

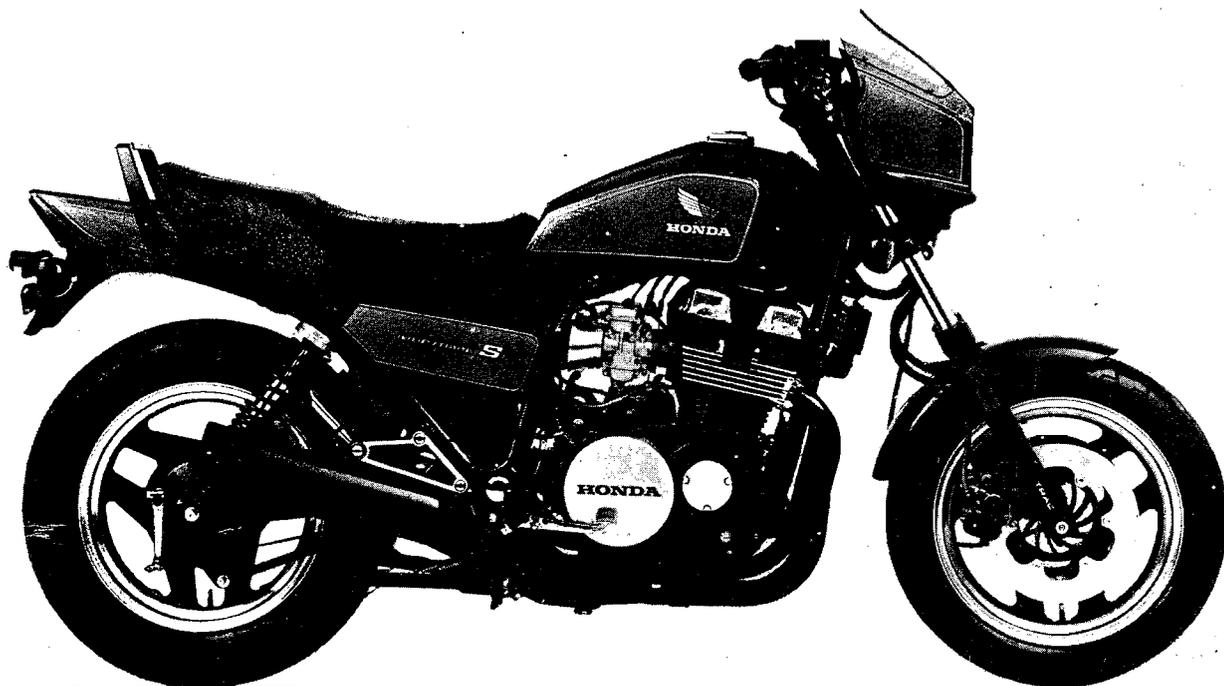
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HONDA

Don Murphy Level 3

SHOP MANUAL NIGHTHAWK CB750SC

*Michelle
Dion*



PART NO.-HM 1074

1984

NIGHTHAWK CB750SC

Sample of manual. Download All 335 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 possibly hazardous consequences of each conceivable way, nor could Honda investigate all such ways. Anyone using service procedures or tools, whether or not recommended by Honda *must satisfy himself thoroughly* that neither personal safety nor vehicle safety will be jeopardized by the service method or tools selected.



HONDA CB750SC

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 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.

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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

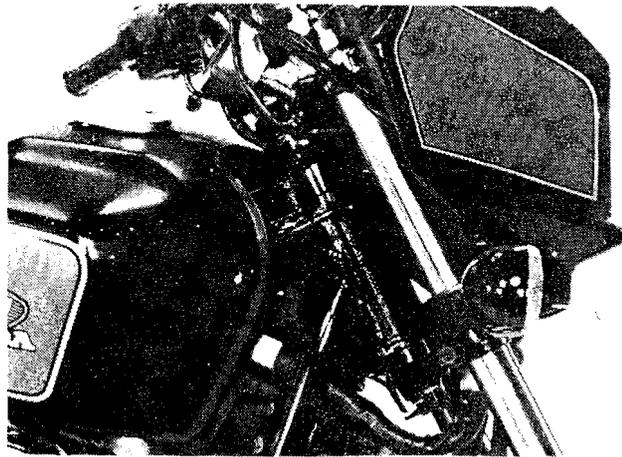
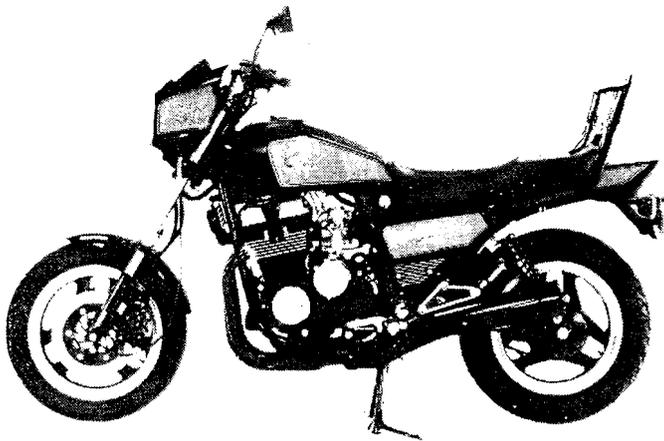
The battery generates hydrogen gas which can be highly explosive. Do not smoke or allow flames or sparks near the battery, especially while charging it.

SERVICE RULES

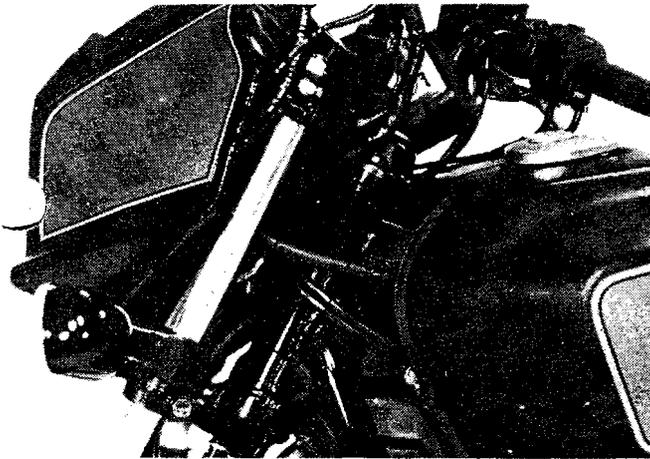
1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalents. Parts that do not meet HONDA's design specifications may damage the motorcycle.
2. Use the special tools designed for this product.
3. Use only metric tools when servicing this motorcycle. Metric bolts, nuts, and screws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



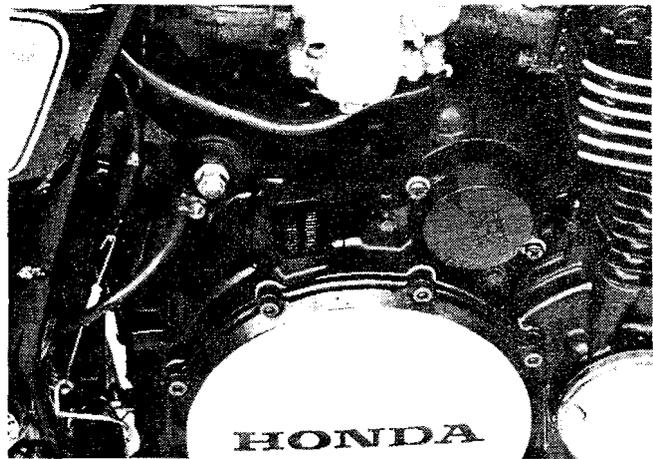
MODEL IDENTIFICATION



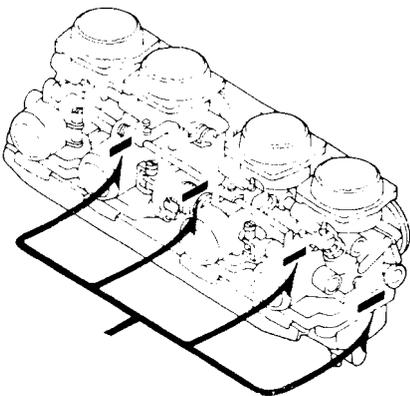
The frame serial number is stamped on the right side of the steering head.



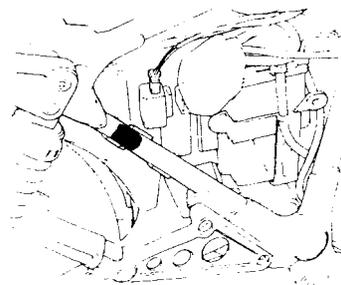
The vehicle identification number (VIN) is on the left side of the steering head.



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



The carburetor identification numbers are on the left sides of the carburetor bodies.



The color label is attached to the frame tube under the right side cover.



SPECIFICATIONS

ITEM			
DIMENSIONS	Overall length	2,155 mm (84.8 in)	
	Overall width	780 mm (30.7 in)	
	Overall height	1,195 mm (47.5 in)	
	Wheelbase	1,495 mm (58.9 in)	
	Seat height	795 mm (31.3 in)	
	Ground clearance	145 mm (5.7 in)	
	Dry weight	214 kg (471.8 lbs)	
FRAME	Type	Double cradle	
	Front suspension	Telescopic fork	
	Rear suspension	Swing arm/shock absorber	
	Front tire size	110/90-16 59H	
	Rear tire size	130/90-16 67H	
	Cold tire pressures	Driver only	Front 225 kPa (2.25 kg/cm ² , 32 psi) Rear 225 kPa (2.25 kg/cm ² , 32 psi)
		Driver and passenger	Front 225 kPa (2.25 kg/cm ² , 32 psi) Rear 280 kPa (2.80 kg/cm ² , 40 psi)
	Front brake, lining swept area	Disc brake, 904 cm ² (140 sq in)	
	Rear brake, lining swept area	Drum brake, 198 cm ² (31 sq in)	
	Fuel capacity	16 liters (4.2 US gal, 3.52 Imp gal)	
Fuel reserve capacity	2.5 liters (2.6 US qt, 2.2 Imp qt)		
Caster angle	60°		
Trail	122 mm (4.8 in)		
Front fork oil capacity			
	Right	423 cc (14.3 ozs)	
	Left	429 cc (14.5 ozs)	
ENGINE	Type	Air cooled 4-stroke, DOHC	
	Cylinder arrangement	Vertical in line four	
	Bore and stroke	67.0 x 53.0 mm	
	Displacement	747 cc	
	Compression ratio	9.3 : 1	
	Valve train	Chain driven DOHC, 4 valves per cylinder	
	Maximum horsepower	80 PS/10,000 rpm	
	Maximum torque	6.25 kg-m (45.20 lb-ft)/8,000 rpm	
	Oil capacity	3.6 liters (3.8 US qt, 3.2 Imp qt) after disassembly	
	Lubrication system	Wet sump	
	Air filtration	Paper	
	Cylinder compression	1200 ± 200 kPa (12.0 ± 2.0 kg/cm ² , 170 ± 28 psi)	
	Intake valve	Opens 10° (BTDC) at 1 mm lift, 42° (BTDC) at 0 lift	
		Closes 40° (ABDC) at 1 mm lift, 80° (ABDC) at 0 lift	
	Exhaust valve	Opens 45° (BBDC) at 1 mm lift, 81° (BBDC) at 0 lift	
		Closes 5° (ATDC) at 1 mm lift, 51° (ATDC) at 0 lift	



TORQUE VALUES

ENGINE

Item	Q'ty	Thread Dia (mm)	Torque N-m (kg-m, ft-lb)	Remarks	
Main oil gallery plug	1	—	25-35 (2.5-3.5, 18-25)	U.B.S., Apply a locking agent to the threads	
Camshaft holder	20	6	12-16 (1.2-1.6, 9-12)		
Cylinder head	12	9	26-30 (2.6-3.0, 19-22)		
Cam sprocket	4	7	18-20 (1.8-2.0, 13-14)		
Cam chain tensioner	4	8	10-14 (1.0-1.4, 7-10)	Apply engine oil to the threads	
Spark plug	4	—	12-18 (1.2-1.8, 9-13)		
Crankcase	8 mm	11	21-25 (2.1-2.5, 15-18)		
	7 mm	2	15-19 (1.5-1.9, 11-14)		
	6 mm	20	10-14 (1.0-1.4, 7-10)		
Connecting rod nut	8	8	30-34 (3.0-3.4, 22-25)		Apply engine oil to the O-ring Apply a liquid sealant to the threads
Pulse rotor	1	10	30-40 (3.0-4.0, 22-29)		
Alternator rotor bolt	1	10	30-38 (3.0-3.8, 22-28)		
Mainshaft lock nut	1	22	47-53 (4.7-5.3, 34-38)		
Oil filter	1	—	15-20 (1.5-2.0, 11-14)		
Oil pressure switch	1	—	10-14 (1.0-1.4, 7-10)		
Oil pipe bolt	7 mm	2	10-14 (1.0-1.4, 7-10)		
	8 mm	4	12-16 (1.2-1.6, 9-12)		
	10 mm	1	16-20 (1.6-2.0, 12-14)		
Oil drain plug	1	12	30-40 (3.0-4.0, 22-29)		
Pulse generator assembly	4	5	5-7 (0.5-0.7, 4-5)		
Alternator shaft lock nut	1	16	30-38 (3.0-3.8, 22-28)	Apply a liquid sealant to the threads	
Clutch lock nut	1	—	75-85 (7.5-8.5, 54-62)		
Output driven gear bearing holder	4	8	30-34 (3.0-3.4, 22-25)		
Countershaft bearing holder	3	8	30-34 (3.0-3.4, 22-25)		
Output gear bearing lock nut (outer)	2	—	90-110 (9.0-11.0, 65-80)		
	(inner)	2	70-80 (7.0-8.0, 51-58)		
Output gear case	8 mm	2	21-25 (2.1-2.5, 15-18)		
	6 mm	1	10-14 (1.0-1.4, 7-10)		
Oil chamber cover bolt	1	8	16-20 (1.6-2.0, 12-15)		
Main bearing bolt	10	8	21-25 (2.1-2.5, 15-18)		
Oil hose	6 mm	2	10-15 (1.0-1.5, 7-11)		
	8 mm	2	24-30 (2.4-3.0, 17-22)		

CHASSIS

Item	Q'ty	Thread Dia (mm)	Torque N-m (kg-m, ft-lb)	Remarks
Engine oil drain plug	2	8	24-30 (2.4-3.0, 17-22)	U nut U.B.S.
Steering stem nut	1	24	90-120 (9.0-12.0, 65-87)	
Handlebar holder	4	8	20-30 (2.0-3.0, 14-22)	
Front fork pinch bolt (upper)	2	7	9-15 (0.9-1.5, 6-11)	
Front fork pinch bolt (lower)	2	10	45-55 (4.5-5.5, 32-40)	
Front axle nut	1	12	65-75 (6.5-7.5, 48-54)	
Front axle holder nut	4	8	18-25 (1.8-2.5, 13-18)	
Engine mounting bolts	8 mm	8	20-30 (2.0-3.0, 14-22)	
	10 mm	5	45-60 (4.5-6.0, 32-43)	
Rear axle nut	1	18	85-105 (8.5-10.5, 62-77)	
Final gear case	3	10	60-70 (6.0-7.0, 43-51)	

GENERAL INFORMATION



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Item	Q'ty	Thread Dia (mm)	Torque N·m (kg·m, ft·lb)	Remarks
Rear brake torque link	2	8	18-25 (1.8-2.5, 13-18)	
Rear shock (upper)	2	8	24-30 (2.4-3.0, 17-22)	
(lower)	2	10	30-40 (3.0-4.0, 22-29)	
Foot peg	2	10	30-40 (3.0-4.0, 22-29)	
Gearshift pedal	1	6	8-12 (0.8-1.2, 6-9)	
Rear axle pinch bolt	1	8	20-30 (2.0-3.0, 14-22)	
Swing arm pivot (right)	1	23	8-12 (0.8-1.2, 6-9)	
(left)	1	23	60-80 (6.0-8.0, 43-58)	
Swing arm pivot lock nut	1	23	80-120 (8.0-12.0, 58-87)	
Final drive case oil drain plug	1	10	10-14 (1.0-1.4, 7-10)	
Handlebar pinch bolt	2	8	24-30 (2.4-3.0, 17-22)	
Steering bearing adjustment nut	1	-	20-22 (2.0-2.2, 14-16)	Apply oil to the threads
Exhaust pipe joint nut	8	8	8-14 (0.8-1.4, 6-10)	
Brake and clutch master cylinder holder	4	6	10-14 (1.0-1.4, 7-10)	
Brake and clutch bleeder	2	8	4-7 (0.4-0.7, 3-5)	
Brake and clutch hose oil bolt	4	10	25-35 (2.5-3.5, 18-25)	
Brake pedal	1	8	20-28 (2.0-2.8, 14-20)	
Side stand (bolt)	1	10	10-20 (1.0-2.0, 7-14)	
(nut)	1	10	35-45 (3.5-4.5, 25-32)	
Main stand	2	10	35-45 (3.5-4.5, 25-32)	
Muffler clamp bolt	1	8	18-28 (1.8-2.8, 13-20)	
Muffler mount bolts	2	10	45-65 (4.5-6.5, 32-48)	U.B.S.
Front fork brace	4	6	10-15 (1.0-1.5, 7-11)	
Brake and clutch master cylinder cap	4	4	1-2 (0.1-0.2, 0.7-1.4)	
Final gear case oil filler cap	1	30	10-14 (1.0-1.4, 7-10)	
Front brake disc	12	8	35-40 (3.5-4.0, 25-29)	Apply oil to the threads
Front bearing retainer	1	-	100-120 (10.0-12.0, 72-87)	
Pinion nut	1	-	100-120 (10.0-12.0, 72-87)	
Final gear case cover 10 mm	2	10	45-50 (4.5-5.0, 32-36)	Apply locking agent to the threads
8 mm	6	8	23-28 (2.3-2.8, 17-20)	
Front fork socket bolt	2	8	20-26 (2.0-2.6, 15-19)	
Front fork tube cap	2	-	15-30 (1.5-3.0, 11-25)	
Rear brake arm	1	8	24-30 (2.4-3.0, 17-22)	
Final driven flange	5	10	50-60 (5.0-6.0, 36-43)	
Brake caliper bracket bolt (right)	2	10	35-45 (3.5-4.5, 25-32)	
(left upper)	1	10	35-45 (3.5-4.5, 25-32)	
Brake caliper bolt	2	8	20-25 (2.0-2.5, 14-18)	
Brake caliper pivot bolt	2	8	25-30 (2.5-3.0, 18-22)	
Brake pad pin retainer bolt	2	6	8-13 (0.8-1.3, 6-9)	
Anti-dive piston pin bolt	1	6	10-14 (1.0-1.4, 7-10)	
Oil cooler elbow	4	6	10-15 (1.0-1.5, 7-11)	
Fuel strainer cup	1	-	3-5 (0.3-0.5, 2-4)	

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

STANDARD TORQUE VALUES

Type	Torque N·m (kg·m, ft·lb)	Type	Torque N·m (kg·m, ft·lb)
5 mm bolt, nut	4.5-6 (0.45-0.6, 3.5-4.5)	5 mm screw	3.5-5 (0.35-0.5, 2.5-3.6)
6 mm bolt, nut	8-12 (0.8-1.2, 6-9)	6 mm screw	7-11 (0.7-1.1, 5-8)
8 mm bolt, nut	18-25 (1.8-2.5, 13-18)	6 mm flange bolt, nut	10-14 (1.0-1.4, 7-10)
10 mm bolt, nut	30-40 (3.0-4.0, 22-29)	8 mm flange bolt, nut	24-30 (2.4-3.0, 17-22)
12 mm bolt, nut	50-60 (5.0-6.0, 36-43)	10 mm flange bolt, nut	30-40 (3.0-4.0, 22-29)



TOOLS

SPECIAL

DESCRIPTION	PART NUMBER	ALTERNATIVE TOOL	PART NUMBER	REF. SECT.
Race remover attachment	07953-MJ1000A	U.S.A. only		14
Oil pressure gauge attachment	07510-MJ10000			2
Valve guide driver/remover	07942-MA60000			6
Hydraulic lifter bleeder	07973-MJ 00000			6
Valve guide reamer	07984-MA60000			6
Shaft holder	07923-6890101			11
Swing arm lock nut wrench	07908-ME90000			15
Rear shock compressor	07967-KC10000	Not available in U.S.A.		15
Oil pressure gauge	07506-3000000	Commercially available in U.S.A.		2
Vacuum gauge set	07404-0030100	Vacuum gauge set (U.S.A. only)	M937B-021-XXXXX or 07404-0020000	3
Compression gauge attachment	07510-MB00101	Equivalent commercially available in U.S.A.		3
Carburetor pilot screw wrench	07908-4220201			3,4
Piston ring compressor (2-required)	07954-2830000			7
Piston base (2-required)	07958-3000000			7
Snap ring pliers	07914-3230001	Commercially available in U.S.A.		8,16
Lock nut wrench, 30/64 mm	07916-MB00000			11,13
Remover handle	07936-3710100			11
Remover weight	07741-0010201	Remover weight	07936-3710200	11,15
Bearing remover, 17 mm	07936-3710300			11
Attachment	07945-3330300			11,13
Ring gear dis/assembly tool	07965-3710100			11
Shock absorber compressor attachment (collar)	07964-MB00100			13
Shock absorber compressor attachment (plate)	07964-MB00200			13
Pinion joint holder	07926-ME90000			13
Pinion puller	07935-MB00000	Pinion puller	07931-4630200	13
		Pinion puller attachment kit	07931-MB00000	13
Attachment	07945-3330100			13
Steering stem socket	07916-3710100			14
Steering stem driver	07946-MB00000			14
Race remover attachment	07946-3710500			14
Lock nut wrench	07910-ME80000			13
Socket bit, 17 mm	07703-0020500	Commercially available in U.S.A.		15
Socket bit, 10 mm	07917-3710000	Commercially available in U.S.A.		15
Ball race remover attachment	07946-3710500			14
Bearing driver attachment, 28 x 30	07946-1870100			11
Oil filter wrench	07912-6110001			2
Crankcase assembly pin (2-required)	07973-ME50000			10
Fork piston holder	07930-KA40200			14
Fork piston holder attachment	07930-KA50100			14

GENERAL INFORMATION



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DESCRIPTION	PART NUMBER	ALTERNATIVE TOOL	PART NUMBER	REF. SECT.
Fork seal driver	07947-4630100	Swing arm pivot remover	07936-3710500	14
Swing arm bearing remover	07936-4150000			15
Shock absorber compressor attachment (extensions)	07959-MB10000			15
Rotor puller	07933-2160000	Driver	07949-3710000	18
Driver	07949-3710001			14

COMMON

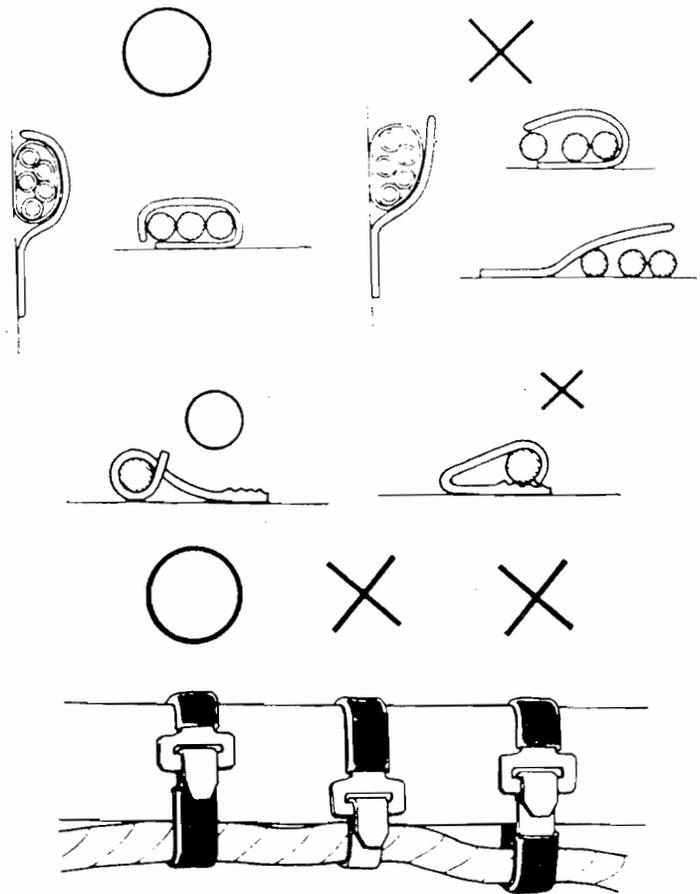
DESCRIPTION	PART NUMBER	ALTERNATIVE TOOL	PART NUMBER	REF. SECT.
Float level gauge	07401-0010000	Valve spring compressor Equivalent commercially available in U.S.A.	07957-3290001	4
Valve spring compressor	07757-0010000			6
Lock nut wrench, 17 x 27 mm	07716-0020300			8
Extension bar	07716-0020500			2, 14
Attachment, 42 x 47 mm	07746-0010300	Driver	07949-6110000	11, 15
Pilot, 30 mm	07746-0040700			13, 14
Driver	07749-0010000	Driver	07945-3710200	11, 13
Attachment, 32 x 35 mm	07746-0010100			8, 10, 11,
Pilot, 17 mm	07746-0040400			13, 14, 15
Attachment, 52 x 55 mm	07746-0010400			13, 15
Driver	07746-0030100	Driver	07945-3710200	11
Attachment, 25 mm I.D.	07746-0030200			11, 13, 14
Attachment, 30 mm I.D.	07746-0030300	Equivalent commercially available in U.S.A.		11, 13
Pilot, 15 mm	07746-0040300			11
Shock absorber compressor	07959-3290001	Equivalent commercially available in U.S.A.		14
Lock nut wrench, 30 x 32 mm	07716-0020400			13, 15
Bearing remover expander	07746-0050100	Equivalent commercially available in U.S.A.		14
Bearing remover, 15 mm	07746-0050400			14, 15
Bearing remover, 20 mm	07746-0050600	Equivalent commercially available in U.S.A.		14
Pilot, 20 mm	07746-0040500			15
Universal holder	07725-0030000	Equivalent commercially available in U.S.A.		15
Attachment, 62 x 68 mm	07746-0010500			12
Attachment, 37 x 40 mm	07746-0010200			11
				14



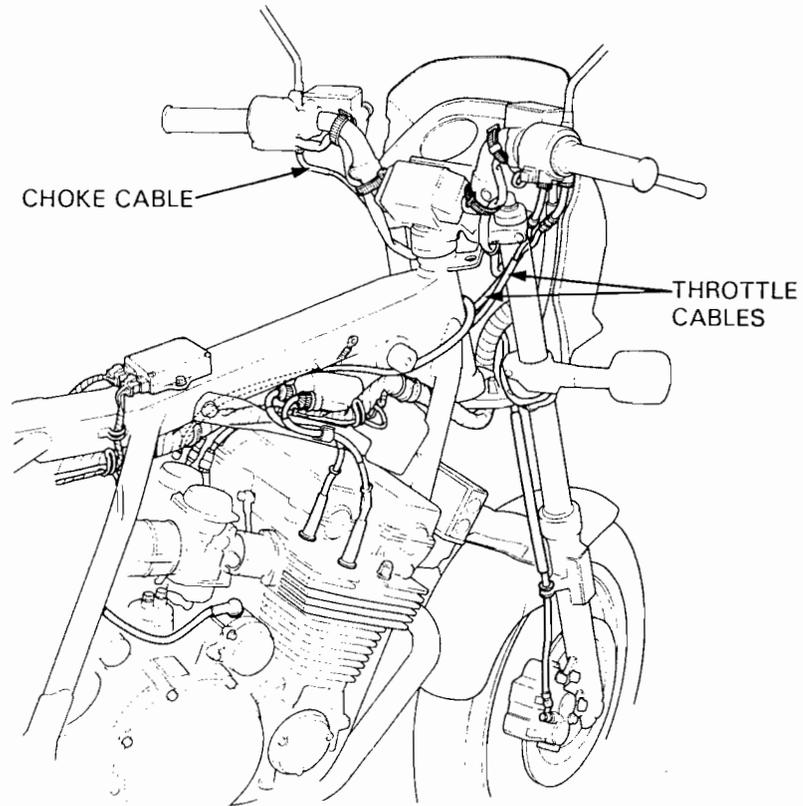
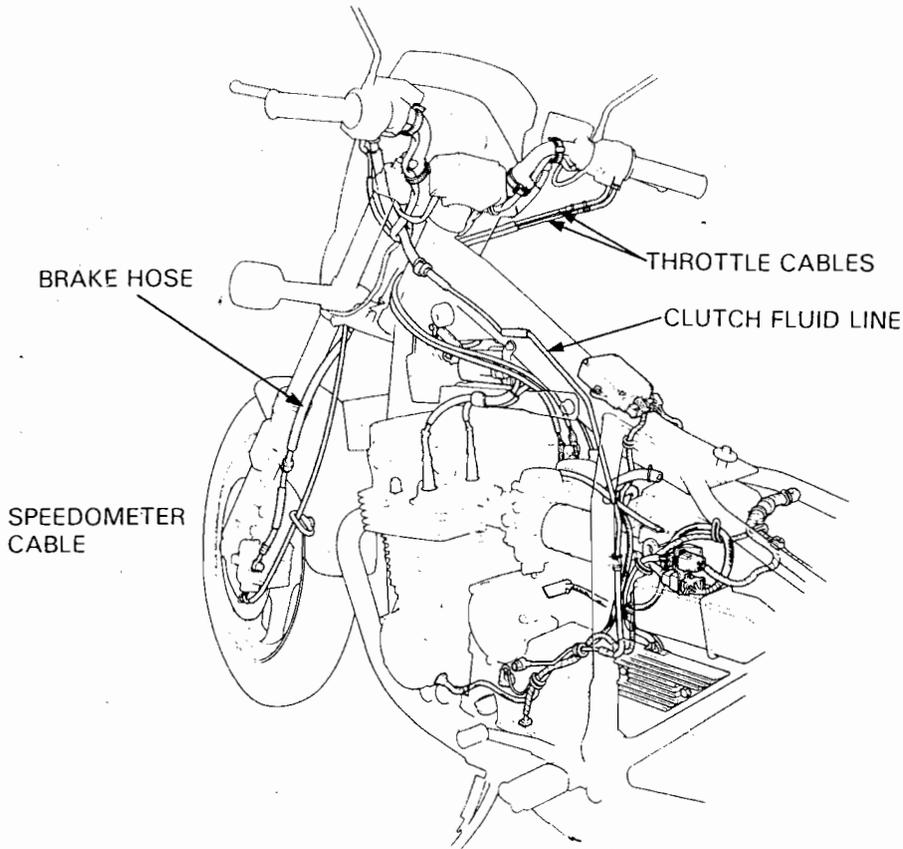
CABLE & HARNESS ROUTING

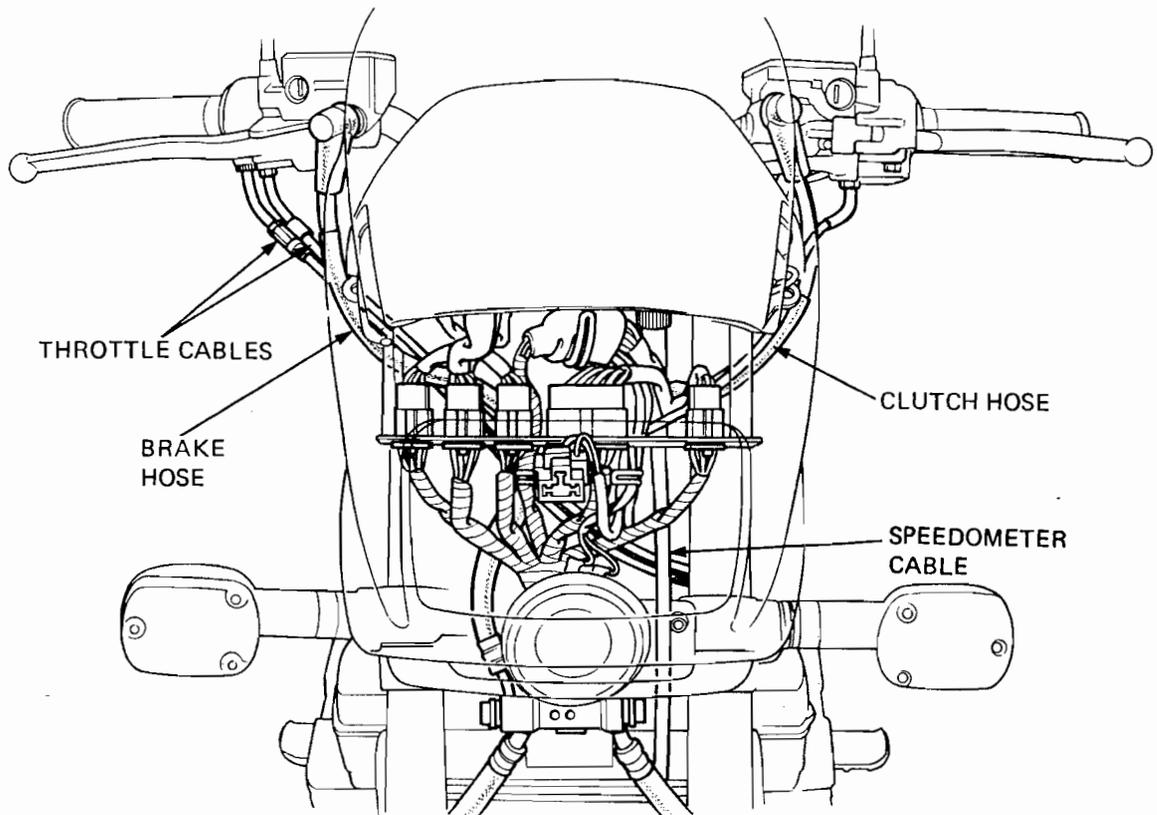
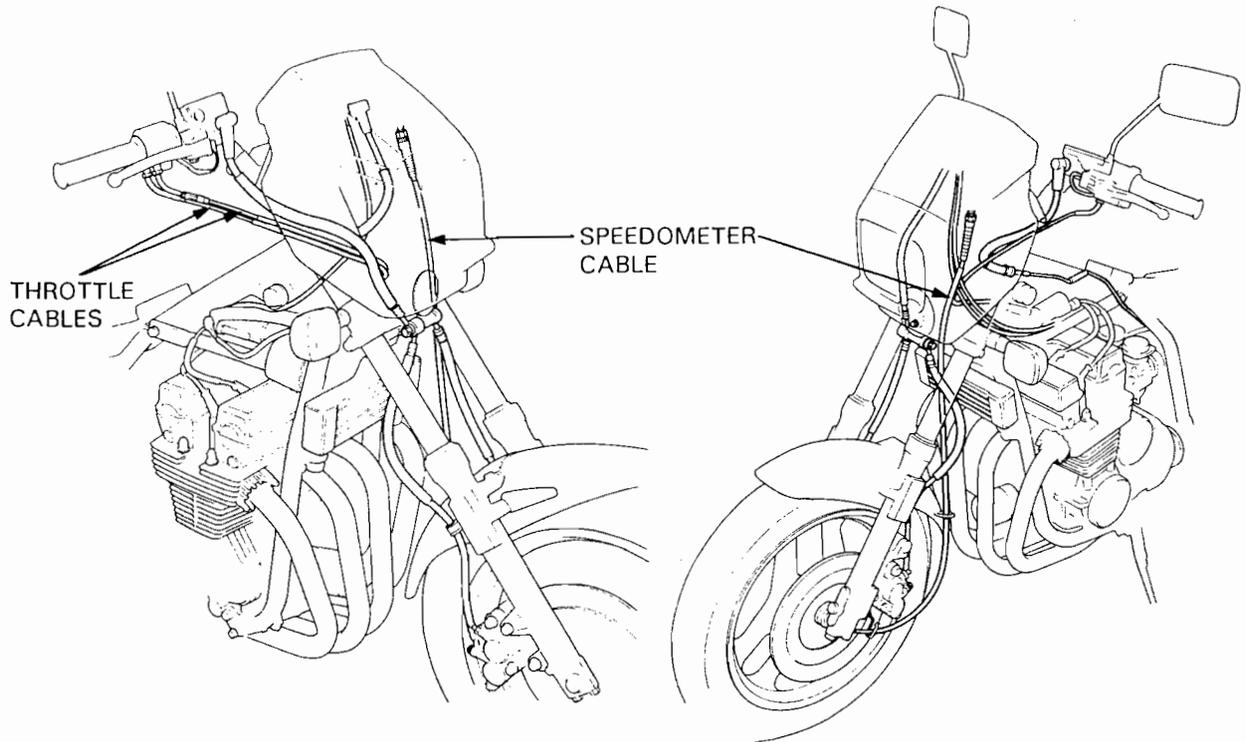
Note the following when routing cables and wire harnesses:

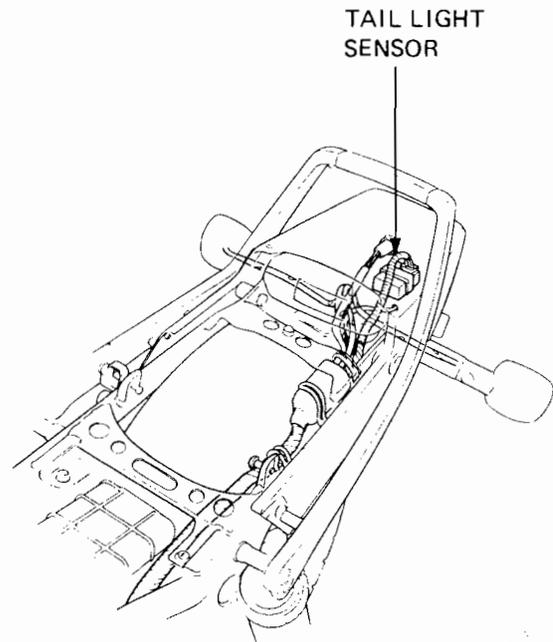
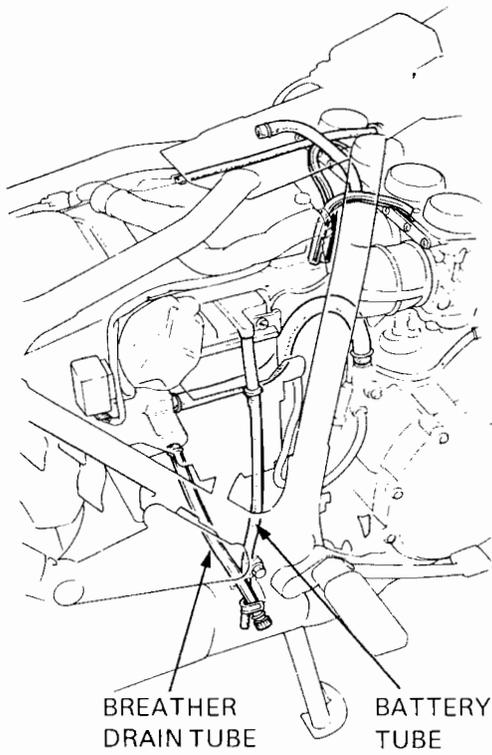
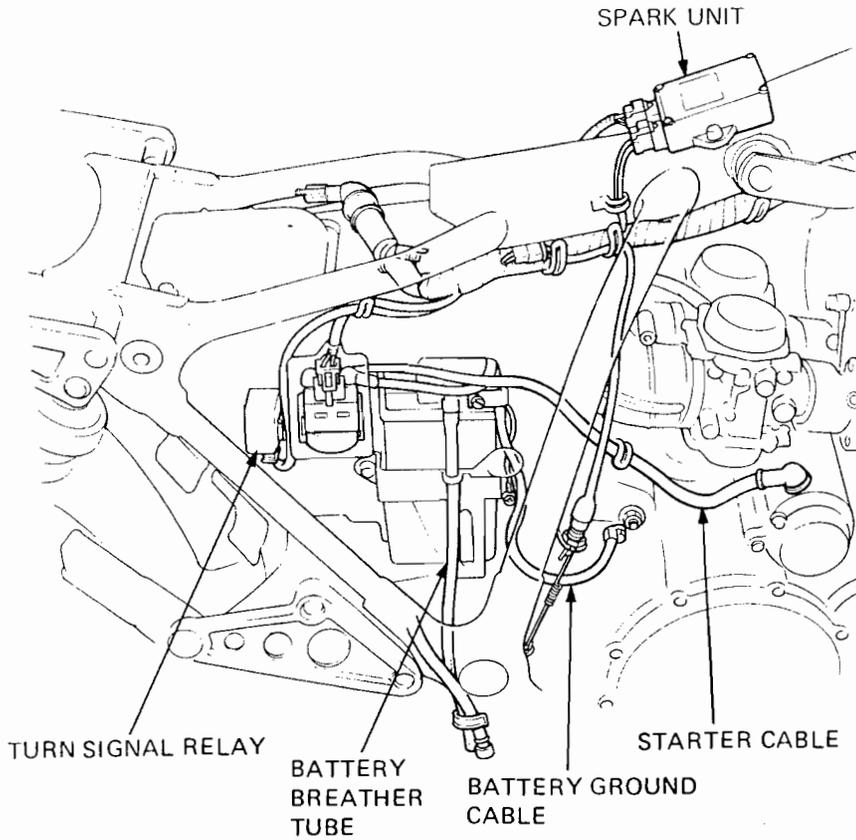
- A loose wire, harness or cable can be safety hazard. After clamping, check each wire to be sure it is secure.
- Do not squeeze wires against the weld or end of its clamp when a weld-on clamp is used.
- Secure wires and wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wires or wire harnesses.
- Route harnesses so they are neither pulled tight nor have excessive slack.
- Protect wires and harnesses with electrical tape or tube if they contact a sharp edge or corner. Clean the attaching surface thoroughly before applying tape.
- Do not use a wire or harness with a broken insulator. Repair by wrapping them with protective tape or replace them.
- Route wire harnesses to avoid sharp edges or corners.
- Also avoid the projected ends of bolts and screws.
- Keep wire harnesses away from the exhaust pipes and other parts that get hot.
- 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 by or interfere with adjacent or surrounding parts in all steering positions.



O: CORRECT
X: INCORRECT









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 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.

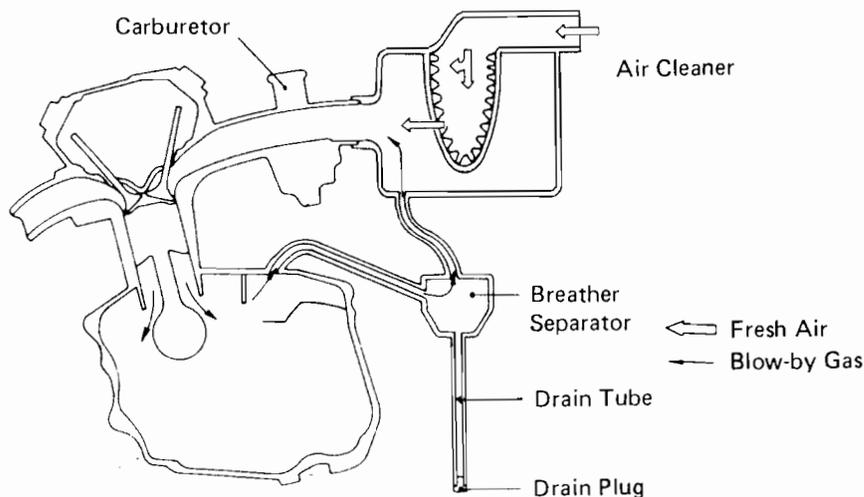
Honda Motor Co., Ltd. utilizes lean carburetor settings as well as other systems, to reduce carbon monoxide and hydrocarbons.

EXHAUST EMISSION CONTROL SYSTEM

The exhaust emission control system is composed of lean carburetor setting, 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.

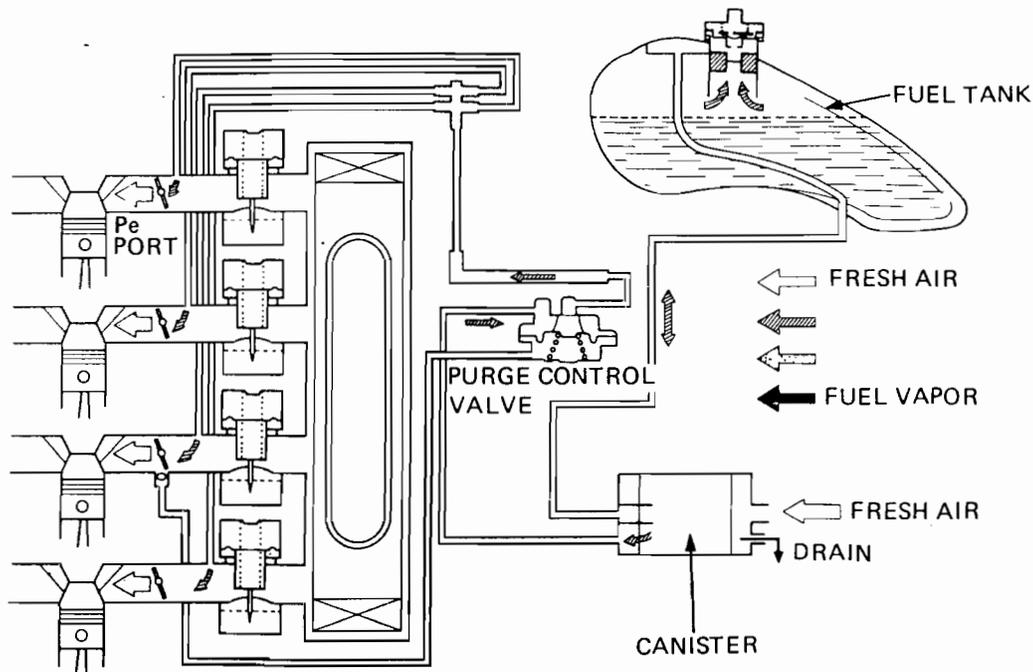




GENERAL INFORMATION

EVAPORATIVE EMISSION CONTROL SYSTEM (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 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.

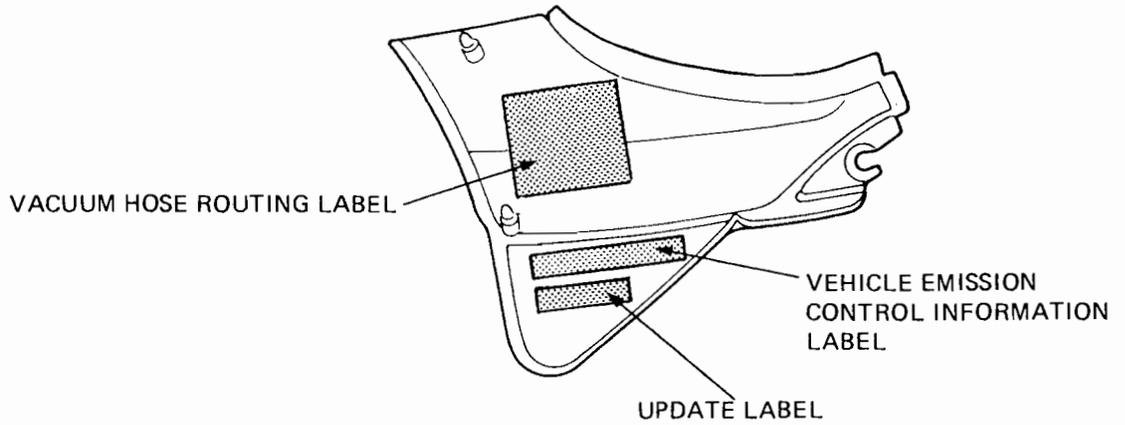
AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW:

1. Removal of, or puncturing 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 frame side cover as shown. It contains basic tune-up specifications.

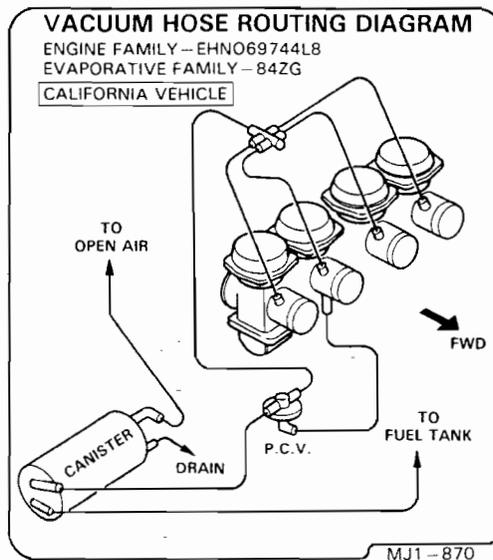


EMISSION CONTROL INFORMATION UPDATE LABEL

After making a high altitude carburetor adjustment (Page 4-15), attach an update label on the frame side cover as shown. Instructions for obtaining the update label are given in Service Letter No. 132.

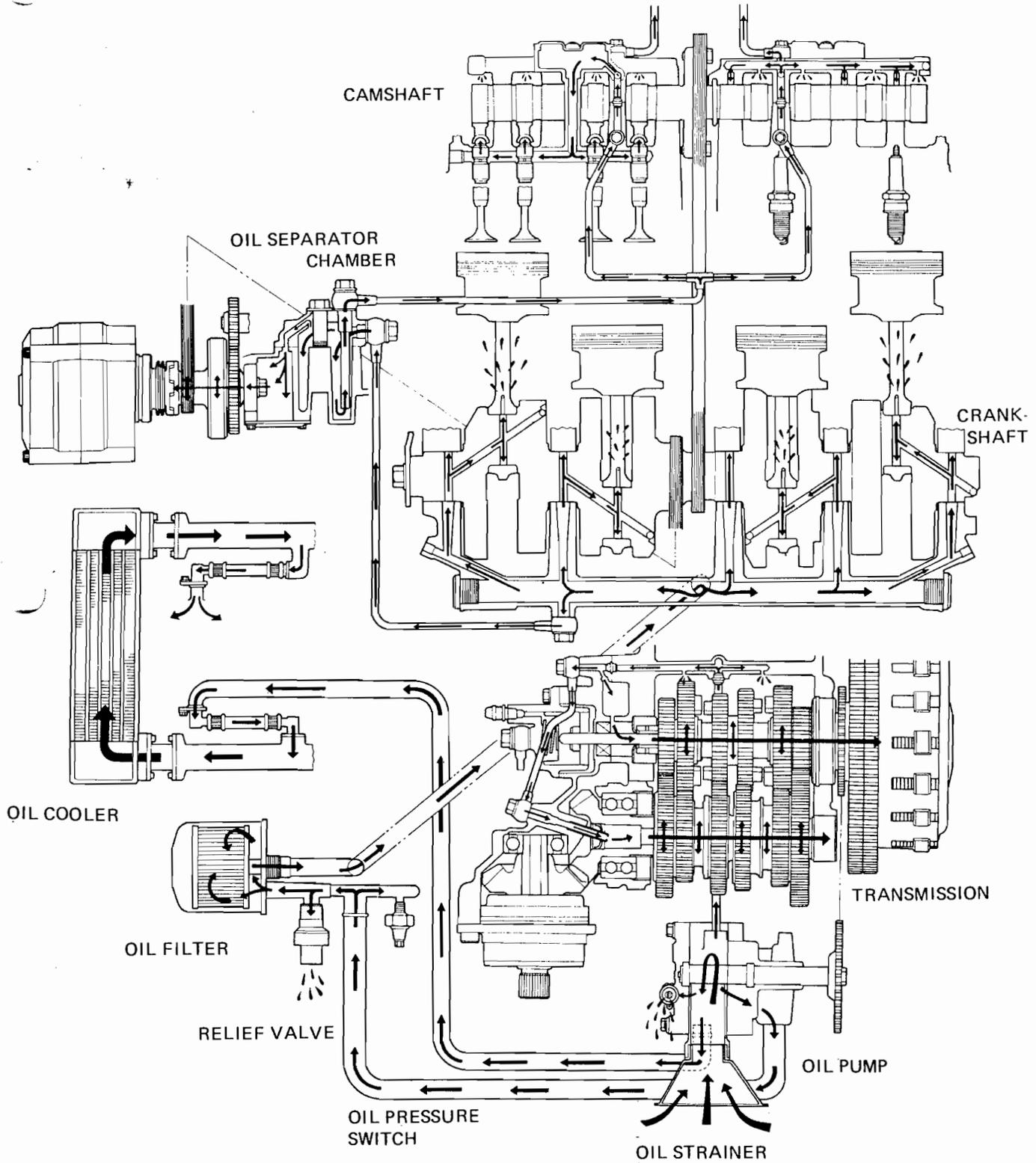
VACUUM HOSE ROUTING DIAGRAM LABEL (California model only)

The Vacuum Hose Routing Diagram Label is attached to the frame side cover. Route the vacuum hoses as shown on this label, this label.





ENGINE LUBRICATION DIAGRAM





SERVICE INFORMATION	2-1	OIL PUMP	2-7
TROUBLESHOOTING	2-2	OIL COOLER	2-12
ENGINE OIL LEVEL	2-3	FINAL DRIVE OIL	2-13
ENGINE OIL & FILTER CHANGE	2-3	CONTROL CABLE LUBRICATION	2-13
OIL PRESSURE CHECK	2-4	LUBRICATION POINTS	2-14
PRESSURE RELIEF VALVE/ OIL STRAINER	2-5		

SERVICE INFORMATION

GENERAL

To remove the oil pump, the following parts must be removed:

- Exhaust pipes (Section 17).
- Clutch assembly (Section 8).

SPECIFICATIONS

Engine oil

Oil capacity	2.8 liter (3.0 US qt, 2.5 Imp qt) after oil filter and oil change 2.5 liter (2.6 US qt, 2.2 Imp qt) after oil change 3.6 liter (3.8 US qt, 3.2 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> </div>
Oil pressure (at main oil gallery)	630 kPa (6.3 kg/cm ² , 90 psi)/6,000 rpm 80°C (176°F)

Oil pump service data

	STANDARD	SERVICE LIMIT
Rotor tip clearance	0.10 mm (0.004 in)	0.15 mm (0.006 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

Oil capacity	130 cc (4.4 oz) at oil change 150 cc (4.9 oz) after disassembly
Recommended oil	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) — Apply engine oil to the O-ring
Right main oil gallery plug	25–35 N·m (2.5–3.5 kg-m, 18–25 ft-lb) — Apply 3-BOND® No. 1211 or its equivalent to the bolt threads
Oil cooler elbow socket bolt	10–15 N·m (1.0–1.5 kg-m, 7–11 ft-lb)

TOOLS

Special

Oil pressure gauge	07506–3000000 or commercially available
Oil pressure gauge attachment	07510–MJ10100
Oil filter wrench	07912–MB00000

Common

Extension bar	07716–0020500 or commercially available
---------------	---

TROUBLESHOOTING

Oil level too low — high oil consumption

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

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 gear broken
3. Oil pump faulty
4. Internal oil leakage



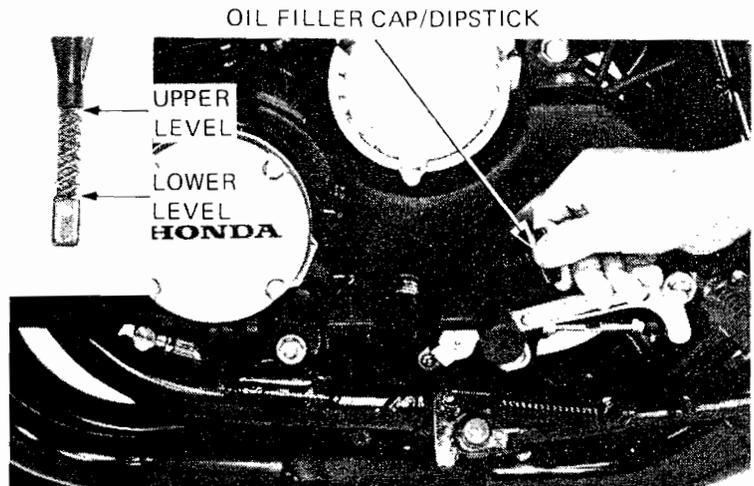
ENGINE OIL LEVEL

Run the engine and allow it to idle for few minutes. Stop the engine and place the motorcycle on its center stand.

After 2-3 minutes, 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

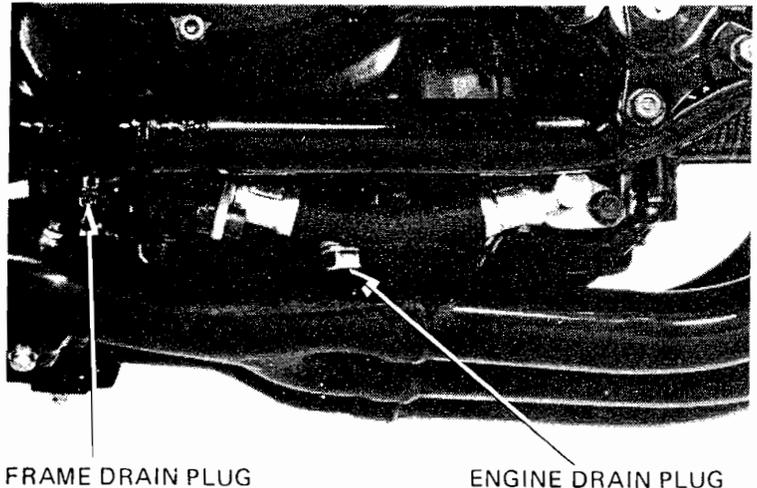
NOTE

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

WARNING

Do not touch the exhaust pipes and frame while they are hot.

Remove the oil filler cap/dipstick.
Remove the engine and frame drain plugs and drain the engine oil.



Loosen the oil filter with a filter wrench and extension bar and remove it between the No. 4 exhaust pipe and the frame.

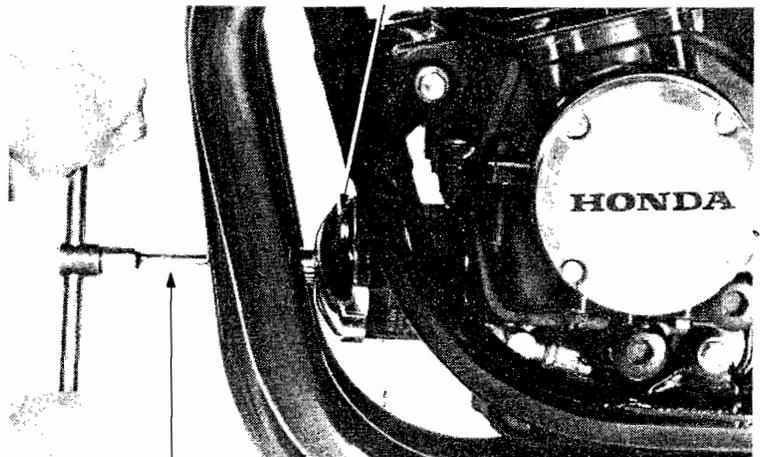
Discard the oil filter.

Check that the sealing washers on the drain plugs are in good condition and install them.

TORQUE:

- Engine drain plug — 30-40 N·m
(3.0-4.0 kg·m, 22-29 ft·lb)
- Frame drain plugs — 24-30 N·m
(2.4-3.0 kg·m, 17-22 ft·lb)

OIL FILTER WRENCH
07912-MB00000



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

NOTE

Use only a Honda genuine oil filter for CB750SC.

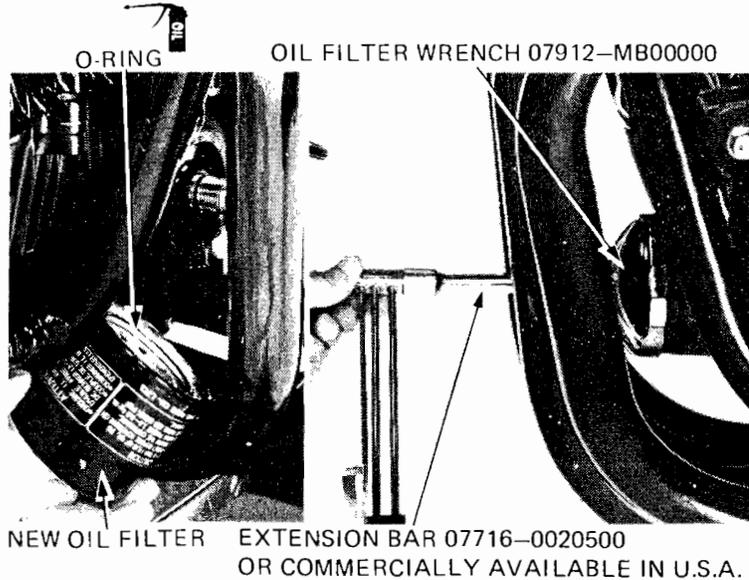
Torque the oil filter with the filter wrench and extension bar.

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

Fill the crankcase with 2.8 liters (3.0 US qt, 2.5 Imp. qt.) of the recommended oil (Page 2–1). Install the oil filler cap/dipstick.

Wipe clean exhaust pipes from oil.

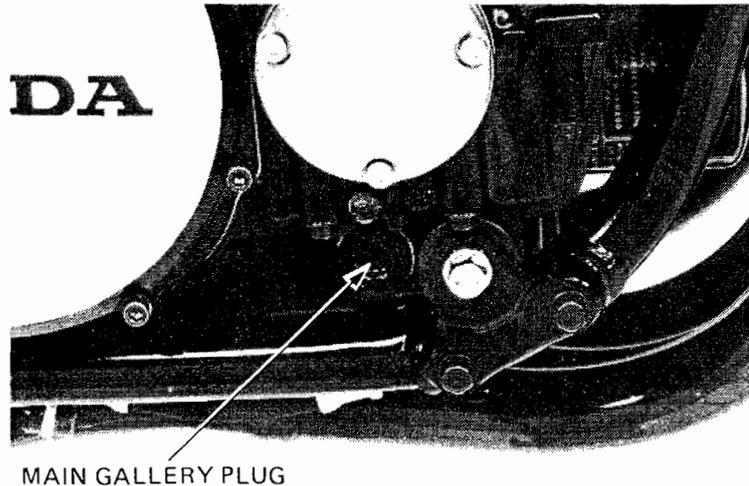
Start the engine and let it idle for few minutes. Stop the engine and place the motorcycle on its center stand. After 2–3 minutes, check that the oil level is at the upper level mark on the dipstick. Make sure there are no oil leaks.



OIL PRESSURE CHECK

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

Place the motorcycle on its side stand. Remove the right main gallery plug.



Connect an oil pressure gauge to the right main gallery plug hole with a attachment. Place the motorcycle back on its center stand. Check the oil level (Page 2–3). Start the engine and check the oil pressure at 6,000 rpm.

OIL PRESSURE: 630 kPa (6.3 kg/cm², 90 psi)/
6,000 rpm at 80°C (176°F)

PRESSURE GAUGE 07506-3000000
(NOT AVAILABLE IN U.S.A.)

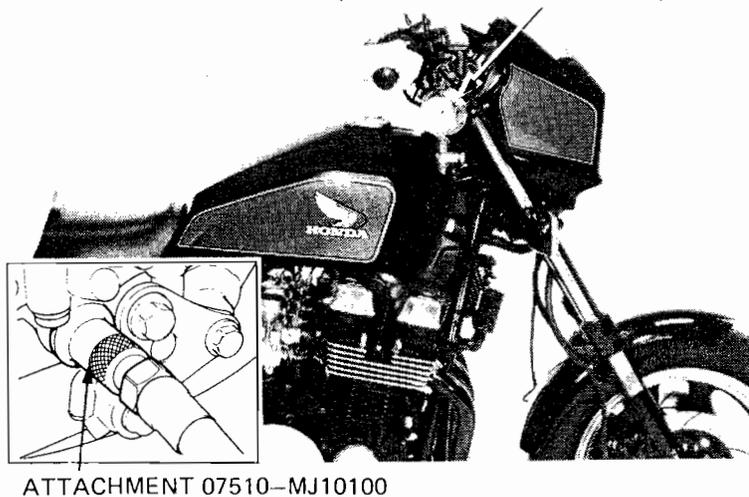
Remove the pressure gauge and attachment after placing the motorcycle on its side stand.

Apply 3-BOND[®] sealant or equivalent to the right main gallery plug threads and install the plug.

TORQUE: 25–35 N·m
(2.5–3.5 kg·m, 18–25 ft·lb)

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.





PRESSURE RELIEF VALVE/OIL STRAINER

NOTE

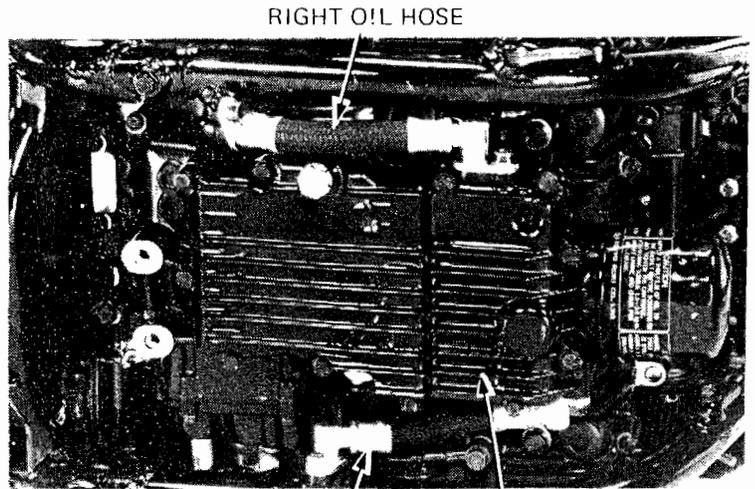
The oil strainer can be removed with the engine mounted in the frame.

OIL PAN REMOVAL

Remove the exhaust pipes (Page 17-2).
Drain the engine oil (Page 2-3).
Remove the right and left oil hoses by removing the bolts.

Remove the oil pan bolts and oil pan.

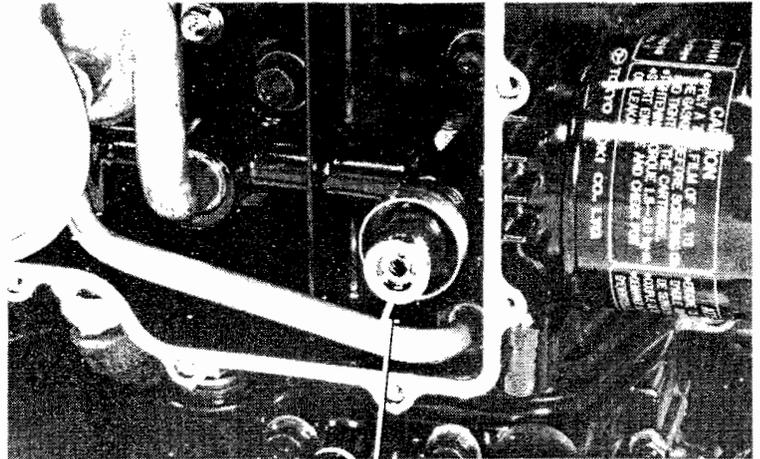
Remove the oil pan gasket.



RIGHT OIL HOSE
LEFT OIL HOSE OIL PAN

RELIEF VALVE INSPECTION

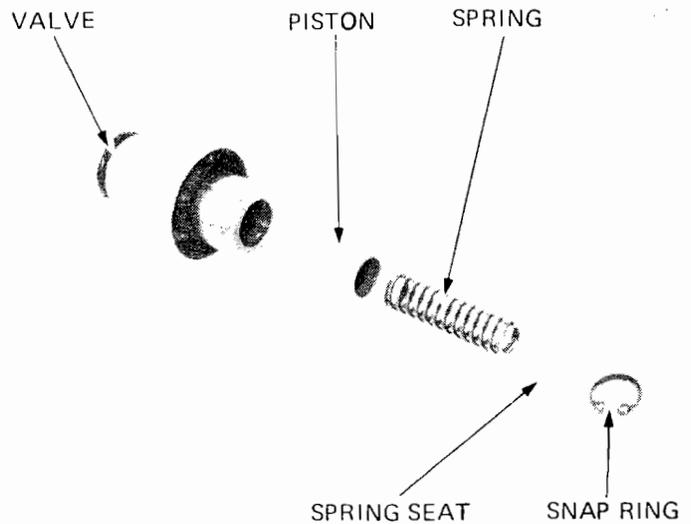
Remove the pressure relief valve and check it for operation.



PRESSURE RELIEF VALVE

Remove the snap ring and disassemble the relief valve.

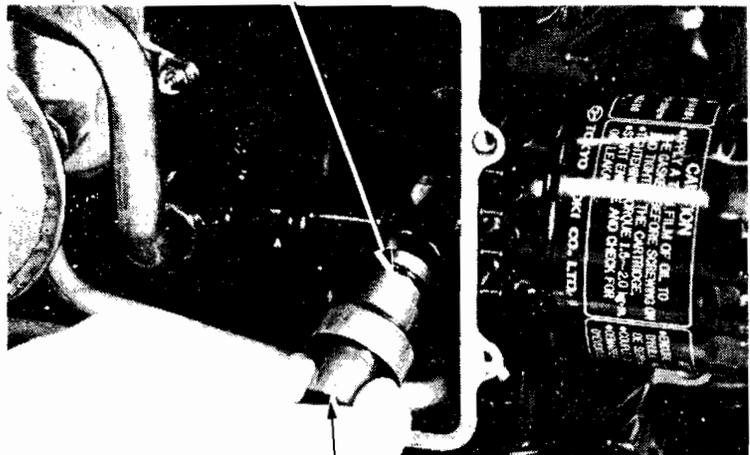
Check the valve for clogging or damage.
Check the spring and piston for wear or damage.
Assemble the parts in the reverse order of disassembly.





Replace the O-ring on the relief valve with a new one.
Apply oil to the O-ring and install the relief valve.

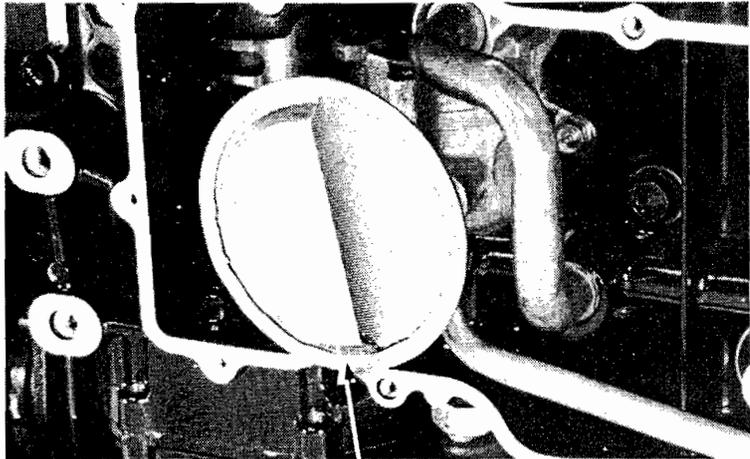
O-RING



RELIEF VALVE

OIL STRAINER CLEANING

Remove and clean the oil strainer.

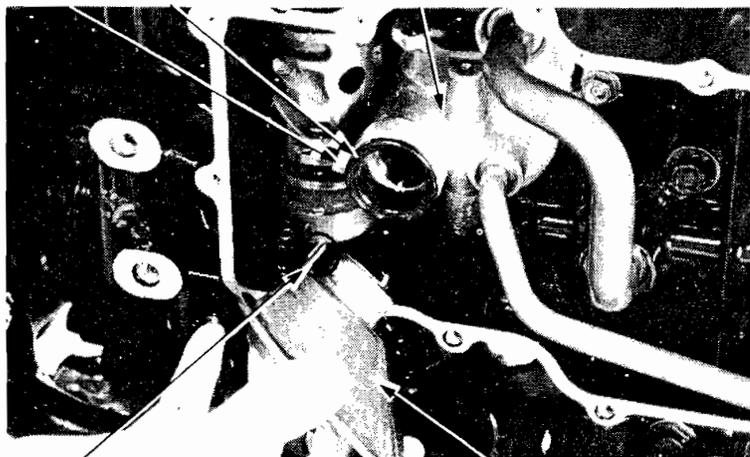


OIL STRAINER

Replace the O-ring on the oil pump with a new one.
Apply engine oil to the O-ring and install the oil strainer aligning its groove with the tab on the oil pump.

TAB O-RING

OIL PUMP



GROOVE

OIL STRAINER



OIL PAN INSTALLATION

Install the oil pan with a new gasket.
Tighten the oil pan bolts in 2-3 steps in a criss cross pattern.
Replace the O-rings on the right and left oil hoses with new ones.
Install the right and left oil hoses and tighten the bolts.

TORQUE:

8 mm socket bolts → 24-30 N·m
(2.4-3.0 kg·m, 17-22 ft·lb)
6 mm SH bolts → 10-15 N·m
(1.0-1.5 kg·m, 7-11 ft·lb)

Install the exhaust pipes (Page 17-2).
Fill the crankcase with the recommended oil (Page 2-1).

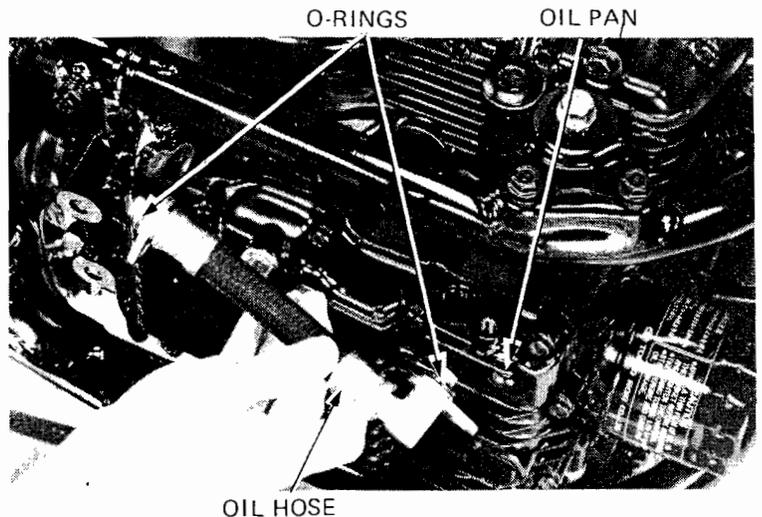
OIL PUMP

REMOVAL

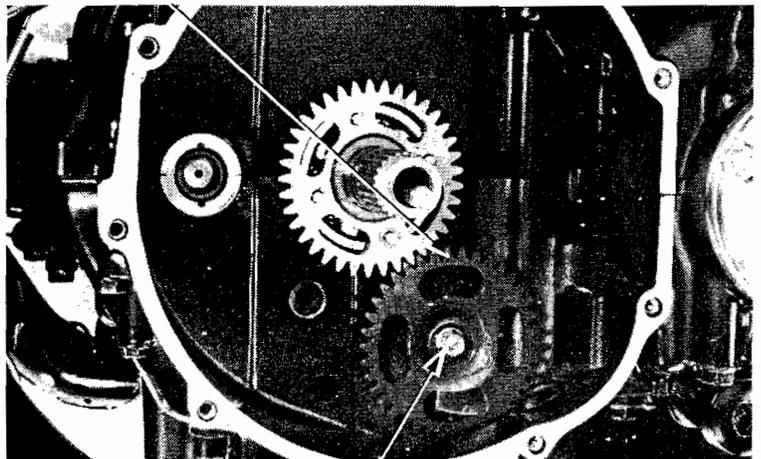
- Remove the following parts:
- clutch assembly (Page 8-10).
 - exhaust pipes (Page 17-2).
 - oil pan (Page 2-5).
 - oil strainer (Page 2-6).

Remove the bolt attaching the oil pump driven gear to the oil pump and the driven gear.

Remove the oil pipes.

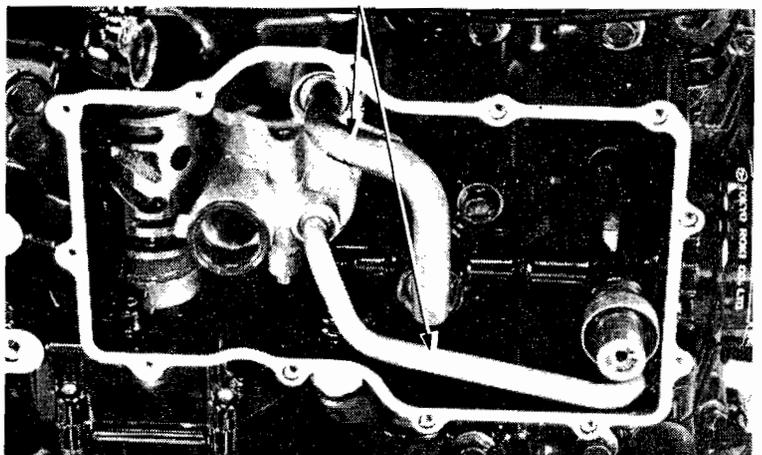


OIL PUMP DRIVEN GEAR



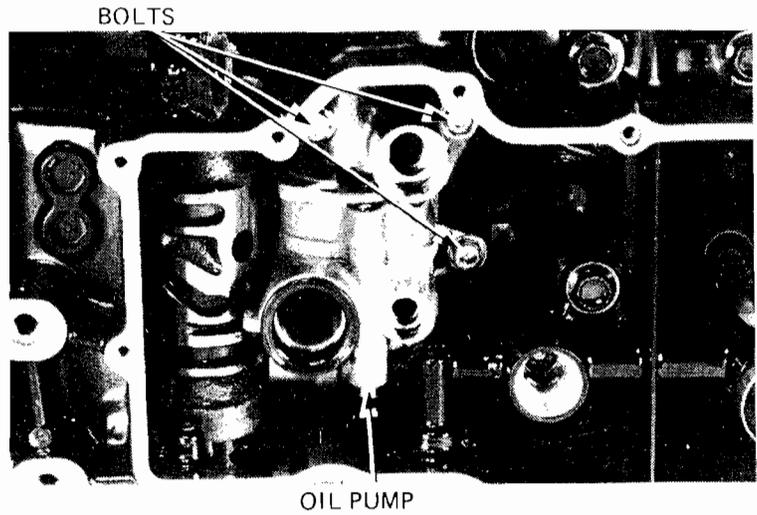
BOLT

OIL PIPES

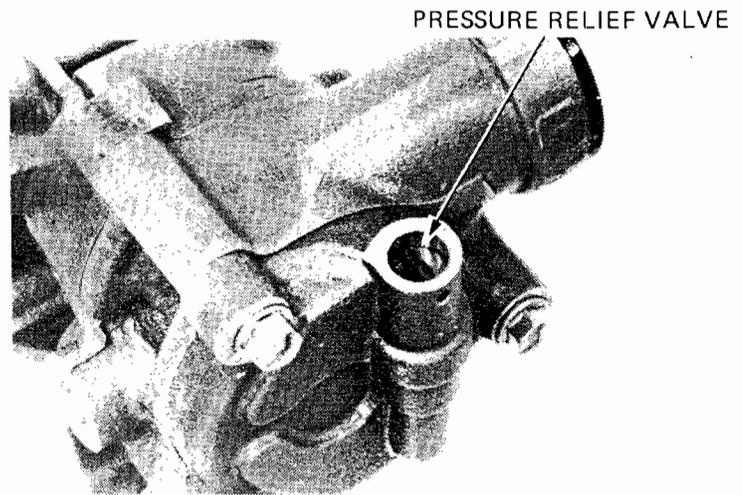




Remove the three oil pump mounting bolts and the oil pump.

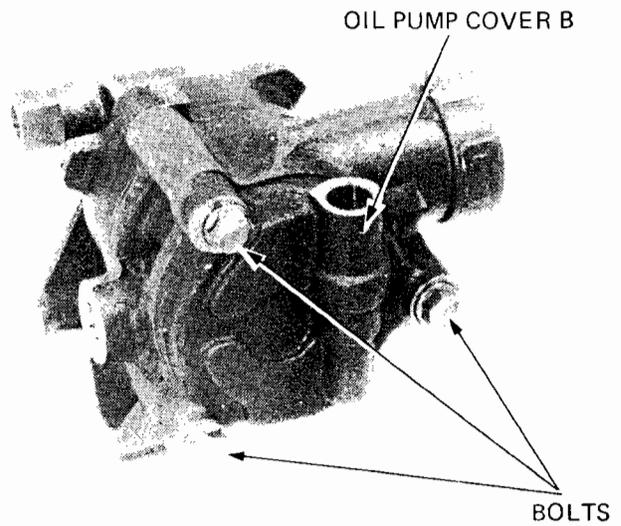


Check the operation of the pressure relief valve.



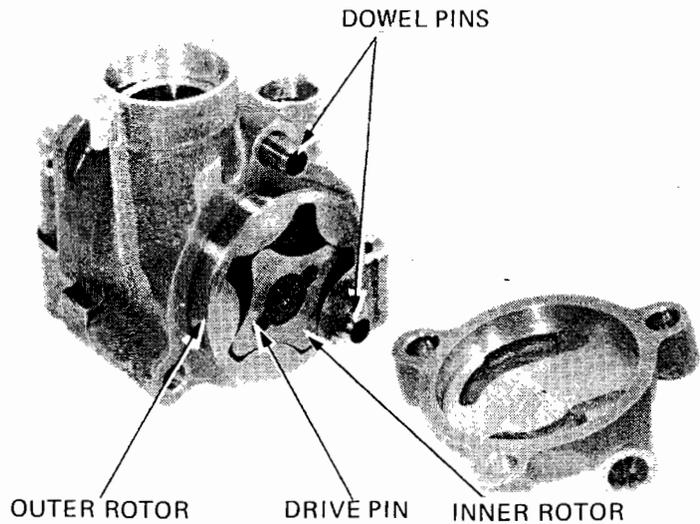
DISASSEMBLY

Remove the three bolts and oil pump cover B.

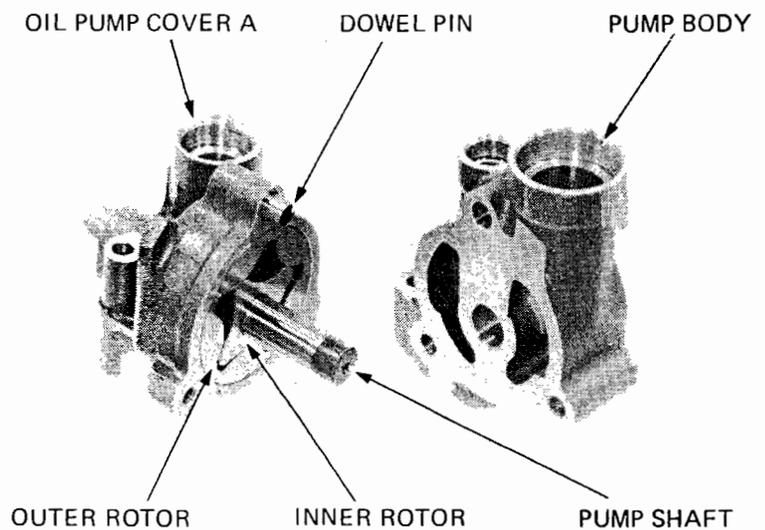




Remove the two dowel pins.
 Remove the inner and outer rotors of the cooler pump.
 Remove the pump drive pin.



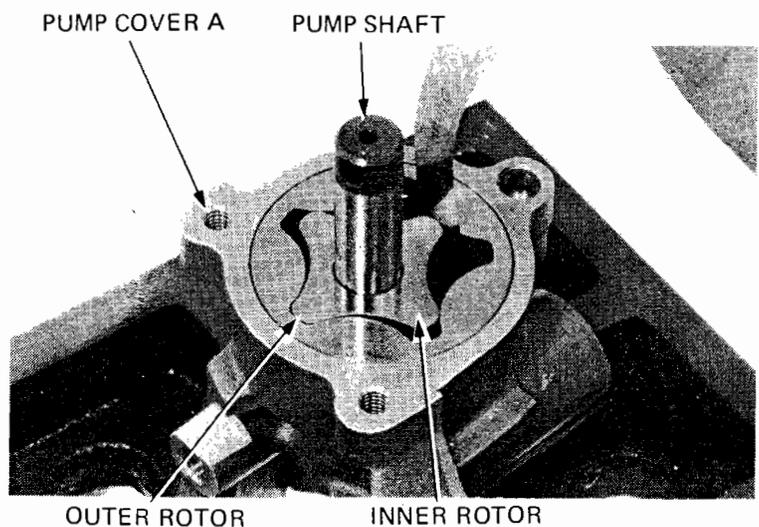
Remove the pump body from pump cover A.
 Remove the dowel pin.
 Remove the inner and outer rotors of the feed pump.
 Remove the pump drive pin and thrust washer.
 Remove the oil pump shaft from cover A.
 Clean and dry all oil pump components.



INSPECTION

Install the feed pump inner and outer rotors, thrust washer and pump shaft into pump cover A.
 Measure the pump tip clearance.

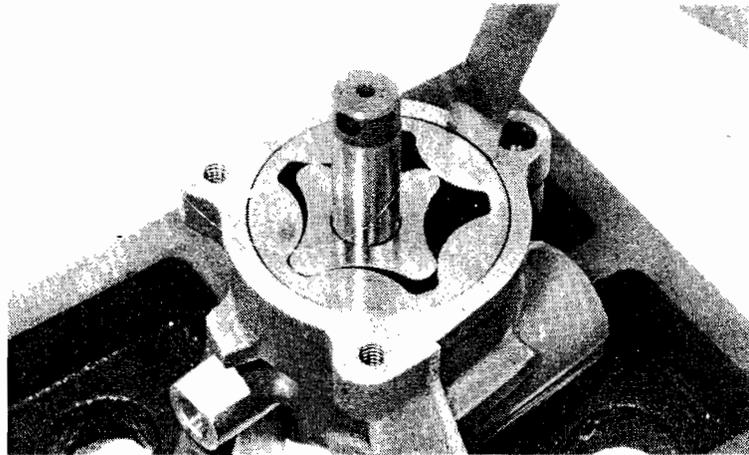
SERVICE LIMIT: 0.20 mm (0.008 in)





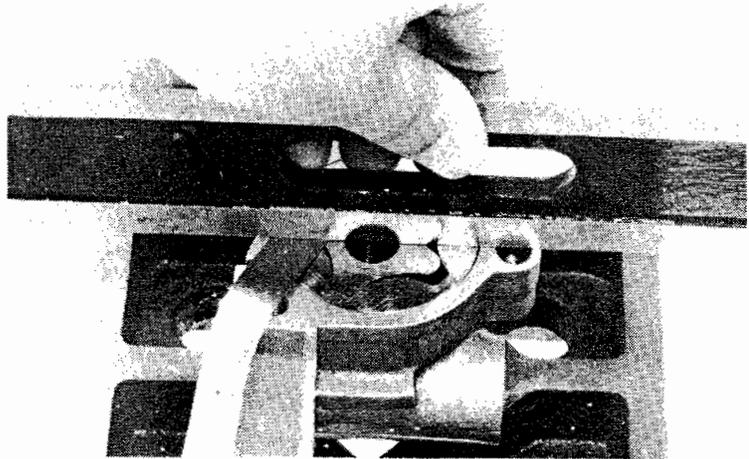
sure the pump body clearance.

SERVICE LIMIT: 0.35 mm (0.014 in)



Remove the pump shaft and measure the pump end clearance.

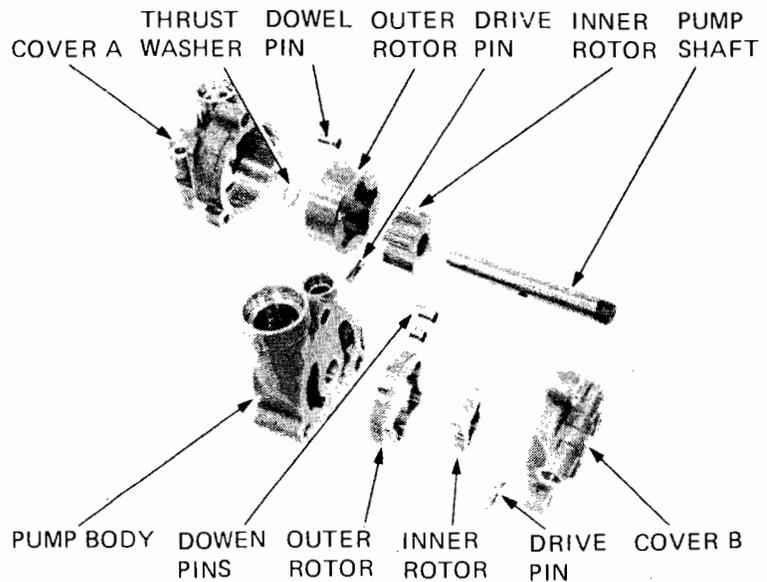
SERVICE LIMIT: 0.10 mm (0.004 in)



ASSEMBLY

Coat all components with clean engine oil and then assemble the oil pump in the reverse order of disassembly.

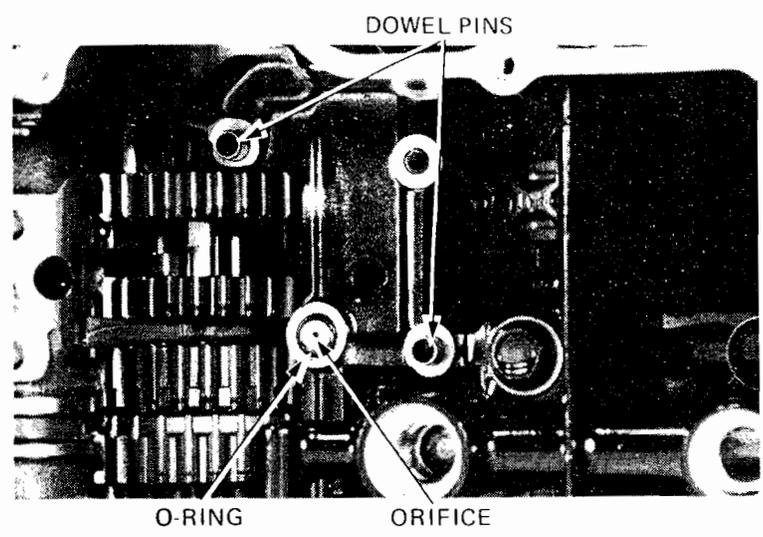
Make sure the oil pump shaft rotates freely after assembling the oil pump.



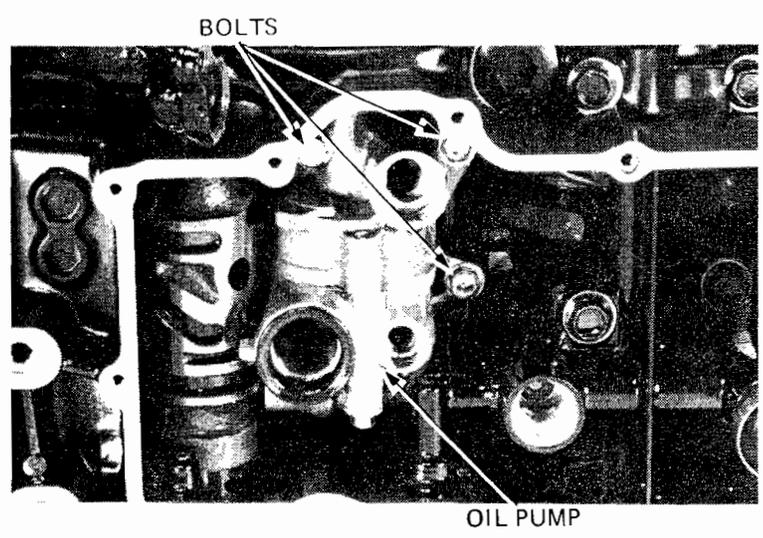


INSTALLATION

Install the two dowel pins onto the lower crankcase. Make sure the orifice is not clogged. Install the orifice and a new O-ring.



Install the oil pump onto the lower crankcase and tighten the three mounting bolts.



Replace the O-rings on the oil pipes with new ones. Apply engine oil to the O-rings and install the oil pipes.

- Install the following parts:
- oil strainer (Page 2-6)
 - oil pan (Page 2-7)
 - exhaust pipes (Page 17-2)
 - oil pump driven gear and clutch (Page 8-13)

Fill the crankcase with the recommended oil (Page 2-1).

