	3-11		

SERVICE INFORMATION

GENERAL

- Engine oil See page 2-3
- Engine oil filter See page 2-3
- Final drive gear oil See page 2-11

SPECIFICATIONS

< ENGINE >

Spark plugs:

Standard		For cold climate (below 5°C, 41°F)		For extended high speed riding	
NGK	ND	NGK	ND	NGK	ND
DPR8EA-9	X24EPR-U9	DPR7EA-9	X22EPR-U9	DPR9EA-9	X27EPR-U9

Spark plug gap: 0.8–0.9 mm (0.031–0.035 in)