HONDA

SHOP MANUAL

CBR600FM

Important Safety Notice

⚠WARNING **Indicates a strong possibility of severe personal injury or death if instructions are not followed.**

CAUTION: **Indicates a possibility of 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 methods or tools selected.

Type Codes

- Throughout this addendum, the following abbreviations are used to identify individual model.
- The asterisk (*) indicates that this addendum is applicable for the corresponding area type.

Code	Available	Area Type
ED	*	Europian direct sales
E	*	U. K.
F	*	France
G (GI/GII)	*	Germany (Full power/Limited power)
U	*	Australia
SA		South Africa
ND		North Europe
SW	*	Switzerland
SD	*	Sweden
FI	*	Finland
N		Norway
IT	*	Italy
B		Belgium
H		Netherland
AR	*	Austria
D (DK, DM)		General export (km/h, mph)
SP	*	Spain

Introduction

This service manual describes the service procedures of the CBR600F.
This Model Specific Manual includes every service procedure that is of a specific nature to this particular model. Basic service procedures that are common to other Honda Motorcycle/Motor Scooter/ATV Common Service Manual. This Model Specific Service Manual should be used together with the Common Service Manual in order to provide complete service information on all aspects this motorcycle.

Performing the first scheduled maintenance is very important.
It compensates for the initial wear that occurs during the break-in period.

Section 1 and 3 apply to the whole motorcycle, section 2 illustrates procedures for removal/installation of components that may be required to perform service describe parts of the motorcycle, grouped according locations.

Find the section you want on this page, then turn the table of contents on the first page of the section.

Most sections describe the service procedure through system illustration. Refer to the next page for details on how to use this manual.

If you don't know the source of the trouble, go to section 20 Troubleshooting.

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SERVICE PUBLICATION OFFICE

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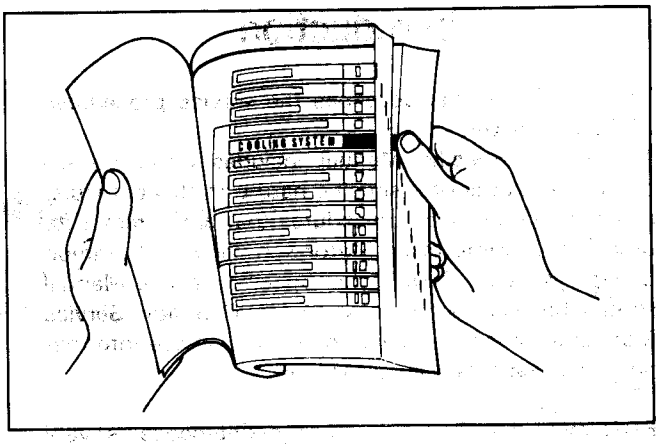
Date of Issue: December, 1990

How to Use This Manual

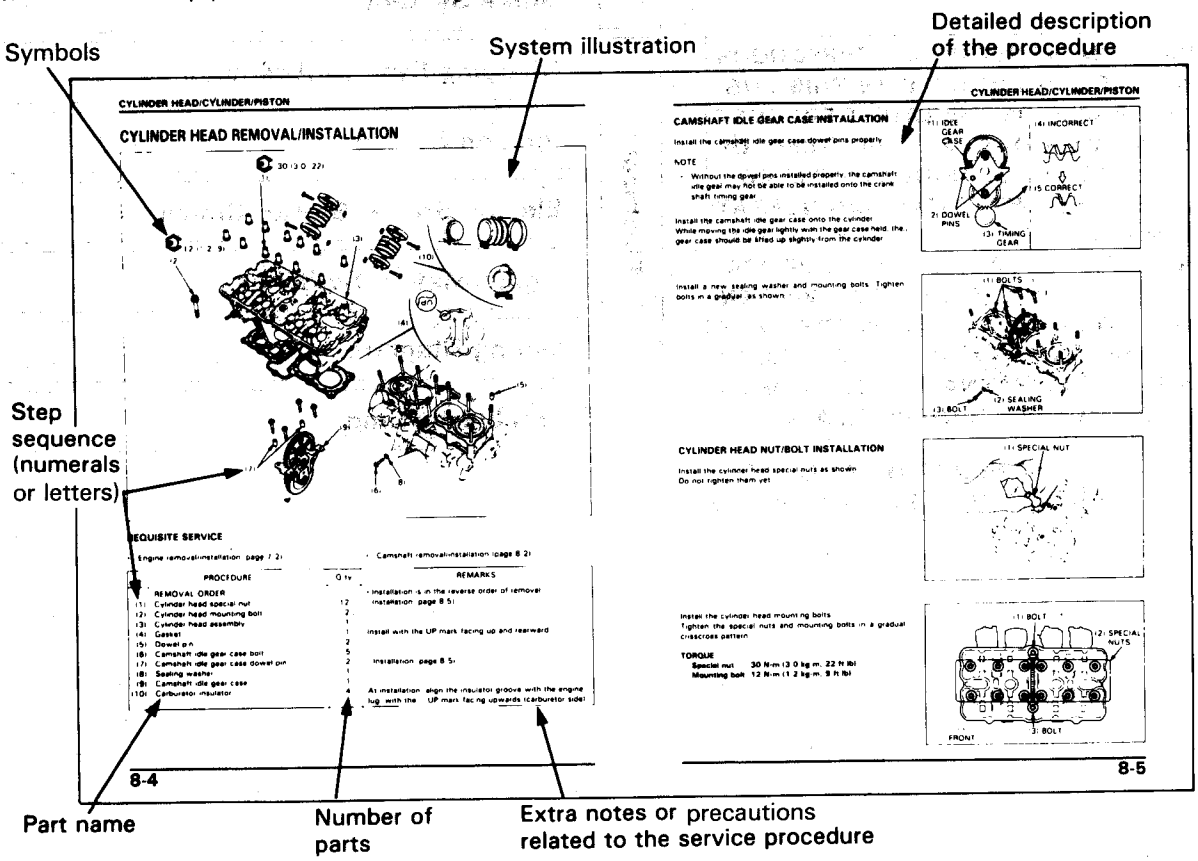


Finding The Information You Need

- This manual is divided into sections which cover each of the major components of the motorcycle.
  To quickly find the section you are interested in, the first page of each section is marked with a black tab that lines up with one of the thumb index tabs before this page.
  The first page of each section lists the table of contents within the section.
  Read the service information and troubleshooting related to the section before you begin working.
- An index of the entire book is provided in the last chapter to directly locate the information you need.

Understanding The Instructions

- The removal and installation of parts are for the most part illustrated by large and clear illustrations that should provide the reader with visual aid in understanding the major point for servicing.
- The system illustrations are augmented by callouts whose numbers or letters indicate the order in which the parts should be removed or installed.
- The sequence of steps represented numerically are differentiated from the ones represented alphabetically to notify the reader that they must perform these steps seperately.
  For example, if the steps prior and up to camshaft removal are performed with the engine installed, but the subsequent steps like cylinder head removal require engine removal, the callouts are grouped in numerical and alphabetical orders.
- The illustrations may contain symbols to indicate necessary service procedures and precautions that need to be taken.
  Refer to the next page for the meaning of each symbol mark.
- Also in the illustration is a chart that lists information such as the order in which the part is removed/installed, the name of the part, and some extra notes that may be needed.
- Step by step instructions are provided to supplement the illustrations when detailed explanation of the procedure is necessary or illustrations alone would not suffice.
- Service procedures required before or after the procedure described on that particular page, or inspection/adjustment procedures required following the installation of parts, are described under the title Requisite Service.
- Standard workshop procedures and knowledge covered in the Common Service Manual are abbreviated in this manual.



Symbols

The symbols used throughout this manual show specific service procedures. If supplementary information is required pertaining to these symbols, it would be explained specifically in the text without the use of the symbols.

	Replace the part(s) with new one(s) before assembly.
	Use special tool.
	Use optional tool. Use the same procedure you use to order parts.
 10 (1.0, 7.2)	Torque specification 10 N·m (1.0 kg-m, 7.2 ft-lb).
	Use recommended engine oil, unless otherwise specified.
	Use molybdenum oil solution (mixture of engine oil and molybdenum grease in a ratio of 1 : 1).
	Use multi-purpose grease (Lithium based multi-purpose grease NLGI #2 or equivalent).
	Use molybdenum disulfide grease (containing more than 3% molybdenum disulfide, NLGI #2 or equivalent). Example: Molykote® BR-2 plus manufactured by Dow Corning, U.S.A. Multi-purpose M-2 manufactured by Mitsubishi Oil Japan
	Use molybdenum disulfide paste (containing more than 40% molybdenum disulfide, NLGI #2 or equivalent). Example: Molykote® G-n Paste manufactured by Dow Corning, U.S.A. Honda Moly 60 (U.S.A. only) Rocol ASP manufactured by Rocol Limited, U.K. Rocol Paste manufactured by Sumico Lubricant, Japan
	Use silicone grease.
	Apply a locking agent. Use a middle strength locking agent unless otherwise specified.
	Apply sealant.
	Use brake fluid, DOT 4. Use the recommended brake fluid, unless otherwise specified.
	Use Fork or Suspension Fluid.

1. General Information

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General Safety

Carbon Monoxide

If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in an enclosed area.

⚠ WARNING

- **The exhaust contains poisonous carbon monoxide gas that can cause loss of consciousness and may lead to death.**

Run the engine in an open area or with an exhaust evacuation system in an enclosed area.

Gasoline

Work in a well ventilated area. Keep cigarettes, flames or sparks away from the work area or where gasoline is stored.

⚠ WARNING

- **Gasoline is extremely flammable and is explosive under certain conditions. KEEP OUT OF REACH OF CHILDREN.**

Hot Components

⚠ WARNING

- **Engine and exhaust system parts become very hot and remain hot for some time after the engine is run. Wear insulated gloves or wait until the engine and exhaust system have cooled before handling these parts.**

Used Engine/Transmission Oil

⚠ WARNING

- **Used engine oil (or transmission oil in two-strokes) may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Althogh this is unlikely unless you handle used oil on a daily basis, it is still advisable to throughly wash your hands with soap and water as soon as possible after handling used oil.**
  KEEP OUT OF REACH OF CHILDREN

Brake Dust

Never use an air hose or dry brush to clean brake assemblies.

⚠ WARNING

- **Inhaled asbestos fibers have been found to cause respiratory disease and cancer.**

Brake Fluid

⚠ WARNING

- **Spilling fluid on painted, plastic or rubber parts will damage them. Place a clean shop towel over these parts whenever the system is serviced. KEEP OUT OF REACH OF CHILDREN.**

Coolant

Under some conditions, the ethylene glycol in engine coolant is combustible and its flame is not visible. If the ethylene glycol does ignite, you will not see any flame, but you can be burned.

⚠ WARNING

- **Avoid spilling engine coolant on the exhaust system or engine parts. They may be hot enough to cause the coolant to ignite and burn without visible flame.**
- **Coolant (ethylene glycol) can cause some skin irritation and is poisonous if swallowed. KEEP OUT OF REACH OF CHILDREN.**
- **Do not remove the radiator cap when the engine is hot. The coolant is under pressure and could scald you.**
- **Keep hands and clothing away from the cooling fan, as it starts automatically.**

If it contacts your skin, wash the affected areas immidiately with soap and water. If it contacts your eyes, flush them throughly with fresh water and get immediate medical attention. If it is swallowed, the victim must be forced to vomit then rinse mouth and throat with fresh water before obtaining medical attention. Because of these dangers, always store coolant in a safe place, away from the reach of children.

Nitrogen Pressure

For shock absorbers with a gas-filled reservoir.

⚠ WARNING

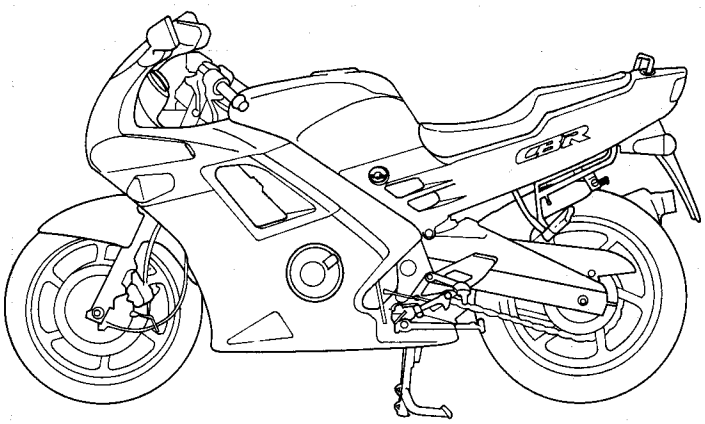
- **The shock absorber contains nitrogen under high pressure. Allowing fire or heat near the shock absorber could lead to an explosion that could result in serious injury.**
- **Failure to release the pressure from a shock absorber before disposing of it may lead to a possible explosion and serious injury if it is heated or pierced.**

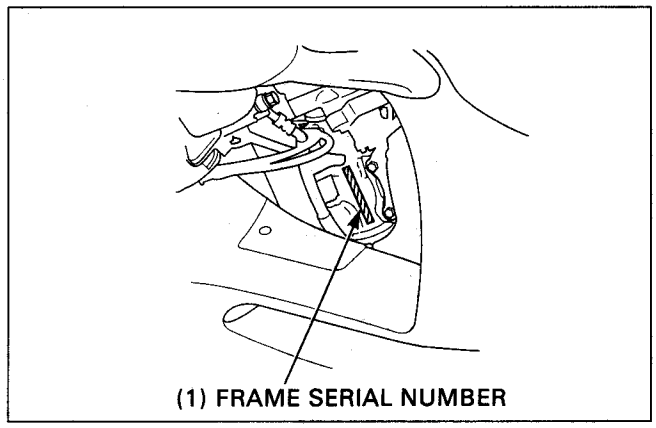
Battery Hydrogen Gas & Electrolyte

⚠ WARNING

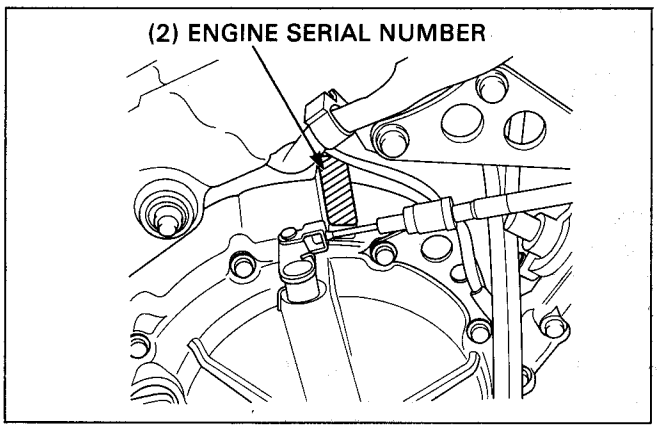
- **The battery gives off explosive gases; keep sparks, flames and cigarettes away. Provide adequate ventilation when charging.**
- **The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face shield.**
  -If electrolyte gets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

Model Identification

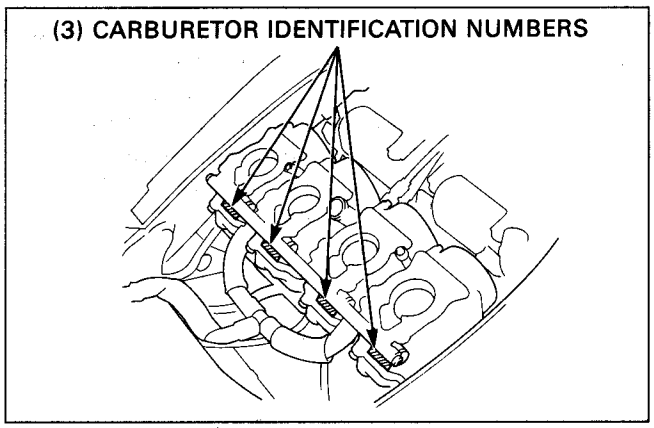




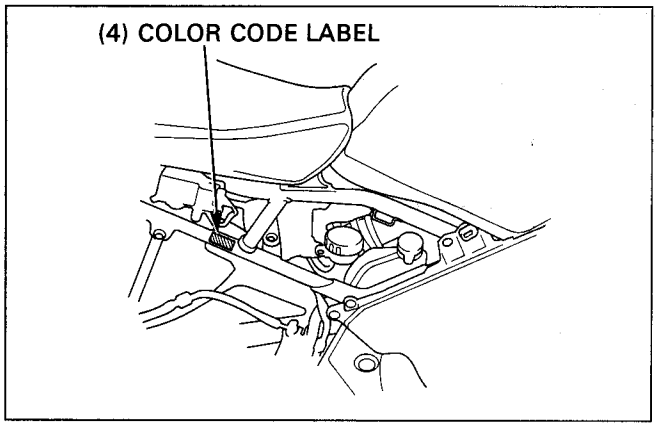
(1) FRAME SERIAL NUMBER
The frame serial number is stamped on the right side of the steering head.



(2) ENGINE SERIAL NUMBER
The engine serial number is stamped on the upper crankcase.



(3) CARBURETOR IDENTIFICATION NUMBER
The carburetor identification numbers are on the carburetor body intake sides.

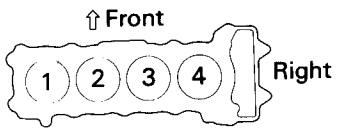


(4) COLOR CODE LABEL
The color code label is attached on the frame under the right side cover. When ordering color-coded part, always specify its deginated color.

Specifications

General

Item		Specifications
Dimentions	Overall length	2,010 mm (79.1 in)
	GI, GII, GIII, SW, AR type	2,130 mm (83.9 in)
	Overall width	695 mm (27.4 in)
	Overall height	1,130 mm (44.5 in)
	Wheelbase	1,405 mm (55.3 in)
	Seat height	810 mm (31.9 in)
	Footpeg height	370 mm (14.6 in)
	Ground clearance	145 mm (5.7 in)
	Dry weight	185 kg (407.9 lb)
	Curb weight	205 kg (452 lb)
	Maximum weight capacity	190 kg (419 lb)
Frame	Frame type	Diamond
	Front suspension	Telescopic fork
	Front wheel travel	130 mm (5.1 in)
	Rear suspension	Swingarm
	Rear wheel travel	110 mm (4.3 in)
	Rear damper	Decarbon type
	Front tire size (Bridgestone)	120/60 VR17 V260
	(Michelin)	120/60 ZR17
	Rear tire size (Bridgestone)	160/60 VR17 V260
	(Michelin)	160/60 ZR17
	Tire brand (Bridgestone) FR/RR	CY16G/CY20B
	Tire brand (Dunlop) FR/RR	—
	Tire brand (Yokohama) FR/RR	—
	Tire brand(Michelin) FR/RR	A59X/M59X
	Front brake	Hydraulic disc brake (Double)
	Rear brake	Hydraulic disc brake
	Caster angle	25° 10′
	Trail length	94 mm (3.7 in)
	Fuel tank capacity	16.0 ℓ (4.23 US gal, 3.52 Imp gal)
	Fuel tank reserve capacity	3.0 ℓ (0.8 US gal,0.7 Imp gal)
Engine	Bore and stroke	65.0×45.2 mm (2.56×1.78 in)
	Displacement	599 cc (36.5 cu-in)
	Compression ratio	11.6 : 1
	Valve train	Overhead camshaft chain drive
	Intake valve open at (1mm lift)	15° BTDC
	Intake valve close at (1mm lift)	35° ABDC
	Exhaust valve open at (1mm lift)	38° BBDC
	Exhaust valve close at (1mm lift)	7° ATDC
	Librication system	Forced pressure and wet sump
	Oil pump type	Trochoid
	Cooling system	Liquid cooled
	Air filteration	Paper filter
	Crankshaft type	Unit type, 5 main journals
	Engine dry weight	60.7 kg (133.8 lb)
	SW, AR type	61.6 kg (135.8 lb)
	Firing order	1-2-4-3
	Cylinder arrengement	4 cylinders inline



General (cont'd)

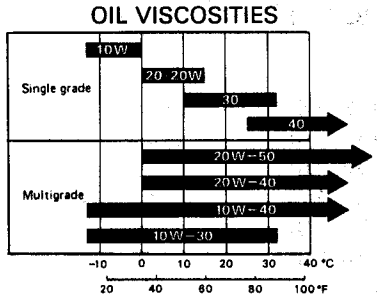
Item		Specifications
Carburetor	Carburetor type	Constant Velocity
	Throttle bore	34 mm (1.3 in)
Drive train	Clutch system	Wet multi-plate
	Clutch operation system	Cable operating
	Transmission	6-speed constant mesh
	Primary reduction	1.864 (82/44)
	Secondary reduction	—
	Third reduction	—
	Final reduction	2.867 (43/15)
	Gear ratio 1st	2.929 (41/14)
	Gear ratio 2nd	2.063 (33/16)
	Gear ratio 3rd	1.588 (27/17)
	Gear ratio 4th	1.368 (26/19)
	Gear ratio 5th	1.200 (24/20)
	Gear ratio 6th	1.087 (25/23)
	Gear ratio reverse	—
	Gear shift pattern	1-N-2-3-4-5-6
Electrical	Ignition system	Full transistor ignition
	Starting system	Starter motor
	Charging system	Triple phase out put alternator
	Regurator/rectifier type	SCR shorted/triple phase full-wave rectification
	Lighting system	Battery
	AC regulator type	—

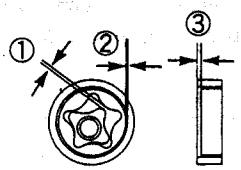
Unit : mm (in)

Lubrication

Item	Standard	Service Limit
Engine oil capacity at draining	3.2 ℓ (3.38 US qt,2.82 Imp qt)	———
at disassembly	4.0 ℓ (4.23 US qt,3.52 Imp qt)	———
at oil filter change	3.5 ℓ (3.70 US qt,3.08 Imp qt)	———
Recommended engine oil	Use Honda 4-stroke Oil or eqivalent API Service Classification : SE, SF or SG. Viscosity : SAE 10W-40 Other viscosity shown in the chart may be used when the average temperature in your riding area is within the indicated range.	———
Oil pressure at oil pressure switch	14.7 kPa (0.15 kg/cm², 2.1 psi)	———
Oil pump rotor tip clearance	0.15-0.22 (0.006-0.009)	0.20 (0.008)
body clearance	0.15-0.22 (0.006-0.009)	0.35 (0.014)
end clearance	0.02-0.07 (0.001-0.003)	0.10 (0.004)

OIL VISCOSITIES





Fuel System

Carburetor identification number		VP40A	———
	SW type	VP43A	———
	AR type	VP44A	———
Main jet		#135	———
(High altitude)		———	———
(2,3)		———	———
(1,4)		———	———
(Front)		———	———
(Rear)		———	———
Slow jet		#38	———
Jet needle clip position		———	———
Pilot screw initial opening		2-1/4 turns out	———
	SW type	3 turns out	
	AR type	2-5/8 turns out	
high altitude adjustment		———	———
final opening		1/2 turn out	———
Air screw initial opening		———	———
Air screw high altitude adjustment		———	———
Float level		13.7 (0.54)	———
Idle speed		1,200 ± 100 min^{-1} (rpm)	———
	SW, AR type	1,400 ± 50 min^{-1} (rpm)	———
Trottle grip free play		2-6 mm	———
Accelerator pump clearance		———	———

Unit : mm (in)

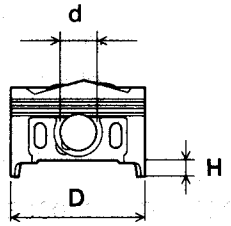
Cylinder Head

Item	Standard	Service Limit
Cylinder compression	1,261-1,287kPa (12.6-12.9 kg/cm², 179-183 psi)	———
Valve clearance at cold temperature (below 35° C/95° F) IN	0.13-0.19 (0.005-0.007)	———
EX	0.19-0.25 (0.007-0.010)	———
Cylinder head warpage	———	0.1 (0.04)
Cam lobe height① IN	36.140-36.380 (1.4228-1.4323)	36.11 (1.422)
EX	35.300-35.540 (1.3898-1.3992)	35.27 (1.389)
Camshaft runout ②	———	0.05 (0.002)
Camshaft oil clearance	0.020-0.062 (0.0008-0.0024)	0.1 (0.004)
Camshaft journal O.D. ③	23.959-23.980 (0.9433-0.9441)	24.955 (0.9825)
Camshaft holder I.D.	24.000-24.021 (0.9449-0.9457)	———
Valve stem O.D. IN	3.975-3.990 (0.1565-0.1571)	3.965 (0.1561)
EX	3.965-3.980 (0.1561-0.1567)	3.955 (0.1557)
Valve guide I.D. IN	4.000-4.012 (0.1575-0.1580)	4.04 (0.159)
EX	4.000-4.012 (0.1575-0.1580)	4.04 (0.159)
Stem-to-guide clearance IN	0.005-0.042 (0.0002-0.0017)	———
EX	0.015-0.052 (0.0006-0.0020)	———
Valve guide projection above cylinder head (h) IN	31.27-31.87 (1.2311-1.2547)	———
EX	31.31-31.91 (1.2327-1.2563)	———
Before guide installation : 1. Chill the valve guides in the freezer section of a refrigerator for about one hour. 2. Heat the cylinder head to 100-150° C (212-300° F).		
Valve seat width	0.9-1.1 (0.035-0.043)	1.5 (0.06)
Valve spring free length Inner	31.92 (1.257)	30.62 (1.206)
Outer	35.36 (1.392)	33.86 (1.333)
Inner IN	———	———
Inner EX	———	———
Outer IN	———	———
Outer EX	———	———
Rocker arm I.D. IN	———	———
EX	———	———
Rocker arm shaft O.D. IN	———	———
EX	———	———
Rocker arm-to-rocker arm shaft clearance	———	———
Valve lifter O.D.	25.978-25.993 (1.0228-1.0233)	25.968 (1.0224)
Valve lifter bore I.D.	26.010-26.026 (1.0240-1.0246)	26.040 (1.0252)
Hydraulic lash adjuster assist spring free length	———	———
Hydraulic lash adjuster compression stroke with kerosene	———	———

Unit : mm (in)

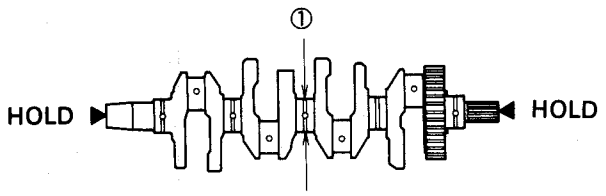
Cylinder/Piston

Item	Standard	Service Limit
Cylinder I.D.	65.000-65.015 (2.5591-2.5596)	65.10 (2.563)
out of round	———	0.10 (0.004)
taper	———	0.10 (0.004)
warpage	———	0.10 (0.004)
Piston mark direction	"IN" mark facing the intake side	———
Piston O.D. (D)	64.970-64.990 (2.5579-2.5587)	64.90 (2.555)
Piston O.D. measurement point (H)	11 (0.4) from the bottom	———
Piston pin hole I.D. (d)	17.002-17.008 (0.6694-0.6696)	17.02 (0.670)
Cylinder-to-piston clearance	0.010-0.045 (0.0004-0.0018)	———
Piston pin O.D.	16.993-17.000 (0.6690-0.6693)	16.98 (0.669)
Piston-to-piston pin clearance	0.002-0.015 (0.0001-0.0006)	———
Connecting rod-to-piston pin clearance	0.016-0.041 (0.0006-0.0016)	———
Top ring-to-ring groove clearance	0.025-0.060 (0.0010-0.0024)	0.08 (0.003)
Second ring-to-ring groove clearance	0.015-0.050 (0.0006-0.0020)	0.08 (0.003)
Top ring end gap	0.20-0.35 (0.008-0.014)	0.5 (0.02)
Second ring end gap	0.35-0.50 (0.014-0.020)	0.7 (0.03)
Oil ring (side rail) end gap	0.2-0.7 (0.01-0.03)	1.0 (0.04)
Top ring mark	"T" or "R"	———
Second ring mark	"T" or "RN"	———



Crankshaft

Connecting rod small end I.D.	17.016-17.034 (0.6699-0.6706)	17.04 (0.671)
Connecting rod big end side clearance	0.05-0.20 (0.002-0.008)	0.30 (0.012)
radial clearance	———	———
Crankshaft runout ①	———	0.05 (0.002)
Crankpin oil clearance	0.028-0.052 (0.0011-0.0020)	0.06 (0.002)
Crankpin bearing selection	See page 11-4.	———
Main journal oil clearance	0.023-0.047 (0.0009-0.0019)	0.05 (0.002)
Main journal bearing selection	See page 11-4.	———



Kickstarter

Kickstarter pinion gear I.D.	———	———
Kickstarter spindle O.D.	———	———
Countershaft O.D. at kickstarter idle gear	———	———
Kickstarter idle gear bushing O.D.	———	———
I.D.	———	———

Unit : mm (in)

Clutch System

Item	Standard	Service Limit
Clutch lever free play	10-20 (0.4-0.8)	———
Clutch outer I.D.	———	———
Clutch outer guide O.D.	34.975-34.991 (1.3770-1.3776)	34.965 (1.3766)
I.D.	21.994-22.007 (0.8659-0.8664)	22.017 (0.8668)
Mainshaft O.D. at clutch outer guide	21.980-21.993 (0.8654-0.8659)	21.95 (0.864)
Clutch spring free height	———	———
Clutch spring free length	48.9 (1.93)	47.5 (1.87)
Clutch disc thickness	2.92-3.08 (0.115-0.121)	2.60 (0.102)
Clutch disc thickness A	———	———
B	———	———
Clutch plate warpage	———	0.30 (0.012)
Centrifugal clutch drum I.D.	———	———
bushing O.D.	———	———
Centrifugal clutch center guide I.D.	———	———
O.D.	———	———
Centrifugal clutch center guide collar height	———	———
Centrifugal clutch weight lining thickness	———	———
Clutch lining thickness	———	———
Crankshaft O.D. at clutch center	———	———

Cooling System

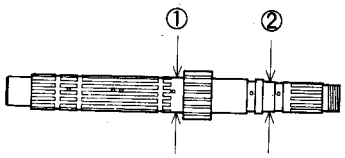
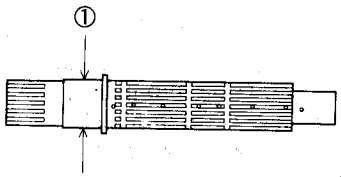
Coolant capacity (Radiator and engine)	2.4 ℓ (0.63 US gal, 0.53 Imp gal)	———
(Reserve tank)	0.35 ℓ (0.09 US gal, 0.08 Imp gal)	———
Radiator cap relief pressure	110-140 kPa (1.1-1.4 kg/cm², 15.6-19.9 psi)	———
Thermostat cap relief pressure	80-84° C (176-183F°)	———
Thermostat fully open	95° C (203F°)	———
Thermostat valve lift	8 (0.3) min	———

Drive Train

Final drive gear oil capacity at disassembly	———	———
at draining	———	———
Recommended final drive oil	———	———
Final drive gear backlash	———	———
Ring gear-to-stop pin clearance (A)	———	———
Stop pin shim	———	———
Ring gear spacer	———	———
Pinion spacer	———	———
Output gear backlash	———	———
Output gear I.D.	———	———
Output gear bushing O.D.	———	———
I.D.	———	———
Output drive shaft O.D.	———	———
Output gear damper spring free length	———	———
Output shaft adjustment shim	———	———
Countershaft drive shaft adjustment shim	———	———

Transmission

Unit : mm (in)

Item	Standard	Service Limit
Transmission gear I.D. M5, M6	28.000-28.021 (1.1024-1.1032)	28.04 (1.104)
C2, C3, C4	31.000-31.025 (1.2205-1.2215)	31.04 (1.222)
Transmission gear bushing O.D. M5, M6	27.959-27.980 (1.1007-1.1016)	27.94 (1.100)
C3, C4	30.950-30.975 (1.2185-1.2195)	30.93 (1.218)
C2	30.959-30.980 (1.2189-1.2197)	30.94 (1.218)
Transmission gear bushing I.D. M5	24.985-25.006 (0.9837-0.9845)	24.016 (0.9455)
C2	27.985-28.006 (1.1018-1.1026)	28.021 (1.1032)
Gear-to-bushing clearance at M5, M6 gear	0.020-0.062 (0.0008-0.0024)	———
C2, C3, C4 gear	0.020-0.070 (0.0008-0.0028)	———
Mainshaft O.D. at M5 gear bushing ①	24.967-24.980 (0.9830-0.9835)	24.960 (0.9827)
at clutch outer guide ②	21.980-21.993 (0.8654-0.8659)	21.95 (0.864)
		
Countershaft O.D. at C2 gear bushig ①	27.967-27.980 (1.0904-1.1016)	27.96 (1.101)
		
Gear bushing-to-shaft clearance at M5 gear	0.005-0.039 (0.0002-0.0015)	———
C2 gear	0.005-0.039 (0.0002-0.0015)	———
Shift fork claw thickness R	5.93-6.00 (0.233-0.236)	5.90 (0.232)
C	5.93-6.00 (0.233-0.236)	5.90 (0.232)
L	5.93-6.00 (0.233-0.236)	5.90 (0.232)
Shift fork I.D. R	12.000-12.021 (0.4724-0.4733)	12.030 (0.4736)
C	12.000-12.021 (0.4724-0.4733)	12.030 (0.4736)
L	12.000-12.021 (0.4724-0.4733)	12.030 (0.4736)
Shift fork shaft O.D. at R shift fork	11.957-11.968 (0.4707-0.4712)	11.95 (0.470)
C shift fork	11.957-11.968 (0.4707-0.4712)	11.95 (0.470)
L shift fork	11.957-11.968 (0.4707-0.4712)	11.95 (0.470)

Unit : mm (in)

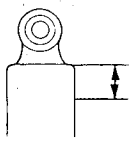
Wheels/Tires

Item	Standard	Service Limit
Minimum tire thread depth (FR)	———	1.5 (0.06)
(RR)	———	2.0 (0.08)
Cold tire pressure Up to 90 kg (200 lb) load (FR)	250 kPa (2.50 kg/cm², 36 psi)	———
Up to 90 kg (200 lb) load (RR)	290 kPa (2.90 kg/cm², 42 psi)	———
Up to maximum weight capacity (FR)	250 kPa (2.50 kg/cm², 36 psi)	———
Up to maximum weight capacity (RR)	290 kPa (2.90 kg/cm², 42 psi)	———
Rear and front axle runout	———	0.2 (0.01)
Front and rear wheel rim runout (Radial)	———	2.0 (0.08)
(Axial)	———	2.0 (0.08)
Front wheel hub-to-rim distance	———	———
Front wheel hub standard surface	———	———
Rear wheel hub-to-rim distance	———	———
Rear wheel hub standard surface	———	———
Wheel balance weight Front/Rear	———	60 g (0.13 lb)
Drive chain slack	15-25 (0.6-1.0)	———
Drive chain size/link (DID)	DID50V4/108	———
(RK)	RK50MFO/108	———

Front Suspension

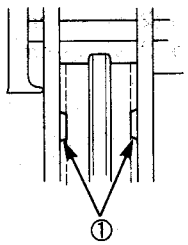
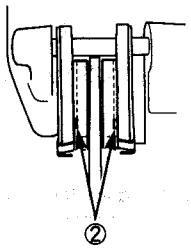
Fork spring free length	443.2 (17.45)	434.3 (17.10)
Fork spring free length (A)	———	———
(B)	———	———
Fork spring direction	With tightly wound coil facing down	———
Fork tube runout	———	0.20 (0.01)
Recommended fork oil	Fork fluid	———
Fork oil level	118 (4.65)	———
Fork oil level (R)	———	———
(L)	———	———
Fork oil capacity	508 cc (17.1 US oz, 17.9 Imp oz)	———
Fork oil capacity (R)	———	———
(L)	———	———
Fork air pressure	———	———
Steering bearing preload	0.10-0.15 kg-m (0.73-1.09 ft-lb)	———

Rear Suspension

Shock absorber spring free length	139.2 (5.48)	136.4 (5.37)
Shock absorber spring free length (A)	———	———
(B)	———	———
Damper gas pressure	10 kg/cm² (980 kPa)	———
Damper compression gas	Nitrogen	———
Damper rod compressed force at (0.4 in) 10 mm compressed	15.4 kg(111.39 ft-lb)	———
Damper drilling point	10 (0.4) mm from the top surface	———
 10 mm (0.4 in)		
Shock absorber spring installed length (Standard)	———	———
(Adjustable range)	———	———
Shock absorber spring direction	Tightly wound coil facing upward	———
Recommended shock absorber oil	———	———
Shock absorber oil capacity	———	———
air pressure	———	———

Unit : mm (in)

Brakes

Item	Standard	Service Limit
Front brake fluid	DOT 4	———
brake lever free play	———	———
brake pad wear indicator	To the groove ①	———
 ①		
brake disc thickness	4.8-5.2 (0.19-0.20)	4.0 (0.20)
brake disc runout	———	0.30 (0.012)
master cylinder I.D.	12.700-12.743 (0.5000-0.5017)	12.76 (0.502)
master piston O.D.	12.657-12.684 (0.4983-0.4994)	12.65 (0.498)
caliper cylinder I.D.	25.400-25.450 (1.0000-1.0020)	25.46 (1.002)
caliper cylinder I.D. (Upper)	———	———
(Lower)	———	———
caliper piston O.D.	25.335-25.368 (0.9974-0.9987)	25.33 (0.997)
caliper piston O.D. (Upper)	———	———
(Lower)	———	———
brake drum I.D.	———	———
brake lining thickness	———	———
Rear brake fluid	DOT 4	———
brake pedal height	———	———
brake pedal free play	To the groove ②	———
brake pad wear indicator	———	———
 ②		
brake disc thickness	4.8-5.2 (0.19-0.20)	4.0 (0.20)
brake disc runout	———	0.30 (0.012)
master cylinder I.D.	12.700-12.743 (0.5000-0.5017)	12.76 (0.502)
master piston O.D.	12.657-12.684 (0.4983-0.4994)	12.65 (0.498)
caliper cylinder I.D.	38.180-38.230 (1.5031-1.5051)	38.24 (1.506)
caliper piston O.D.	38.098-38.148 (1.4999-1.5019)	38.09 (1.500)
brake drum I.D.	———	———
brake lining thickness	———	———

Battery/Charging System

Alternator chaging coil resistance (At 20° C/68° F)	0.1-1.0Ω	———
Regulator regurated voltage/amperage	13.0-15.5V/1A MAX at 5,000 rpm	———
Battery capacity	12V-8AH	———
Battery specific gravity (Fully charging)	———	———
(Needs charging)	———	———
Battery charging rate (Normal)	0.9A (5-10 hours)	———
(Quick)	4.0A (1 hour)	———
Battery voltage (Fully charged at 20° C/68° F)	Over 13.0V	———
(Needs charging at 20° C/68° F)	Below 12.3V	———
Alternator lighting coil resistance (At 20° C/68° F)	———	———
AC regulator regulated voltage (with analogue type)	———	———
(with digital type)	———	———

Unit : mm (in)

Ignition System

Item		Standard	Service Limit
Spark plug (Standard NGK)		CR9EX9	———
(Standard ND)		U27FER9	———
(For cold climate/below 5° C/41° F NGK)		———	———
(For cold climate/below 5° C/41° F ND)		———	———
(For extended high speed riding NGK)		———	———
(For extended high speed riding ND)		———	———
Spark plug gap		0.8-0.9 (0.03-0.04)	———
Ignition timing "F" mark	Except SW type	15° BTDC/1,200 ± 100 min^{-1}(rpm)	———
	SW type	5° BTDC/1,400 ± 50 min^{-1}(rpm)	———
Advance start		———	———
stop		———	———
Full advance		42° BTDC/5,500 ± 100 min^{-1}(rpm)	———
Alternator exciter coil resistance (At 20° C/68° F)		0.1-1.0Ω	———
Ignition coil resistance (Primary at 20° C/68° F)		2.5-3.1Ω	———
(Secondary with plug cap)		21-25kΩ	———
(Secondary without plug cap)		11-15kΩ	———
Pulse generator resistance (At 20° C/68° F)		460-580Ω	———

Starting System

Starter driven gear O.D.	51.699-51.718 (2.0354-2.0361)	51.684 (2.0348)
Starter clutch outer I.D.	———	———
Starter motor brush spring tension	———	———
brush length	12.0-13.0 (0.47-0.51)	4.5 (0.18)

Lights/Meters/Switches

Main fuse	30A	———
Fuse	10A×3+15A×1	———
Headlight (high/low beam)	12V 60/55W	———
Tail/brakelight	12V 21/5W×2	———
Position light	12V 4W	———
Front turn signal light	12V 21W×2	———
Rear turn signal light	12V 21W×2	———
Instrument light	12V 1.7W×4	———
Oil pressure warning indicator	12V 3.4W	———
Side stand indicator	12V 1.7W	———
Low fuel indicator	———	———
Coolant temperature indicator	———	———
Oil temperature indicator	———	———
High beam indicator	12V 3.4W	———
Turn signal indicator	12V 3.4W×2	———
Neutral indicator	12V 3.4W	———
Reverse indicator	———	———
Overdrive indicator	———	———
Oil temperature sensor resistance (At 20° C/68° F)	———	———
Fuel unit resistance (At full level)	———	———
(At low level)	———	———
Fuel pump flow capacity (Min./minute)	———	———
Coolant temperature sensor resistance (At 80°C/176°F)	45-60Ω	———
(At 120° C/248° F)	10-20Ω	———
Fan motor switch Starts to close (ON)	98-102 C (208-216°F)	———
Stop to open (OFF)	93-97°C (199-207°F)	———

Torque Values

Standard

Fastners type	Torque N · m (kg-m, ft-lb)	Fastners type	Torque N · m (kg-m, ft-l)
5mm hex bolt and nut	5 (0.5, 3.5)	5mm screw	4 (0.4, 3)
6mm bolt and nut	10 (1.0, 7)	6mm screw	9 (0.9, 7)
8mm bolt and nut	22 (2.2, 16)	6mm flange bolt (8mm head)	9 (0.9, 7)
10mm hex bolt and nut	35 (3.5, 25)	6mm flange bolt (10mm head) and nut	12 (1.2, 9)
12mm hex bolt and nut	55 (5.5, 40)	8mm flange bolt and nut	27 (2.7, 20)
		10mm flange bolt and nut	40 (4.0, 29)

- Torque specifications listed below are for important fasteners.
- All others sholud be tightened to standard torque values listed above.

NOTES : 1. Apply sealant to the threads.
2. Apply a locking agent to the threads.
3. Apply molybdenum disulfide oil to the threads and seating surface.
4. Left hand threads.
5. Stake.
6. Apply oil to the threads and seating surface.
7. Apply clean engine oil to the O-ring.
8. Torque wrench scale reading using a special tool.
9. Apply grease to the threads and seating surface.
10. UBS bolt.
11. Do not apply molybdenum disulfide oil to the threads and seating surface.

Engine

Item	Q'ty	Thread dia. (mm)	Torque N · m (kg-m, ft-lb)	Remarks
Lubrication System :				
Oil drain bolt	1	12	38 (3.8, 27)	
Oil filter cartridge	1	20	10 (1.0, 7)	
Oil filter boss	1	20	18 (1.8, 13)	
Oil pump driven sprocket bolt	1	6	15 (1.5, 11)	NOTE 2
Special bolt	1	—	50 (5.0, 36)	
Cooling System :				
Thermosensor	1	—	10 (1.0, 7)	NOTE 1
Fanmotor switch	1	—	10 (1.0, 7)	NOTE 1
Fuel System :				
Fuel valve joint bolt	2	10	25 (2.5, 18)	
Cylinder Head :				
Cylinder head bolt	10	9	48 (4.8, 35)	NOTE 3
Spark plug	4	10	12 (1.2, 9)	
Cylinder head cover bolt	6	6	10 (1.0, 7)	
Camshaft holder bolt	20	6	12 (1.2, 9)	
Cylinder head cover breather plate bolt	2	6	12 (1.2, 9)	NOTE 2
Cylinder head stud bolt	8	8	26 (2.6, 19)	
Cam sprocket bolt	4	7	20 (2.0, 14)	NOTE 2
Cylinder head sealing bolt	2	18	33 (3.3, 24)	NOTE 1
Clutch/Gearshift Linkage :				
Clutch center lock nut	1	20	85 (8.5, 61)	NOTE 5
Gearshift spindle return spring pin	1	8	23 (2.3, 17)	NOTE 2
Shift drum center bolt	1	8	23 (2.3, 17)	NOTE 2
Right crankcase cover bolt	10	6	12 (1.2, 9)	

Engine (cont'd)

Item	Q'ty	Thread dia. (mm)	Torque N · m (kg-m, ft-lb)	Remarks
Crankcase/Cylinder/Piston :				
Upper crankcase bolt	7	6	12 (1.2, 9)	
Lower crankcase bolt	14	6	12 (1.2, 9)	
	10	8	24 (2.4, 17)	
	1	10	40 (4.0, 29)	
Connecting rod bearing cap nut	8	7	26 (2.6, 19)	NOTE 6, 11
Neutral switch	1	10	12 (1.2, 9)	NOTE 1
Oil pressure switch	1	—	12 (1.2, 9)	NOTE 1
Sealing bolt	1	20	30 (3.0, 22)	NOTE 1
	1	14	25 (2.5, 18)	NOTE 1
Charging System/Alternator :				
Flywheel bolt	1	10	105 (10.5, 76)	
Starter clutch bolt	1	6	16 (1.6, 12)	NOTE 2
Stator bolt	4	6	12 (1.2, 9)	NOTE 2
Ignition System :				
Pulse generator rotor cover cap	1	45	18 (1.8, 13)	NOTE 3
Pulse generator rotor cover bolt	8	6	12 (1.2, 9)	
Pulse generator rotor bolt	1	10	60 (6.0, 43)	

Frame

Item	Q'ty	Thread dia. (mm)	Torque N · m (kg-m, ft-lb)	Remarks
Frame/Body Panels/Exhaust System :				
Exhaust pipe joint nut	6	7	20 (2.0, 14)	
Exhaust pipe band bolt	2	8	21 (2.1, 15)	
Side stand pivot bolt	1	10	10 (1.0, 7)	
Side stand pivot lock nut	1	10	30 (3.0, 22)	
Side stand bracket bolt	2	10	55 (5.5, 40)	
Engine Mount :				
Front engine hanger nut	2	10	65 (6.5, 47)	
Engine hanger adjust bolt	1	20	15 (1.5, 11)	
Engine hanger lock nut	1	20	65 (6.5, 47)	
Drive sprocket bolt	1	10	55 (5.5, 40)	
Gearshift pedal pinch bolt (pedal side)	1	8	27 (2.7, 20)	
(arm side)	1	6	16 (1.6, 12)	
Front Wheel/Suspension/Steering :				
Ignition switch bolt	2	8	25 (2.5, 18)	NOTE 2
Handlebar pinch bolt	2	8	27 (2.7, 20)	
Fork cap bolt	2	37	23 (2.3, 17)	
Fork socket bolt	2	8	23 (2.3, 17)	
Steering stem nut	1	24	105 (10.5, 76)	

Frame (cont'd)

Item	Q'ty	Thread dia.(mm)	Torque N · m (kg-m, ft-lb)	Remarks
Steering adjustment nut	1	24	25 (2.5, 18)	NOTE 6 See page 12-15.
Fork pinch bolt (upper)	2	8	23 (2.3, 17)	
(lower)	2	10	40 (4.0, 29)	
Front axle bolt	1	14	60 (6.0, 43)	
Front axle pinch bolt	4	8	22 (2.2, 16)	
Front brake disc bolt	12	8	43 (4.3, 31)	NOTE 2
Rear Wheel/Rear Suspension:				
Drive chain adjuster lock nut	2	6	22 (2.2, 16)	
Rear axle nut	1	18	95 (9.5, 69)	
Shock absorber mounting nut	2	10	45 (4.5, 33)	
Shock link nut (frame side)	1	10	45 (4.5, 33)	
Shock link nut (shock arm side)	1	10	45 (4.5, 33)	NOTE 9
Shock arm bolt	1	10	45 (4.5, 33)	NOTE 9
Swingarm pivot nut	1	14	110 (11.0, 80)	
Drive chain adjuster lock nut	2	8	22 (2.2, 16)	NOTE 2
Rear brake disc bolt	4	8	43 (4.3, 31)	NOTE 6
Driven sprocket nut	4	12	90 (9.0, 65)	
Brake System :				
Rear master cylinder mounting bolt	2	6	12 (1.2, 9)	
Rear brake master cylinder reservoir bolt	1	6	9 (0.9, 7)	NOTE 2
Front brake caliper bracket bolt	4	8	27 (2.7, 20)	
Brake hose bolt	6	10	35 (3.5, 25)	
Front master cylinder holder bolt	2	6	12 (1.2, 9)	
Brake lever pirot nut	1	6	6 (0.6, 4)	
Breeder screw	3	8	6 (0.6, 4.3)	
Brake pipe three way joint bolt	1	6	10 (1.0, 7)	
Brake pad pin	5	8	18 (1.8, 13)	
Brake pad pin plug	5	8	3 (0.3, 2.2)	NOTE 6
Brake pipe flare nut	2	10	17 (1.7, 12)	NOTE 2
Caliper bracket pin bolt	3	5	13 (1.3, 9)	NOTE 2
Front brake caliper pin bolt	2	8	23 (2.3, 17)	
Rear brake caliper bracket bolt	1	10	23 (2.3, 17)	
Rear brake caliper pin bolt	1	10	28 (2.8, 20)	

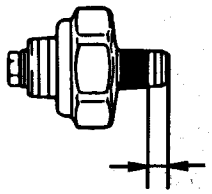
Tools

• The newly designed tools are indicated with * mark in the list.

Description	Tool Number	Applicability	Refer to Section(s)
Oil pressure gauge	07506-3000000		4
Oil pressure gauge attachment	07510-4220100		4
Oil filter wrench	07HAA-PJ70100		4
Float level gauge	07401-0010000		5
Pilot screw wrench	07908-4730001		5
Valve spring compressor	07757-0010000		8
Valve compressor attachment	07959-KM30101		8
*Tappet hole protector	07HMG-MR70002		8
Valve guide driver	07GMD-KT70100		8
*Valve guide reamer, 4 mm	07MMH-MV90100		8
Valve seat cutter 24.5 mm(EX 45°)	07780-0010100		8
Valve seat cutter 27.5 mm(IN 45°)	07780-0010200		8
Valve seat cutter 24 mm(EX 32°)	07780-0012500		8
*Valve seat cutter 27mm(IN 32°)	07780-0013300		8
Valve seat cutter 22 mm(EX 60°)	07780-0014202		8
Valve seat cutter 26 mm(IN 60°)	07780-0014502		8
Cutter holder, 4.0 mm	07781-0010500		8
Clutch center holder	07JMB-MN50300		9
Lock nut wrench, 17×27 mm	07716-0020300		9
Extension bar	07716-0020500		9, 12
Pilot, 12 mm	07746-0040200		9
Attachment, 32×35 mm	07746-0010100		9, 13
Attachment, 28×30 mm	07949-1870100		9, 13
Inner driver C	07746-0030100		11
Attachment, 25mm I.D.	07746-0030200		11
Bearing remover shaft	07746-0050100		12, 13
Bearing remover head, 20 mm	07746-0050600		12, 13
Attachment, 42×47 mm	07746-0010300		12, 13
Attachment, 52×55 mm	07746-0010400		12
Pilot, 15 mm	07746-0040300		12, 13
Pilot, 20 mm	07746-0040500		12, 13
Fork seal driver	07947-KA50100		12
Fork seal driver attachment	07947-KF00100		12
Lock nut wrench, 30×32 mm	07716-0020400		12
Steering stem socket	07916-3710100		12
Ball race remover	07953-MJ10000		12
-driver attachment	07953-MJ10100		12
-driver handle	07953-MJ10200		12
Ball race remover	07946-3710500		12
Driver attachment	07945-3330300		13
Pilot, 22 mm	07746-0041000		13
Attachment, 24 x 26mm	07746-0010700		13
Pilot, 17mm	07746-0040400		13
Oil seal driver attachment	07965-KE80200		13
Driver shaft	07946-MJ00100		13
Needle bearing remover	07GMD-KT70200		13
Pin driver	07GMD-KT80100		13
Snap ring pliers(IN)	07914-3230001		14
Bearing remover set	07936-KC10000		14
-bearing remover head, 15mm	07936-KC-10200		14
-bearing handle	07936-KC10100		14
-remover sliding weight	07741-0010201		14
Digital multitester(KOWA)	07411-0020000		15, 16, 17, 18
Peak votage adaptor	07HGJ-0020100		16
or Imrie dianostic tester	Model 625		15, 16, 17, 18
Analogue multitester(SANWA)	07308-0020001		15, 16, 17, 18
Analogue multitester(KOWA)	TH-5H		
Flywheel holder	07925-ME90000		15, 16
Rotor puller	07733-0020001		15
Flywheel holder	07725-0040000		15
Torx bit (T30)	07703-0010200		17
Torx bit (T40)	07703-0010100		18

Lubrication & Seal Points

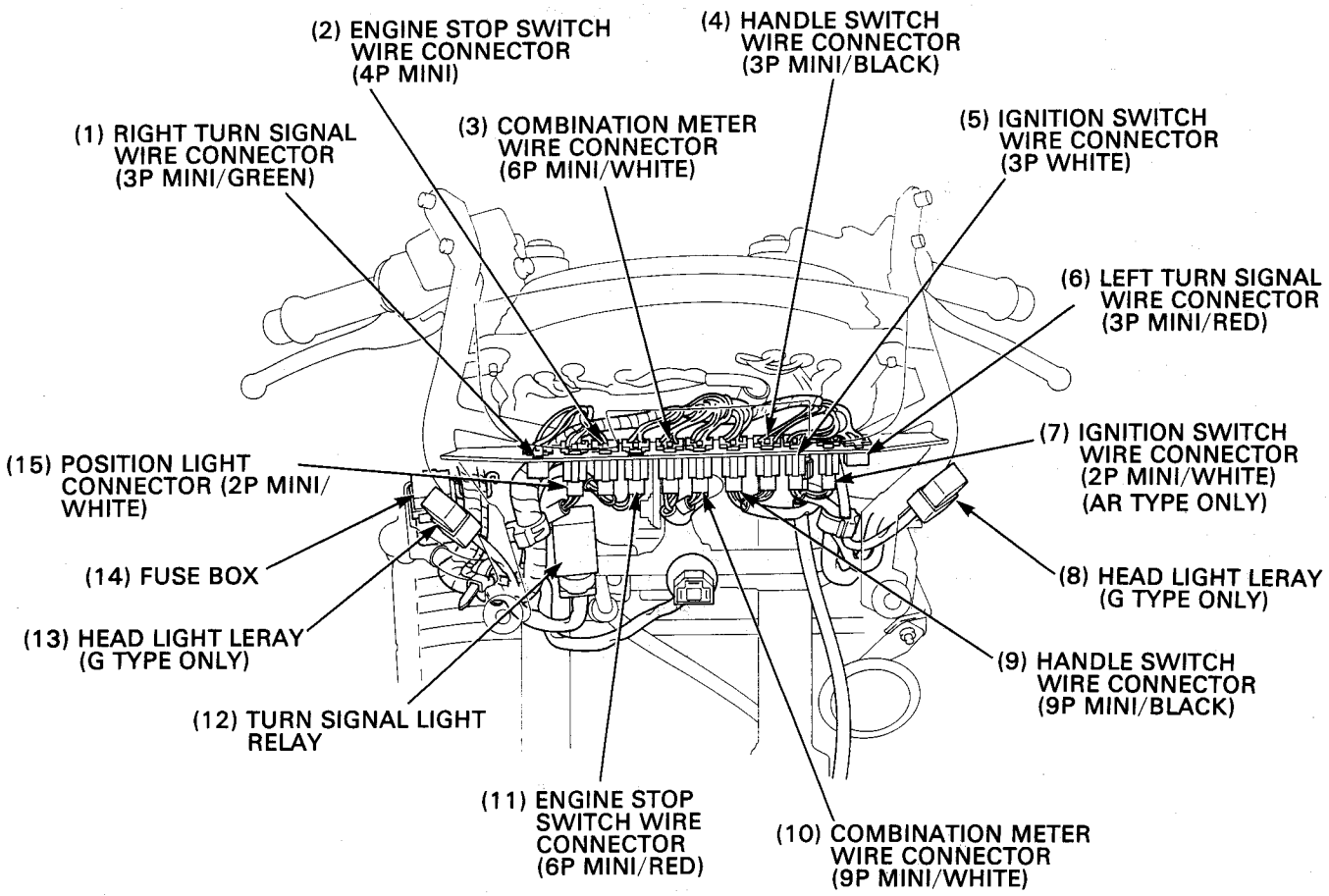
Engine

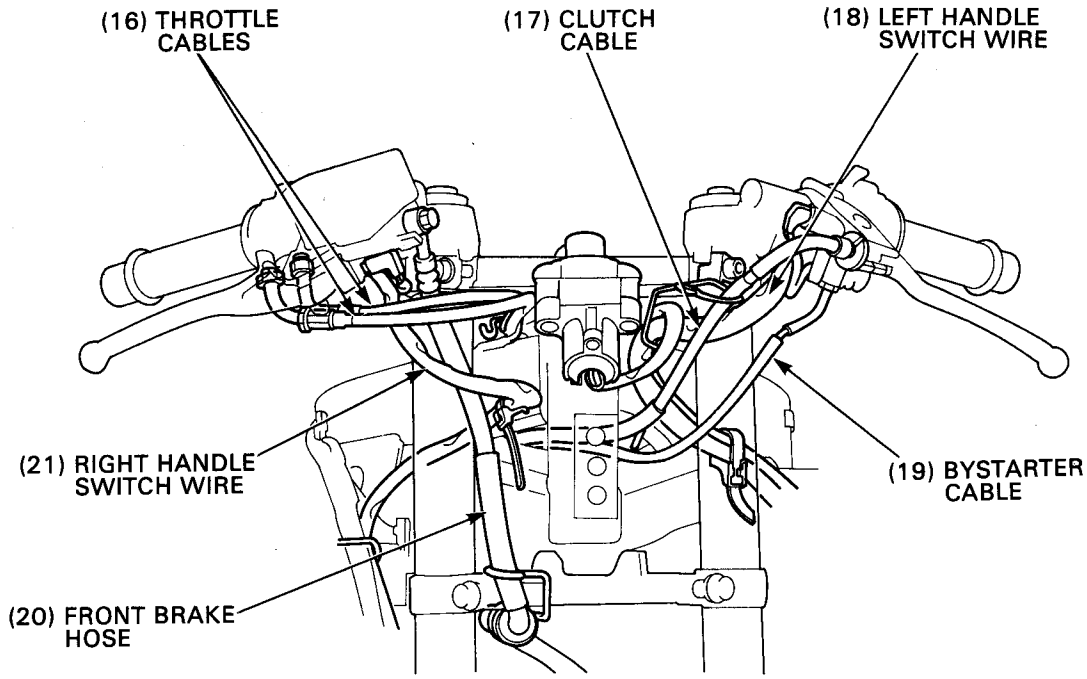
Location	Material	Remarks
Cylinder head semicircular cut-out Crankcase mating surface	Liquid sealant	Wipe the excess of sealant
Camshaft lobes/journals Valve lifter sliding surfaces Valve stem (valve guide sliding surface) Connecting rod small end inner surface Main journal bearings Connecting rod bearings M3/4. C5, C6 gear shift fork grooves	Molybdenum disulfide oil	
Oil pressure switch threads  Alternator grommet Pulse generator grommet Pulse generator rotor cover bolt threads (Marked by "△" mark) Thermosensor threads	Sealant	
Cylinder head cover breather plate bolt threads Cam sprocket bolt threads Oil pump driven sprocket bolt threads Shift drum bearing set plate bolt threads Starter clutch outer bolt threads Countershaft bearing set plate threads	Locking agent	Clean and apply to the threads
Cylinder head bolt threads and seating surface Clutch outer inner surface Starter clutch sliding surface Piston sliding surface, piston ring grooves, pin bore Piston pin surface Piston rings Lower crankcase bolt threads and seating surface (main journal tightening) Connecting rod cap nut threads and seating surface Cam chain tensioner collar sliding surface Cam chain tensioner and slipper surface Gear teeth and rotating surface Oil seal lip (without dust lip) O-rings Bearings	Engine oil	
Clutch lifter piece Oil seal lip (with dust lip)	Multipurpose grease	

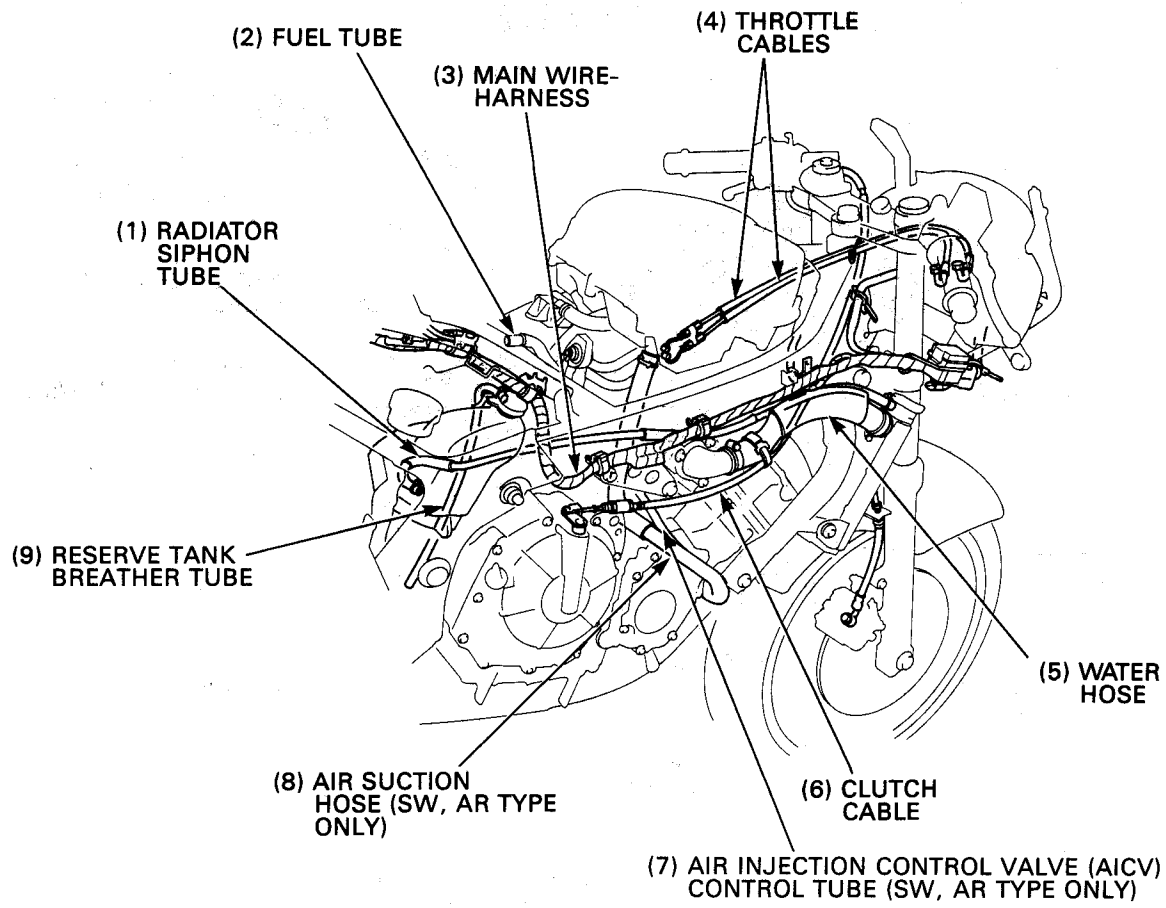
Frame

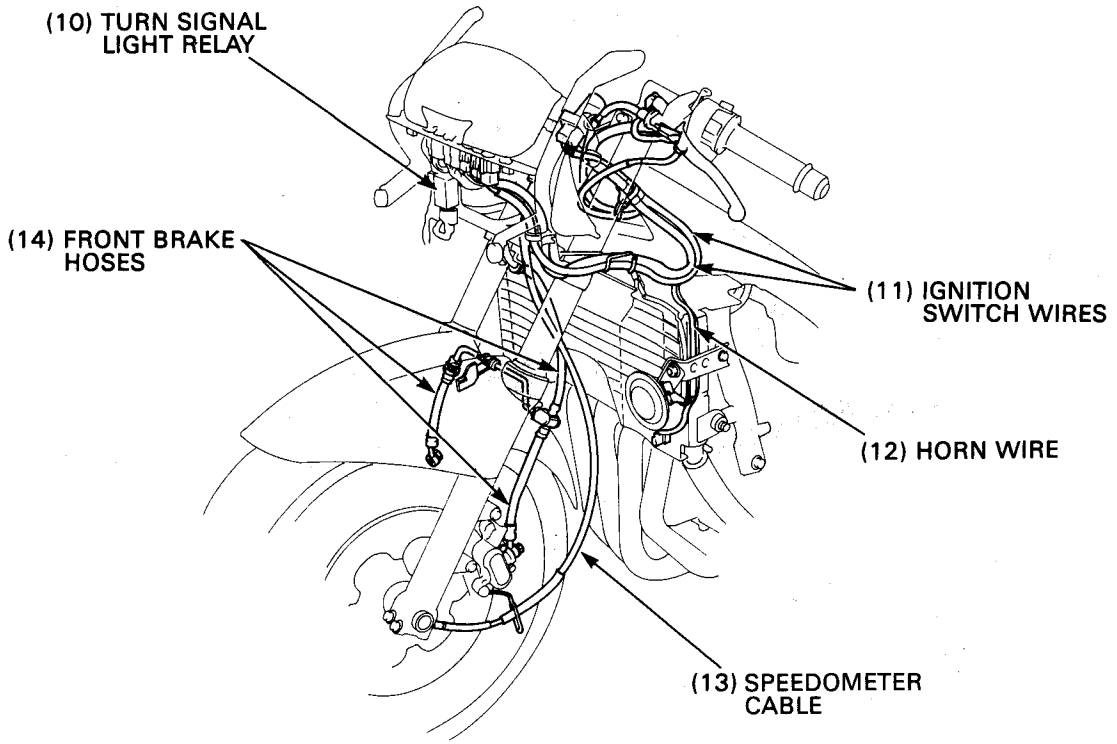
Location	Material	Remarks
Side stand pivot bolt sliding surface Main stand pivot bolt sliding surface Gearshift pedal pivot Brake pedal pivot Throttle grip sliding surface Wheel dust seal lips Swingarm pivot radial ball bearing Swingarm pivot distance collar outer surface Throttle cable end	Multipurpose grease	
Swingarm pivot dust seal lips Swingarm pivot needle bearing Shock arm pivot dust seal lips Shock arm pivot needle bearing Shock link pivot dust seal lips Shock link pivot needle bearing Rear shock absorber lower mount dust seal lips Rear shock absorber lower mount needle bearing	Molybdenum disulfide grease	
Driven sprocket nut threads and seating surface	Engine oil	
Handlebar grip rubber inner surface	Honda Bond A or an equivalent	
Brake reservoir Master piston/piston seals Caliper piston Caliper piston seals	DOT 4 brake fluid	
Brake caliper boots inside Master cylinder rubber boots inside Rear master cylinder push rod top Rear brake caliper pin bolt sliding surface	Silicone grease	
Fuel valve lever boss Caliper bracket/caliper pin bolt/socket bolt threads Caliper bracket bolt threads Ignition switch bolt threads Fork socket bolt threads Handlebar weight screw threads Drive chain slider screw threads	Locking agent	Clean and apply to the threads
Air cleaner case inlet tube joint	Sealant	

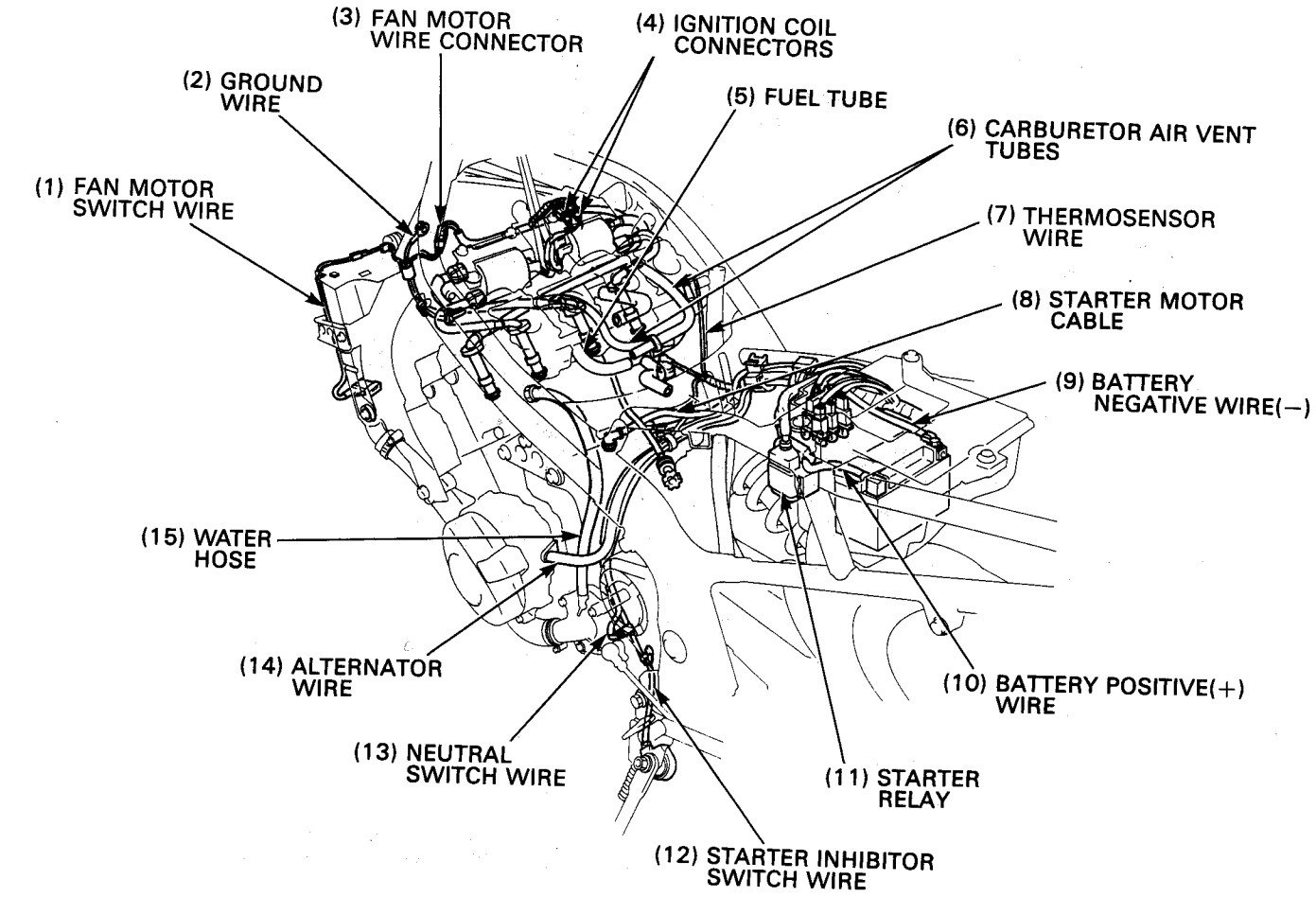
Wiring Diagram

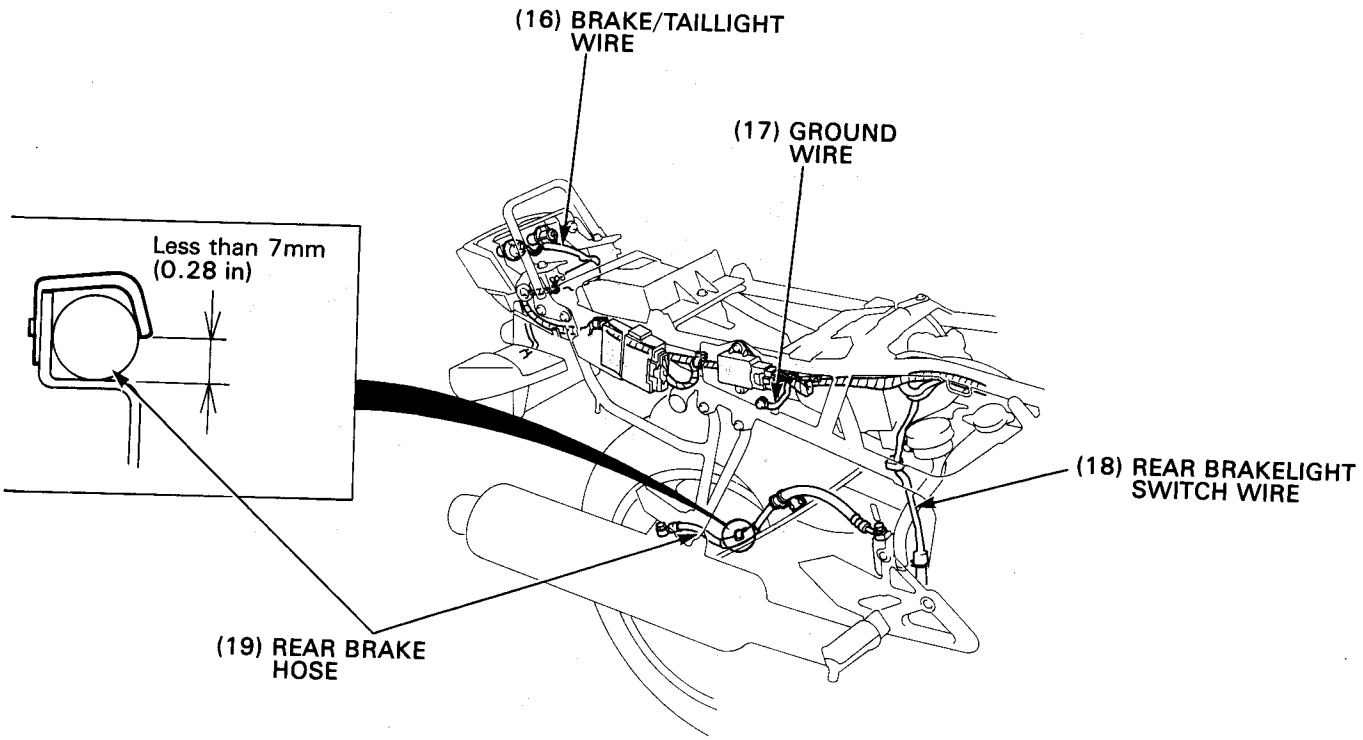





(2) FUEL TUBE
(4) THROTTLE CABLES
(3) MAIN WIRE-HARNESS
(1) RADIATOR SIPHON TUBE
(9) RESERVE TANK BREATHER TUBE
(5) WATER HOSE
(8) AIR SUCTION HOSE (SW, AR TYPE ONLY)
(6) CLUTCH CABLE
(7) AIR INJECTION CONTROL VALVE (AICV) CONTROL TUBE (SW, AR TYPE ONLY)


(10) TURN SIGNAL LIGHT RELAY
(14) FRONT BRAKE HOSES
(11) IGNITION SWITCH WIRES
(12) HORN WIRE
(13) SPEEDOMETER CABLE


(3) FAN MOTOR WIRE CONNECTOR
(4) IGNITION COIL CONNECTORS
(2) GROUND WIRE
(5) FUEL TUBE
(6) CARBURETOR AIR VENT TUBES
(1) FAN MOTOR SWITCH WIRE
(7) THERMOSENSOR WIRE
(8) STARTER MOTOR CABLE
(9) BATTERY NEGATIVE WIRE(−)
(15) WATER HOSE
(14) ALTERNATOR WIRE
(10) BATTERY POSITIVE(+) WIRE
(13) NEUTRAL SWITCH WIRE
(11) STARTER RELAY
(12) STARTER INHIBITOR SWITCH WIRE


(16) BRAKE/TAILLIGHT WIRE
(17) GROUND WIRE
Less than 7mm (0.28 in)
(18) REAR BRAKELIGHT SWITCH WIRE
(19) REAR BRAKE HOSE

2. Frame/Body Panels/Exhaust System

Service Information	2-1	Front Cowl Disassembly/Assembly	2-6
Troubleshooting	2-1	Rear Fender B Removal/Installation	2-7
Side Cover Removal/Installation	2-2	Tail Cowl Removal/Installation	2-7
Seat Removal/Installation	2-2	Rear Fender A Removal/Installation	2-8
Side Fairing Removal/Installation	2-3	Exhaust System Removal/Installation	2-10
Front Cowl Removal/Installation	2-4	Fuel Tank Removal/Installation	2-11

Service Information

⚠ WARNING

- **Gasoline is extremely flammable and explosive under certain condition.**
- **Serious burns may result if the exhaust system is not allowed to cool before components are removed or serviced.**

- Work in a well ventilated area. Smoking or allowing flames or sparks in the working area or where gasoline is stored can cause a fire or explosion.
- This section covers removal and installation of the frame body panels, fuel tank and exhaust system.
- Frame body panel installation is in the reverse order of removal, unless noted otherwise.
  When removing the cover, be careful not to damage any tab or groove of a cover.
- Always replace the exhaust pipe gaskets when removing the exhaust pipe from the engine.
- When installing the exhaust pipe, install all the fasteners loosely. Always tighten the exhaust clamps first, then tighten the mounting fasteners. If you tighten the mounting fasteners first, the exhaust pipe may not seat properly.
- Always inspect the exhaust system for leaks after installation.

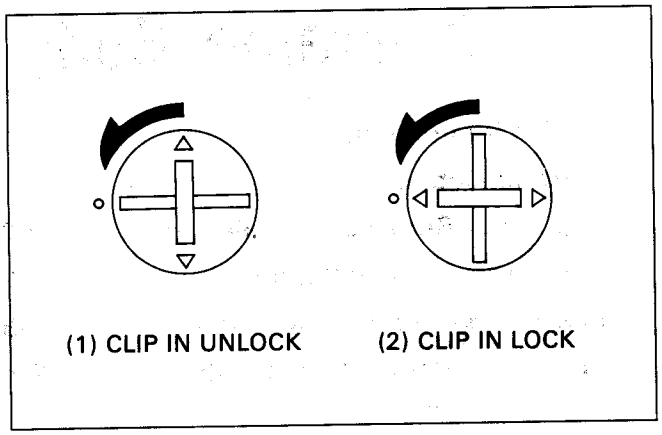
Troubleshooting

Excessive Exhaust Noise
- Broken exhaust system
- Exhaust gas leak

Poor Performance
- Deformed exhaust system
- Exhaust gas leak
- Cologged muffler

Side Cover Removal/Installation

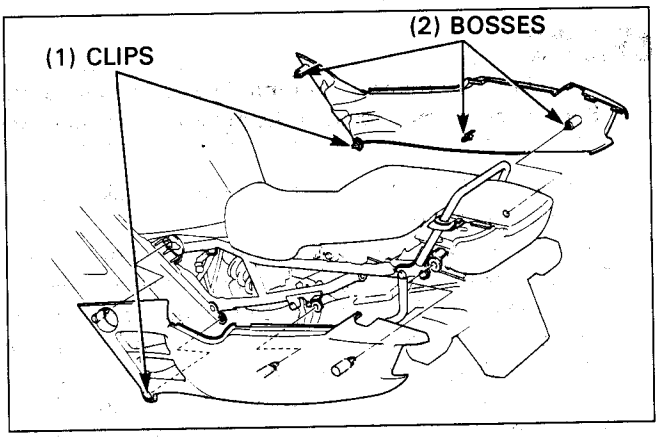
Unlock the clips by aligning the long slit with the punch mark.



Remove the side cover by releasing the bosses on the cover from the grommets.

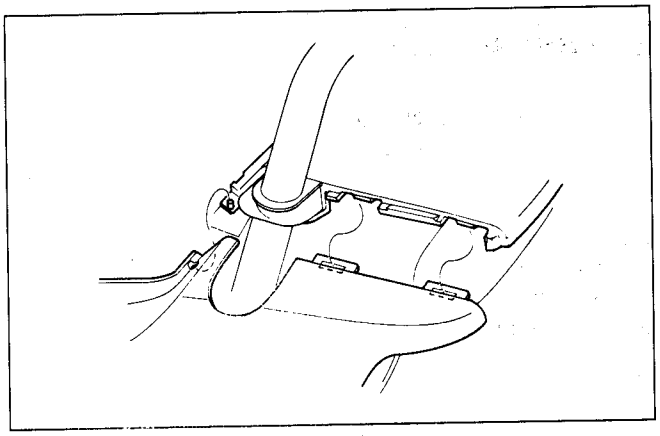
CAUTION

- **Be careful not to break the pins, tabs and slits of the side cover and tail cowl when removing the side cover.**



Install the side cover aligning its bosses with the grommets and engage the tabs with the slits, and pins with the holes securely as shown.

Lock the clip by aligning the "△" mark with the punch mark. Do the same on the other side.

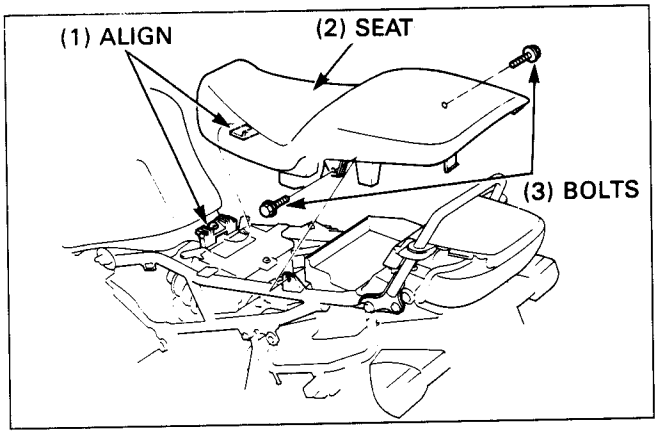


Seat Removal/Installation

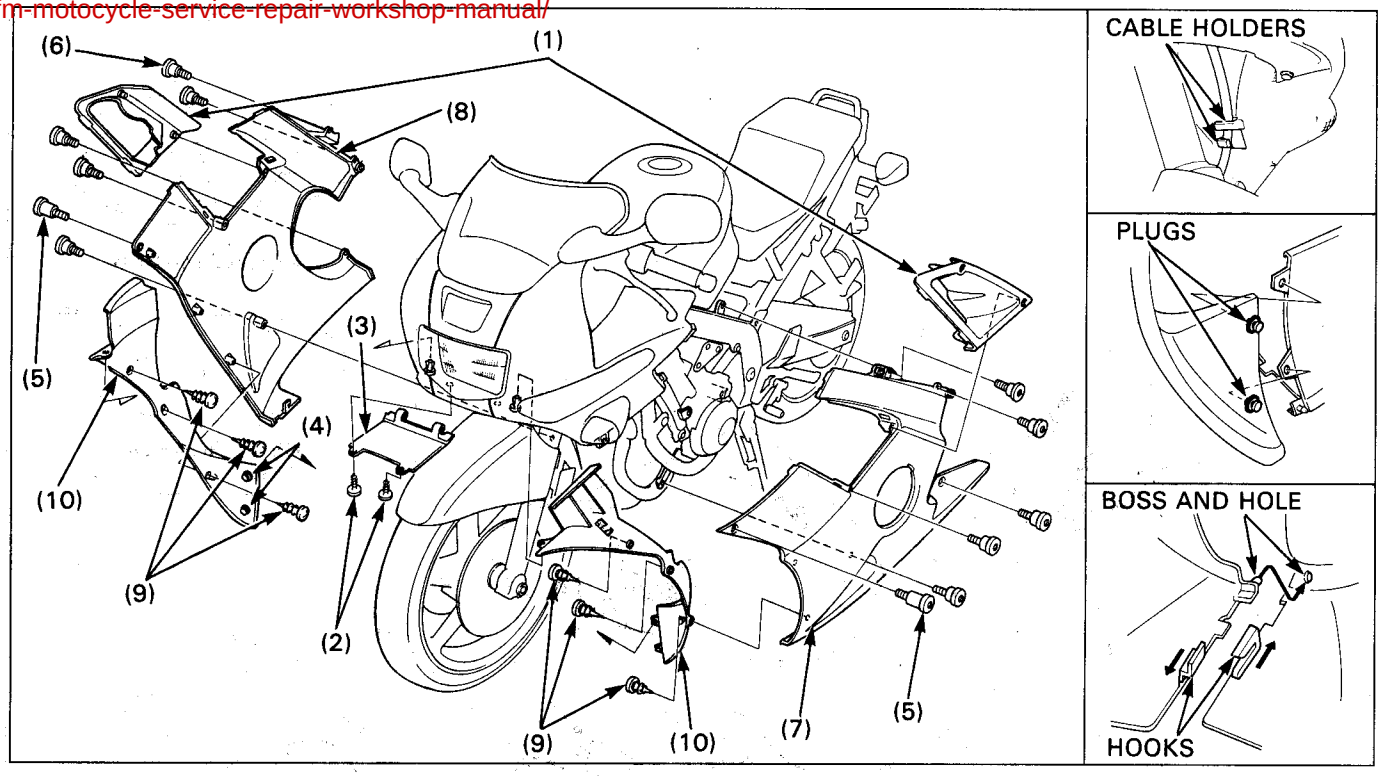
Remove the side covers.

Remove the seat by removing the bolts and sliding the seat back.

Install the seat in the reverse order of removal and install the side covers.



Side Fairing Removal/Installation



Requisite Service

- Side cover removal/installation(page 2-2)

	Procedure	Q'ty	Remarks
	Removal Order		Installation is in the reverse order of removal.
(1)	Maintenance lid	2	
(2)	Tapping screw	2	
(3)	Headlight under lid	1	Release the claws from the front cowl stay. Be careful not to break off the claws.
(4)	Retaining plug	2	
(5)	Hex bolt(long)	2	
(6)	Hex bolt(short)	10	
(7)	Left side fairing	1	NOTE • Separrate the left side fairing from the right one by disengaging the hooks on the bottoms of the fairings. • When assembling the side fairings, align the boss on the left side fairing with the hole in the right one. • Left and right side fairings can be removed without removing the side fairing inner covers.
(8)	Right side fairing	1	Replace the speedometer cable from the cable holder on the inner cover.
(9)	Tapping screw	6	
(10)	Side fairing inner cover(right/left)	1/1	