

FOREWORD

The SUZUKI GV1400GD and GV1400GT have been developed as a new generation motorcycle to the GV-models. It is packed with highly advanced design concepts including a V-4 engine, a liquid cooling system, a new highly efficient combustion system (TSCC), a fully transistorized ignition system and a shaft drive mechanism. Combined with precise control and easy handling the GV1400GD and GV1400GT provides excellent performance and outstanding riding comfort.

This service manual has been produced primarily for experienced mechanics whose job is to inspect, adjust, repair and service SUZUKI motorcycles. Apprentice mechanics and do-it-yourself mechanics, will also find this manual an extremely useful repair guide. This manual contains the most up-to-date information at the time of publication. The rights are reserved to update or make corrections to this manual at any time.

IMPORTANT

All street-legal Suzuki motorcycles with engine displacement of 50cc or greater are subject to Environmental Protection Agency emission regulations. These regulations set specific standards for exhaust emission output levels as well as particular servicing requirements. This manual includes specific information required to properly inspect and service the GV1400GD and GV1400GT in accordance with all EPA regulations. It is strongly recommended that the chapter on Emission Control, Periodic Servicing and Carburetion be thoroughly reviewed before any type of service work is performed.

Further information concerning the EPA emission regulations and U.S. Suzuki's emission control program can be found in the U.S. SUZUKI EMISSION CONTROL PROGRAM MANUAL/SERVICE BULLETIN.

SUZUKI MOTOR CO.,LTD.

*Service Publications Department
Overseas Service Division*

VIEW OF SUZUKI GV1400



RIGHT SIDE



LEFT SIDE

GROUP INDEX

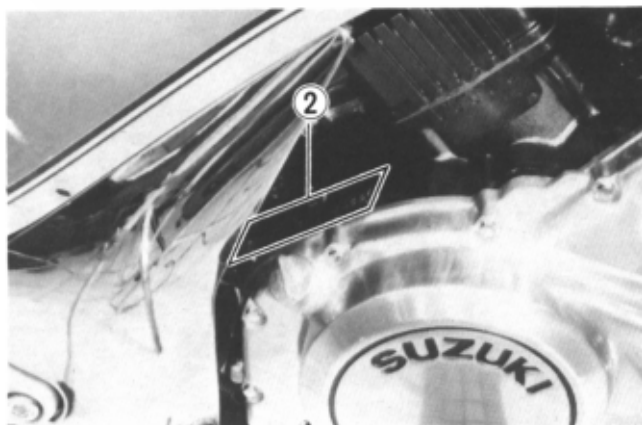
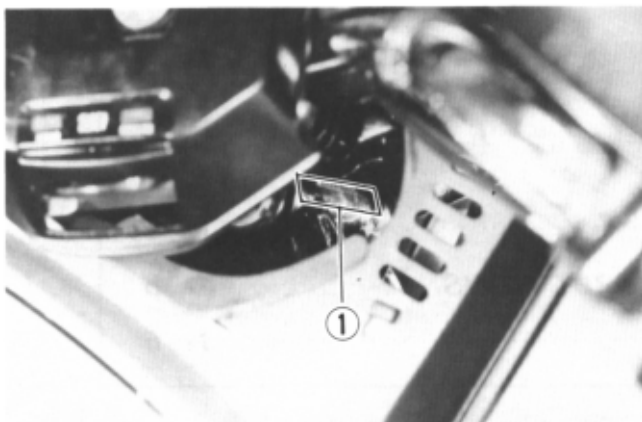
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SERIAL NUMBER LOCATION

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



FUEL, OIL AND COOLANT RECOMMENDATION

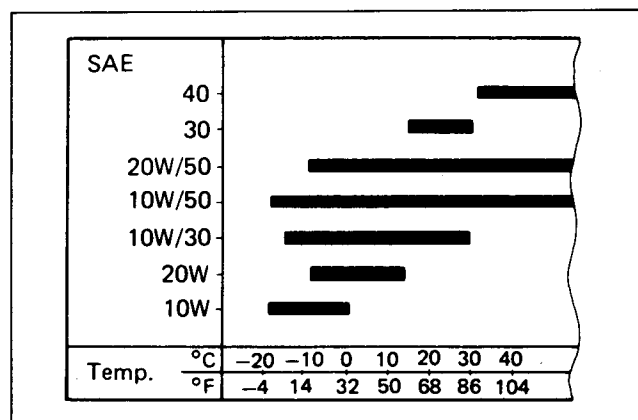
FUEL

Use only unleaded or low-lead type gasoline of at least 85 – 95 pump octane ($\frac{R+M}{2}$ method) or 89 octane or higher rated by the Research method.

ENGINE OIL

SUZUKI recommends the use of SUZUKI PERFORMANCE 4 MOTOR OIL or an oil which is rated SE or SF under the API (American Petroleum Institute) classification system. The viscosity

rating is SAE 10W/40. If an SAE 10W/40 motor oil is not available, select an alternate according to the following chart.



GEAR OIL (SECONDARY AND FINAL DRIVE)

Use SAE 90 hypoid gear oil which is rated GL-5 under API classification system. If you operate the motorcycle where ambient temperature is below 0°C (32°F), use SAE 80 hypoid gear oil.

BRAKE FLUID

Specification and classification	DOT3 or DOT4
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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 the previous servicing and stored for a long period.

FRONT FORK OIL

Use fork oil # 15.

COOLANT

Use an anti-freeze/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/COOLANT

The coolant performs as corrosion and rust inhibitor as well as anti-freeze. Therefore, the 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 GOLD-EN CRUISER 1 200 anti-freeze/coolant. If this is not available, use an equivalent which is compatible with an aluminum radiator.

REQUIRED AMOUNT OF WATER/COOLANT

Solution capacity (total): 3 550 ml (7.5 US pt)

For coolant mixture information, refer to cooling system section, page 5-3.

CAUTION:

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

Every new unit contains Bar's leak.

BREAKING-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.

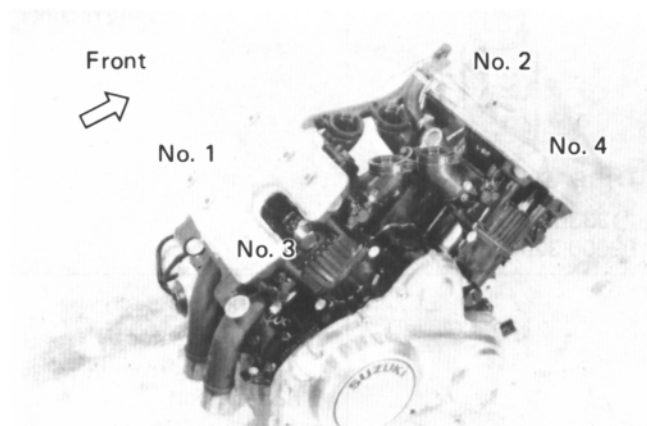
- Keep to these breaking-in engine speed limits:

Initial	800 km (500 mi)	Below 3 500 r/min
Up to	1 600 km (1 000 mi)	Below 5 000 r/min
Over	1 600 km (1 000 mi)	Below 7 000 r/min

- Upon reaching an odometer reading of 1 600 km (1 000 mi) you can subject the motorcycle to full throttle operation.
However, do not exceed 7 000 r/min at any time.


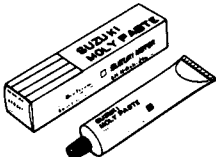
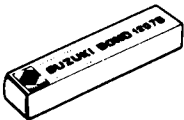


CYLINDER IDENTIFICATION





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



SPECIAL MATERIALS

The materials listed below are needed for maintenance work on the GV1400GD and GV1400GT, and should be kept on hand for ready use. They supplement such standard materials as cleaning fluids, lubricants, emery cloth and the like. How to use them and where to use them are described in the text of this manual.

Material	Part	Page	Part	Page
 <p>SUZUKI SUPER GREASE "A" 99000-25030</p>	<ul style="list-style-type: none"> ● Throttle grip ● Speedometer gearbox ● Gearshifting link pivot ● Rear brake link pivot ● Centerstand pivot ● Side stand pivot ● Shaft drive O-ring ● Final driven gear ● Starter motor oil seal 	2-2 2-2 2-2 2-2 2-2 2-2 4-14 4-31 4-32 8-10	<ul style="list-style-type: none"> ● Wheel bearings ● Steering stem bearings and races ● Sprocket mounting drum bearing ● Rear wheel O-ring ● Passenger footboard pivot ● Levelling sensor ● Swingarm bearing 	9-17 9-44 9-56 9-57 9-60 9-72 9-73
 <p>SUZUKI MOLY PASTE 99000-25140</p>	<ul style="list-style-type: none"> ● Valve stem ● Conrod big end bearing ● Countershaft ● Drive shaft ● Crankshaft journal bearing ● Cam shaft journal ● Starter motor armature end ● Clutch master cylinder push rod 	3-34 3-44 3-53 3-54 3-59 3-73 8-10 9-77		
 <p>SUZUKI BOND No. 1207B 99104-31140</p>	<ul style="list-style-type: none"> ● Mating surface of upper and lower crankcase ● Secondary gearcase bolt ● Cylinder head cover gasket ● Mating surface of crankcase and clutch cover, generator cover ● Oil pressure switch ● Mating surface between inner and outer secondary case 	3-61 3-63 3-64 4-16 3-78 3-80 3-80 4-14	<ul style="list-style-type: none"> ● Mating surface between final gearcase and bearing case ● Mating surface between swing-arm and final gearcase ● Water temperature gauge 	4-30 4-33 5-16
 <p>THREAD LOCK SUPER "1333B" 99000-32020</p>	<ul style="list-style-type: none"> ● Cam chain guide screw ● Idler shaft bearing retainer screw 	3-37 3-64		
 <p>THREAD LOCK SUPER "1303" 99000-32030</p>	<ul style="list-style-type: none"> ● Oil pump case screw ● Generator rotor bolt ● Secondary driven bevel housing bolt ● Final drive bevel gear nut ● Final drive retainer screw ● Final driven gear adjusting lock nut 	3-51 3-63 4-15 4-24 4-26 4-32	<ul style="list-style-type: none"> ● Rear wheel driven joint bolt set screw 	9-57

Material	Part	Page	Part	Page
 <p>THREAD LOCK "1342" 99000-32050</p>	<ul style="list-style-type: none"> • Generator stator set screw • Generator lead wire guide screw • Gearshift cam pawl stopper screw • Gearshift cam guide screw • Oil sump filter screw • Countershaft bearing retainer screw 	<p>3-51 3-51 3-57 3-57 3-62 3-65</p>	<ul style="list-style-type: none"> • Idler shaft drive chain tensioner bolt • Water pump drive sprocket bolt • Cam chain tensioner bolt • Final gear bearing case bolt • Throttle valve screw • Starter motor housing screw 	<p>3-67 3-68 3-71 4-31 6-20 8-11</p>
<p>SUZUKI BAR's LEAK 99000-24240</p>	<ul style="list-style-type: none"> • To prevent leakage of cooling solution from small hole. 			
 <p>THREAD LOCK "1360" 99000-32130</p>	<ul style="list-style-type: none"> • Disc mounting bolt 	<p>9-19 9-57</p>		
 <p>SUZUKI GOLDEN CRUISER 1200 99000-24120</p>	<ul style="list-style-type: none"> • Coolant 			
 <p>THREAD LOCK CEMENT 99000-32040</p>	<ul style="list-style-type: none"> • Carburetor front plate screws • Front fork damper rod bolt 	<p>6-24 9-39</p>		

PRECAUTIONS AND GENERAL INSTRUCTIONS

Observe the following items without fail when servicing, disassembling and reassembling motorcycles.

- Do not run engine indoors with little or no ventilation.
- Be sure to replace packings, gaskets, circlips, O rings and cotter pins with new ones.

CAUTION:

Never reuse a circlip after a circlip has been removed from a shaft, it should be discarded and a new circlip must be installed.

When installing a new circlip, care must be taken not to expand the end gap larger than required to slip the circlip over the shaft.

After installing a circlip, always insure that it is completely seated in its groove and securely fitted.

- Tighten cylinder head and case bolts and nuts beginning with larger diameter and ending with smaller diameter, and from inside to out-side diagonally, to the specified tightening torque.
- Use special tools where specified.
- Use genuine parts and recommended oils.
- When 2 or more persons work together, pay attention to the safety of each other.
- After the reassembly, check parts for tightness and operation.
- Treat gasoline, which is extremely flammable and highly explosive, with greatest care. Never use gasoline as cleaning solvent.

Warning, Caution and Note are included in this manual occasionally, describing the following contents.

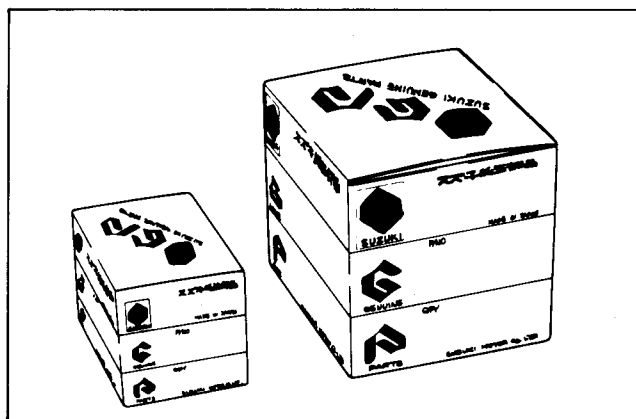
WARNING When personal safety of the rider is involved, disregard of the information could result in injury.

CAUTION For the protection of the motorcycle, the instruction or rule must be strictly adhered to.

NOTE Advice calculated to facilitate the use of the motorcycle is given under this heading.

USE OF GENUINE SUZUKI PARTS

To replace any part of the machine, use a genuine SUZUKI replacement part. Imitation parts or parts supplied from any other source than SUZUKI, if used to replace SUZUKI parts can reduce the machine's performance and, even worse, could induce costly mechanical troubles.



SPECIFICATIONS

DIMENSIONS AND DRY MASS

Overall length	2530 mm (99.6 in)
Overall width	935 mm (36.8 in)
Overall height	1550 mm (61.0 in)
Wheelbase	1670 mm (65.7 in)
Ground clearance	130 mm (5.1 in)
Dry mass	331 kg (730 lbs) ... GT 349 kg (768 lbs) ... GD

ENGINE

Type	Four-stroke, water-cooled, DOHC, 82-degree V-four
Number of cylinders	4
Bore	81.0 mm (3.2 in)
Stroke	66.0 mm (2.6 in)
Piston displacement	1360 cm ³ (83.0 cu. in)
Compression ratio	9.5 : 1
Carburetor	MIKUNI BDS 33 SS
Air cleaner	Polyester fiber element
Starter system	Electric
Lubrication system	Wet sump

TRANSMISSION

Clutch	Wet multi-plate type
Transmission	5-speed constant mesh
Gearshift pattern	1-down, 4-up
Primary reduction	1.756 (72/41)
Secondary reduction	1.000 (19/19)
Final reduction	2.666 (32/12)
Gear ratios, Low	2.750 (33/12)
2nd	1.684 (32/19)
3rd	1.250 (25/20)
4th	1.000 (25/25)
Top	0.851 (23/27)

CHASSIS

Front suspension	Telescopic, coil spring oil damped
Rear suspension	Swinging arm, pneumatic/coil spring, oil damped ... GT Swinging arm, pneumatic/coil spring, oil damped with Suzuki Auto Leveling system ... GD

Steering angle	35° (right & left)
Caster	61°
Trail	119 mm (4.7 in)
Turning radius	3.3 m (10.8 ft)
Front brake	Disc brake, twin
Rear brake	Disc brake
Front tire size	130/90-16 67H
Rear tire size	150/90-15 74H
Front fork stroke	150 mm (5.9 in)
Rear wheel travel	106 mm (4.2 in)

ELECTRICAL

Ignition type	Transistorized
Ignition timing	7° B.T.D.C. below 1500 r/min and 35° B.T.D.C. above 3000 r/min
Spark plug	N.D.: X22EPR-GL
Battery	12V 72 kC (20Ah)/10HR
Generator	Three-phase A.C. generator
Fuse	10/10/10/10/10A

CAPACITIES

Fuel tank	23 L (6.1 US gal)
Engine oil	3.2 L (3.4 US qt)
Front fork oil	482 ml (16.3 US oz)
Secondary gear oil	330 – 350 ml (11.2 – 11.8 US oz)
Final gear oil	330 – 350 ml (11.2 – 11.8 US oz)
Coolant including reservoir tank	3600 ml (3.8 US qt)
reservoir tank	600 ml (0.6 US qt)

These specifications are subject to change without notice.