

GENERAL INFORMATION

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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.
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- * 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 DL650K4 ('04-MODEL)



RIGHT SIDE

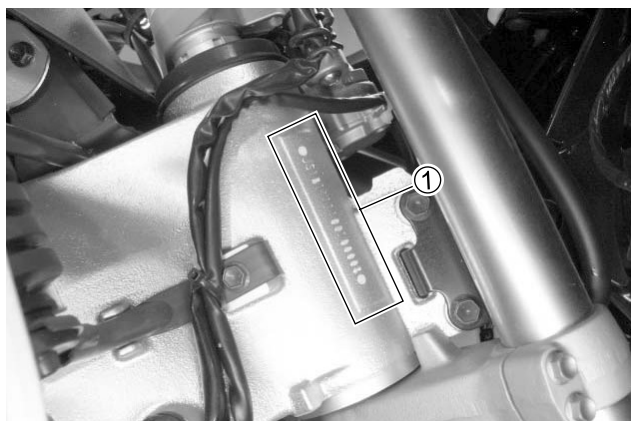


LEFT SIDE

- Difference between photographs and actual motorcycles depends 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. The engine serial number ② is located on the left 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 87 pump octane ($\frac{R+M}{2}$) or 91 octane or higher rated by the research method.

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)

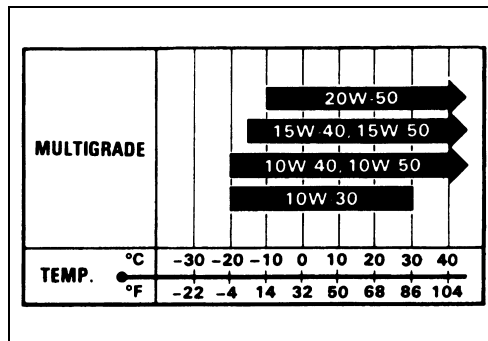
Gasoline used should be graded 91 octane (Research Method) or higher. Unleaded gasoline is recommended.

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 SS8 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): 1 900 ml (4.01/3.34 US/Imp qt)

For engine coolant mixture information, refer to cooling system section, page 6-2

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 5 000 r/min

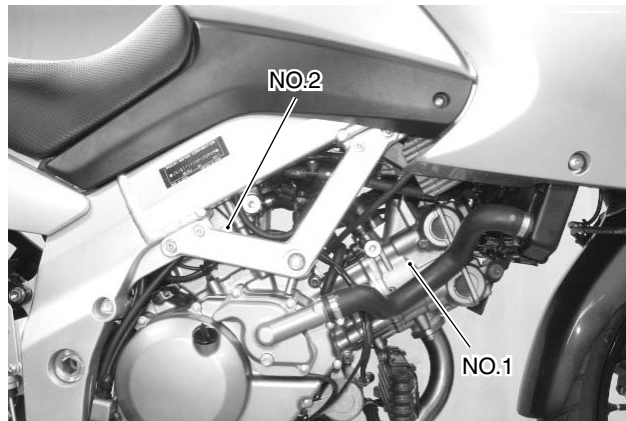
Up to 1 600 km (1 000 miles): Below 7 500 r/min

Over to 1 600 km (1 000 miles): Below 10 500 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 10 500 r/min at any time.

CYLINDER IDENTIFICATION

The two cylinders of this engine are identified as NO.1 and NO.2 cylinder, as viewed from front to rear .



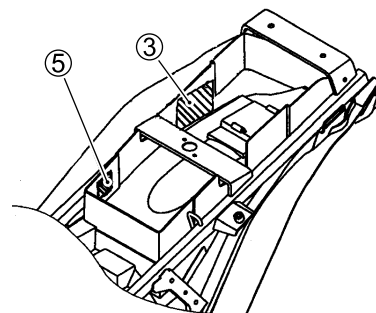
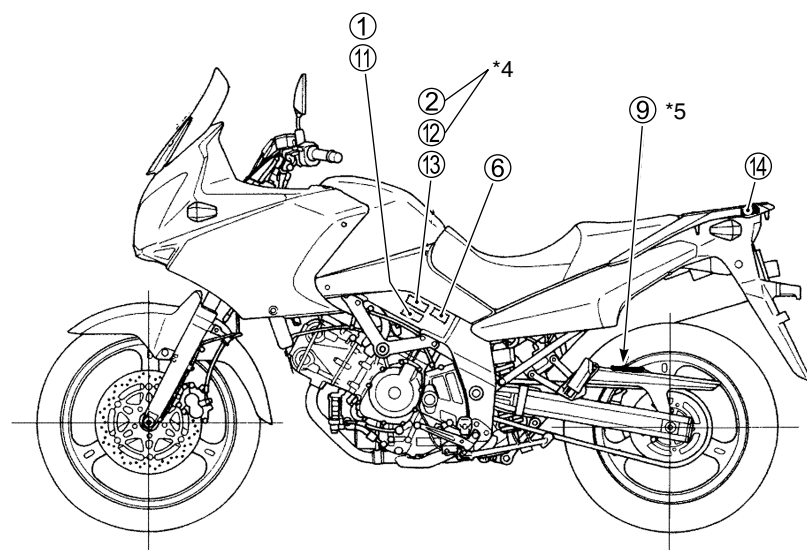
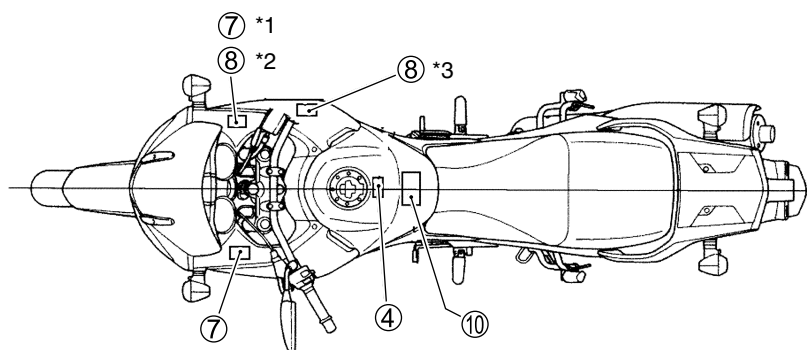
INFORMATION LABELS

	DL650	DL650UE
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 Manual notice label	A (For E-03, 33)	
⑥ Frame caution plate	A	A
⑦ Screen warning label	A	A
⑧ Steering warning label	A	A
⑨ Tire information label	A	A
⑩ Warning safety label	A	A
⑪ ICES Canada label	A (For E-28)	
⑫ ID plate	A (Except for E-03, 28, 33)	A
⑬ Safety plate	A (For E-03, 28, 33)	
⑭ Rear carrier warning label	A	A (For English)

A: Attached

*1: For E-28 (French) *2: Except for E-28 *3: For E-28 *4: These labels are attached on the right frame.

*5: This label is attached on the up side of chain cover.



SPECIFICATIONS

DIMENSIONS AND DRY MASS

Overall length	2 290 mm (90.2 in)
Overall width	840 mm (33.1 in)
Overall height	1 390 mm (54.7 in) Low windshield position (STD)
	1 420 mm (55.9 in) Middle windshield position
	1 450 mm (57.1 in) High windshield position
Wheelbase	1 540 mm (60.6 in)
Ground clearance	165 mm (6.5 in)
Seat height	820 mm (32.3 in)
Dry mass	190 kg (418 lbs)

ENGINE

Type	4-stroke, liquid-cooled, DOHC, 90 °-degree V-twin
Number of cylinders	2
Bore	81.0 mm (3.189 in)
Stroke	62.6 mm (2.465 in)
Displacement	645 cm ³ (39.4 cu.in)
Compression ratio	11.5 : 1
Carburetion	Fuel injection
Air cleaner	Non-woven fabric element
Starter system	Electric
Lubrication system	Wet sump
Idle speed	1 300 ± 100 r/min

DRIVE TRAIN

Clutch	Wet multi-plate type
Transmission	6-speed constant mesh
Gearshift pattern	1-down, 5-up
Primary reduction ratio	2.088 (71/34)
Final reduction ratio	3.133 (47/15)
Gear ratios, Low	2.461 (32/13)
2nd	1.777 (32/18)
3rd	1.380 (29/21)
4th	1.125 (27/24)
5th	0.961 (25/26)
Top	0.851 (23/27)
Drive chain	DID 525 V8, 116 links

CHASSIS

Front suspension	Telescopic, coil spring, oil damped
Rear suspension	Link type, coil spring, oil damped
Front fork stroke	150 mm (5.9 in)
Rear wheel travel	150 mm (5.9 in)
Caster	26 °
Trail	110 mm (4.33 in)
Steering angle	40 ° (right & left)
Turning radius	2.6 m (8.5 ft)
Front brake	Disc brake, twin
Rear brake	Disc brake
Front tire size	110/80 R19 M/C 59H, tubeless
Rear tire size	150/70 R17 M/C 69H, tubeless

ELECTRICAL

Ignition type	Electronic ignition (Transistorized)
Ignition timing	4 ° B.T.D.C. at 1 300 r/min
Spark plug	NGK CR8E, or DENSO U24ESR-N
Battery	12V 36.0 kC (10 Ah)/10 HR
Generator	Three-phase A.C. generator
Main fuse	30 A
Fuse	15/15/10/10/15/15 A
Headlight	12 V 60/55 W × 2 (H4)
Position/Parking light	12 V 5 W × 2 Except E-03, 24, 33
Brake light/Taillight	12 V 21/5 W × 2
License plate light	12 V 5 W
Turn signal light	12 V 21 W
Speedometer light	LED
Turn signal indicator light	LED
Neutral indicator light	LED
High beam indicator light	LED
Oil pressure/Coolant temperature/ Fuel injection warning light	LED

CAPACITIES

Fuel tank, including reserve	22 L (5.8/4.8 US/Imp gal)
Engine oil, oil change	2 300 ml (2.4/2.0 US/Imp qt)
with filter change	2 700 ml (2.9/2.4 US/Imp qt)
overhaul	3 100 ml (3.3/2.7 US/Imp qt)
Coolant	1.9 L (2.0/1.7 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
DL650	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.)
DL650-UE	E-19	EU