

Product: 2004 Suzuki GSX-R750 Motorcycle Service Repair Workshop Manual
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SUZUKI

GSX-R750

SERVICE MANUAL



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FOREWORD

This manual contains an introductory description on the SUZUKI GSX-R750 and procedures for its inspection/service and overhaul of its main components.

Other information considered as generally known is not included.

Read the GENERAL INFORMATION section to familiarize yourself with the motorcycle and its maintenance. Use this section as well as other sections to use as a guide for proper inspection and service.

This manual will help you know the motorcycle better so that you can assure your customers of fast and reliable service.

* This manual has been prepared on the basis of the latest specifications at the time of publication. If modifications have been made since then, differences may exist between the content of this manual and the actual motorcycle.

* Illustrations in this manual are used to show the basic principles of operation and work procedures. They may not represent the actual motorcycle exactly in detail.

* This manual is written for persons who have enough knowledge, skills and tools, including special tools, for servicing SUZUKI motorcycles. If you do not have the proper knowledge and tools, ask your authorized SUZUKI motorcycle dealer to help you.

▲ WARNING

Inexperienced mechanics or mechanics without the proper tools and equipment may not be able to properly perform the services described in this manual.

Improper repair may result in injury to the mechanic and may render the motorcycle safe for the rider and passenger.

SUZUKI MOTOR CORPORATION

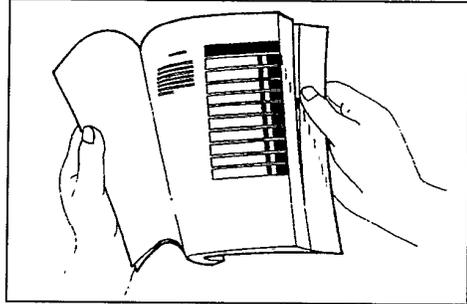
RIGHT SUZUKI MOTOR CORPORATION 2004

GROUP INDEX

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HOW TO USE THIS MANUAL TO LOCATE WHAT YOU ARE LOOKING FOR:

1. The text of this manual is divided into sections.
2. The section titles are listed in the GROUP INDEX.
3. Holding the manual as shown at the right will allow you to find the first page of the section easily.
4. The contents are listed on the first page of each section to help you find the item and page you need.



COMPONENT PARTS AND WORK TO BE DONE

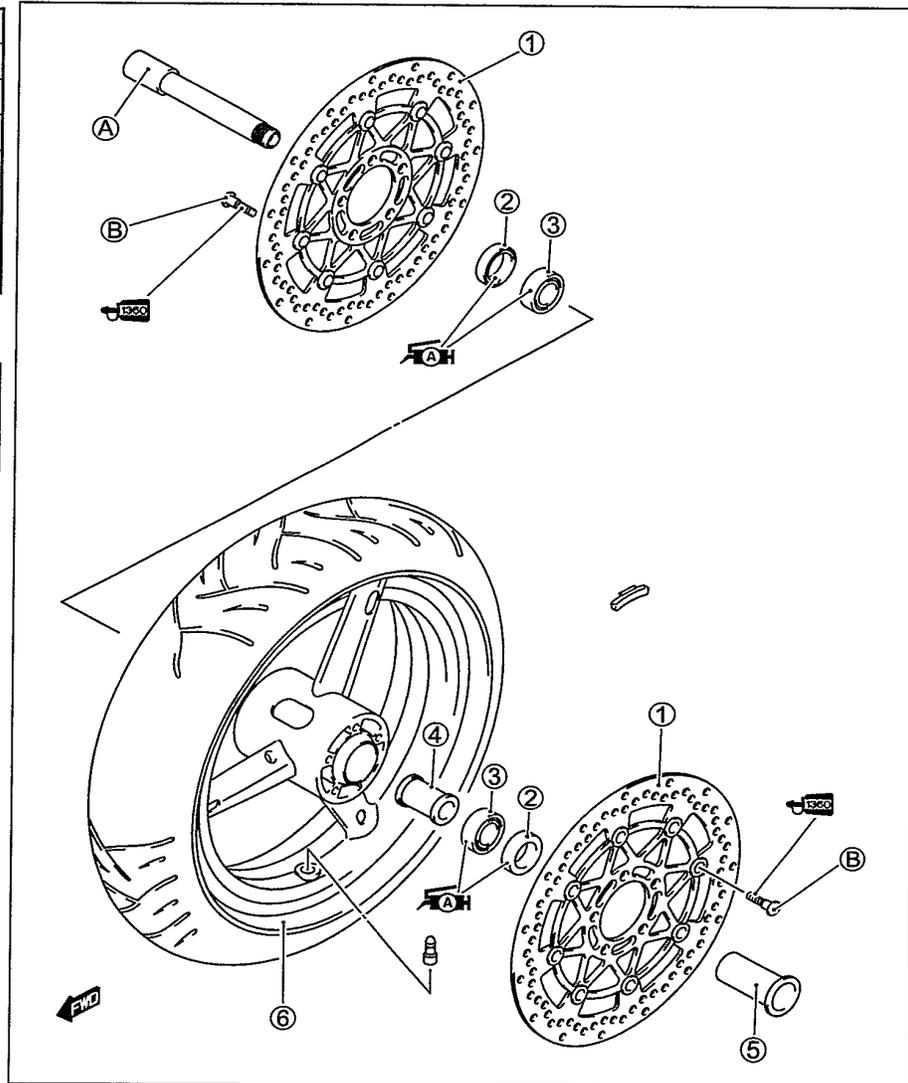
Under the name of each system or unit, is its exploded view. Work instructions and other service information such as the tightening torque, lubricating points and locking agent points, are provided.

Example: Front wheel

| | |
|-----|-------------------------|
| ① | Brake disc |
| ② | Dust seal |
| ③ | Bearing |
| ④ | Spacer |
| ⑤ | Spacer nut |
| ⑥ | Front wheel |
| (A) | Front axle |
| (B) | Brake disc bolt (Front) |

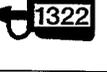
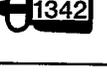


| ITEM | N-m | kgf-m | lb-ft |
|------|-----|-------|-------|
| (A) | 100 | 10.0 | 72.5 |
| (B) | 23 | 2.3 | 16.5 |



SYMBOL

Listed in the table below are the symbols indicating instructions and other information necessary for servicing. The meaning of each symbol is also included in the table.

| SYMBOL | DEFINITION | SYMBOL | DEFINITION |
|---|---|---|---|
|  | Torque control required. Data beside it indicates specified torque. |  | Apply THREAD LOCK SUPER "1360". 99000-32130 |
|  | Apply oil. Use engine oil unless otherwise specified. |  | Use engine coolant. 99000-99032-11X (Except USA) |
|  | Apply molybdenum oil solution. (Mixture of engine oil and SUZUKI MOLY PASTE in a ratio of 1:1) |  | Use fork oil. 99000-59056-SS5 |
|  | Apply SUZUKI SUPER GREASE "A". 99000-25010 (Others) 99000-25030 (USA) |  | Apply or use brake fluid. |
|  | Apply SUZUKI MOLY PASTE. 99000-25140 |  | Measure in voltage range. |
|  | Apply SUZUKI SILICONE GREASE. 99000-25100 |  | Measure in current range. |
|  | Apply SUZUKI BOND "1215". 99000-31110 (Except USA) |  | Measure in resistance range. |
|  | Apply SUZUKI BOND "1207B". 99104-31140 (USA) 99000-31140 (Others) |  | Measure in diode test range. |
|  | Apply THREAD LOCK SUPER "1303". 99000-32030 |  | Measure in continuity test range. |
|  | Apply THREAD LOCK SUPER "1322". 99000-32110 (Except USA) |  | Use special tool. |
|  | Apply THREAD LOCK "1342". 99000-32050 |  | Indication of service data. |

ABBREVIATIONS USED IN THIS MANUAL

A

ABDC : After Bottom Dead Center
AC : Alternating Current
ACL : Air Cleaner, Air Cleaner Box
API : American Petroleum Institute
ATDC : After Top Dead Center
ATM Pressure: Atmospheric Pressure
 : Atmospheric Pressure sensor
 (APS, AP Sensor)
A/F : Air Fuel Mixture

B

BBDC : Before Bottom Dead Center
BTDC : Before Top Dead Center
B+ : Battery Positive Voltage

C

CKP Sensor : Crankshaft Position Sensor
 (CKPS)
CKT : Circuit
CLP Switch : Clutch Lever Position Switch
 (Clutch Switch)
CMP Sensor : Camshaft Position Sensor
 (CMPS)
CO : Carbon Monoxide
CPU : Central Processing Unit

D

DC : Direct Current
DMC : Dealer Mode Coupler
DOHC : Double Over Head Camshaft
DRL : Daytime Running Light

E

ECM : Engine Control Module
 Engine Control Unit (ECU)
 (FI Control Unit)
ECT Sensor : Engine Coolant Temperature
 Sensor (ECTS), Water Temp.
 Sensor (WTS)
EVAP : Evaporative Emission
EVAP Canister: Evaporative Emission
 Canister (Canister)

F

FI : Fuel Injection, Fuel Injector
FP : Fuel Pump
FPR : Fuel Pressure Regulator
FP Relay : Fuel Pump Relay

G

GEN : Generator
GND : Ground
GP Switch : Gear Position Switch

H

HC : Hydrocarbons

I

IAP Sensor : Intake Air Pressure Sensor (IAPS)
IAT Sensor : Intake Air Temperature Sensor
 (IATS)
IG : Ignition

L

LCD : Liquid Crystal Display
LED : Light Emitting Diode
 (Malfunction Indicator Lamp)
LH : Left Hand

M

MAL-Code : Malfunction Code
(Diagnostic Code)
Max : Maximum
MIL : Malfunction Indicator Lamp
(LED)
Min : Minimum

N

NOX : Nitrogen Oxides

O

OHC : Over Head Camshaft
OPS : Oil Pressure Switch

P

PCV : Positive Crankcase
Ventilation (Crankcase Breather)

R

RH : Right Hand
ROM : Read Only Memory

S

SAE : Society of Automotive Engineers
SDS : Suzuki Diagnosis System
STC System : Secondary Throttle Control System
(STCS)
STP Sensor : Secondary Throttle Position Sensor
(STPS)
ST Valve : Secondary Throttle Valve (STV)
STV Actuator : Secondary Throttle Valve Actuator
(STVA)

T

TO Sensor : Tip-Over Sensor (TOS)
TP Sensor : Throttle Position Sensor (TPS)

SAE-TO-FORMER SUZUKI TERM

This table lists SAE (Society of Automotive Engineers) J1930 terms and abbreviations which may be used in this manual in compliance with SAE recommendations, as well as their former SUZUKI names.

| SAE TERM | | FORMER SUZUKI TERM |
|-------------------------------|---------------|---|
| FULL TERM | ABBREVIATION | |
| A | | |
| Air Cleaner | ACL | Air Cleaner, Air Cleaner Box |
| B | | |
| Barometric Pressure | BARO | Barometric Pressure, Atmospheric Pressure (APS, AP Sensor) |
| Battery Positive Voltage | B+ | Battery Voltage, +B |
| C | | |
| Camshaft Position Sensor | CMP Sensor | Camshaft Position Sensor (CMPS) |
| Crankshaft Position Sensor | CKP Sensor | Crankshaft Position Sensor (CKPS), Crank Angle |
| D | | |
| Data Link Connector | DLC | Dealer Mode Coupler |
| Diagnostic Test Mode | DTM | — |
| Diagnostic Trouble Code | DTC | Diagnostic Code, Malfunction Code |
| E | | |
| Electronic Ignition | EI | — |
| Engine Control Module | ECM | Engine Control Module (ECM) FI Control Unit, Engine Control Unit (ECU) |
| Engine Coolant Level | ECL | Coolant Level |
| Engine Coolant Temperature | ECT | Coolant Temperature, Engine Coolant Temperature Water Temperature |
| Engine Speed | RPM | Engine Speed (RPM) |
| Evaporative Emission | EVAP | Evaporative Emission |
| Evaporative Emission Canister | EVAP Canister | — (Canister) |
| F | | |
| Fan Control | FC | — |
| Fuel Level Sensor | — | Fuel Level Sensor, Fuel Level Gauge |
| Fuel Pump | FP | Fuel Pump (FP) |
| G | | |
| Generator | GEN | Generator |
| Ground | GND | Ground (GND, GRD) |

| SAE TERM | | FORMER SUZUKI TERM |
|-----------------------------------|--------------|---|
| FULL TERM | ABBREVIATION | |
| I | | |
| Idle Speed Control | ISC | — |
| Ignition Control | IC | Electronic Spark Advance (ESA) |
| Ignition Control Module | ICM | — |
| Intake Air Temperature | IAT | Intake Air Temperature (IAT), Air Temperature |
| M | | |
| Malfunction Indicator Lamp | MIL | LED Lamp Malfunction Indicator Lamp (MIL) |
| Manifold Absolute Pressure | MAP | Intake Air Pressure (IAP), Intake Vacuum |
| Mass Air Flow | MAF | Air Flow |
| O | | |
| On-Board Diagnostic | OBD | Self-Diagnosis Function Diagnostic |
| Open Loop | OL | — |
| P | | |
| Programmable Read Only Memory | PROM | — |
| Pulsed Secondary Air Injection | PAIR | Pulse Air Control (PAIR) |
| Purge Valve | Purge Valve | Purge Valve (SP Valve) |
| R | | |
| Random Access Memory | RAM | — |
| Read Only Memory | ROM | ROM |
| S | | |
| Secondary Air Injection | AIR | — |
| Secondary Throttle Control System | STCS | STC System (STCS) |
| Secondary Throttle Valve | STV | ST Valve (STV) |
| Secondary Throttle Valve Actuator | STVA | STV Actuator (STVA) |
| T | | |
| Throttle Body | TB | Throttle Body (TB) |
| Throttle Body Fuel Injection | TBI | Throttle Body Fuel Injection (TBI) |
| Throttle Position Sensor | TP Sensor | TP Sensor (TPS) |
| Tank Pressure Control Valve | TPC Valve | TPC Valve |
| V | | |
| Voltage Regulator | VR | Voltage Regulator |
| Volume Air Flow | VAF | Air Flow |

WIRE COLOR

| | | | | | |
|----|--------------|-----|---------------|---|----------|
| B | : Black | Gr | : Gray | R | : Red |
| Bl | : Blue | Lbl | : Light blue | W | : White |
| Br | : Brown | Lg | : Light green | Y | : Yellow |
| Dg | : Dark green | O | : Orange | | |
| G | : Green | P | : Pink | | |

| | | | |
|------|-----------------------------|------|---------------------------------|
| B/Bl | : Black with Blue tracer | B/Br | : Black with Brown tracer |
| B/G | : Black with Green tracer | B/Lg | : Black with Light green tracer |
| B/R | : Black with Red tracer | B/W | : Black with White tracer |
| B/Y | : Black with Yellow tracer | Bl/B | : Blue with Black tracer |
| Bl/G | : Blue with Green tracer | Bl/R | : Blue with Red tracer |
| Bl/W | : Blue with White tracer | Bl/Y | : Blue with Yellow tracer |
| G/B | : Green with Black tracer | G/Bl | : Green with Blue tracer |
| G/W | : Green with White tracer | G/Y | : Green with Yellow tracer |
| Gr/B | : Gray with Black tracer | Gr/R | : Gray with Red tracer |
| Gr/W | : Gray with White tracer | Gr/Y | : Gray with Yellow tracer |
| O/B | : Orange with Black tracer | O/G | : Orange with Green tracer |
| O/R | : Orange with Red tracer | O/W | : Orange with White tracer |
| O/Y | : Orange with Yellow tracer | P/B | : Pink with Black tracer |
| P/W | : Pink with White tracer | R/B | : Red with Black tracer |
| R/Bl | : Red with Blue tracer | R/W | : Red with White tracer |
| W/B | : White with Black tracer | W/Bl | : White with Blue tracer |
| W/R | : White with Red tracer | Y/B | : Yellow with Black tracer |
| Y/Bl | : Yellow with Blue tracer | Y/G | : Yellow with Green tracer |
| Y/R | : Yellow with Red tracer | Y/W | : Yellow with White tracer |

GENERAL INFORMATION**1****CONTENTS**

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WARNING/CAUTION/NOTE

Please read this manual and follow its instructions carefully. To emphasize special information, the symbol and the words WARNING, CAUTION and NOTE have special meanings. Pay special attention to the messages highlighted by these signal words.

⚠ WARNING

Indicates a potential hazard that could result in death or injury.

CAUTION

Indicates a potential hazard that could result in motorcycle damage.

NOTE:

Indicates special information to make maintenance easier or instructions clearer.

Please note, however, that the warnings and cautions contained in this manual cannot possibly cover all potential hazards relating to the servicing, or lack of servicing, of the motorcycle. In addition to the WARNINGS and CAUTIONS stated, you must use good judgement and basic mechanical safety principles. If you are unsure about how to perform a particular service operation, ask a more experienced mechanic for advice.

GENERAL PRECAUTIONS

⚠ WARNING

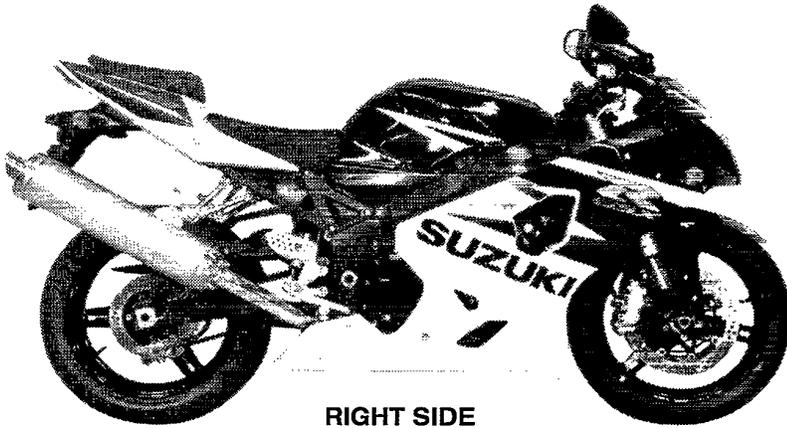
- * Proper service and repair procedures are important for the safety of the service mechanic and the safety and reliability of the motorcycle.
- * When 2 or more persons work together, pay attention to the safety of each other.
- * When it is necessary to run the engine indoors, make sure that exhaust gas is forced outdoors.
- * When working with toxic or flammable materials, make sure that the area you work in is well-ventilated and that you follow all of the material manufacturer's instructions.
- * Never use gasoline as a cleaning solvent.
- * To avoid getting burned, do not touch the engine, engine oil, radiator and exhaust system until they have cooled.
- * After servicing the fuel, oil, water, exhaust or brake systems, check all lines and fittings related to the system for leaks.

CAUTION

- * If parts replacement is necessary, replace the parts with Suzuki Genuine Parts or their equivalent.
- * When removing parts that are to be reused, keep them arranged in an orderly manner so that they may be reinstalled in the proper order and orientation.
- * Be sure to use special tools when instructed.
- * Make sure that all parts used in reassembly are clean. Lubricate them when specified.
- * Use the specified lubricant, bond, or sealant.
- * When removing the battery, disconnect the negative cable first and then the positive cable.
- * When reconnecting the battery, connect the positive cable first and then the negative cable, and replace the terminal cover on the positive terminal.
- * When performing service to electrical parts, if the service procedures not require use of battery power, disconnect the negative cable the battery.
- * When tightening the cylinder head and case bolts and nuts, tighten the larger sizes first. Always tighten the bolts and nuts diagonally from the inside toward outside and to the specified tightening torque.
- * Whenever you remove oil seals, gaskets, packing, O-rings, locking washers, self-locking nuts, cotter pins, circlips and certain other parts as specified, be sure to replace them with new ones. Also, before installing these new parts, be sure to remove any left over material from the mating surfaces.
- * Never reuse a circlip. When installing a new circlip, take care not to expand the end gap larger than required to slip the circlip over the shaft. After installing a circlip, always ensure that it is completely seated in its groove and securely fitted.
- * Use a torque wrench to tighten fasteners to the specified torque. Wipe off grease and oil if a thread is smeared with them.
- * After reassembling, check parts for tightness and proper operation.

- * To protect the environment, do not unlawfully dispose of used motor oil, engine coolant and other fluids: batteries, and tires.
- * To protect Earth's natural resources, properly dispose of used motorcycle and parts.

SUZUKI GSX-R750K4 ('04-MODEL)



RIGHT SIDE

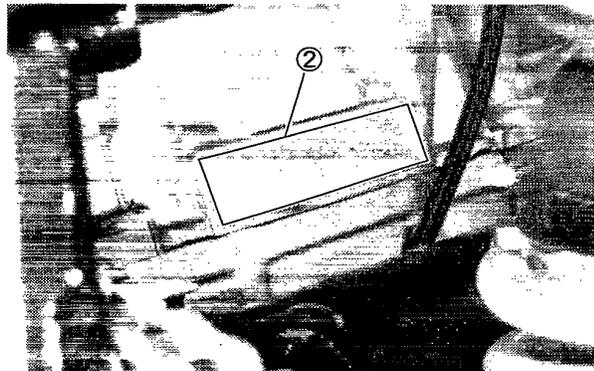
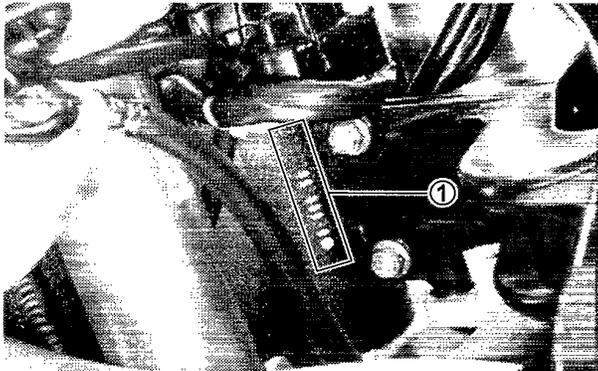


LEFT SIDE

- Difference between photograph and actual motorcycle may exist depending on the markets.

SERIAL NUMBER LOCATION

The frame serial number or V.I.N. (Vehicle Identification Number) ① is stamped on the right side of the steering head pipe. The engine serial number ② is located on the rear side of the crankcase. These numbers are required especially for registering the machine and ordering spare parts.



FUEL, OIL AND ENGINE COOLANT RECOMMENDATION

FUEL (FOR USA AND CANADA)

Use only unleaded gasoline of at least 90 pump octane (R/2 + M/2).

Gasoline containing MTBE (Methyl Tertiary Butyl Ether), less than 10 % ethanol, or less than 5 % methanol with appropriate cosolvents and corrosion inhibitor is permissible.

FUEL (FOR OTHER COUNTRIES)

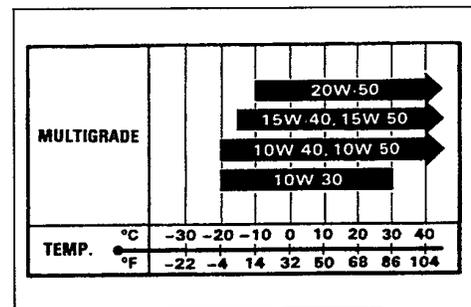
Gasoline used should be graded 95 octane (Research Method) or higher. An unleaded gasoline is recommended.

ENGINE OIL (FOR USA)

SUZUKI recommends the use of SUZUKI PERFORMANCE 4 MOTOR OIL or an oil which is rated SF or SG under the API (American Petroleum Institute) service classification. The recommended viscosity is SAE 10W-40. If an SAE 10W-40 oil is not available, select an alternative according to the following chart.

ENGINE OIL (FOR OTHER COUNTRIES)

Use a premium quality 4-stroke motor oil to ensure longer service life of your motorcycle. Use only oils which are rated SF or SG under the API service classification. The recommended viscosity is SAE 10W-40. If an SAE 10W-40 motor oil is not available, select an alternative according to the right chart.



BRAKE FLUID

Specification and classification: DOT 4

⚠ WARNING

Since the brake system of this motorcycle is filled with a glycol-based brake fluid by the manufacturer, do not use or mix different types of fluid such as silicone-based and petroleum-based fluid for refilling the system, otherwise serious damage will result.

Do not use any brake fluid taken from old or used or unsealed containers.

Never re-use brake fluid left over from a previous servicing, which has been stored for a long period.

FRONT FORK OIL

Use fork oil SS-05 or an equivalent fork oil.

ENGINE COOLANT

Use an anti-freeze/engine coolant compatible with an aluminum radiator, mixed with distilled water only.

WATER FOR MIXING

Use distilled water only. Water other than distilled water can corrode and clog the aluminum radiator.

ANTI-FREEZE/ENGINE COOLANT

The engine coolant perform as a corrosion and rust inhibitor as well as anti-freeze. Therefore, the engine coolant should be used at all times even though the atmospheric temperature in your area does not go down to freezing point.

Suzuki recommends the use of SUZUKI COOLANT anti-freeze/engine coolant. If this is not available, use an equivalent which is compatible with an aluminum radiator.

LIQUID AMOUNT OF WATER/ENGINE COOLANT

Solution capacity (total): Approx. 3 150 ml (3.3/2.8 US/Imp qt)

For engine coolant mixture information, refer to cooling system section, page 7-2

CAUTION

Mixing of anti-freeze/engine coolant should be limited to 60 %. Mixing beyond it would reduce its efficiency. If the anti-freeze/engine coolant mixing ratio is below 50 %, rust inhabiting performance is greatly reduced. Be sure to mix it above 50 % even though the atmospheric temperature does not go down to the freezing point.

BREAK-IN PROCEDURES

During manufacture only the best possible materials are used and all machined parts are finished to a very high standard but it is still necessary to allow the moving parts to "BREAK-IN" before subjecting the engine to maximum stresses. The future performance and reliability of the engine depends on the care and restraint exercised during its early life. The general rules are as follows.

- Keep to these break-in engine speed limits:

Initial 800 km (500 miles): Below 7 000 r/min

Up to 1 600 km (1 000 miles): Below 10 500 r/min

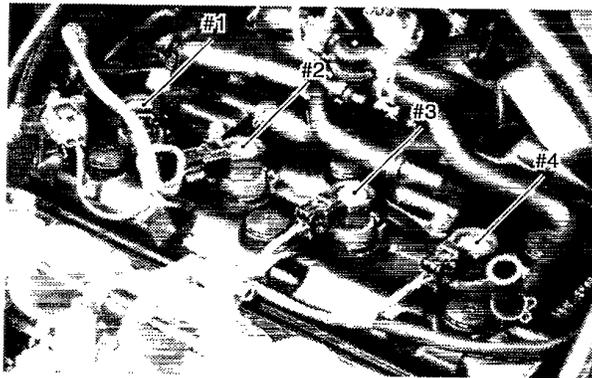
Over to 1 600 km (1 000 miles): Below 14 000 r/min

- Upon reaching an odometer reading of 1 600 km (1 000 miles) you can subject the motorcycle to full throttle operation.

However, do not exceed 14 000 r/min at any time.

CYLINDER IDENTIFICATION

The four cylinders of this engine are identified as No.1, No.2, No.3 and No.4 cylinder, as counted from left to right (as viewed by the rider on the seat.)



INFORMATION LABELS

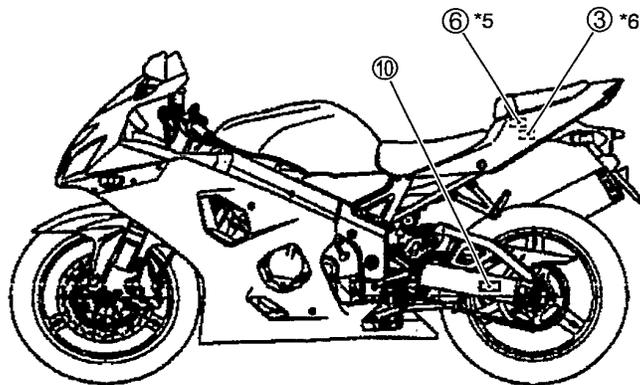
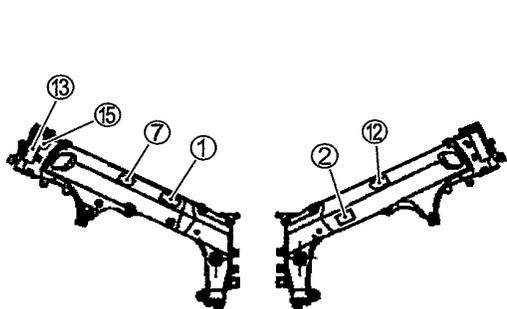
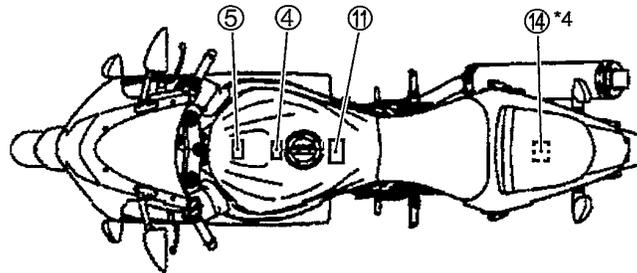
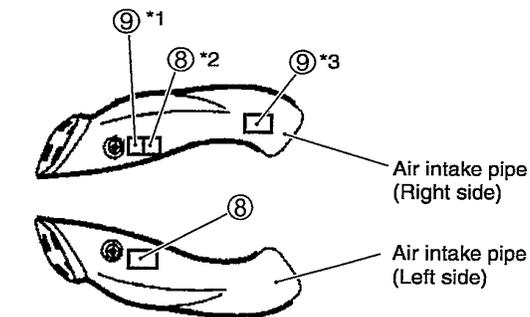
| | GSX-R750 | GSX-R750UF |
|-----------------------------|-------------------------|--------------|
| ① Noise label | A (For E-03, 24, 33) | |
| ② Information label | A (For E-03, 28, 33) | |
| ③ Vacuum hose routing label | A (For E-33) | |
| ④ Fuel caution label | A (For E-02, 24) | |
| ⑤ Fuel information label | A | A |
| ⑥ Manual notice label | A (For E-03, 33) | |
| ⑦ Frame caution plate | A | A |
| ⑧ Warning screen label | A | A |
| ⑨ Warning steering label | A | A |
| ⑩ Tire air pressure label | A | A |
| ⑪ Warning safety label | A | A |
| ⑫ ICES Canada label | A (For E-28) | |
| ⑬ ID plate | A (Except E-03, 28, 33) | A |
| ⑭ E-19 ID label | | A (For E-19) |
| ⑮ Safety plate | A (For E-03, 28, 33) | |

A: Attached

*1: Except for E-28 *2: For E-28 (French) *3: For E-28

*4: This label is attached on the rear fender. *5: This label is attached on the right side of rear fender.

*6: This label is attached on the left side of rear fender.



SPECIFICATIONS

DIMENSIONS AND DRY MASS

| | |
|------------------------|-----------------------------|
| Overall length | 2 055 mm (80.9 in) |
| Overall width | 715 mm (28.1 in) |
| Overall height | 1 150 mm (45.3 in) |
| Wheelbase | 1 400 mm (55.1 in) |
| Ground clearance | 135 mm (5.3 in) |
| Seat height | 825 mm (32.5 in) |
| Dry mass | 164 kg (361 lbs).....E-33 |
| | 163 kg (359 lbs).....Others |

ENGINE

| | |
|---------------------------|----------------------------------|
| Type | Four stroke, liquid-cooled, DOHC |
| Number of cylinders | 4 |
| Bore | 72.0 mm (2.834 in) |
| Stroke | 46.0 mm (1.811 in) |
| Displacement | 749 cm ³ (45.7 cu.in) |
| Compression ratio | 12.3:1 |
| Fuel system | Fuel injection |
| Air cleaner | Paper element |
| Starter system | Electric |
| Lubrication system | Wet sump |
| Idle speed | 1 200 ± 100 r/min |

DRIVE TRAIN

| | |
|-------------------------------|-----------------------|
| Clutch | Wet multi-plate type |
| Transmission | 6-speed constant mesh |
| Gearshift pattern | 1-down, 5-up |
| Primary reduction ratio | 1.857 (78/42) |
| Gear ratios, Low | 2.785 (39/14) |
| 2nd | 2.052 (39/19) |
| 3rd | 1.681 (37/22) |
| 4th | 1.450 (29/20) |
| 5th | 1.304 (30/23) |
| Top | 1.181 (26/22) |
| Final reduction ratio | 2.529 (43/17) |
| Drive chain | RK525ROZ5, 110 links |

CHASSIS

| | |
|------------------------|--|
| Front suspension | Inverted telescopic, coil spring, oil damped |
| Rear suspension | Link type, coil spring, oil damped |
| Front fork stroke..... | 120 mm (4.7 in) |
| Rear wheel travel..... | 130 mm (5.1 in) |
| Steering angle..... | 27 ° |
| Caster | 23.15 ° |
| Trail | 93 mm (3.7 in) |
| Turning radius..... | 3.4 m (11.2 ft) |
| Front brake..... | Disc brake, twin |
| Rear brake | Disc brake |
| Front tire size | 120/70 ZR 17 M/C (58 W), tubeless |
| Rear tire size..... | 180/55 ZR 17 M/C (73 W), tubeless |

ELECTRICAL

| | |
|---|--|
| Ignition type..... | Electronic ignition (Transistorized) |
| Ignition timing..... | 8 ° B.T.D.C.at 1 200 r/min |
| Spark plug..... | NGK CR9E or DENSO U27ESR-N |
| Battery..... | 12 V 36.0 kC (10 Ah)/10 HR |
| Generator..... | Three-phase A.C. generator |
| Main fuse | 30 A |
| Fuse | 15/10/10/10/10/10 A E-02, 19 |
| | 15/15/10/10/10/10 A E-03, 24, 28, 33 |
| Headlight..... | 12 V 55 W H7 Lower Bulb |
| | 12 V 60/55 W H4 Upper Bulb |
| Turn signal light..... | 12 V 18 W |
| License plate light | 12 V 5 W |
| Brake light/Taillight..... | LED |
| Speedometer light..... | LED |
| Tachometer light | LED |
| Neutral indicator light | LED |
| High beam indicator light | LED |
| Turn signal indicator light..... | LED |
| Position light..... | 12 V 5 W E-02, 19 |
| Oil pressure/Coolant temperature/FI indicator light | LED |
| Fuel level indicator light | LED |
| Engine RPM indicator light..... | LED |

CAPACITIES

| | |
|------------------------------------|---|
| Fuel tank, including reserve | 16.5 L (4.4/3.6 US/Imp gal)E-33 |
| | 17.0 L (4.5/3.7 US/Imp gal)Others |
| Engine oil,oil change..... | 2 800 ml (3.0/2.5 US/Imp qt) |
| with filter change | 3 100 ml (3.3/2.7 US/Imp qt) |
| overhaul | 3 600 ml (3.8/3.2 US/Imp qt) |
| Coolant..... | 3.2 L (3.4/2.8 US/Imp qt) |

These specifications are subject to change without notice.

COUNTRY AND AREA CODES

The following codes stand for the applicable country (-ies) and area (-s).

| MODEL | CODE | COUNTRY or AREA |
|------------|------|--------------------------------|
| GSX-R750 | E-02 | U.K. |
| | E-03 | U.S.A. (Except for california) |
| | E-19 | EU |
| | E-24 | Australia |
| | E-28 | Canada |
| | E-33 | California (U.S.A.) |
| GSX-R750UF | E-19 | EU |



PERIODIC MAINTENANCE

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PERIODIC MAINTENANCE SCHEDULE

The chart below lists the recommended intervals for all the required periodic service work necessary to keep the motorcycle operating at peak performance and economy. Mileages are expressed in terms of kilometers, miles and time for your convenience.

IMPORTANT: The periodic maintenance intervals and service requirements have been established in accordance with EPA regulations. Following these instructions will ensure that the motorcycle will not exceed emission standards and it will also ensure the reliability and performance of the motorcycle.

NOTE:

More frequent servicing may be required on motorcycles that are used under severe conditions.

PERIODIC MAINTENANCE CHART

| Item | Interval | miles | 600 | 4 000 | 7 500 | 11 000 | 14 500 | |
|--|----------|---|-------|-------|--------|--------|--------|--|
| | | km | 1 000 | 6 000 | 12 000 | 18 000 | 24 000 | |
| | | months | 2 | 12 | 24 | 36 | 48 | |
| Air cleaner element | | — | | | R | | | |
| Spark plug | | — | | R | | R | | |
| Valve clearance | | — | — | — | — | | | |
| Engine oil | | R | R | R | R | R | | |
| Engine oil filter | | R | — | — | R | — | | |
| Fuel line | | — | | | | | | |
| | | Replace fuel hose every 4 years. | | | | | | |
| Idle speed | | | | | | | | |
| Throttle valve synchronization | | (E-33 only) | — | | — | | | |
| Evaporative emission control system (E-33 only) | | — | — | | — | | | |
| | | Replace vapor hose every 4 years. | | | | | | |
| PAIR (air supply) system | | — | — | | — | | | |
| Throttle cable play | | | | | | | | |
| Clutch cable play | | — | | | | | | |
| Radiator hose | | — | | | | | | |
| | | Replace every 4 years. | | | | | | |
| Engine coolant | | Replace every 2 years. | | | | | | |
| Drive chain | | | | | | | | |
| | | Clean and lubricate every 1 000 km (600 miles). | | | | | | |
| Brake | | | | | | | | |
| Brake hose | | — | | | | | | |
| | | Replace every 4 years. | | | | | | |

| Item | Interval | 600 | 4 000 | 7 500 | 11 000 | 14 500 |
|--|------------------------|-------|-------|--------|--------|--------|
| | miles | | | | | |
| | km | 1 000 | 6 000 | 12 000 | 18 000 | 24 000 |
| | months | 2 | 12 | 24 | 36 | 48 |
| Brake fluid | | — | | | | |
| | Replace every 2 years. | | | | | |
| Tire | | — | | | | |
| Steering | | | — | | — | |
| Front fork | | — | — | | — | |
| Rear suspension | | — | — | | — | |
| Exhaust pipe bolt and muffler bolt and nut | | T | — | T | — | T |
| Chassis bolt and nut | | T | T | T | T | T |

NOTE:

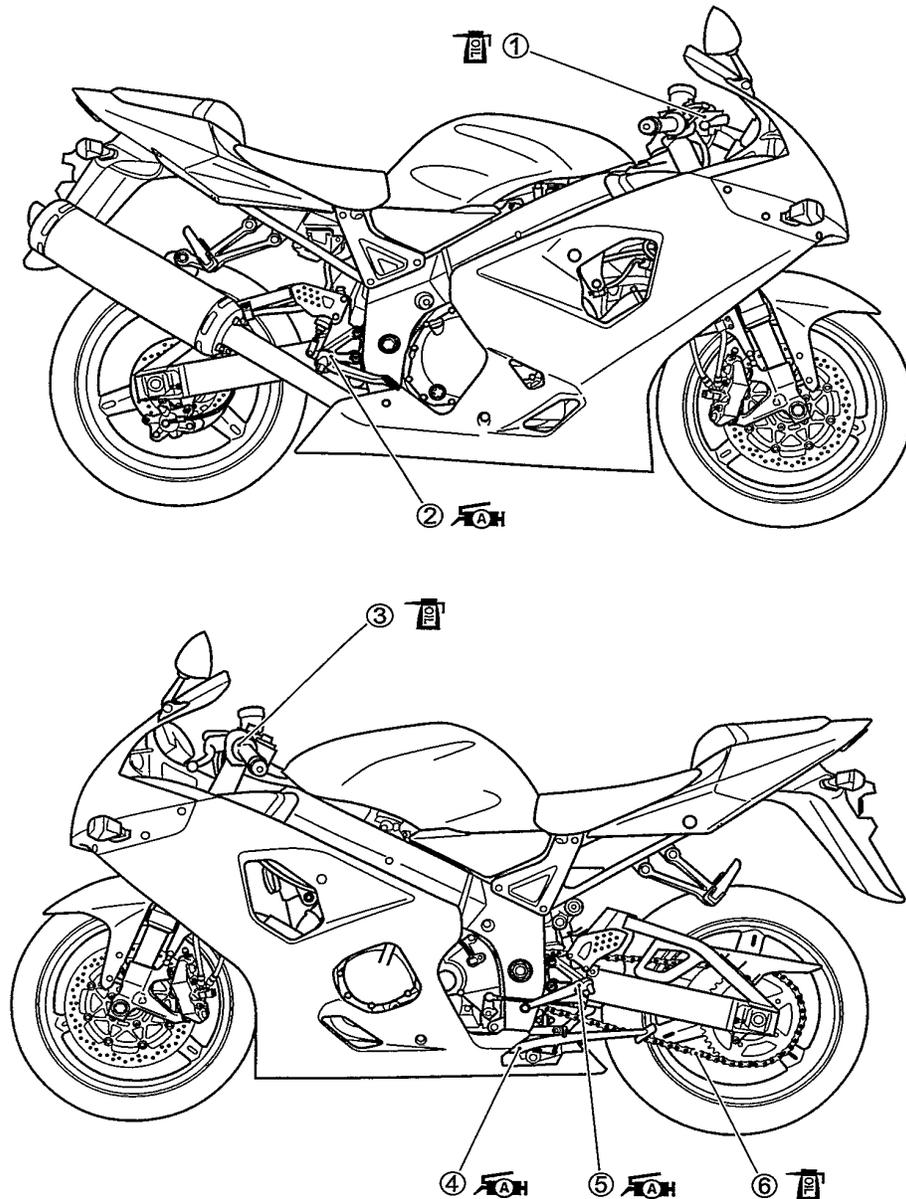
I=Inspect and clean, adjust, replace or lubricate as necessary;

R=Replace; T=Tighten

LUBRICATION POINTS

Proper lubrication is important for smooth operation and long life of each working part of the motorcycle. Major lubrication points are indicated below.

| | |
|---|--|
| ① | Brake lever holder |
| ② | Brake pedal pivot and footrest pivot |
| ③ | Clutch lever holder |
| ④ | Side-stand pivot and spring hook |
| ⑤ | Footrest pivot and gearshift lever pivot |
| ⑥ | Drive chain |



NOTE:

- * Before lubricating each part, clean off any rusty spots and wipe off any grease, oil, dirt or grime.
- * Lubricate exposed parts which are subject to rust, with a rust preventative spray whenever the motorcycle has been operated under wet or rainy conditions.

MAINTENANCE AND TUNE-UP PROCEDURES

This section describes the servicing procedures for each item of the Periodic Maintenance requirements.

AIR CLEANER

**Inspect every 6 000 km (4 000 miles, 12 months).
Replace every 18 000 km (11 000 miles, 36 months).**

- Remove the front seat. (☞ 8-6)
- Lift and support the fuel tank. (☞ 5-3)
- Remove the air cleaner box cover by removing the screws.
- Remove the air cleaner element.
- Inspect the air cleaner element for clogged.
If the air cleaner element is clogged with dust, replace the air cleaner element with a new one.

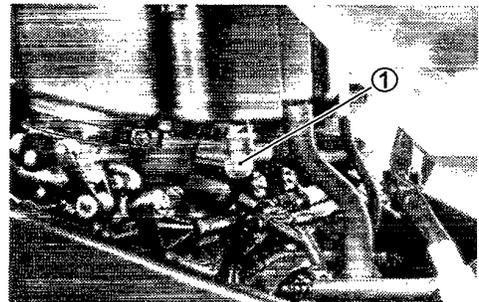
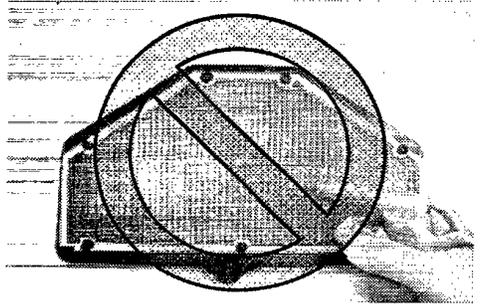
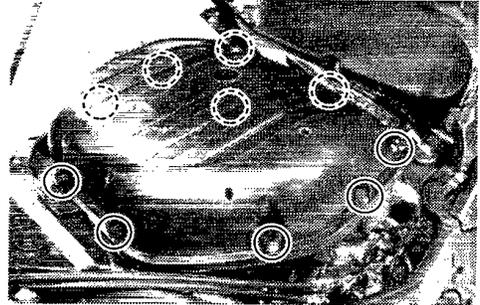
CAUTION

Do not blow the air cleaner element with a compressed air.

NOTE:

If driving under dusty conditions, replace the air cleaner element more frequently. Make sure that the air cleaner is in good condition at all times. The life of the engine depends largely on this component.

- Install a new air cleaner element in the reverse order of removal.
- Remove the drain plug ① from the air cleaner box to allow any water to drain out.



SPARK PLUG

Inspect every 6 000 km (4 000 miles, 12 months).
 Replace every 12 000 km (7 500 miles, 24 months).

SPARK PLUG AND IGNITION COIL/PLUG CAP REMOVAL

- Remove the front seat. (☞ 8-6)
- Lift and support the fuel tank. (☞ 5-3)
- Remove the air cleaner box. (☞ 5-14)
- Disconnect all lead wire couplers ① from ignition coil/plug caps.

CAUTION

Disconnect the lead wire coupler before removing the ignition coil/plug cap to avoid lead wire coupler damage.

- Remove the ignition coils/plug caps.

CAUTION

- * Do not pry up the ignition coil/plug cap with a screw driver or a bar to avoid its damage.
- * Be careful not to drop the ignition coil/plug cap to prevent short/open circuit.

- Remove the spark plugs with a spark plug wrench.

HEAT RANGE

- Check spark plug heat range by observing electrode color. If the electrode of the spark plug is wet appearing or dark color, replace the spark plug with hotter type one. If it is white or glazed appearing, replace the spark plug with colder type one.

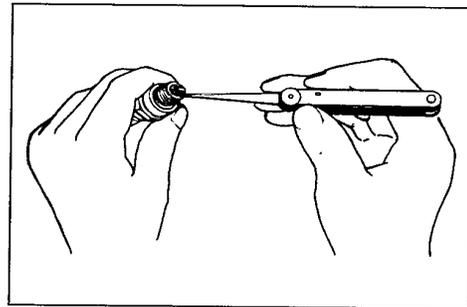
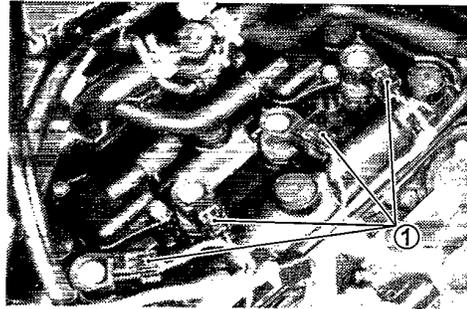
| | Hot type | Standard | Cold type |
|-------|----------|----------|-----------|
| NGK | CR8E | CR9E | CR10E |
| DENSO | U24ESR-N | U27ESR-N | U31ESR-N |

NOTE:

"R" type spark plug has a resistor located at the center electrode to prevent radio noise.

CARBON DEPOSITS

- Check carbon deposits on the spark plug.
- If carbon is deposited, remove it using a spark plug cleaner machine or carefully use a tool with a pointed end.



SPARK PLUG GAP

- Measure the spark plug gap with a thickness gauge.
- Adjust the spark plug gap if necessary.

DATA Spark plug gap:
 Standard: 0.7 – 0.8 mm (0.028 – 0.031 in)

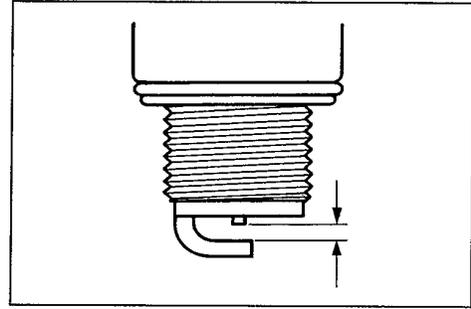
TOOL 09900-20803: Thickness gauge

ELECTRODE'S CONDITION

- Check the condition of the electrode.
- If it is extremely worn or burnt, replace the spark plug.
 Replace the spark plug if it has a broken insulator, damaged thread, etc.

CAUTION

Confirm the thread size and reach when replacing the plug. If the reach is too short, carbon will be deposited on the screw portion of the plug hole and engine damage may result.



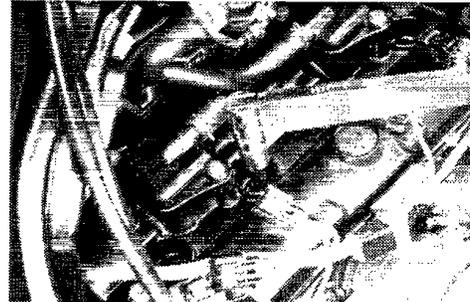
SPARK PLUG AND IGNITION COIL/PLUG CAP INSTALLATION

- Install the spark plugs to the cylinder head with fingers, and then tighten them to the specified torque.

🔧 Spark plug: 11 N·m (1.1 kgf·m, 8.0 lb·ft)

CAUTION

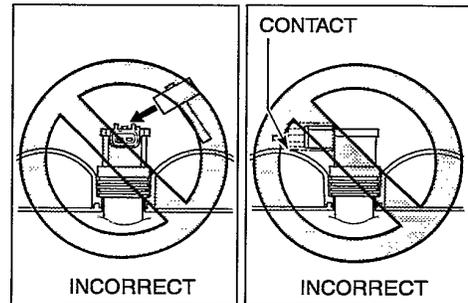
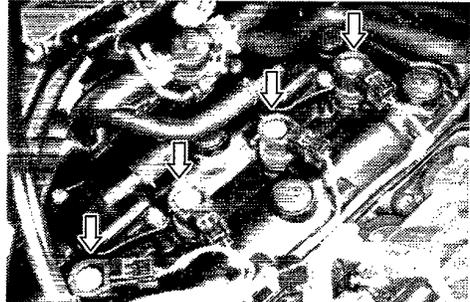
Do not cross thread or over tighten the spark plug, or the spark plug will damage the aluminum threads of the cylinder head.



- Install the ignition coils/plug caps and connect their lead wire couplers.

CAUTION

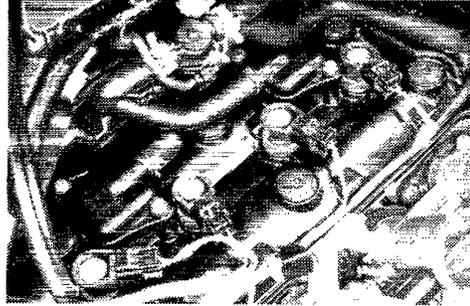
- * Do not hit the ignition coil/plug cap with a plastic hammer when installing it.
- * Place the ignition coil/spark plug cap so that the coupler does not touch the cylinder head cover.



VALVE CLEARANCE

Inspect every 24 000 km (14 500 miles, 48 months).

- Remove the right under cowling. (☞ 8-3)
- Remove the front seat. (☞ 8-6)
- Lift and support the fuel tank. (☞ 5-3)
- Remove the spark plugs. (☞ 2-6)
- Remove the cylinder head cover. (☞ 3-16)



The valve clearance specification is different for intake and exhaust valves. Valve clearance must be checked and adjusted, 1) at the time of periodic inspection, 2) when the valve mechanism is serviced, and 3) when the camshafts are removed for servicing.

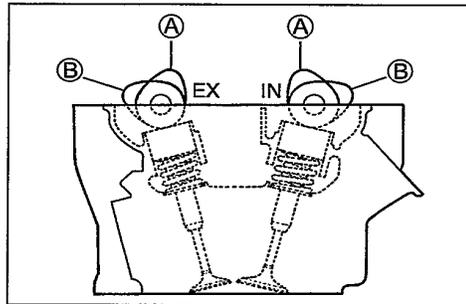
DATA Valve clearance (when cold):

Standard: IN. : 0.10 – 0.20 mm (0.004 – 0.008 in)

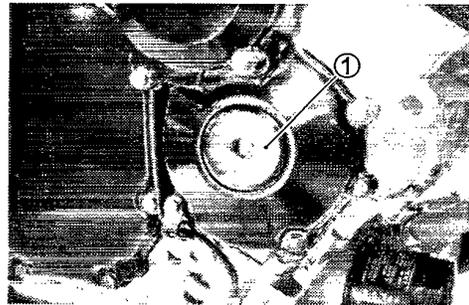
EX.: 0.20 – 0.30 mm (0.008 – 0.012 in)

NOTE:

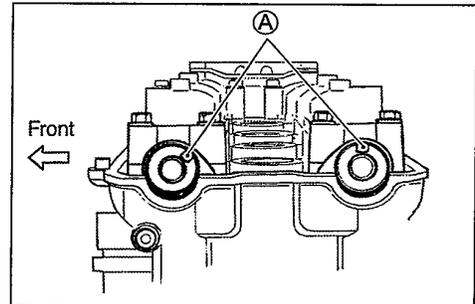
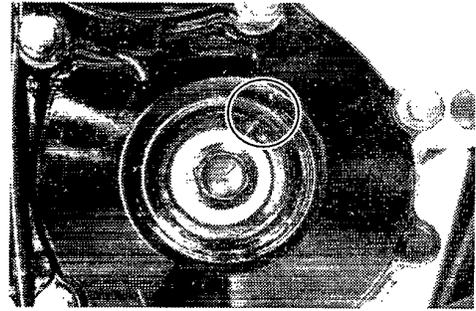
- * The cam must be at positions, Ⓐ or Ⓑ, in order to check the valve clearance, or to adjust valve clearance. Clearance readings should not be taken with the cam in any other position than these two positions.
- * The clearance specification is for COLD state.
- * To turn the crankshaft for clearance checking, be sure to use a wrench, and rotate in the normal running direction. All spark plugs should be removed.



- Remove the valve timing inspection cap ①.

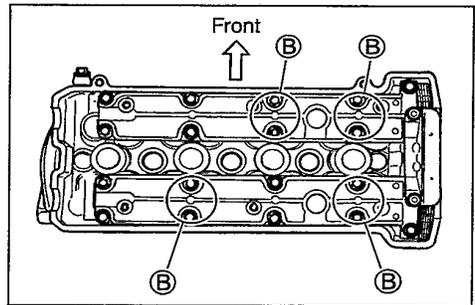


- Turn the crankshaft to bring the "Top" line on the starter clutch to the index mark and also to bring the notches (A) on the left ends of both camshafts (Ex and In) to the positions as shown.

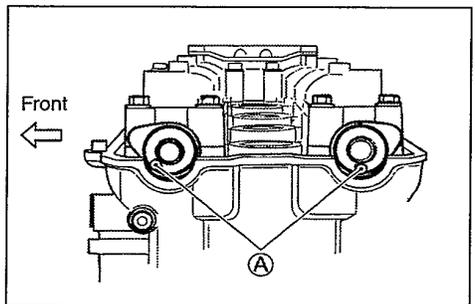


- In this condition, read the valve clearance at the valves (B) (In and Ex of No.4 cylinder, Ex of No.3 and In of No.2).
- If the clearance is out of specification, adjust the clearance. (↗ 2-10)

TOOL 09900-20803: Thickness gauge



- Turn the crankshaft 360 degrees (one rotation) to bring the "TOP" line on the starter clutch to the index mark of valve timing inspection hole and also to bring the notches (A) to the position as shown.
- Read the clearance at the remaining valves (C) and adjust the clearance if necessary. (↗ 2-10)



| Cam position | Notch (A) position | |
|--------------|--------------------|-----------------|
| | Exhaust Camshaft | Intake Camshaft |
| (B) | ←Front | ←Front |
| (C) | ←Front | ←Front |

