

FOREWORD

This manual contains an introductory description on the SUZUKI LT-Z50 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 vehicle 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 vehicle 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 vehicle.*

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

** This manual is written for persons who have enough knowledge, skills and tools, including special tools, for servicing SUZUKI vehicles. 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 vehicle unsafe for the rider.

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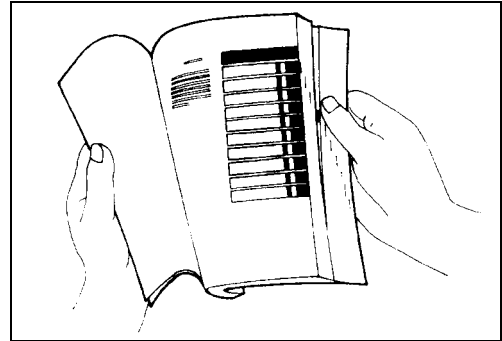
SUPPLEMENTS

LT-Z50K9 (09-MODEL)

8

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

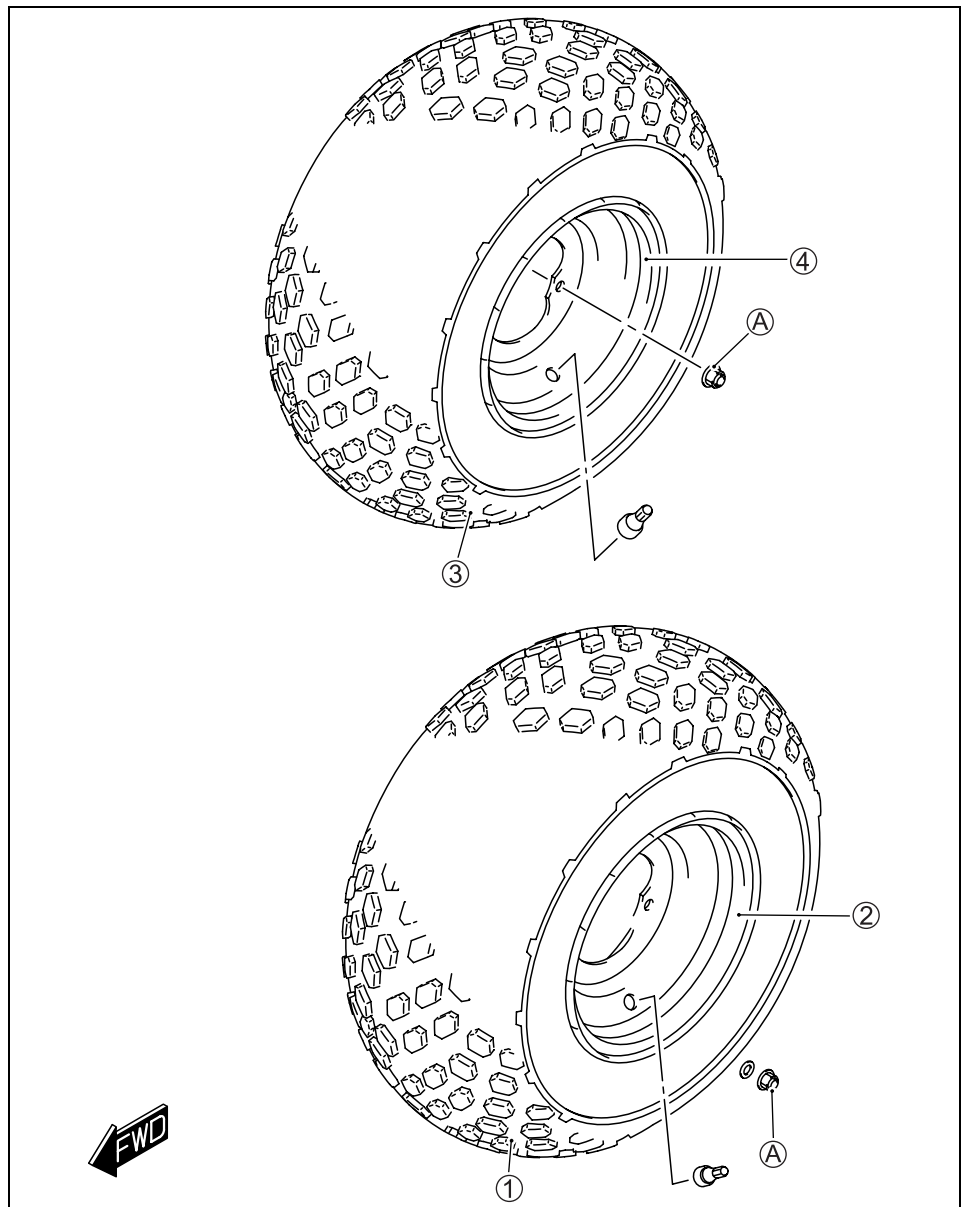
Under the name of each system or unit, is its exploded view. Work instructions and other service information such as the tightening torque, lubricating points and locking agent points, are provided.

Example: Front and rear wheel

①	Front tire
②	Front wheel
③	Rear tire
④	Rear wheel
Ⓐ	Wheel set nut (front & rear)



ITEM	N·m	kgf-m	lb-ft
Ⓐ	28	2.8	20.0



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.		Measure in voltage range.
	Apply oil. Use engine oil unless otherwise specified.		Measure in current range.
	Apply molybdenum oil solution. (mixture of engine oil and SUZUKI MOLY PASTE in a ratio of 1 : 1)		Measure in resistance range.
	Apply SUZUKI SUPER GREASE "A" or equivalent. 99000-25010		Measure in diode test range.
	Apply SUZUKI MOLY PASTE or equivalent. 99000-25140		Measure in continuity test range.
	Apply WATER RESISTANCE GREASE or equivalent. 99000-25161		Use special tool.
	Apply SUZUKI BOND "1215" or equivalent. 99000-31110		Indication of service data.
	Apply THREAD LOCK "1342" or equivalent. 99000-32050		

GENERAL INFORMATION

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COUNTRY AND AREA CODES

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

MODEL	CODE	COUNTRY or AREA	EFFECTIVE FRAME NO.
LT-Z50K6	P-03	U.S.A.	LM4AZ413 61100001-
	P-19	E.U.	
	P-28	Canada	

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, final reduction gear box oil and exhaust system until they have cooled.
- * After servicing the fuel or exhaust 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: batteries and tires.
- * To protect Earth's natural resources, properly dispose of used vehicle and parts.

SUZUKI LT-Z50K6 ('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 left side of the rear frame pipe. The engine serial number ② is located on the right side of the generator case. These numbers are required especially for registering the machine and ordering spare parts.



FUEL AND OIL RECOMMENDATION

FUEL (FOR USA AND CANADA)

Use only unleaded gasoline of at least 87 pump octane (R/2 + 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 AND FINAL REDUCTION GEAR BOX OIL (FOR USA)

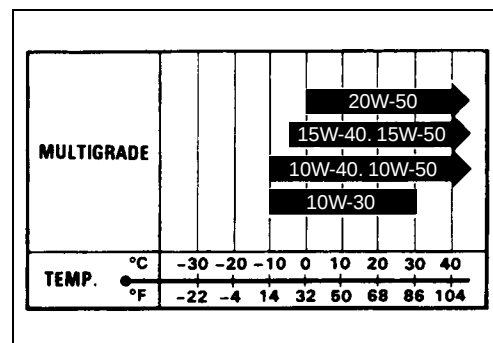
Oil quality is a major contributor to your engine's performance and life. Always select good quality engine oil. Suzuki recommends the use of SUZUKI PERFORMANCE 4 MOTOR OIL or equivalent engine oil. Use of API SF/SG or SH/SJ with JASO MA.

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 AND FINAL REDUCTION GEAR BOX 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 API SF/SG or SH/SJ with JASO MA.

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.



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. Refer to the following throttle position recommendations.

- Keep to these break-in throttle position:

Break-in engine speeds

Up to 10 hours: Less than 1/2 throttle

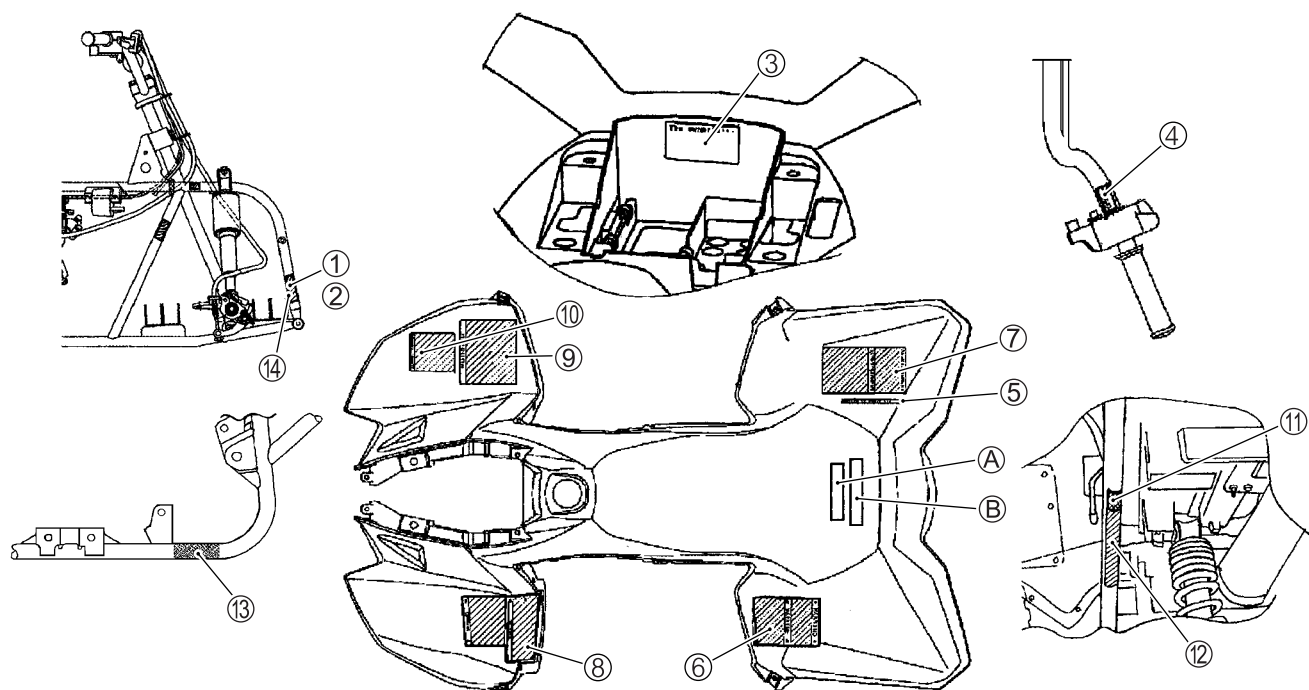
INFORMATION LABELS

① Certification plate	A (For P-03, 19)
② Compliance label	A (For P-28)
③ Manual notice label	A (For P-03)
④ Parking brake label (English)	A (For P-03, 19, 28)
⑤ Parking brake label (French)	A (For P-28)
⑥ Tire air pressure and warning no-passenger label (English)	A (For P-03, 19, 28)
⑦ Tire air pressure and warning no-passenger label (French)	A (For P-28)
⑧ General warning & AGE 6 label (English)	A (For P-03, 19, 28)
⑨ General warning label (French)	A (For P-28)
⑩ AGE 6 label (French)	A (For P-28)
⑪ EC mark label	A (For P-19)
⑫ ICES Canada label	A (For P-28)
⑬ Information label	A (For P-03)
⑭ Approval label	A (For P-19)

A: Attached

INFORMATION MARKS

Ⓐ No passenger mark (English)	(For P-03, 19, 28)
Ⓑ No passenger mark (French)	(For P-28)



⑭ Label is attached on the left side of frame.

SPECIFICATIONS
DIMENSIONS AND DRY MASS

Overall length.....	1 270 mm (50.0 in)
Overall width	760 mm (29.9 in)
Overall height.....	765 mm (30.1 in)
Wheelbase	830 mm (32.7 in)
Ground clearance	120 mm (4.7 in)
Seat height.....	535 mm (21.1 in)
Front track.....	575 mm (22.6 in)
Rear track	575 mm (22.6 in)
Dry mass.....	76 kg (167 lbs)

ENGINE

Type	Four stroke, air-cooled, OHV
Number of cylinders	1
Bore	36.0 mm (1.417 in)
Stroke.....	48.6 mm (1.913 in)
Displacement	49 cm ³ (3.0 cu.in)
Compression ratio.....	8.4:1
Carburetor.....	MIKUNI VM13, single
Air cleaner.....	Polyurethane foam element
Starter system.....	Electric and recoil starter
Idle speed	2 000 ± 150 r/min

DRIVE TRAIN

Reduction ratio.....	2.091 – 1.879 (Variable change)
Reduction gear ratio.....	4.272 (47/11)
Final reduction ratio	3.700 (37/10)
Drive chain	D.I.D. 415, 82 links

CHASSIS

Front suspension.....	Independent, swing axle, coil spring, oil damped
Rear suspension	Swingarm, coil spring, oil damped
Front wheel travel.....	52 mm (2.0 in)
Rear wheel travel	51 mm (2.0 in)
Caster.....	3 °
Trail	10 mm (0.39 in)
Toe-in	1.5 ± 3 mm (0.06 ± 0.12 in)
Camber	0 °
Steering angle	35 °
Turning radius	2.0 m (6.6 ft)
Front brake	Drum brake
Rear brake	Drum brake
Front tire size	AT16 × 8 – 7☆, tubeless
Rear tire size	AT16 × 8 – 7☆, tubeless

ELECTRICAL

Ignition type.....	Electronic ignition (CDI)
Ignition timing	20 ° B.T.D.C. at 4 600 r/min
Spark plug	NGK CR6HSA or DENSO U20FSR-U
Battery.....	12 V 14.4 kC (4 Ah)/10 HR
Main fuse.....	10 A

CAPACITIES

Fuel tank	2.6 L (0.7/0.6 US/lmp gal)
Engine oil, oil change	300 ml (0.6/0.5 US/lmp qt)
overhaul	350 ml (0.7/0.6 US/lmp qt)
Final reduction gear box oil, oil change.....	25 ml (0.8/0.9 US/lmp oz)
overhaul	30 ml (1.0/1.1 US/lmp oz)

These specifications are subject to change without notice.