

# GENERAL INFORMATION

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## COUNTRY AND AREA CODES

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

CODE	COUNTRY or AREA	EFFECTIVE FRAME NO.
E-19	E.U.	JSAAL41A 62100001 –
E-28	Canada	JSAAL41A 62100001 –
E-33	California (U.S.A.)	JSAAL41A 62100001 –

## 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 vehicle 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 vehicle. 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**

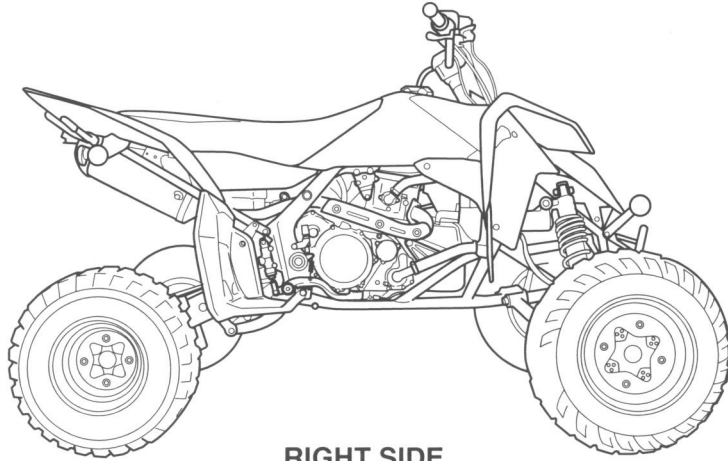
- \* Proper service and repair procedures are important for the safety of the service mechanic and the safety and reliability of the vehicle.
- \* When 2 or more persons work together, pay attention to the safety of each other.
- \* When it is necessary to run the engine indoors, make sure that exhaust 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.

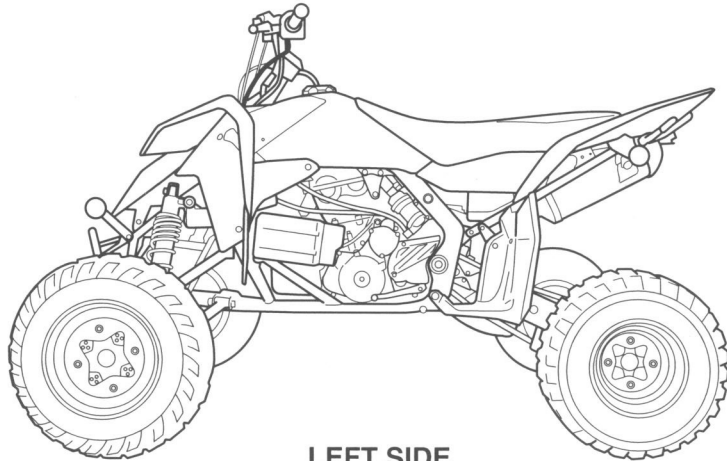
**CAUTION**

- \* 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 do not require use of battery power, disconnect the negative cable from the battery.
  - \* When tightening the cylinder head or 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 vehicle and parts.

## SUZUKI LT-R450K6 ('06-MODEL)



RIGHT SIDE

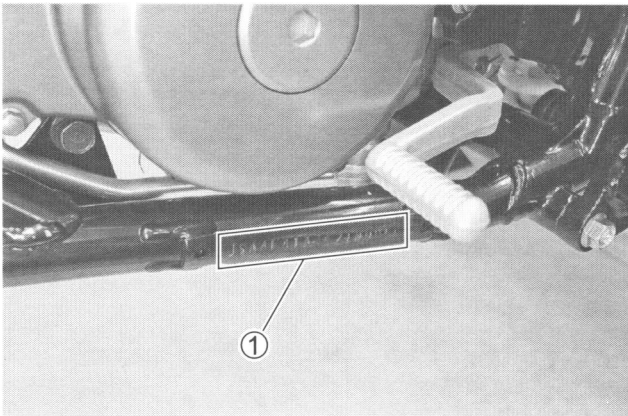


LEFT SIDE

- Difference between photograph and actual vehicle 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. Unleaded gasoline is recommended.

### ENGINE OIL (FOR USA)

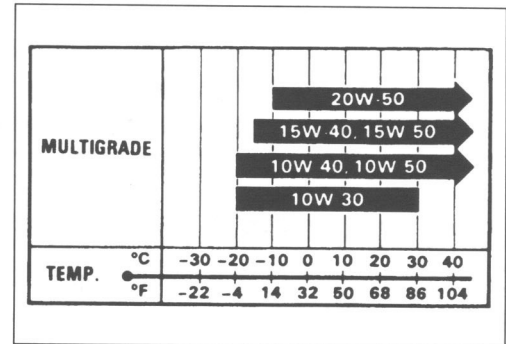
Oil quality is a major contributor to your engine's performance and life. Always select good quality engine oil. Suzuki recommends the use of SUZUKI PERFORMANCE 4 MOTOR OIL or equivalent engine oil. Use of SF/SG or SH/SJ in API with MA in JASO.

Suzuki recommends the use of SAE 10W-40 engine oil. If SAE 10W-40 engine oil is not available, select an alternative according to the following chart.

### ENGINE OIL (FOR OTHER COUNTRIES)

Oil quality is a major contributor to your engine's performance and life. Always select good quality engine oil. Use of SF/SG or SH/SJ in API with MA in JASO.

Suzuki recommends the use of SAE 10W-40 engine oil. If SAE 10W-40 engine 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 vehicle 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.

## 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 performs 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. 1 400 ml (1.5/1.2 US/Imp qt)**

For engine coolant mixture information, refer to cooling system section in 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:

### Break-in engine speeds

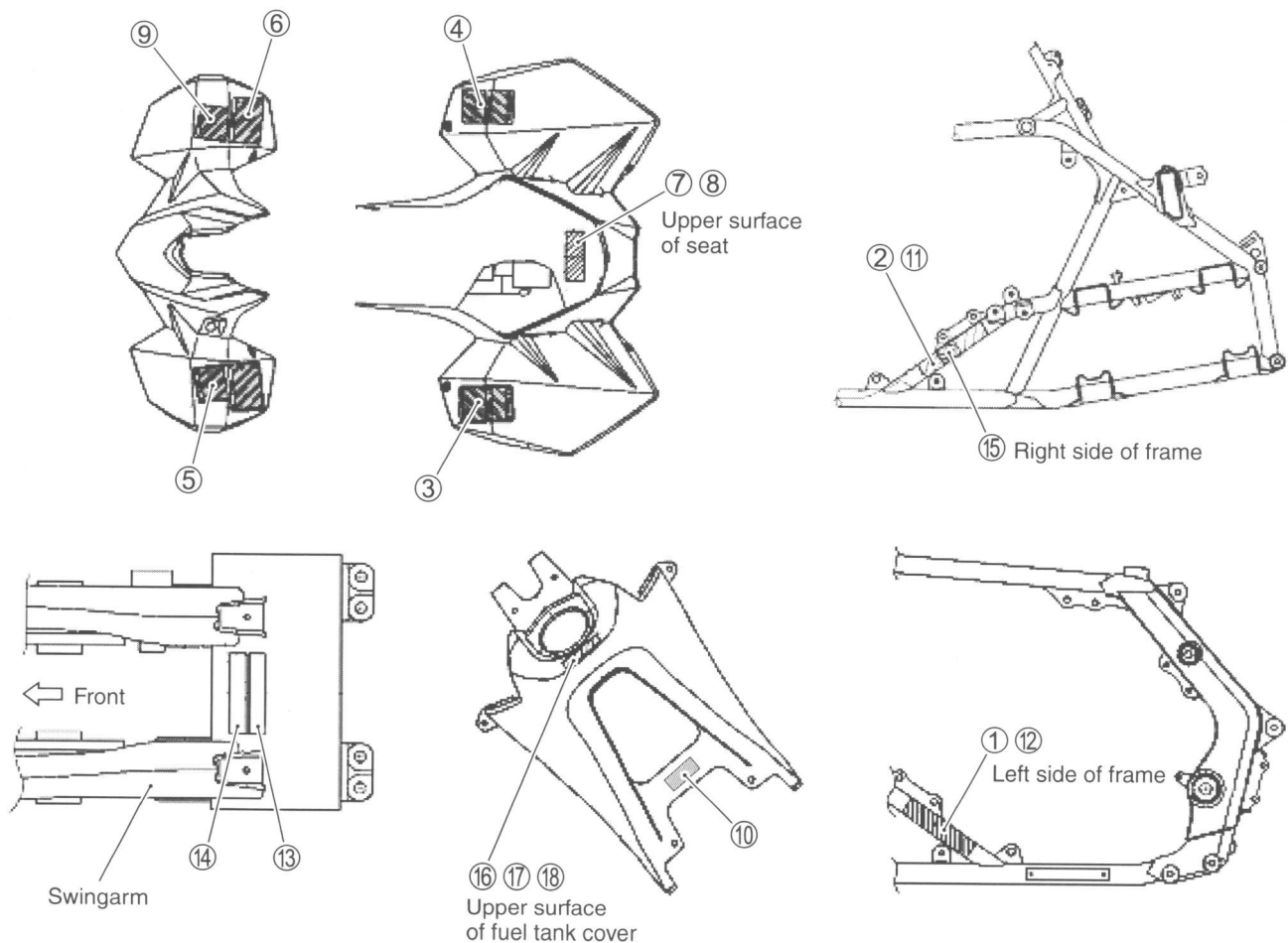
**Initial 10 hours: Less than ½ throttle**

- After the engine has been operated for 10 hours the engine to full throttle operation, for short periods of time.

# INFORMATION LABELS

NO	LABEL or PLATE NAME	APPLIED SPECIFICATION		
		E-19	E-28	E-33
①	Certification plate (E)	○	—	○
②	Information label (E)	—	—	○
③	Tire air pressure label (Warning no-passenger) (E)	○	○	○
④	Tire air pressure label (Warning no-passenger) (F)	—	○	—
⑤	General warning and Age, 16 label (E)	○	○	○
⑥	General warning label (F)	—	○	—
⑦	Warning no-passenger mark (E)	○	—	○
⑧	Warning no-passenger mark (E) (F)	—	○	—
⑨	Age, 16 label (F)	—	○	—
⑩	Manual notice label (E)	—	—	○
⑪	ICES Canada label (E) (F)	—	○	—
⑫	Compliance label (E)	—	○	—
⑬	Chain adjustment label (F)	—	○	—
⑭	Chain adjustment label (E)	○	○	○
⑮	EC approval mark	○	—	—
⑯	Fuel information label (E) (F)	—	○	—
⑰	Fuel information label (E)	—	—	○
⑱	Fuel information label (E) (F) (G) (B) (S)	○	—	—

(E): English (F): French (G): German (B): Italiano (S): Spanish



## SPECIFICATIONS

### DIMENSIONS AND DRY MASS

Overall length.....	1 845 mm (72.6 in)
Overall width .....	1 245 mm (49.0 in)
Overall height.....	1 085 mm (42.7 in)
Wheelbase.....	1 285 mm (50.6 in)
Front track.....	1 045 mm (41.1 in)
Rear track .....	985 mm (38.8 in)
Ground clearance .....	240 mm (9.4 in)
Seat height.....	780 mm (30.7 in)
Dry mass.....	167 kg (368 lbs)

### ENGINE

Type .....	Four stroke, liquid-cooled, DOHC
Number of cylinders .....	1
Bore .....	95.5 mm (3.760 in)
Stroke.....	62.8 mm (2.472 in)
Displacement .....	450 cm <sup>3</sup> (27.5 cu. in)
Compression ratio.....	11.7 : 1
Fuel system.....	Fuel injection
Air cleaner.....	Polyurethane foam element
Starter system.....	Electric
Lubrication system .....	Dry sump
Idle speed .....	1 800 ± 100 r/min

### DRIVE TRAIN

Clutch.....	Wet multi-plate type
Transmission.....	5-forward
Gearshift pattern .....	1 down 4 up, foot operated
Primary reduction ratio.....	2.851 (77/27)
Gear ratios, Low .....	2.076 (27/13)
2nd.....	1.647 (28/17)
3rd .....	1.333 (28/21)
4th.....	1.095 (23/21)
Top .....	0.913 (21/23)
Final reduction ratio .....	2.571 (36/14)
Drive chain .....	RK 520SMOZ10S, 96 Links

**CHASSIS**

Front suspension.....	Independent, double wishbone, coil spring, oil damped
Rear suspension .....	Swingarm type, coil spring, oil damped
Front wheel travel.....	254 mm (10.0 in)
Rear wheel travel .....	277 mm (10.9 in)
Caster.....	8.0°
Trail .....	30 mm (1.18 in)
Toe-in .....	0 mm
Camber .....	-3.0°
Steering angle .....	41°
Turning radius .....	3.5 m (11.5 ft)
Front brake .....	Disc brake, twin
Rear brake .....	Disc brake
Front tire size .....	AT20 × 7 R10☆☆☆, tubeless
Rear tire size .....	AT18 × 10 R8☆☆☆, tubeless

**ELECTRICAL**

Ignition type .....	Electronic ignition (Transistorized)
Ignition timing .....	8° B.T.D.C. at 1 800 r/min
Spark plug .....	NGK CR8EB
Battery .....	12 V 21.6 kC (6 Ah)/10 HR
Generator .....	Three-phase A.C. generator
Main fuse.....	20 A
Fan fuse .....	10 A
Ignition fuse.....	10 A
Headlight.....	12 V 40/40 W
Brake light/Taillight.....	LED
Neutral indicator light .....	12 V 3.4 W
Fuel indicator light .....	12 V 3.4 W
Coolant temperature/ Fuel injection warning light.....	12 V 3.4 W

**CAPACITIES**








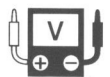












Fuel tank, including reserve .....	10.0 L (2.6/2.2 US/Imp gal)
Engine oil, oil change .....	Oil tank 1 200 ml (1.3/1.1 US/Imp qt)
with filter change.....	Engine 400 ml (0.4/0.4 US/Imp qt)
overhaul .....	Oil tank 1 300 ml (1.4/1.1 US/Imp qt)
	Engine 400 ml (0.4/0.4 US/Imp qt)
	Oil tank 1 400 ml (1.5/1.2 US/Imp qt)
	Engine 400 ml (0.4/0.4 US/Imp qt)
Coolant.....	1.4 L (1.5/1.2 US/Imp qt)

These specifications are subject to change without notice.



## 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 "1342". 99000-32050
	Apply oil. Use engine oil unless otherwise specified.		Apply THREAD LOCK SUPER "1360". 99000-32130
	Apply molybdenum oil solution. (mixture of engine oil and SUZUKI MOLY PASTE in a ratio of 1 : 1)		Apply or use brake fluid.
	Apply SUZUKI SUPER GREASE "A" or equivalent grease. 99000-25010		Measure in voltage range.
	Apply SUZUKI SILICONE GREASE. 99000-25100		Measure in resistance range.
	Apply SUZUKI MOLY PASTE. 99000-25140		Measure in current range.
	Apply SUZUKI BOND "1215" or equivalent bond. 99000-31110		Measure in diode test range.
	Apply SUZUKI BOND "1216B". 99000-31230		Measure in continuity test range.
	Apply THREAD LOCK SUPER "1303". 99000-32030		Use special tool.
	Apply THREAD LOCK SUPER "1322" or equivalent thread lock. 99000-32110		Indicates 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
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)
CO	: Carbon Monoxide
CPU	: Central Processing Unit

## D

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

## E

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

## 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
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## I

IAP Sensor	: Intake Air Pressure Sensor (IAPS) (MAP Sensor)
IAT Sensor	: Intake Air Temperature Sensor (IATS)
IG	: Ignition
IAS	: Idle air screw

## L

LH	: Left Hand
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## M

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

## N

NOX	: Nitrogen Oxides
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## O

OHC	: Over Head Camshaft
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## P

PCV	: Positive Crankcase Ventilation (Crankcase Breather)
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## R

RH	: Right Hand
ROM	: Read Only Memory

## S

SAE	: Society of Automotive Engineers
SDS	: Suzuki Diagnosis System

## T

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