

SUZUKI
OWNER'S MANUAL

1250



FOREWORD

We sincerely thank you for choosing this Suzuki motorcycle from the many fine models available.

With Suzuki motorcycle you are assured of the latest innovations in high performance and styling which have been the hallmark of Suzuki Motor Co., Ltd. since 1936. Critical engineering techniques and the latest in modern factory equipment and manufacturing know-how have resulted in a product world renowned for excellence. Having won the famous Isle of Man T.T., as well as many world motocross championships, we assure you that the same high standards are attained on each production unit.

However, even the best motorcycle cannot maintain peak performance unless it is serviced properly. So we advise that this Owner's Manual be read carefully and its instructions followed properly. Treat your motorcycle properly and ride it correctly and you will enjoy the thrill and exhilaration associated with riding a world champion machine.

Thank you for placing your confidence in Suzuki and wish you many miles of happy riding.

SUZUKI MOTOR CO., LTD.

IMPORTANT

This machine is designed for observed trials type riding only. Any other use can damage frame and/or engine.

CONTENTS

BREAKING-IN	4
SERIAL NUMBER LOCATION	5
SUZUKI P.E. IGNITION SYSTEM	6
SPECIFICATIONS	9
LOCATION OF PARTS	
CONTROLS	
FUEL AND OIL RECOMMENDATION	
TIPS ON RIDING	
INSPECTION AND MAINTENANCE	
Air cleaner	
Ignition timing	
Transmission oil	
Carburetor	
Throttle cable play	
Clutch	
Muffler	

Drive chain	39
Brakes	41
Brake lining wear limit	43
Tire pressure	44
Spark plug	46
Front fork oil	48
Fuel strainer	49
Tool kit	50
TUNE UP	
Adjusting carburetor	51
Final gear ratio	56
TROUBLESHOOTING	57
CARE AND MAINTENANCE AFTER COMPETITION	61
ICE	63
.....	64
PERIODIC INSPECTION CHART	66
LUBRICATION CHART	68

BREAKING-IN

In the process of manufacture 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 life of the motorcycle depends on how it is broken-in. During this period the engine must be given best care possible. For careful breaking-in observe the following instructions.

- FUEL/OIL PRE-MIXTURE RATIO IS ALWAYS 20/1.
- DO NOT RIDE THE MOTORCYCLE AT HIGH SPEED.
- DO NOT OPERATE THE ENGINE AT HIGH R.P.M. IN LOW SPEED GEARS.
- DO NOT RACE THE ENGINE.
- KEEP TO THE SPECIFIED BREAKING-IN THROTTLE OPENING LIMIT.

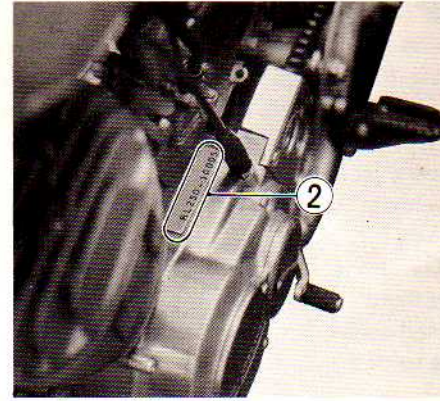
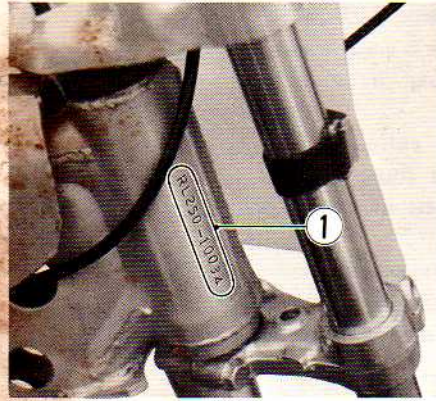
BREAKING-IN PERIOD

THROTTLE OPENING LIMIT

Initial	20 hours	Below $\frac{1}{2}$ throttle opening
Up to	40 hours	Below $\frac{3}{4}$ throttle opening

SERIAL NUMBER LOCATION

The frame serial number ① is stamped on the right of the steering head pipe. The engine serial number ② is located on the left crankcase. These numbers are required especially for registering the machine and ordering spare parts.



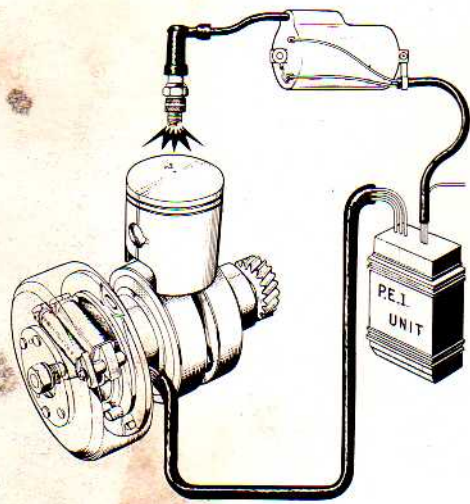
SUZUKI P.E. IGNITION SYSTEM

The TS250 employs an electronic ignition system (P.E.I.) which requires no mechanical contact breaker points.

In this system special circuit is used to charge a condenser with high tension voltage. This electric charge is electronically released to the ignition coil by a triggering circuit incorporating a built in automatic timing advance.

This totally electronic system produces an extremely hot spark at the spark plug at precisely the most efficient moment for optimum combustion, regardless of engine or load.

The P.E.I. system provides maximum ignition efficiency without the maintenance of adjusting ignition timing or mechanical contact points usually associated with conventional ignition systems.



SPECIFICATIONS

DIMENSIONS AND WEIGHT

Overall length 80.1 in (2,035 mm)
Overall width 33.5 in (850 mm)
Overall height 44.5 in (1,130 mm)
Wheelbase 53.0 in (1,345 mm)
Ground clearance 11.4 in (290 mm)
Dry weight 199 lbs (90 kg)

PERFORMANCE

Maximum horse power 18.0 HP at 6,000 rpm
(SAE, NET)
Maximum torque 16.6 ft-lb (2.30 kg-m)
at 4,500 rpm

ENGINE

Type Two stroke air cooled gasoline engine
Valve system Piston valve
Number of cylinders 1
Bore 70.0 mm (2.76 in)
Stroke 64.0 mm (2.52 in)
Piston displacement 246 cc (15.0 cu-in)
Corrected compression ratio 6.0
Carburetor VM28SH
Air cleaner Wet polyurethane filter
Starter system Primary kick
Lubrication system Fuel and oil premixture with 20:1

TRANSMISSION SYSTEM

Clutch	Wet multi-plate type
Transmission	5-speed, constant mesh
Gearshift pattern	Left foot return type system
Primary reduction	4.235 (72/17)
Final reduction	3.600 (54/15)
Gear ratios low	2.417 (29/12)
2nd	1.800 (27/15)
3rd	1.412 (24/17)
4th	0.864 (19/22)
top	0.640 (16/25)
Drive chain	#428, 120 links

CHASSIS

Front suspension	Telescopic fork with hydraulic damper
Rear suspension	Swinging arm with hydraulic damper, 5-way adjustable
Steering angle	60° (right and left)
Caster	63°
Trail	3.0 in (76 mm)
Turning radius	5.3 ft (1.63 m)
Front brake	Right hand operated, internal expanding
Rear brake	Right foot operated, internal expanding

ELECTRICAL EQUIPMENTS

Front tire size 2.75-21-4PR,
Trial universal
Rear tire size 4.00-18-4PR,
Trial universal

Ignition type P.E.I. system
Ignition timing 14° at 1,000 rpm,
21° at 6,000 rpm
B.T.D.C.
Spark plug NGK B7ES or
Nippon Denso
W22ES

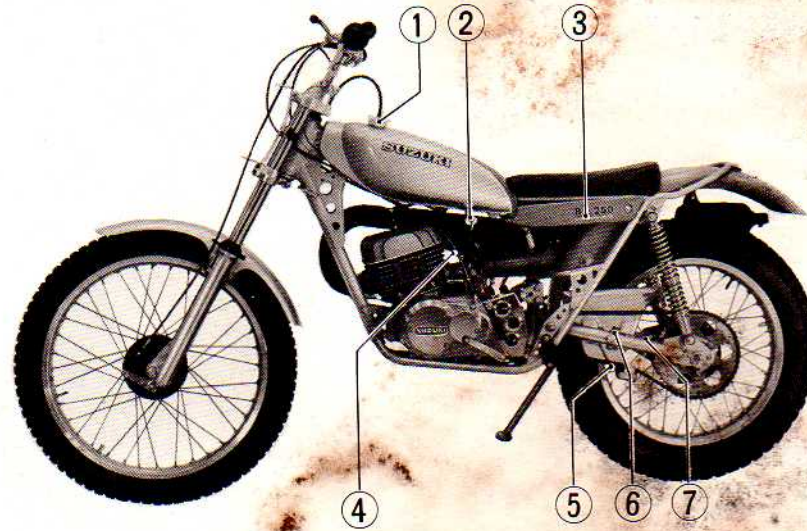
CAPACITIES

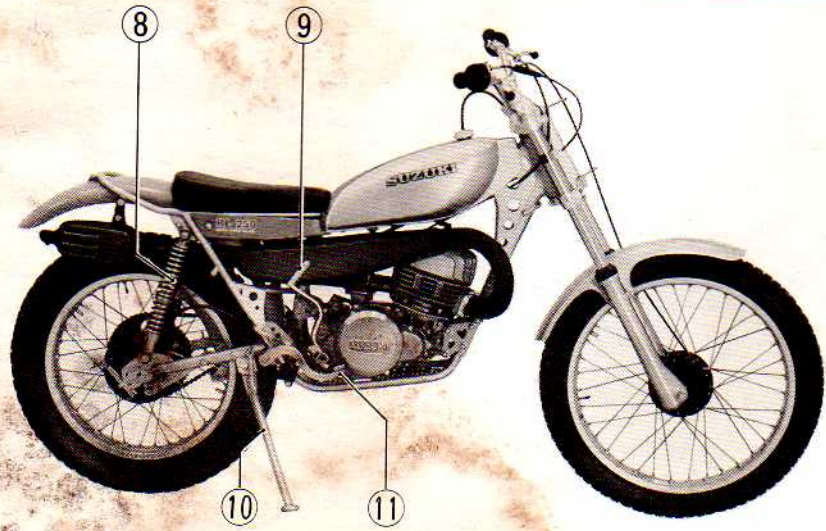
Fuel tank	1.3/1.1 US/Imp gal (5.0 l) including 1.5/1.2 US/Imp pt (0.7 l) reserve
Transmission oil	850 cc (1.80/1.51 US/Imp pt)
Front fork oil	245 cc (8.3/8.6 US/Imp oz) (each leg)

** These specifications subject to change without notice.
* This motorcycle is designed and manufactred for competition and off the road use only and is not equipped with such devices as lamps, speedometer, etc. for operation on public streets, road or highways.*

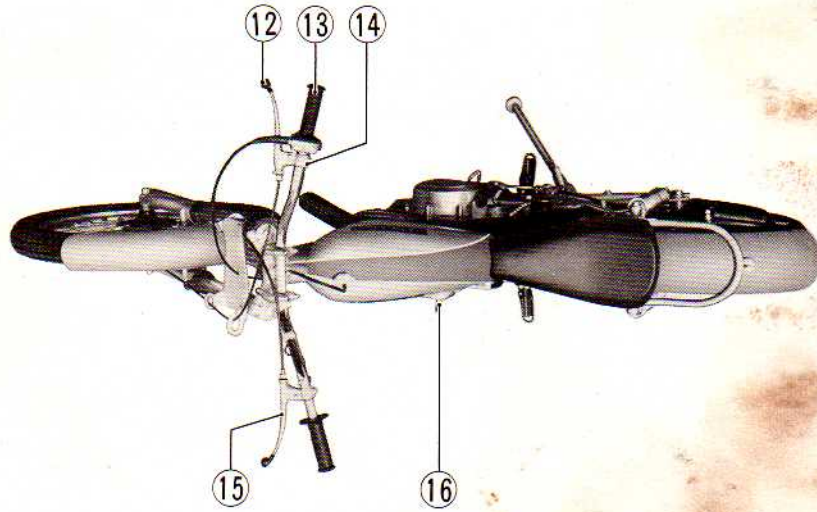
LOCATION OF PARTS

1. Fuel tank cap
2. Fuel cock
3. Air cleaner
4. Carburetor choke lever
5. Chain tensioner
6. Chain lube oil filler plug
7. Chain lube oil feed adjusting screw





- 8. *Rear shock absorber*
- 9. *Kick starter lever*
- 10. *Prop stand*
- 11. *Rear brake pedal*



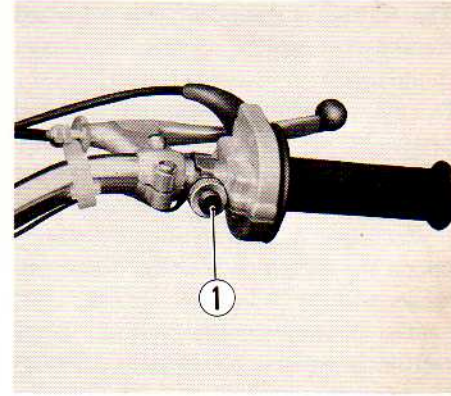
- 12. Front brake lever
- 13. Throttle grip
- 14. Engine kill switch
- 15. Clutch lever
- 16. Gearshift lever

CONTROLS

Take the time to familiarize yourself with the operating principles of the following motorcycle components.

ENGINE KILL BUTTON

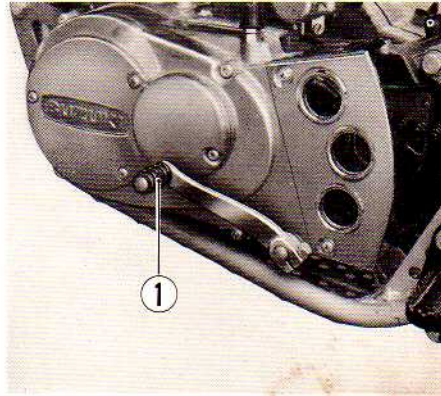
No ignition switch is provided. To start the engine, just depress the kick starter lever. To stop the engine, push the engine kill button ① as shown in figure.



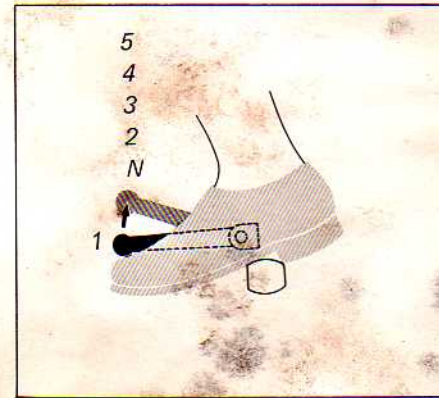
GEARSHIFT LEVER

The RL250 is equipped with a 5-speed transmission which operates as shown in the figure.

Neutral is located between low and 2nd gears. Low gear is located by fully depressing the lever from the neutral position. Shifting into succeeding higher gears is accomplished by pulling up on the shift lever once for each gear. When shifting from low to 2nd gear, neutral is automatically missed. When neutral is wanted for stopping, depress or raise the lever a half of a stroke between low and 2nd gears.

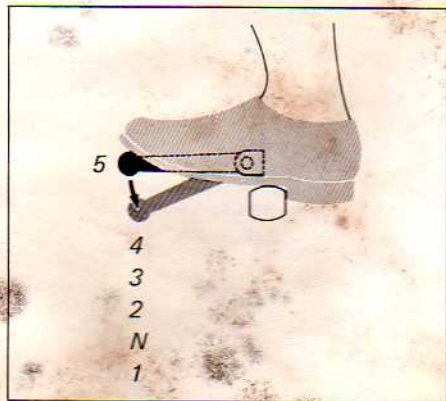


① Gearshift lever



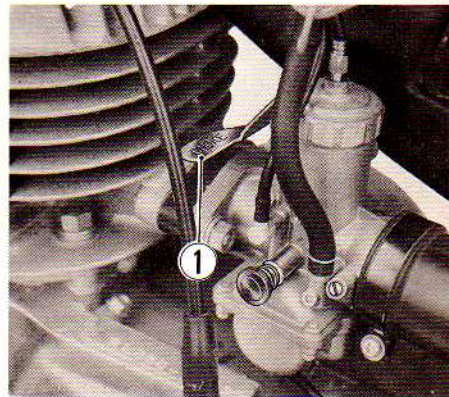
Gearshift sequence.

CARBURETOR CHOKE LEVER



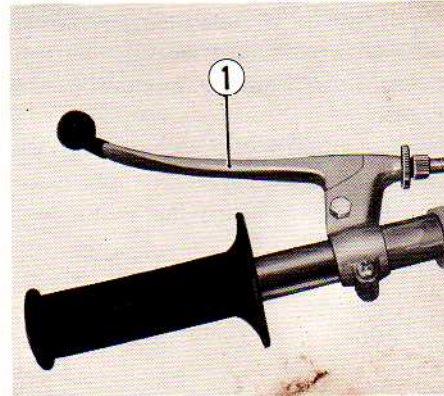
The carburetor choke system allows easy starting, even in cold weather, by supplying a rich fuel/air mixture to the engine.

When starting a cold engine, push the carburetor choke lever ①. When the engine is warm, using the choke lever is not necessary.



CLUTCH LEVER

The clutch lever ① is used to disengage the engine with the rear wheel when starting or shifting the transmission gears. Squeezing the lever disengages the clutch and releasing it connects the engine with the rear wheel.



THROTTLE GRIP

Engine speed is controlled by the throttle grip ①. If the throttle grip is twisted inward toward you, engine speed rises.

FRONT BRAKE LEVER

Front braking is controlled by pressure applied on the brake lever ②. When the brake lever is squeezed, braking force is applied to the front wheel.