

Product: 1983-1985 Honda VF700F/VF750F Motorcycle Service Repair Workshop Manual

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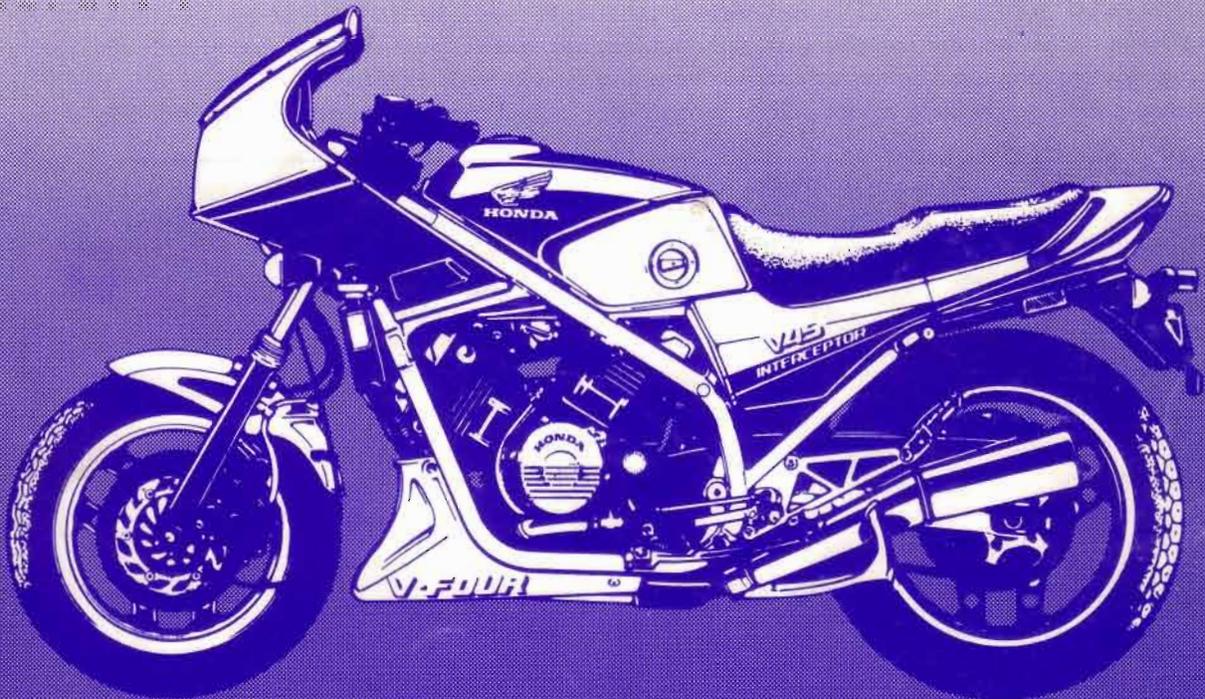
Official

HONDA

SHOP MANUAL

VF700F/VF750F

INTERCEPTOR



VF750F: '83—'84

VF700F: '84—'85

Sample of manual. Download All 309 pages at:

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IMPORTANT SAFETY NOTICE

 **WARNING**

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

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

NOTE: Gives helpful information.

Detailed descriptions of standard workshop procedures, safety principles and service operations are not included. It is important to note that this manual contains *some* warnings and cautions against some specific service methods which could cause **PERSONAL INJURY** to service personnel or could damage a vehicle or render it unsafe. Please understand that those warnings could not cover all conceivable ways in which service, whether or not recommended by Honda might be done or of the possible hazardous consequences of each conceivable way, nor could Honda investigate all such ways. Anyone using service procedures or tools, whether or not recommended by Honda *must satisfy himself thoroughly* that neither personal safety nor vehicle safety will be jeopardized by the service method or tools selected.



HOW TO USE THIS MANUAL

This manual is based on the VF750F. Any information that differs between the VF700F and VF750F 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 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 are not familiar with this motorcycle, read TECHNICAL FEATURES, section 22.

If you don't know the source of the trouble, go to section 23, 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.

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HONDA MOTOR CO., LTD.
Service Publications Office

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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 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 bolts or nuts, begin with larger-diameter or inner bolts first, and tighten to the specified torque diagonally, unless a particular sequence is specified.
6. Clean parts in cleaning solvent upon disassembly. Lubricate any sliding surfaces before reassembly.
7. After reassembly, check all parts for proper installation and operation.



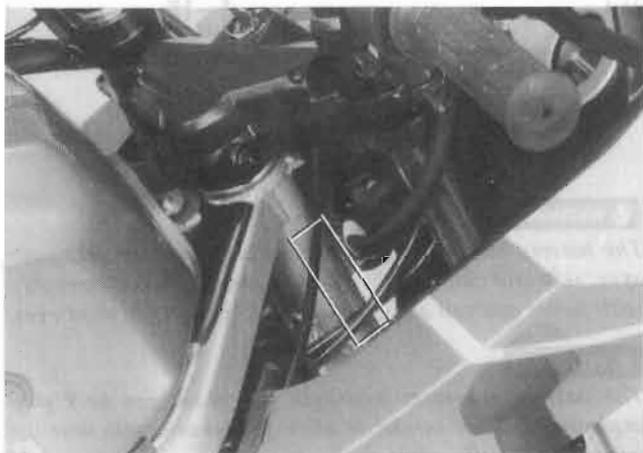
MODEL IDENTIFICATION



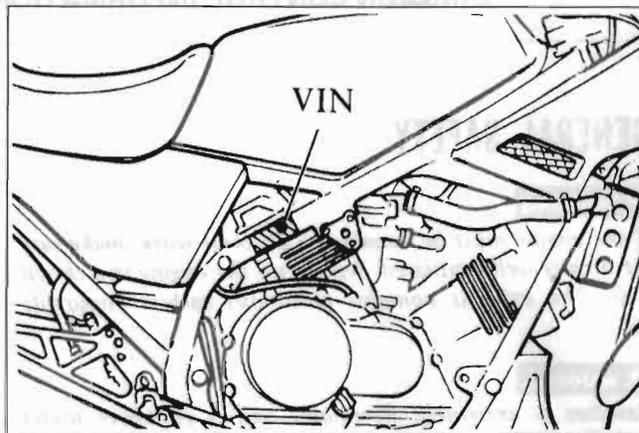
BEGINNING Frame No. JH2RC150*DM000001 ~
EngineNo. RC15E-2000001 ~



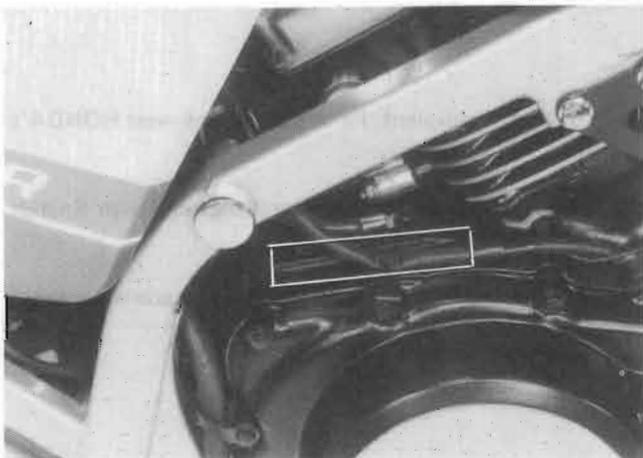
The color label is affixed to the rear fender, under the seat.



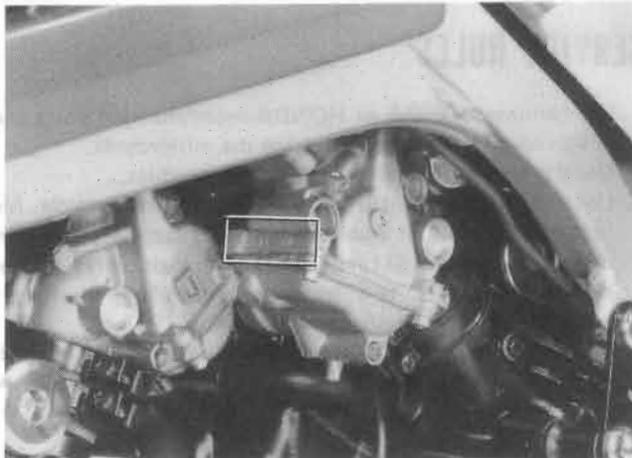
The frame serial number is stamped on the steering head's right side.



The vehicle identification number (VIN) is on the upper right tube of the frame.



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



The carburetor identification numbers are stamped onto each carburetor.



SPECIFICATIONS

ITEM		SPECIFICATIONS	
DIMENSIONS	Overall length	2,160 mm (85.0 in)	
	Overall width	770 mm (30.3 in)	
	Overall height	1,215 mm (47.8 in)	
	Wheelbase	1,495 mm (58.9 in)	
	Seat height	820 mm (32.3 in)	
	Foot peg height	VF750F: 348 mm (13.7 in) VF700F: 343 mm (13.5 in)	
	Ground clearance	155 mm (6.1 in)	
	Dry weight	'83-'84 VF750F: 221 kg (487 lb) '84 VF700F: 220 kg (485 lb) After '84 VF700F: 223 kg (492 lb)	
	Curb weight	243 kg (536 lb)	
FRAME	Type	Double cradle	
	Front suspension, travel	Telescopic fork 160 mm (6.3 in)	
	Rear suspension, travel	Swingarm/Shock absorber, 120 mm (4.7 in)	
	Front suspension air pressure	0—40 kPa (0—.0.4 kg/cm ² , 0—6 psi)	
	Rear suspension air pressure	50—300 kPa (0.5 —3.0 kg/cm ² , 7—43 psi)	
	Gross vehicle weight rating	413 kg (910 lb)	
	Vehicle capacity load	168 kg (370 lb)	
	Front tire size	M120/80-16 Tubeless	
	Rear tire size	M130/80-18 Tubeless	
	Cold tire pressures	Up to 90 kg (200 lbs) load	Front
Rear			32 psi (225 kPa, 2.25 kg/cm ²)
Up to vehicle capacity load		Front	32 psi (225 kPa, 2.25 kg/cm ²)
		Rear	40 psi (280 kPa, 2.8 kg/cm ²)
ENGINE	Front brake, lining swept area	Double disc 904 cm ² (140 sq in)	
	Rear brake, lining swept area	'83-'84: Single disc 490 cm ² (76 sq in) After '84 VF700F: Single disc 452 cm ² (70 sq in)	
	Fuel capacity	22 liters (5.8 US gal, 4.8 Imp gal)	
	Fuel reserve capacity	4 liters (1.1 US gal, 0.9 Imp gal)	
	Caster angle	28°10'	
	Trail	96 mm (3.8 in)	
	Front fork oil capacity	VF750F: Right: 360 cc (12.2 oz), Left: 380 cc (12.8 oz) VF700F: Right: 350 cc (11.9 oz), Left: 370 cc (12.5 oz) After '84 VF700F: Right: 350 cc (11.9 oz), Left: 375 cc (13.2 oz)	
	Type	Water cooled 4-stroke, DOHC engine	
	Cylinder arrangement	4 cylinders 90°V	
	Bore and stroke	VF750F: 70 x 48.6 mm (2.76 x 1.91 in) VF700F: 70 x 45.4 mm (2.76 x 1.79 in)	
Displacement	VF750F: 748 cc (45.6 cu in) VF700F: 699 cc (42.7 cu in)		
Compression ratio	10.5 : 1		
Valve train	Silent, multi-link chain drive and OHC with rocker arms		
Maximum horsepower	VF750F: 86 BHP/10,000 rpm VF700F: 81 BHP/10,000 rpm		
Maximum torque	VF750F: 6.4 kg-m (46.3 ft-lb)/7,500 rpm VF700F: 6.2 kg-m (44.8 ft-lb)/8,500 rpm		
Oil capacity	3.0 liters (3.2 US qt, 2.6 Imp qt) after disassembly 2.7 liters (2.9 US qt, 2.4 Imp qt) after draining		
Coolant capacity	3.0 liters (3.2 US qt, 2.6 Imp qt)		
Lubrication system	Forced pressure and wet sump		
Air filtration	Paper filter		
Cylinder compression	1,300 ± 200 kPa (13.0 ± 2.0 kg/cm ² , 188 ± 29 psi)		



GENERAL INFORMATION

	ITEM	SPECIFICATIONS	
ENGINE	Intake valve	VF750F/VF700F	
		8°/ 5° (BTDC)	VF750F/VF700F
	Opens	} at 1 mm lift	61°/ 58° (BTDC)
	Closes		107°/105° (ABDC)
	Exhaust valve	40°/40° (ABDC)	} at 0 lift
	Opens	43°/43° (BBDC)	
Closes	7°/ 5° (ATDC)	96°/ 96° (BBDC)	
Valve clearance (Cold)		IN: 0.12 mm (0.005 in)	74°/ 70° (ATDC)
EX:		81.5 kg (179.7 lb)	
Engine weight (Dry)		VF750F: 1,000 ± 100 rpm	
Idle speed		VF700F: 1,200 ± 100 rpm	
Cylinder numbering		No. 1 – Left rear	
		No. 2 – Left front	
		No. 3 – Right rear	
		No. 4 – Right front	
CARBURE-TION	Carburetor type/throttle bore	KEIHIN VD / 32 mm (1.26 in)	
	Identification number	Refer to page 4-1	
	Pilot screw initial setting	Refer to page 4-1	
	Float level	See page 4-16 7.0 mm (0.28 in)	
DRIVE TRAIN	Clutch	Wet, multi-plate	
	Transmission	5-speed	
	Primary reduction	2.152	
	Final reduction	VF750F: 2.588	
		VF700F: 2.750	
	Gear ratio I	2.733	
	Gear ratio II	1.895	
	Gear ratio III	1.500	
	Gear ratio IV	1.240	
	Gear ratio V	1.074	
Gear shift pattern	Left foot operated return system, 1-N-2-3-4-5		
ELECTRICAL	Ignition	Full transistor ignition	
	Ignition timing "F" mark	VF750F: 10° BTDC at idle	
		VF700F: 15° BTDC at idle	
	Full advance	37° BTDC at 3,300 rpm	
	Starting system	Starting motor	
	Alternator	VF750F: 300W/5,000 rpm	
		VF700F: 350W/5,000 rpm	
	Battery capacity	12V-14 AH	
	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 riding	DPR9EA-9	X27EPR-U9	
Spark plug gap	0.8-0.9 mm (0.031-0.035 in)		
Firing order	1-4-3-2		
Fuse/main fuse	15A/30A		
LIGHTS	Headlight (high/low beam)	60/55 W	
	Tail/stoplight	8/27 W (3/32 cp) SAE NO. 1157	
	Front turn signal/running light	23/8 W (32/3 cp) SAE NO. 1034	
	Rear turn signal	23 W (32 cp) SAE NO. 1073	
	Instrument lights	3 W	
	Neutral indicator	3 W	
	Turn signal indicator	3 W	
	High beam indicator	3 W	

TORQUE VALUES
• ENGINE

Item	Q'ty	Thread Dia. (mm)	Torque N·m (kg·m, ft·lb)	Remarks
Cylinder head cover	8	6	8-12 (0.8-1.2, 6-9)	
Cam holder	16	6	10-14 (1.0-1.4, 7-10)	
Cylinder head	8	8	21-25 (2.1-2.5, 15-18)	
	16	9	33-37 (3.3-3.7, 24-27)	
Alternator	1	12	80-100 (8.0-10.0, 58-72)	
Primary drive gear	1	12	80-100 (8.0-10.0, 58-72)	
Clutch lock nut	1	22	62-68 (6.2-6.8, 45-49)	
Crankcase	14	9	30-34 (3.0-3.4, 22-25)	
	2	8	21-25 (2.0-2.5, 14-18)	
	15	6	10-14 (1.0-1.4, 7-10)	
Rocker arm shaft	8	22	45-50 (4.5-5.0, 32-36)	Apply LOCTITE 271 to the threads.
Cam sprocket	8	7	18-20 (1.8-2.0, 13-14)	
Starter clutch	3	8	26-30 (2.6-3.0, 19-22)	
Shift fork center	1	7	16-20 (1.6-2.0, 12-14)	
Cam chain guide bolt	1	12	21-25 (2.1-2.5, 15-18)	
Oil filter	1	20	15-20 (1.5-2.0, 11-14)	
Countershaft bearing holder	3	8	21-25 (2.0-2.5, 14-18)	
Drive sprocket	1	10	50-54 (5.0-5.4, 36-39)	
Valve adjustment nuts	16	7	21-25 (2.1-2.5, 15-18)	
Drain plug	1	12	35-40 (3.5-4.0, 25-29)	
Connecting rod nuts	8	8	30-34 (3.0-3.4, 22-25)	
Drum stopper pivot shaft	1	6	8-12 (0.8-1.2, 6-9)	Apply 3-Bond Sealant, or its equivalent, to the threads.
Oil pressure switch	1	-	15-20 (1.5-2.0, 11-14)	
Spark plugs	4	12	12-16 (1.2-1.6, 9-12)	

• CHASSIS

Item	Q'ty	Thread Dia. (mm)	Torque N·m (kg·m, ft·lb)	Remarks
Steering stem nut	1	24	90-120 (9.0-12.0, 65-87)	
Steering bearing adjustment nut	1	26	10-12 (1.0-1.2, 7-9)	'83 (page 14-35) (page 14-35)
			19-23 (1.9-2.3, 14-17)	
Top bridge pinch bolt	1	8	30-40 (3.0-4.0, 22-29)	
Front axle holder	4	8	18-25 (1.8-2.5, 13-18)	
Front axle nut	1	12	55-65 (5.5-6.5, 40-47)	
Front fork top pinch bolts	2	7	9-13 (0.9-1.3, 7-10)	
Front fork bottom pinch bolts	2	10	45-55 (4.5-5.5, 33-40)	

**GENERAL INFORMATION**

Item	Q'ty	Thread Dia. (mm)	Torque N·m (kg·m, ft·lb)	Remarks
Brake caliper bracket mount bolts (Right)	2	10	30-40 (3.0-4.0, 22-29)	Front brake calipers
(Left-upper)	1	10	30-40 (3.0-4.0, 22-29)	
(Left-lower)	1	8	20-25 (2.0-2.5, 14-18)	
Brake caliper mount bolts	3	8	20-25 (2.0-2.5, 14-18)	Front and rear brake calipers
Brake caliper pivot bolts	3	12	25-30 (2.5-3.0, 18-22)	
Front brake discs	12	8	35-40 (3.5-4.0, 25-29)	
Shock arm to frame bolts	2	10	40-50 (4.0-5.0, 29-36)	
Shock link to shock arm bolt	1	10	40-50 (4.0-5.0, 29-36)	
Shock absorber mount bolts	2	10	40-50 (4.0-5.0, 29-36)	
Swingarm pinch bolt	1	8	20-30 (2.0-3.0, 14-22)	
Swingarm left pivot bolt	1	25	85-105 (8.5-10.5, 61-76)	
Swingarm right pivot bolt	1	16	85-105 (8.5-10.5, 61-76)	
Rear brake torque rod				
8 mm	1	8	18-25 (1.8-2.5, 13-18)	
10 mm	1	10	30-40 (3.0-4.0, 22-29)	
Final driven sprocket	5	12	80-100 (8.0-10.0, 58-72)	
Rear brake disc	6	8	35-40 (3.5-4.0, 25-29)	
Rear axle nut	1	18	85-105 (8.5-10.5, 61-76)	
Sub-frame bolts (upper and lower)	4	10	35-45 (3.5-4.5, 25-33)	Apply oil to lower bolts
Handlebar pinch bolts	2	8	30-40 (3.0-4.0, 22-29)	
Rear brake actuating	1	6	10-15 (1.0-1.5, 7-11)	
Side stand	1	10	35-45 (3.5-4.5, 25-33)	
Engine rear hanger bolts (upper and lower)	2	10	45-55 (4.5-5.5, 33-40)	
Engine center hanger bolts	6	8	24-30 (2.4-3.0, 17-22)	
Engine front hanger bolts	2	10	35-45 (3.5-4.5, 25-33)	
Gearshift pedal pivot bolt	1	10	35-45 (3.5-4.5, 25-33)	

Torque specifications listed above 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	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	24-30 (2.4-3.0, 17-22)
12 mm bolt and nut	50-60 (5.0-6.0, 36-43)	10 mm flange bolt and nut	35-45 (3.5-4.5, 25-33)



TOOLS

• SPECIAL

DESCRIPTION	TOOL NUMBER	ALTERNATE TOOL	TOOL NUMBER	REF. PAGE
Oil pressure gauge attachment	07510-4220100	Equivalent tool commercially available in U.S.A.		2-5
Compression gauge attachment	07510-MB00101			3-12
Carburetor pilot screw wrench	07908-4220201	Equivalent tool commercially available in U.S.A.		3-11
Snap ring pliers	07914-3230001			7-5, 14-21
				14-27, 16-8
Steering stem socket	07916-3710100	Equivalent tool commercially available in U.S.A.		16-16
Hex wrench, 6 mm	07917-3230000			14-32, 14-35
Primary gear holder	07924-MC70002	or Gear holder modified —	07924-MC70001 07924-MC70000 07924-4150000	7-11, 7-22
Needle bearing remover	07931-MA70000	Not available in U.S.A.		15-15
Bearing race remover	07946-3710500			14-33
Steering stem driver	07946-MB00000	Steering stem driver Attachment	07946-3710601 07964-MB00200	14-34
Fork seal driver	07947-4630100			14-27
Driver	07949-3710000			11-3
Ball race remover	07953-4250002			14-33
Oil seal driver attachment	07965-MC70100			15-9, 15-10
Attachment ring	07965-ME70100			15-10
Oil seal driver	07965-MB00100			15-10
Seal remover pump	07971-M01000A	U.S.A. only		15-19
Valve guide reamer, 5.5 mm	07984-2000000			10-12, 10-13
Ignition timing inspection cover	07998-MB00000	or 07404-0020000 or		18-5
Vacuum gauge	07404-00301100	Vacuum gauge (U.S.A. only)	M937B-021-XXXXX	3-10
Oil pressure gauge	07506-3000000	Equivalent tool commercially available in U.S.A.		2-5
Pressure pump	ST-AH-255-MC7	U.S.A. only—Included in		4-19
Vacuum pump	ST-AH-260-MC7	Turbo kit		

• COMMON

DESCRIPTION	TOOL NUMBER	ALTERNATE TOOL	TOOL NUMBER	REF. PAGE
Float level gauge	07401-0010000	Equivalent tool commercially available in U.S.A.		4-6
Lock nut wrench, 10 x 12 mm	07708-0030200			3-9
Lock nut wrench, 17 x 27 mm	07716-0020300			7-11, 7-19
Lock nut wrench, 30 x 32 mm	07716-0020400			14-31, 14-36
Extension	07716-0020500			7-11, 7-19
Universal holder	07725-0030000	Band strap wrench-commercially available in U.S.A.		14-31, 14-36
Flywheel holder	07725-0040000			7-12, 7-19
Rotor puller	07733-0020001	Rotor puller	07933-3290001	9-2
Valve guide remover, 5.5 mm	07742-0010100	Valve guide driver	07942-3290100	10-13
Driver	07746-0030100	Driver	07945-3710200	13-9
Attachment, 25 mm I.D.	07746-0030200			13-9



GENERAL INFORMATION

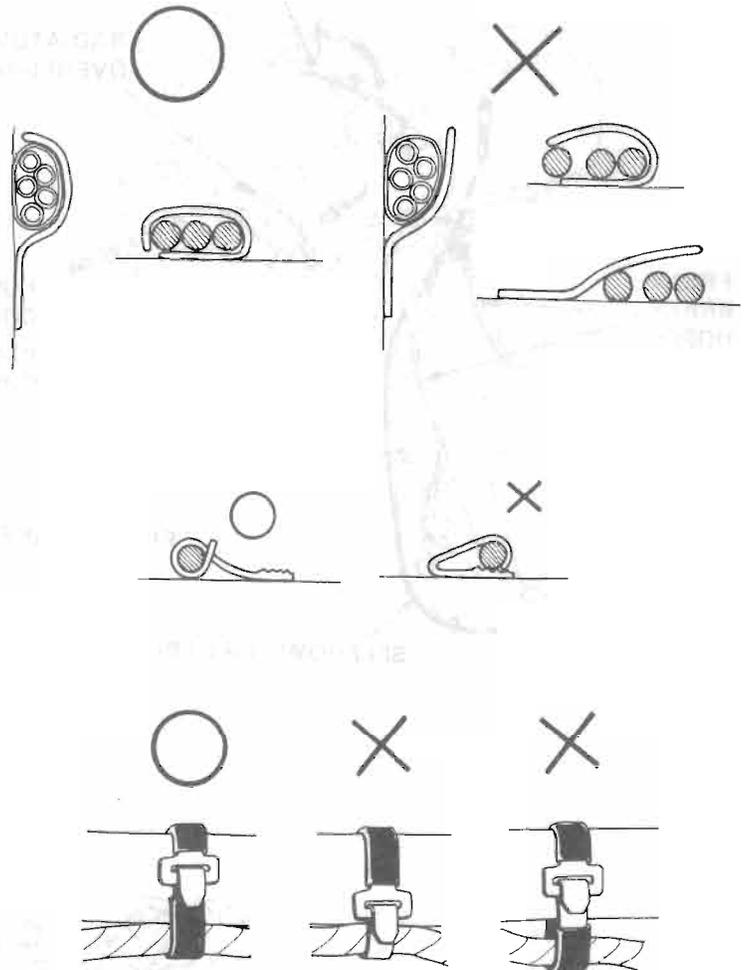
DESCRIPTION	TOOL NUMBER	ALTERNATE TOOL	TOOL NUMBER	REF. PAGE
Attachment, 32 x 35 mm	07746-0010100			15-5
Attachment, 37 x 40 mm	07746-0010200			7-16, 15-15
Attachment, 42 x 47 mm	07746-0010300			14-15, 14-33
Attachment, 52 x 55 mm	07746-0010400			11-3, 14-34
				15-6
Attachment, 62 x 68 mm	07746-0010500			15-6
Pilot, 15 mm	07746-0040300			14-15
Pilot, 17 mm	07746-0040400			15-15
Pilot, 20 mm	07746-0040500			15-6, 15-15
Pilot, 25 mm	07746-0040600			15-6
Pilot, 35 mm	07746-0040700			7-16
Driver	07749-0010000			7-16, 14-15
				14-33, 14-34
				15-6, 15-15
Valve spring compressor	07757-0010000			10-10, 10-15
Bearing remover shaft	07746-0050100	Equivalent tool		14-14, 15-5
Bearing remover corret, 15 mm	07746-0050400	commercially available		14-14
Bearing remover corret, 20 mm	07746-0050600	in U.S.A.		15-5

CABLE & HARNESS ROUTING

Note the following when routing cables and wire harnesses.

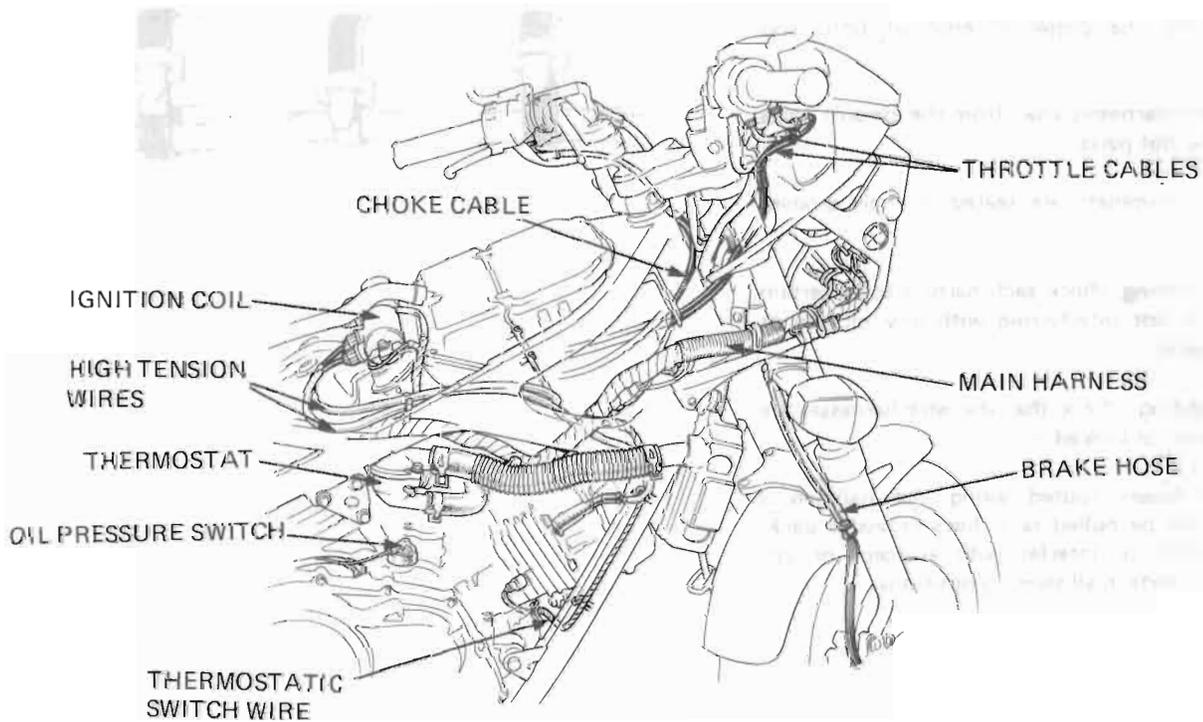
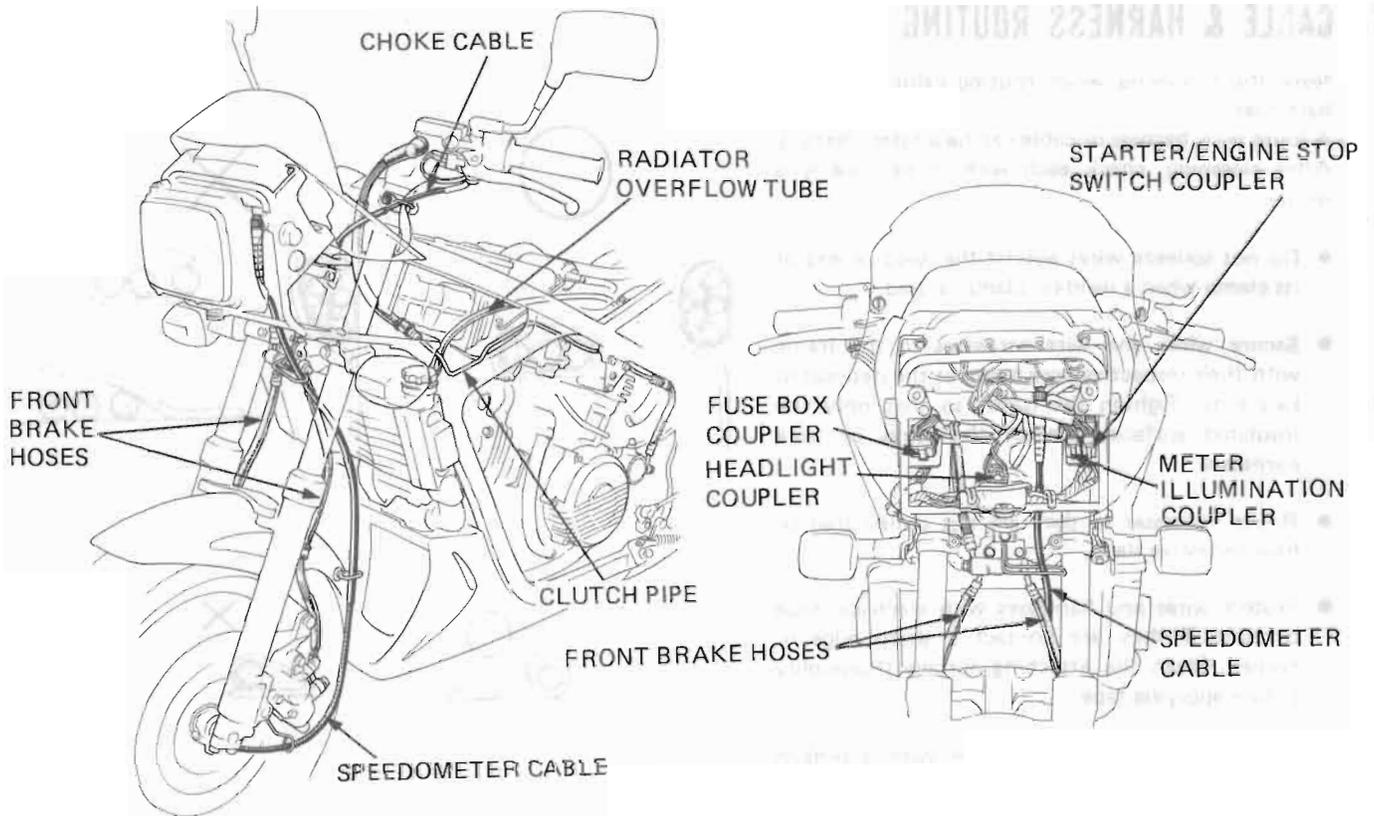
A loose wire, harness or cable can be a safety hazard. After clamping, check each wire to be sure it is secure.

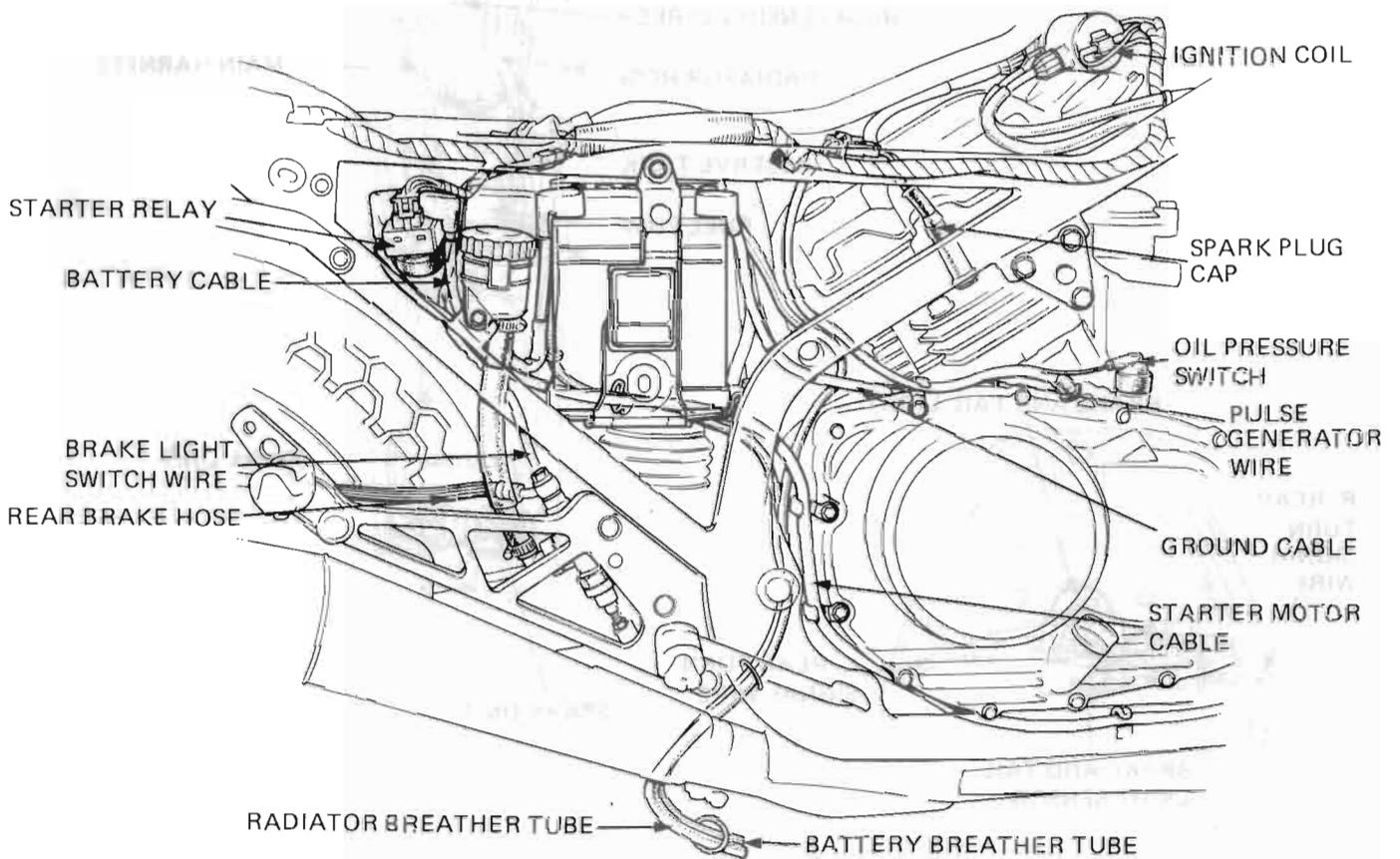
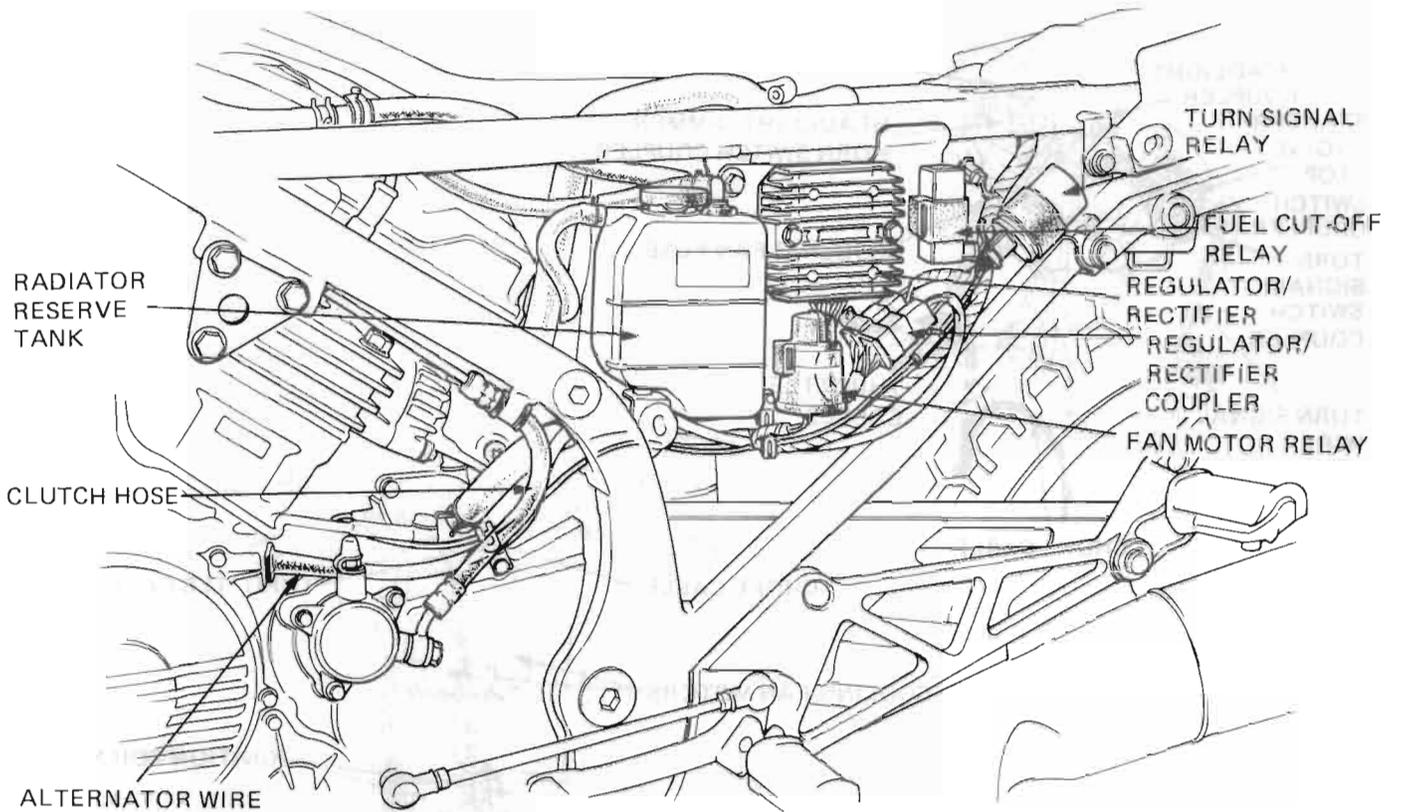
- Do not squeeze wires against the weld or end of its clamp when a weld-on clamp is used.
- Secure wires and wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wires or wire harnesses.
- Route harnesses 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.





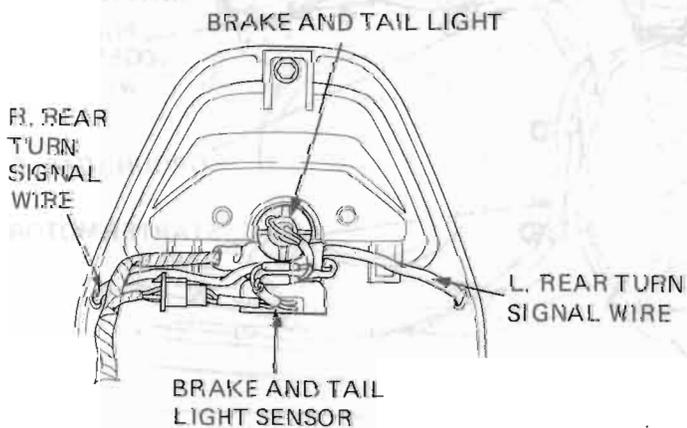
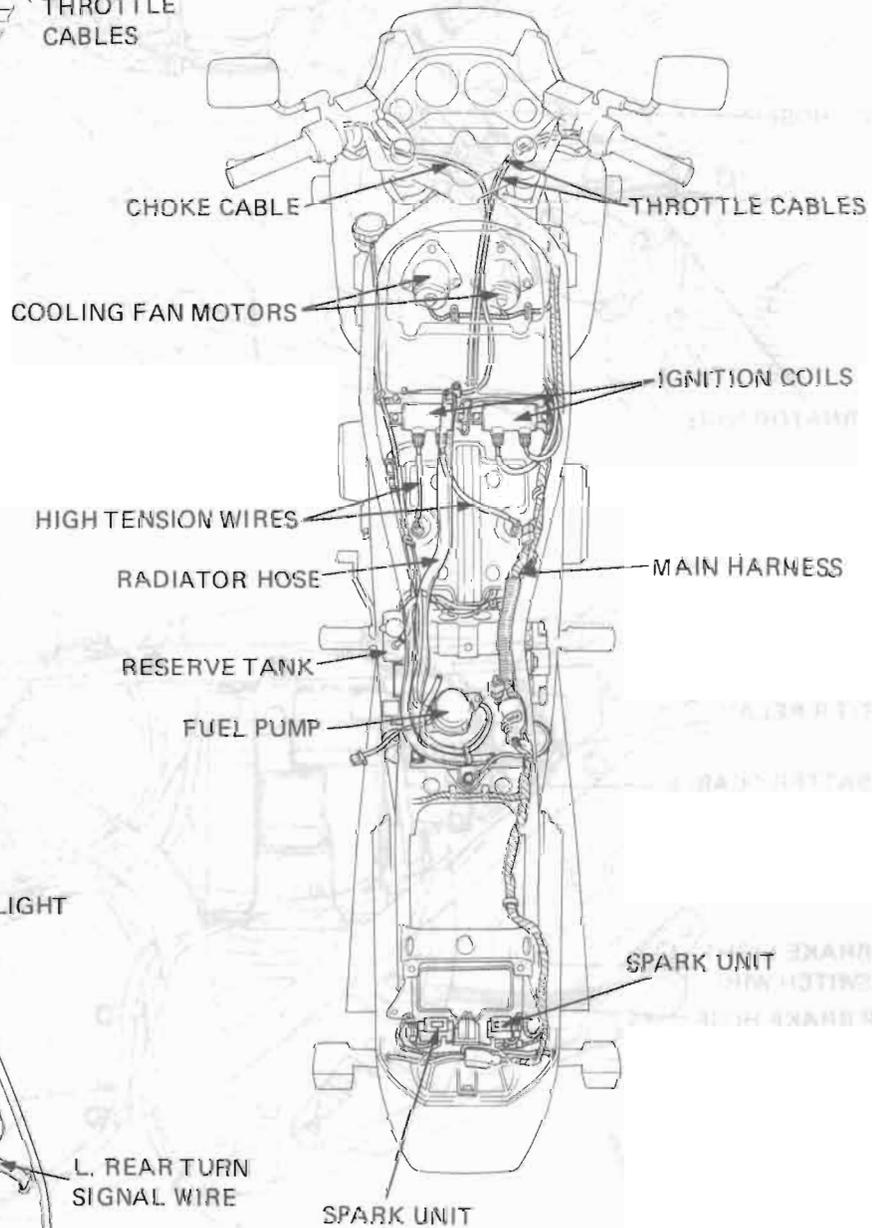
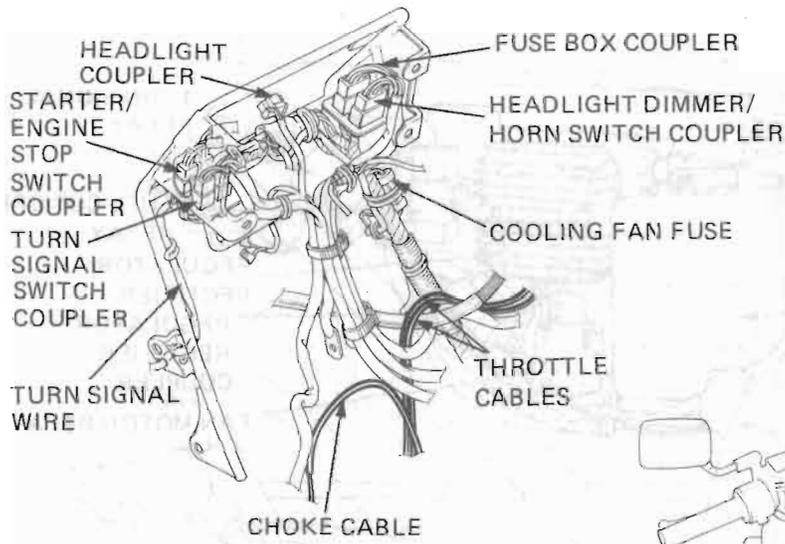
GENERAL INFORMATION







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.

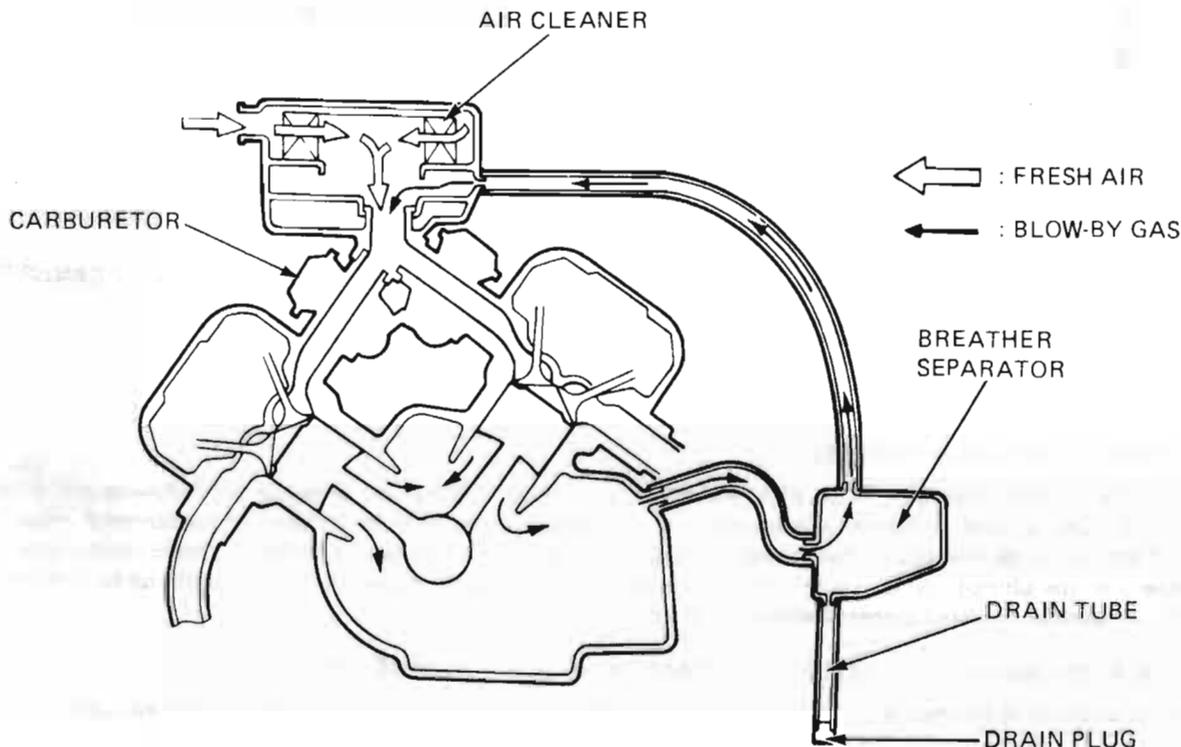
Honda Motor Co., Ltd. utilizes lean carburetor settings as well as other systems, to reduce carbon monoxide and hydrocarbons.

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.

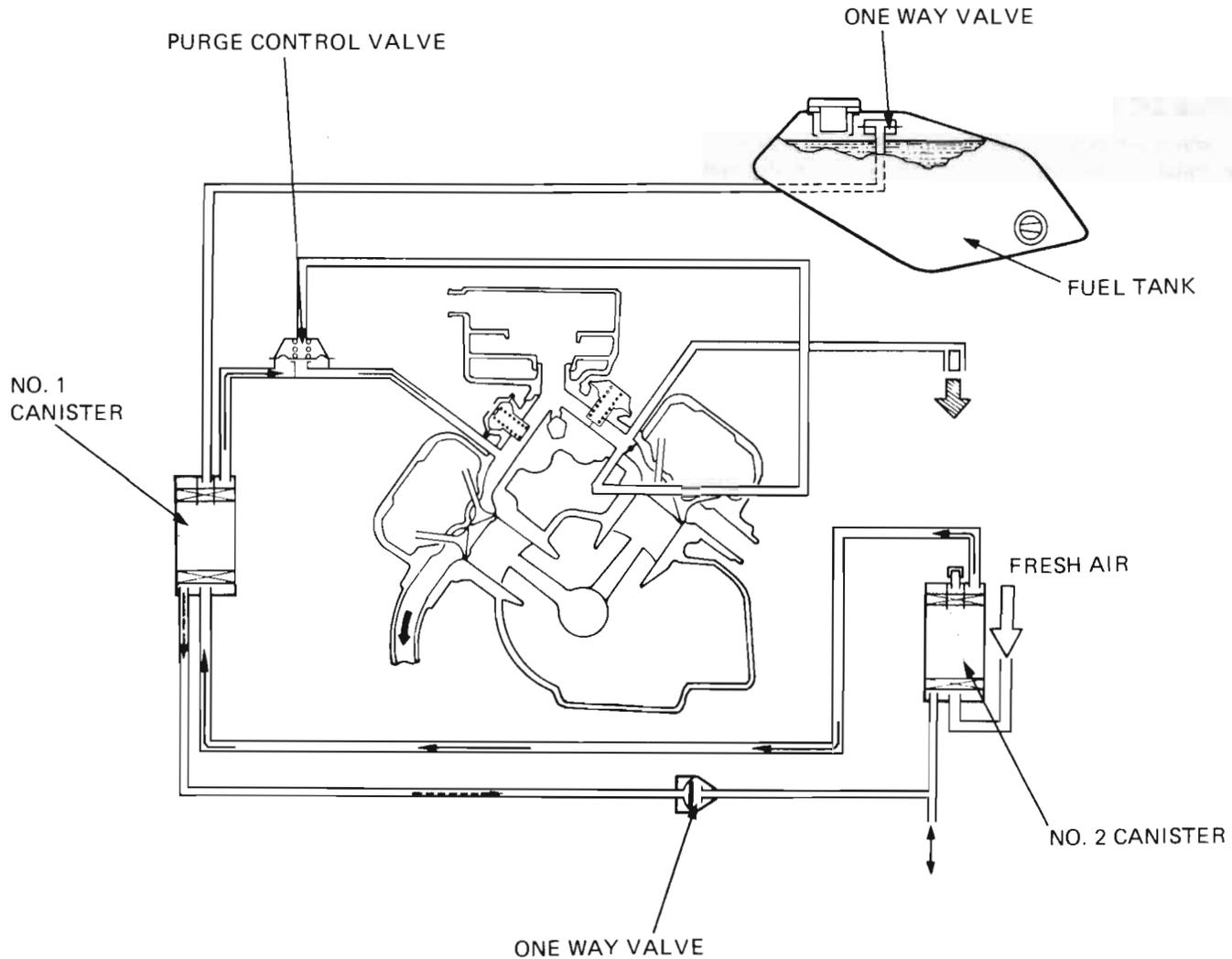
CRANKCASE EMISSION CONTROL SYSTEM

This engine is equipped with a crankcase emission control 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.



NEW EVAPORATIVE EMISSION CONTROL SYSTEM (California model only)

This model complies with California Air Resources Board requirements for evaporative emission regulations. Fuel vapor from the fuel tank is routed into a charcoal canister where it is absorbed and stored while the engine is stopped. When the motorcycle 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.

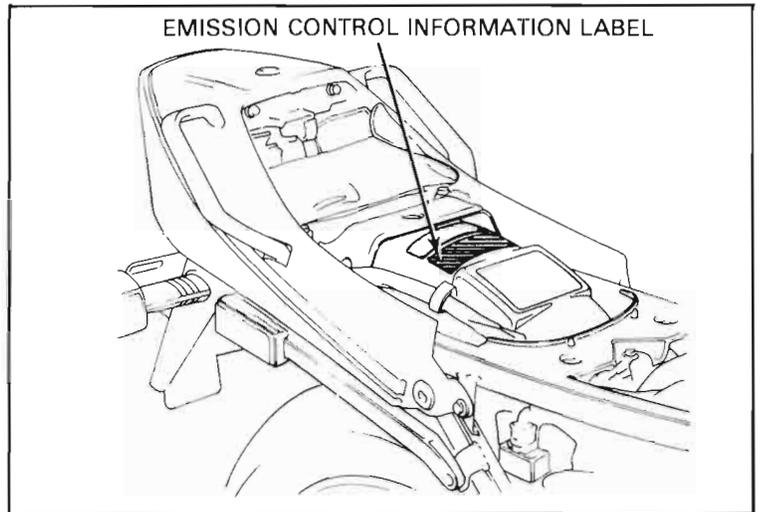
AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW:

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.



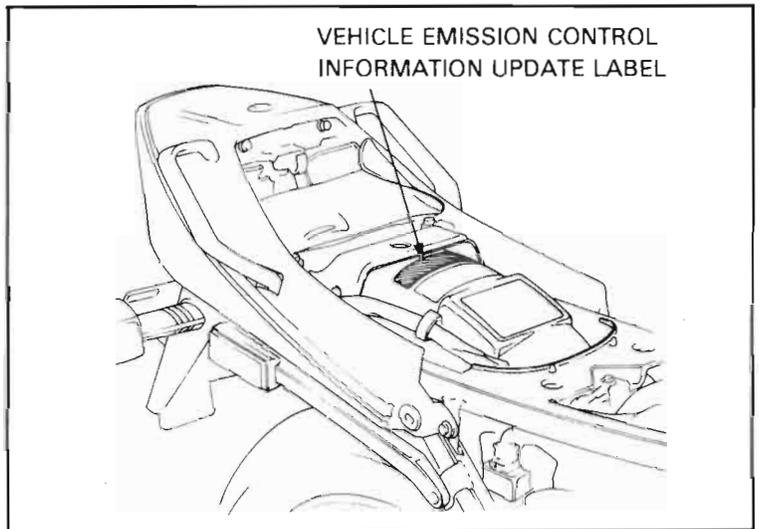
EMISSION CONTROL INFORMATION LABEL

An Emission Control Information Label is located on the rear fender under the seat as shown. It gives basic tune-up specifications.



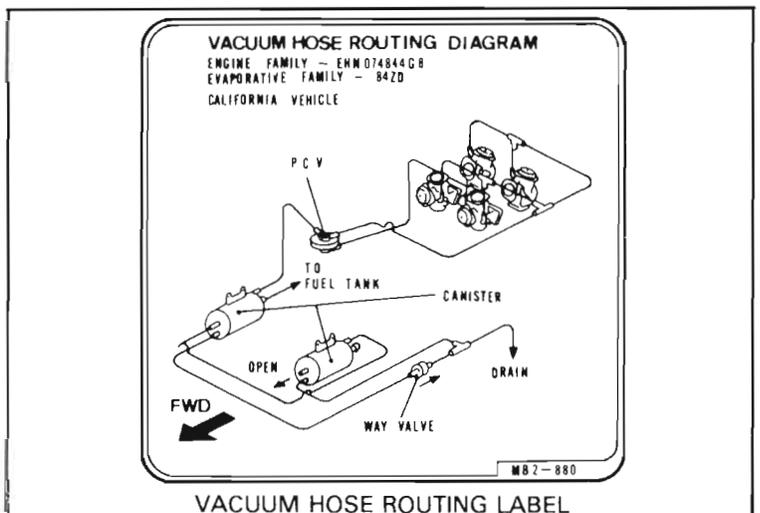
EMISSION CONTROL INFORMATION UPDATE LABEL

After making a high altitude carburetor adjustment (page 4-18), attach an update label on the rear fender under the seat as shown. Instructions for obtaining the update label are given in Service Letter No. 132.



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

The Vacuum Hose Routing Label is attached to the fuel tank below the seat. Route the vacuum hoses as described on this label.





SERVICE INFORMATION	2-1	OIL PRESSURE CHECK	2-4
TROUBLESHOOTING	2-2	OIL PUMP	2-5
ENGINE OIL LEVEL	2-3	CONTROL CABLE LUBRICATION	2-9
ENGINE OIL & FILTER CHANGE	2-3	LUBRICATION POINTS	2-10
OIL STRAINER CLEANING	2-4		

SERVICE INFORMATION

GENERAL

To service the oil pump, it is necessary to remove the right side cover and water pump assembly. See section 6 for water pump removal and installation.

SPECIFICATIONS

Engine oil

Oil capacity	'83-'84: 2.9 liters (3.1 US qt, 2.5 Imp qt) after draining After '84: 2.7 liters (2.9 US qt, 2.4 Imp qt) after draining 3.0 liters (3.2 US qt, 2.6 Imp qt) after disassembly
Oil recommendation	Use HONDA 4-STROKE OIL or equivalent. API SERVICE CLASSIFICATION: SE or SF. VISCOSITY: SAE 10W-40 Other viscosities shown in the chart may be used when the average temperature in your riding area is within the indicated range.
	<p style="text-align: center;">OIL VISCOSITIES</p> <p>The chart shows four horizontal bars representing different oil grades and their recommended temperature ranges:</p> <ul style="list-style-type: none"> SAE 20W-50: approximately 0°F to 100°F SAE 20W-40: approximately 0°F to 90°F SAE 10W-40: approximately -10°F to 80°F SAE 10W-30: approximately -10°F to 60°F
Oil pressure (at oil pressure switch)	5.4 ± 0.7 kg/cm ² (77 ± 10 psi) at 5,000 rpm (80°C/176°F)
Oil pump delivery	47.8 liters (50.5 US qt)/min at 5,000 rpm of oil pump speed

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)



LUBRICATION

TORQUE VALUES

Engine oil drain plug	35–40 N·m (3.5–4.0 kg-m, 25–29 ft-lb)
Engine oil filter	15–20 N·m (1.5–2.0 kg-m, 11–14 ft-lb)
Oil pressure switch	15–20 N·m (1.5–2.0 kg-m, 11–14 ft-lb)

TOOLS

Special

Oil pressure gauge	07506–3000000	} or equivalent tools commercially available.
Oil pressure gauge attachment	07510–4220100	

TROUBLESHOOTING

Oil level too low

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 closed
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



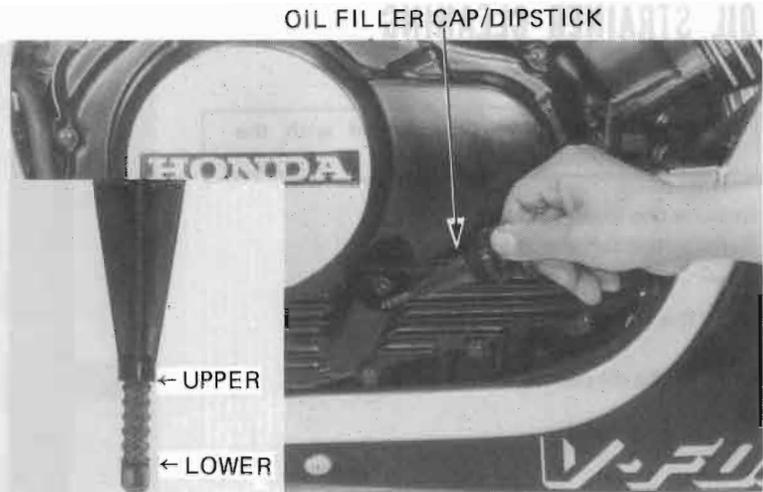
ENGINE OIL LEVEL

Put the motorcycle on its center stand on level ground. Start the engine and let it idle for 2-3 minutes. Turn off the engine. Remove the filler cap/dipstick, wipe it clean and insert it without screwing it in. Remove the filler cap/dipstick and check the oil level.

If the level is below the lower level mark on the dipstick, fill to the upper level mark with recommended oil.

Check the oil pressure with the oil pressure warning light after the engine starts. The light should go off after one or two seconds.

If it does not, stop the engine and check the oil pump output and/or oil circuit.



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.

Stop the engine.

Remove the oil filler cap/dipstick, oil drain plug and drain the oil.

Remove the lower radiator cowl, lower radiator mounting bolts and bracket. Swing the radiator away from the engine, but don't disconnect its hoses. Remove the oil filter with a filter wrench and let the remaining oil drain out. Discard the oil filter.

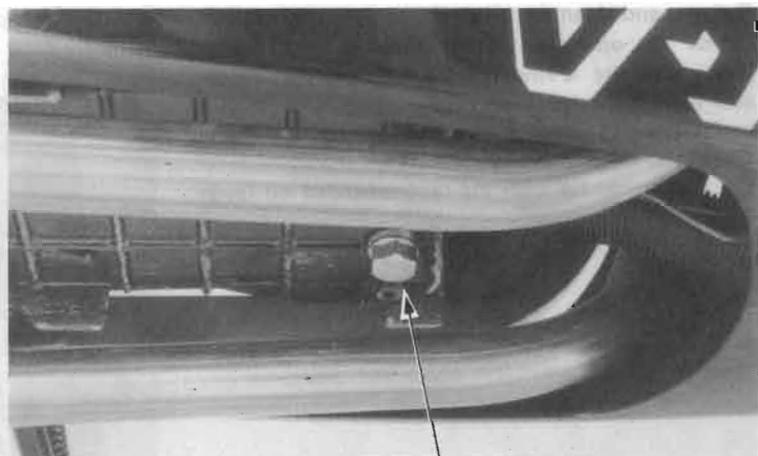
Check that the sealing washer on the drain plug is in good condition and install the plug. Replace the oil filter with a new one. Check that the oil filter O-ring is in good condition, and coat it with oil before installing it. Install the lower radiator mount bracket, lower radiator mount bolts and lower radiator cowl.

Fill the crankcase with 2.9 liters (3.1 US qt, 2.5 Imp qt) of the recommended oil (page 2-1). Reinstall the oil filler cap/dipstick.

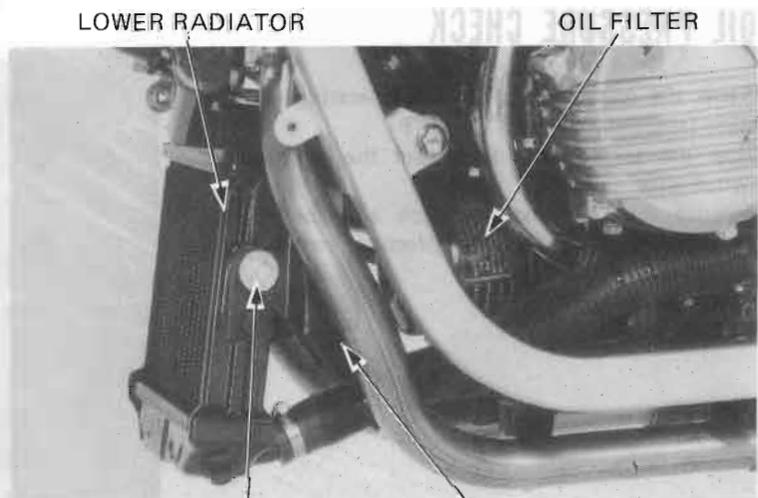
Start the engine and let it idle for 2-3 minutes, then stop the engine.

Make sure that the oil level is at the upper level mark on the dipstick.

Make sure that there are no oil leaks.



OIL DRAIN PLUG



MOUNT BOLT

MOUNT BRACKET

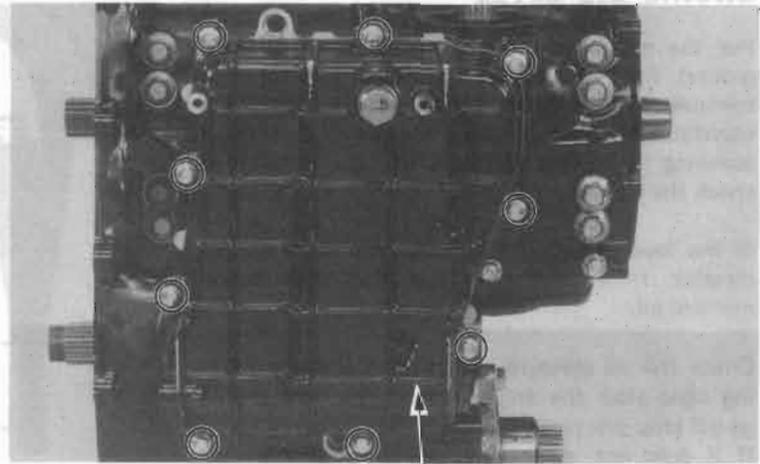
LUBRICATION
OIL STRAINER CLEANING
NOTE:

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

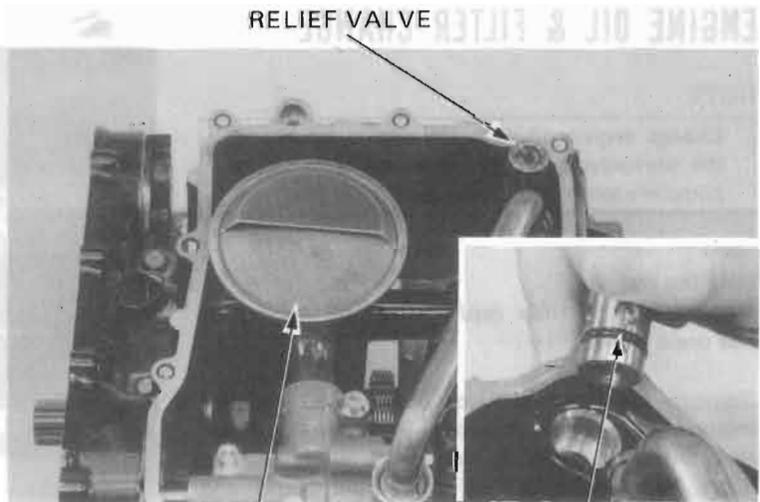
Remove the lower radiator cowl.
 Remove the exhaust chamber.

Drain the engine oil (page 2-3).

Remove the oil pan bolts and oil pan.


OIL PAN

Remove and clean the oil strainer.
 Check the operation of the pressure relief valve.
 Make sure the O-ring is in good condition whenever the relief valve is removed.
 Install the oil strainer and oil pan.
 Install the exhaust pipes.
 Fill the crankcase with the recommended oil (page 2-1).

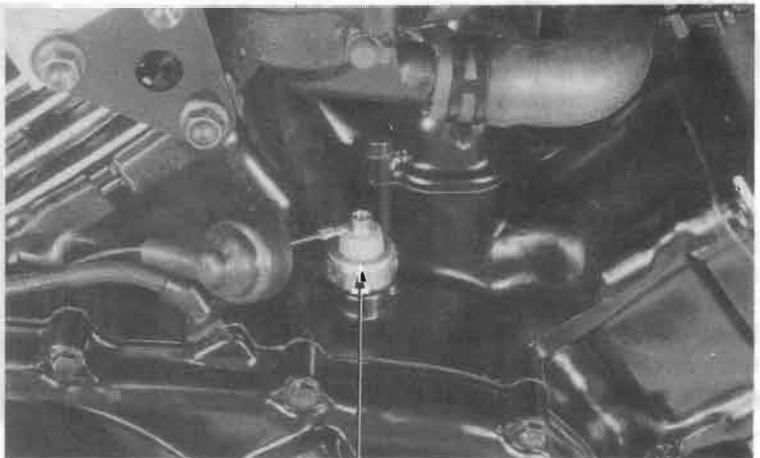

RELIEF VALVE
OIL STRAINER
RELIEF VALVE O-RING
OIL PRESSURE CHECK

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

Stop the engine and disconnect the oil pressure switch wire.

Remove the oil pressure switch and connect an oil pressure gauge to the pressure switch hole (page 2-5).

Check the oil level.


OIL PRESSURE SWITCH



Start the engine and check the oil pressure at 5,000 rpm.

OIL PRESSURE:

5.4 ± 0.7 kg/cm² (77 ± 10 psi) at 5,000 rpm (80°C/176°F)

Stop the engine.

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

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

Connect the oil pressure switch wire.

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 PRESSURE GAUGE
07506–3000000 OR EQUIVALENT TOOL IN U.S.A.



OIL PRESSURE GAUGE ATTACHMENT
07510–4220100 OR EQUIVALENT TOOL IN U.S.A.

OIL PUMP

REMOVAL

NOTE

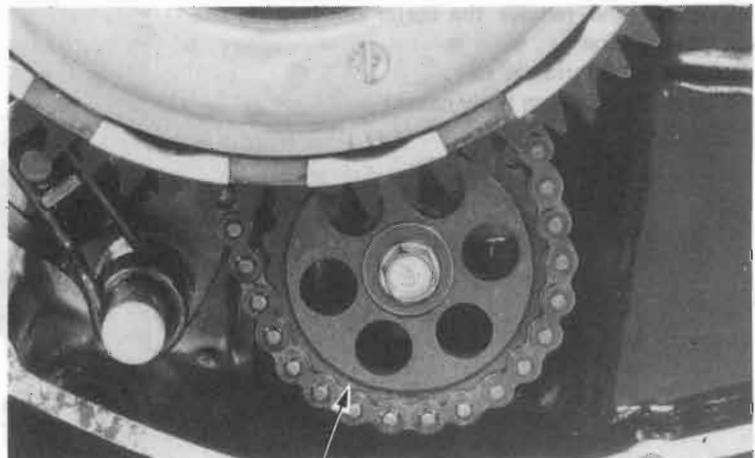
The oil pump can be removed with the engine mounted in the frame.

Remove the lower radiator

Drain the engine oil. Remove the exhaust system.

Remove the right crankcase cover.

Remove the oil pump driven sprocket by removing the bolt and washer.

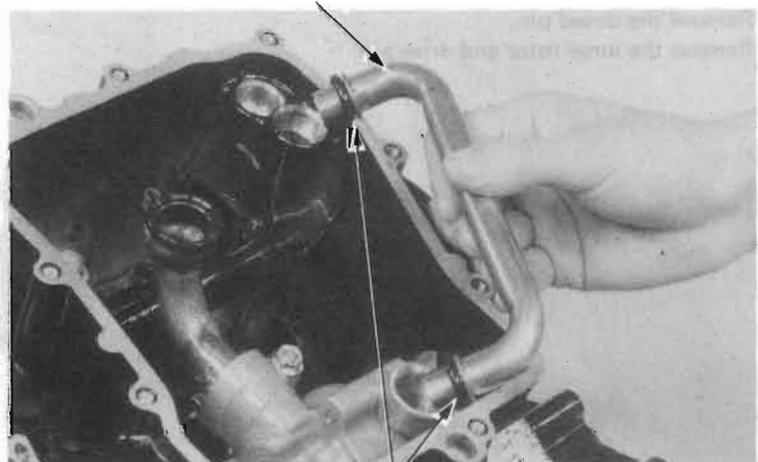


OIL PUMP DRIVEN SPROCKET

Remove the oil strainer (page 2-4) and the oil pass pipe.

Make sure the O-rings are in good condition.

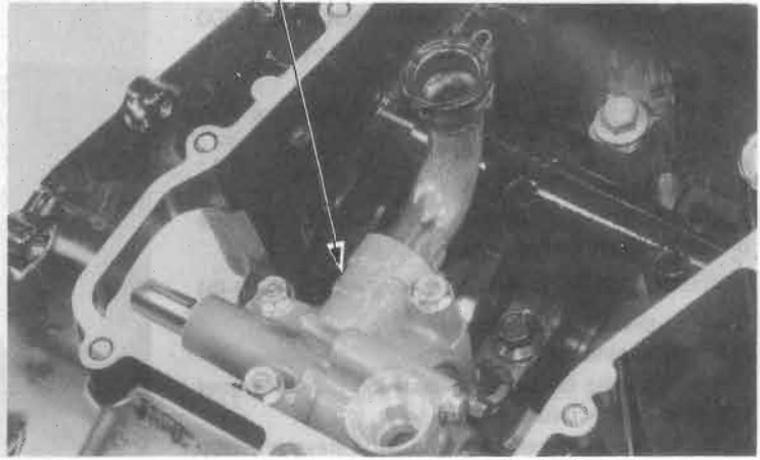
OIL PASS PIPE



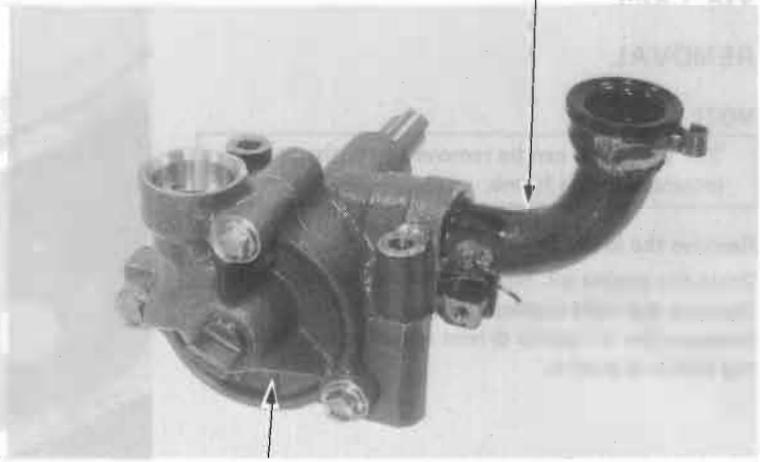
O-RING

LUBRICATION

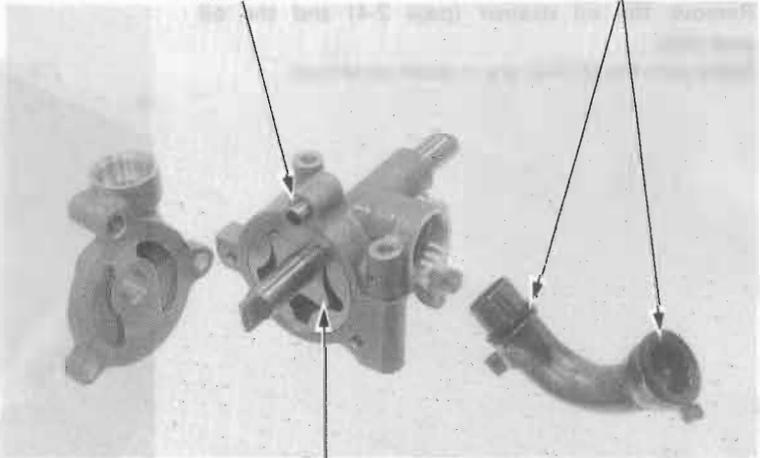
Remove the oil pump by removing the mounting bolts.


OIL PUMP


Straighten and remove the cotter pin holding the oil strainer tube.
 Remove the oil strainer stay.
 Remove the oil pump body cover.


OIL STRAINER TUBE

OIL PUMP BODY COVER

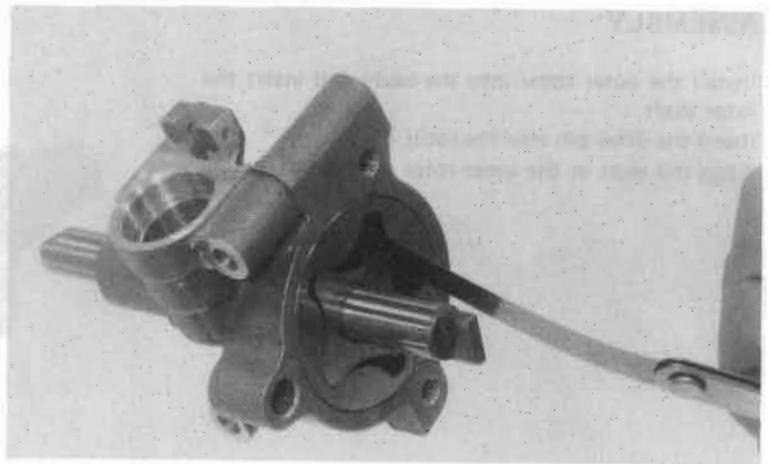
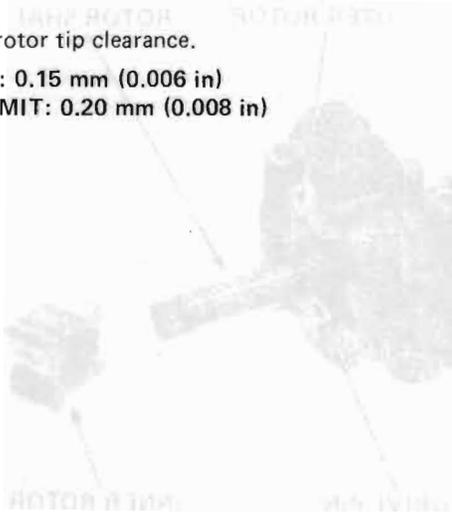
Remove the dowel pin.
 Remove the inner rotor and drive pin.


DOWEL PIN
O-RINGS

INNER ROTOR



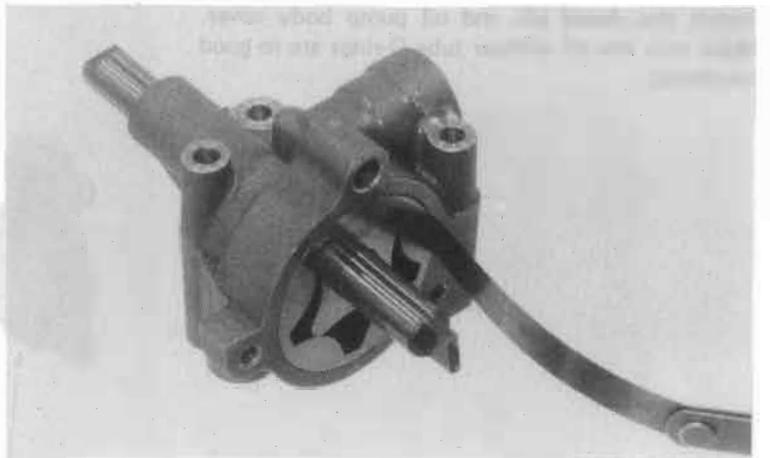
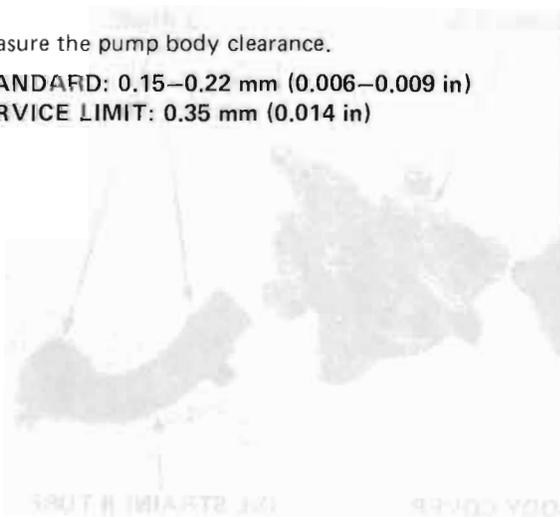
Measure the rotor tip clearance.

STANDARD: 0.15 mm (0.006 in)
SERVICE LIMIT: 0.20 mm (0.008 in)



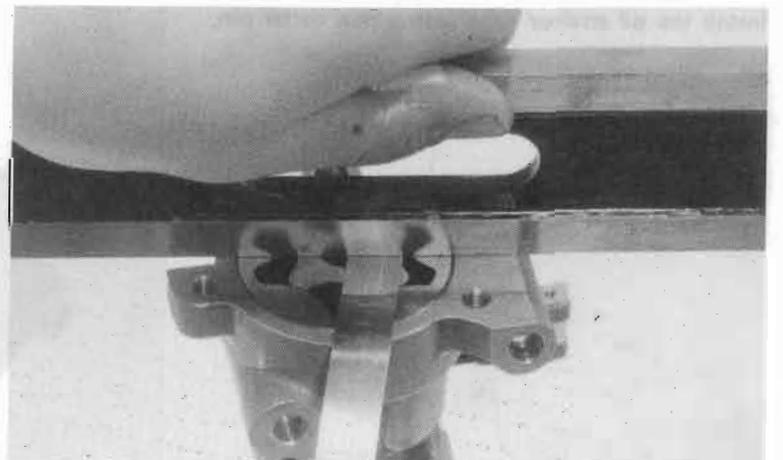
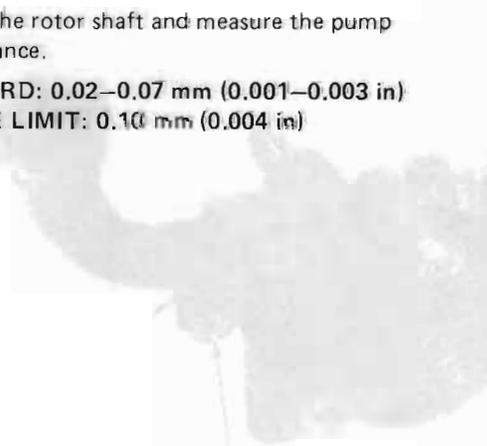
Measure the pump body clearance.

STANDARD: 0.15–0.22 mm (0.006–0.009 in)
SERVICE LIMIT: 0.35 mm (0.014 in)



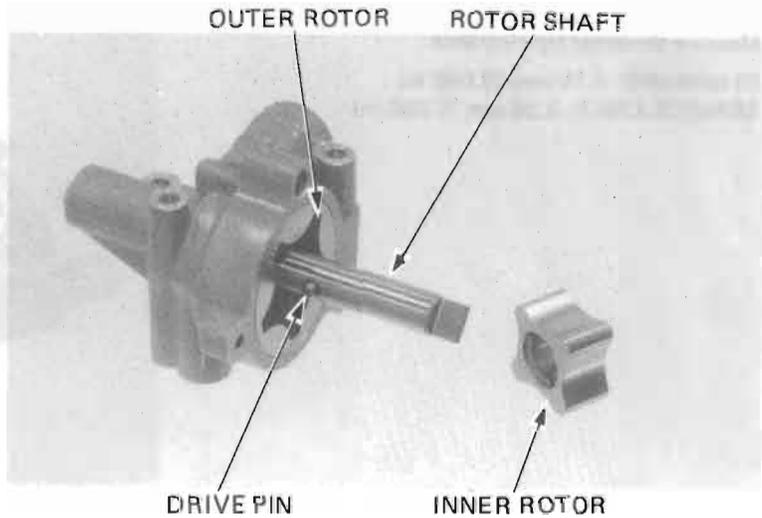
Remove the rotor shaft and measure the pump end clearance.

STANDARD: 0.02–0.07 mm (0.001–0.003 in)
SERVICE LIMIT: 0.10 mm (0.004 in)

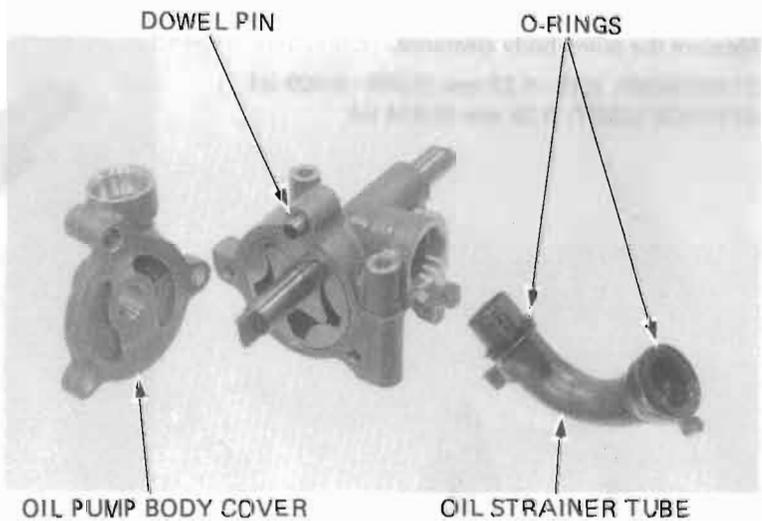


ASSEMBLY

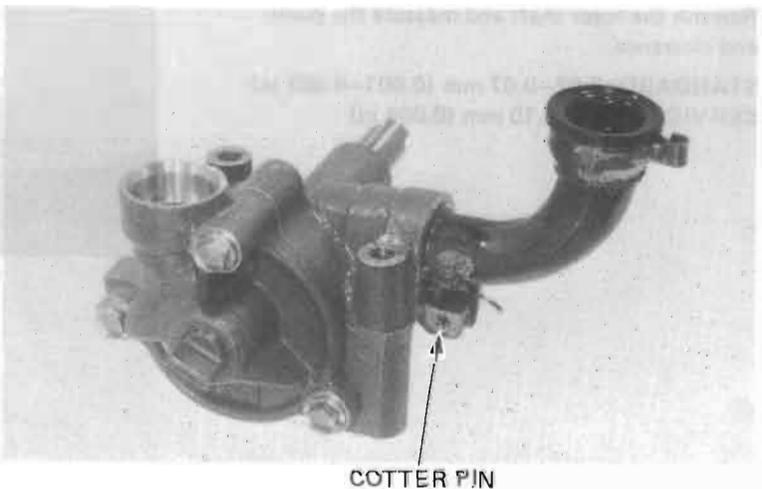
Install the outer rotor into the body and insert the rotor shaft.
Insert the drive pin into the rotor shaft.
Align the slots in the inner rotor with the drive pin.



Install the dowel pin and oil pump body cover.
Make sure the oil strainer tube O-rings are in good condition.



Install the oil strainer tube with a new cotter pin.





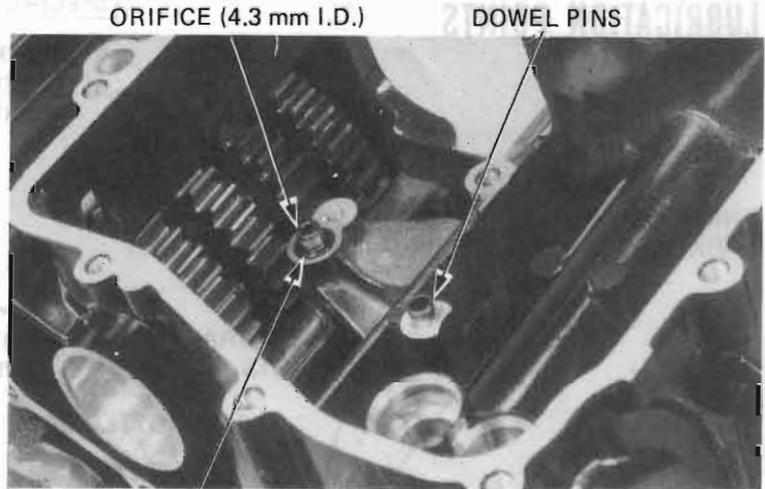
Install the orifice, O-ring and dowel pin.

Install the oil pump and oil pipe.

NOTE

Make sure the O-rings are installed on the oil pipe.

Install the oil strainer and oil pan.



O-RING

Place the oil pump driven sprocket into the drive chain.

NOTE

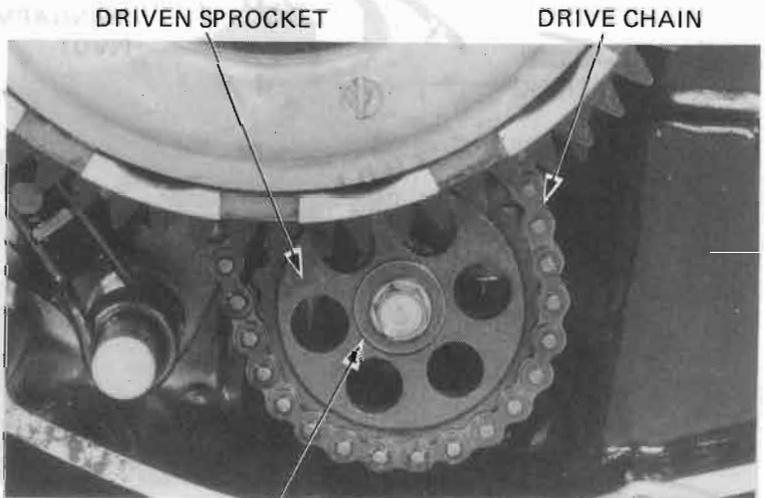
The "IN" mark on the driven sprocket should face the crankcase.

Install the washer and tighten the bolt.

Install the dowel pins and a new gasket.
Install the right crankcase cover.

Install the exhaust system.

Fill the engine with the recommended oil (page 2-1).



WASHER

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.

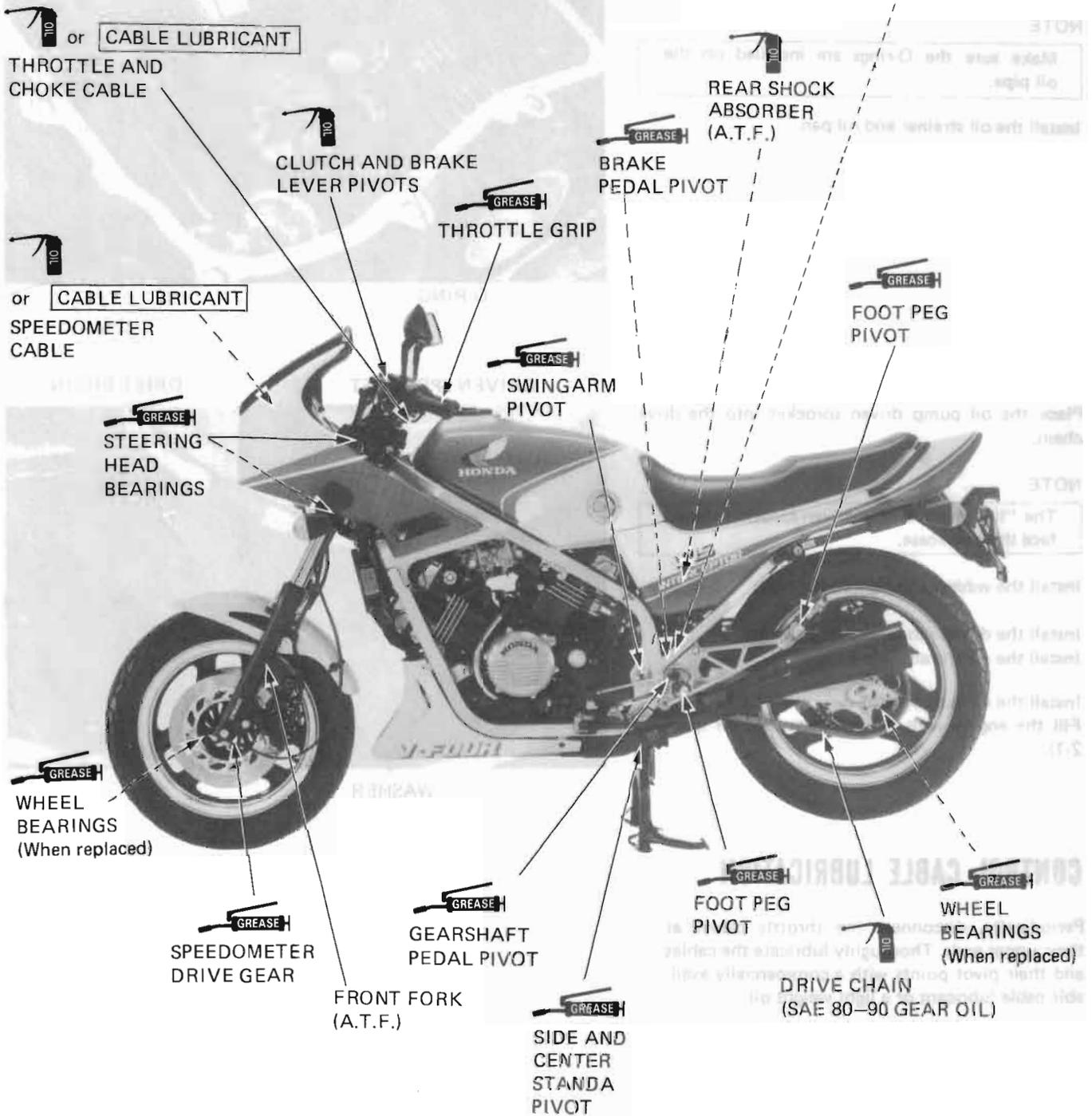


LUBRICATION

LUBRICATION POINTS

SPECIAL LUBRICANT

- SHOCK ABSORBER UPPER MOUNT BUSHING (page 15-11)
- SUSPENSION LINKAGE NEEDLE BEARING (BUSHING FOR '83) (page 15-12)





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SERVICE INFORMATION

GENERAL

- Engine oil See page 2-3
- Engine oil filter See page 2-3

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)

Sample of manual. Download All 309 pages at:

<https://www.irepairmanual.com/downloads/1983-1985-honda-vf700fv750f-motorcycle-service-repair-workshop-manual/>