

SUZUKI

# FOREWORD

Welcome to the world of Suzuki motorcycles.

The confidence you have shown by the purchase of our products is very much appreciated. Each Suzuki motorcycle backs this confidence by a long record of manufacturing and engineering excellence. The same excellence that has produced a long history of world-championship racing successes at the famous Isle of Man as well as the motorcoss tracks of Europe.

Suzuki now presents the new PE250, an "Enduro" racing machine, capable of competing in any Enduro racing event in the world.

This handbook is presented as a means whereby you can maintain your PE250 in top working condition at all times. Your riding skill and the maintenance steps outlined in this manual will assure you of top performance from your machine under any type of competition conditions.

We sincerely wish you and your Suzuki motorcycle a successful partnership for many years of happy riding.

# SUZUKI MOTOR CO.,LTD.

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NOTE: All information, illustrations, photographs and specifications contained in this manual are based on the latest product information available at the time of publication.

The right is reserved to make changes at any time without notice.

# SPECIFICATION

# DIMENSIONS AND WEIGHT

Overall length		,				,							2,140	mm	(84.3	in)
Overall width																
Overall height																
Wheelbase																
Ground clearar																
Dry weight																

# **ENGINE**

Туре				,				٠.	٠.	٠.	. Two-stroke cycle, air-cooled
Intake system		, ,					 		,		. Piston and reed valve
Number of cylinder											
Bore						. ,					.67.0 mm (2.64 in)

#### TRANSMISSION

Gear ratios,	Low
	2nd 1.750 (28/16)
	3rd
	4th
	Top
Drive chain .	DAIDO #520TR, 108 links
Dillo cham.	#0201N, 100 IIIIKS

# CHASSIS

Front suspension	Telescopic, oil dampened
Rear suspension	
	spring 3-way adjustable
Steering angle	50° (right & left)
Caster	60°25′
Trail	126 mm (4.96 in)

Turning radius. 2.2 m (7.2 ft)

Front brake. Internal expanding
Rear brake Internal expanding
Front tire size 3.00-21-4PR

Rear tire size 4.50-18-4PR

#### **ELECTRICAL SYSTEM**

### CAPACITIES

Fuel tank	. 12 lit (3.2/2.6 US/Imp gal)
Front fork oil	.243 cc (8.22/8.56 US/Imp oz) in each leg
Transmission oil	

#### NOTE:

This vehicle is designed and manufactured for competition and off-the-road uses only and is not equipped with such devices as turn signal, horn etc. for operation on public streets, roads, or highways.

You may find some slight differences between your motorcycle and this owner's manual. This is because of differences required by traffic regulation in different countries.

# FEATURES

#### SUZUKI "PEI" SYSTEM

The PE250 employs an electronic ignition system (PEI) which requires no mechanical contact breaker points.

In this system a 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.

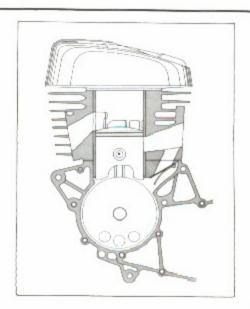
This totally electronic system produces an extremely hot spark at the spark plug at precisely the most efficient moment for optimum combustion, regardless of engine speed or load. The "PEI" system provides maximum ignition efficiency without the maintenance of adjusting ignition timing or mechanical contact points usually associated with conventional ignition systems.

### SUZUKI "POWER REED"

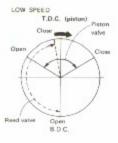
POWER REED signifies that the intake system feeds the mixture through two distinct actions; one by the piston valve and the other by the reed valve.

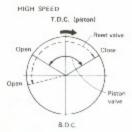
The open-close timing of reed valve changes freely to suit the mixture requirement of the engine, as will be noted in the circle diagrams given right. Against this characteristic, piston valve is characterized by its low resistance to mixture flow though its timing does not change. These two characteristics additively show up to great advantage in the high speed region. Here's how:

In the PE250, the port timing is slightly delayed as far as inlet port is concerned. This delay is calculated to produce greater output torque in the low and medium speed region. Stated otherwise, piston valve closes the suction port earlier and thus minimizes the chances of mixture blow-back when the engine is in that speed region. In the high speed region, the amount of mixture being drawn in would be less than when there were no delay in port timing. This deficiency, however, is made up for by the action of reed valve to increase output power and torque in this speed region.



Port timing diagrams where piston valve and reed valve are used.





# FUEL AND OIL RECOMMENDATION

The PE250 engine is of the two-stroke design, which requires a premixture of gas and oil.

# GASOLINE

Gasoline should be graded 95 Research Octane or higher,

### ENGINE OIL

The following brands of oil are highly recommended for use in the premixture.

- \* Castrol R30
- Golden Spectro Synthetic Blend
- Shell Super M
- \* B.P. Racing
- \* Bel-Ray MC-1 Two-cycle Racing Lubricant

### MIXING RATIO

20 parts gasoline to 1 part oil is the correct gas to oil mixture ratio for your engine. For proper engine performance, it is essential that the above gas/oil mixture be maintained.

### Caution:

A mixture containing too little oil will cause overheating of the engine. Too much oil will cause excessive carbon formation resulting in preignition, fouled spark plug and loss of power.

#### **FUEL MIXTURE RATIO OF 20: 1**

GASOLINE (gal)	OIL (pt)	GASOLINE (gal)	OIL (pt)
0.5	0.2	5.5	2.2
1.0	0.4	6.0	2.4
1.5	0.6	6.5	2.6
2.0	0.8	7.0	2.8
2.5	1.0	7.5	3.0
3.0	1.2	8.0	3.2
3.5	1.4	8.5	3.4
4.0	1.6	9.0	3.6
4.5	1.8	9.5	3.8
5.0	2.0	10.0	4.0

#### **FUEL MIXTURE RATIO OF 20:1**

GASOLINE	OIL	GASOLINE	OIL
(lit)	(cc)	(lit)	(cc)
0.5	25	5.5	275
1.0	50	6.0	300
1.5	75	6.5	325
2.0	100	7.0	350
2.5	125	7.5	375
3.0	150	8.0	400
3.5	175	8.5	425
4.0	200	9.0	450
4.5	225	9.5	475
5.0	250	10.0	.500

#### FUEL MIXING PROCEDURE

To mix the gasoline and oil, always use Use a good quality SAE 20W/40 a separate, clean container. Pour the full amount of oil required for the total mixture into the container, add approximately half the amount of gasoline to be mixed and shake thoroughly. Add the remainder of the gasoline and again thoroughly agitate the container.

### TRANSMISSION OIL

multi-grade motor oil.

# LOCATION OF PARTS

- 1 Headlamp
- 2 Speedometer
- 3 Fuel cock
- 4 Gearshift lever
- 5 Tail/Brake lamp
- 6 Chain tensioner





- (7) Kick starter lever
- 8 Rear brake pedal
- 9 Carburetor choke knob
- 10 Throttle grip
- 1 Front brake lever

# BREAKING-IN

The PE250 is manufactured using the latest technology relating to the two-stroke engine and thus requires a relatively short break-in period. No programed breaking-in operation is necessary: the only thing is that the machine should not be continuously operated in full-load condition for the first one hour or 20 miles (30 km). This practice will help all moving parts to break in and will assist in acquainting you with the machine. Once the machine is fully broken in, you can be assured of high performance in competition.

# CONTROLS

#### CLUTCH LEVER

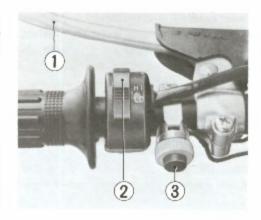
The clutch lever ① is used to disengage the engine with the rear wheel when starting or shifting the transmission gears. Squeezing the lever disengage the clutch and releasing it connects the engine with the rear wheel.

#### DIMMER SWITCH

The headlamp beam can be changed both downward and upward by operating the dimmer switch ② to the "LO" and "HI" positions.

#### IGNITION KILL BUTTON

No ignition switch is provided. To start the engine, just push down the kick starter lever. To stop the engine, push the ignition kill button (3) as shown in figure.



# FRONT BRAKE LEVER

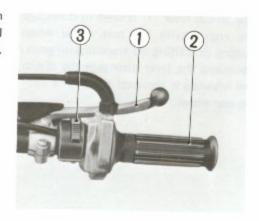
Front braking is controlled by pressure applied on the brake lever ①. When the brake lever is squeezed, braking force is applied to the front wheel.

## THROTTLE GRIP

Engine speed is controlled by the throttle grip. If the throttle grip ② is twisted inward toward you, engine speed rises.

# LIGHTING SWITCH

The headlamp and tail lamp light when the lighting switch (3) is slid to the ON position and the engine is in operation.



#### **SPEEDOMETER**

The speedometer 4 records road speed in miles per hour or kilometers per hour.

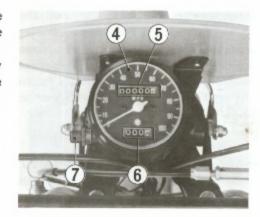
### ODOMETER

The odometer 5 registers the total distance the motorcycle has been driven.

#### TRIP METER

The trip meter (6) is provided in the speedometer and indicates distance travelled.

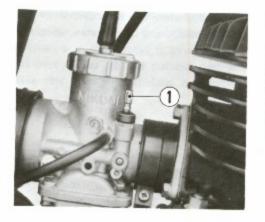
The trip reading can be set to zero by pulling out and turning the left side knob ?.



# CARBURETOR CHOKE KNOB

When starting a cold engine, pull the choke knob ①. Kick the engine over without opening the throttle grip. Even opening the throttle slightly may make the engine hard to start. Always return the choke knob to the original position when the engine warms up.

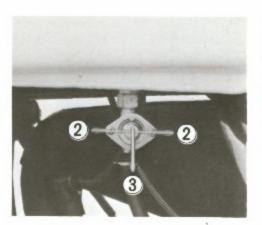
\* When the engine is warm
Using the choke knob is not necessary.
To start a warm engine, open the throttle
1/8 to 1/4 and kick start the engine.



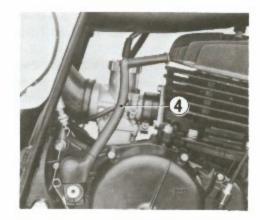
# FUEL COCK

The fuel cock has two positions, OFF ② and ON ③. When the fuel cock level is in the OFF position, the fuel does not flow to the carburetor from the fuel tank. When turning the fuel cock lever to the ON position, the fuel flows to the carburetor.

### KICK STARTER LEVER



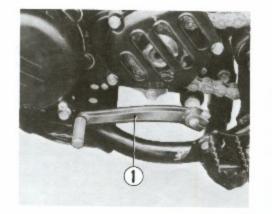
The engine can be started easily by depressing the kick starter lever (4). As a primary kick starter system is adopted on this motorcycle the engine can be started with the transmission on any gear, if the clutch is disengaged by squeezing the clutch lever.



### **GEARSHIFT LEVER**

The PE250 is equipped with a 5-speed transmission which operates as shown in figure.

Neutral is located between low and 2nd. Low gear is located by fully depressing the lever ① from the neutral position. Shifting into succeedingly higher gears is accomplished by pulling up on the shift lever once for each gear. When shifting from low to 2nd, neutral is automatically missed. When neutral is wanted for stopping, depress or raise the lever a half or a stroke between low and 2nd.

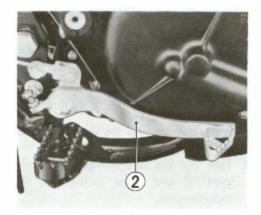




### REAR BRAKE PEDAL



Rear braking is controlled by pressure applied on the brake pedal ②. When the brake pedal is depressed, braking force is applied to the rear wheel and the brake lamp lights.

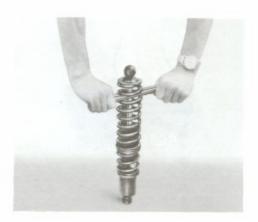


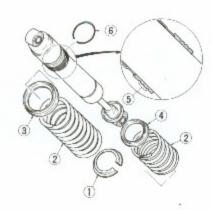
# REAR SHOCK ABSORBER

The rear shock absorber can be adjusted to give three different spring settings.

- Remove the upper and lower rear shock absorber bolts and dismount the absorber.
- Compress the shock absorber spring as shown in the right.
- While compressing the spring, remove the lower spring seat (1).
- Take out the two springs ②, spring joint ③ and upper spring seat ④ from the unit.
- Each unit has three grooves for the clip position 5. The spring tension

can be varied by changing the position of the clip (6). The higher the clip position, the less the spring tension.



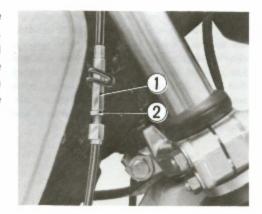


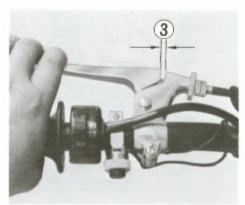
NOTE: In the new shock absorber unit the clip (6) has been set at the highest position for optimum shock absorption for an average rider's weight. However, after the machine has covered the running-in mileage of about 500 km (300 miles), the component parts could be adjusted and the optimum clip position will be changed to the groove one step down — the middle groove.

# INSPECTION AND ADJUSTMENTS BEFORE RIDING

#### CLUTCH

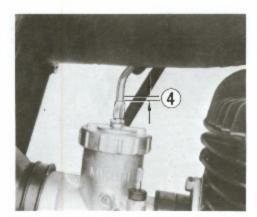
Adjust the clutch with the clutch cable adjuster ① by loosening lock nut ②. The play ③ of the clutch cable should be 0.16 in. (4 mm) measured at the clutch lever holder before pressure can be felt indicating disengagment of the clutch.





### CARBURETOR

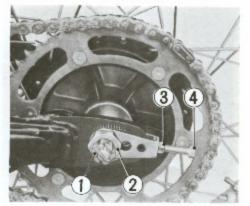
For correct safe throttle operation the throttle cable should be adjusted to have 0.02 in (0.5 mm) play 4 at the carburetor. This adjustment can be made at the cable adjuster on the carburetor cap.

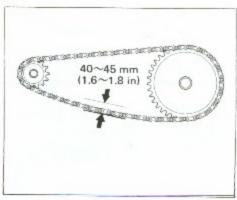


### DRIVE CHAIN

Adjust the drive chain at the rear axle by loosening nuts (1) and (2) (as shown). Then loosen lock nut (3) and adjust the chain tension by turning adjusting bolt (4) in or out. Be sure the marks stamped on the adjuster yoke aligns with the same mark on the swing arm on both sides of the motorcycle.

Proper chain tension adjustment is obtained when there is  $1.6 \sim 1.8$  in  $(40 \sim 45$  mm) up and down slack in the chain, at a point midway between the sprockets, under condition without the chain tensioner (refer to mark 6 on page 14).

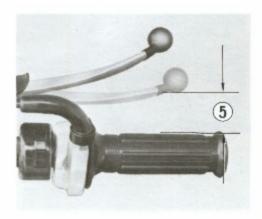


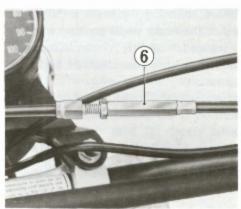


Drive chain slack

### FRONT BRAKE

Measure the amount of the front brake lever distance 5 between the brake lever end and throttle grip. The distance should be  $0.8 \sim 1.2$  in  $(20 \sim 30$  mm). If adjustment is necessary, turning the front brake adjuster 6 in the counterclockwise direction will increase the distance.

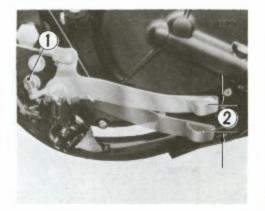


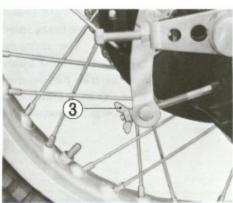


### REAR BRAKE

Before adjusting the brake pedal travel, adjust the brake pedal position with the brake pedal adjuster ① until the most suitable position is obtained for quick operation.

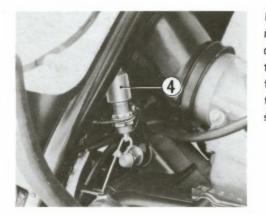
After adjustment of the brake pedal position is completed, adjust the brake pedal travel ② with the brake cable adjuster ③ to  $0.8 \sim 1.2$  in  $(20 \sim 30$  mm).





#### Rear brake lamp switch:

The rear brake lamp switch (4) is located at the right side of the frame center. Loosen the switch up or down to adjust it until the switch operates and turns on the brake lamp about 0.4 in (10 mm) after the brake pedal begins to be depressed.



#### TIRE PRESSURE

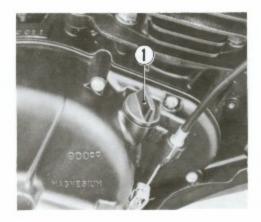
If the tire pressure is too high, the machine will tend to bounce up and down. Conversely, if the tire pressure is too low, steering will be adversely affected. Therefore, maintain the correct tire pressure for good roadability or shorter tire life will result.

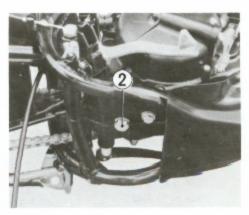
Front 10 psi (0.7 kg/cm<sup>2</sup>) Rear 10 psi (0.7 kg/cm<sup>2</sup>)

# MAINTENANCE

#### TRANSMISSION OIL

To change the transmission oil, remove the filler cap ① and drain plug ② and drain the oil. Install the drain plug and measure 900 cc (1.90/1.58 US/Imp pt) of Suzuki Transmission Oil or a good quality SAE 20W/40 multigrade motor oil, then pour it into the transmission slowly.



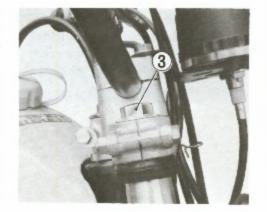


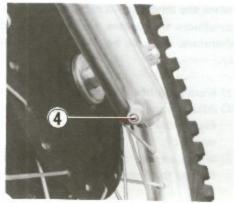
### FRONT FORK OIL

The more oil in the front fork the stiffer the suspension becomes, while the less oil in the fork the softer the suspension becomes.

When changing the fork oil with the fork fitted on the steering stem, remove the fork inner tube head bolt 3 and the fork oil drain plug 4 and completely drain the oil from the fork leg.

Pour 243 cc (8.22/8.56 US/Imp oz) of SAE 20W/20 motor oil into each inner tube after refitting the drain plug screws.





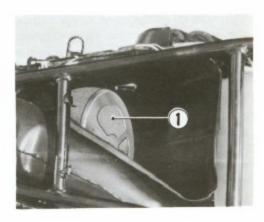
#### AIR CLEANER

When the air cleaner is clogged with dust, it affects the engine performance and therefore, it should be cleaned periodically.

- Wash the filter ① with gasoline.
- After wringing gasoline out of the filter, soak it into Suzuki CCI oil or motor oil.
- Wring oil out of the filter and then fit it to the element.

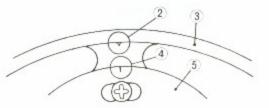
#### CAUTION:

If the element is not installed properly, dirt and dust may enter, resulting in rapid wear of the piston rings and cylinder.



#### **IGNITION TIMING**

Ignition timing is adjusted at the factory and should normally require no adjustment. However, if the stator is removed or tampered with, adjustment may be necessary. In this case the index mark ② on the crankcase ③ should be radially aligned with the mark ④ . stamped on the stator plate ⑤ .



#### BRAKE LINING WEAR LIMIT INDICATOR

This motorcycle is equipped with brake lining wear limit indicators on both front and rear brakes. As shown in the figure A, at the condition of normal lining wear, the extension line of the index mark on the brake cam shaft should be within the range embossed on the brake panel with brake on.

To check wear of the brake lining, perform the following steps:

- First check if the brake system is properly adjusted.
- While operating the brake, check to see that the extension line of the index mark is within the range on the brake panel.
- If the index mark is beyond the range as shown in the figure B, have the brake shoe assembly replaced by your Suzuki dealer to insure safe operation.

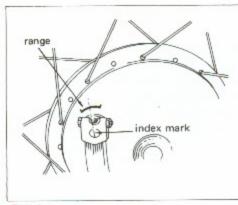


Fig. A

The extention line of the index mark is within the range.

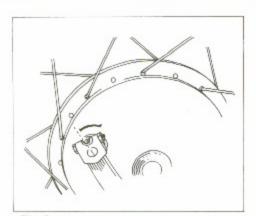
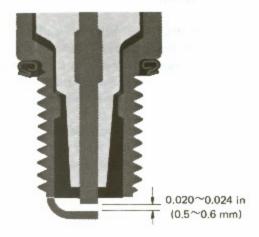


Fig. B

The extention line of the index mark is outside of the range.

#### SPARK PLUG

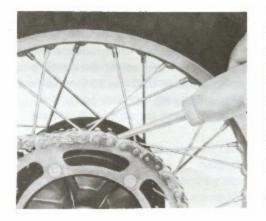
When carbon accumulates on the spark plug, a hot, strong spark will not be produced. Remove carbon deposits with a wire or pin and adjust the spark plug gap to  $0.020 \sim 0.024$  in  $(0.5 \sim 0.6$  mm) by measuring with a feeler gauge.



#### **DRIVE CHAIN**

The drive chain must be kept well lubricated; otherwise it may break due to increased running resistance. Before lubricating the drive chain, wash it with detergent or gasoline, and apply chain oil (molybdenum disulfide) to it.

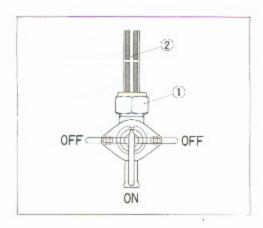
If proper chain oil is not available, dip it in gear oil for about three hours and allow to drain before installation.



#### **FUEL FILTER**

The fuel filter is incorporated in the fuel cock which is mounted on the bottom of the fuel tank at the left side. Accumulation of dirt in the filter will restrict the flow of the fuel and cause the carburetor to malfunction, therefore, the fuel filter should be serviced periodically.

- 1. Drain the fuel from the fuel tank.
- Remove the fuel cock by unscrewing the fitting nut (1).
- Wash the screen filter (2) in cleaning solvent.



#### DECARBONING

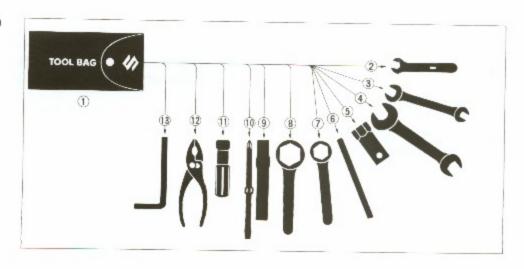
Any excessive accumulation of carbon in the combustion chamber, cylinder ports or the exhaust pipe will adversely affect engine efficiency resulting in a loss in power.

Therefore, these areas should have all carbon removed periodically.

#### TOOL KIT

The tool kit supplied with the PE250 contains the following tools.

- 1. Tool bag
- 2. 5 mm Open end wrench
- 3. 10 x 12 mm Open end wrench
- 4. 14 x 17 mm Open end wrench
- 5. 21 mm Box wrench
- 6. Box wrench handle
- 7. 22 mm Ring wrench
- 8. 32 mm Ring wrench
- 9. Ring wrench handle
- 10. Combination screw driver
- 11. Screw driver handle
- 12. Piliers
- 13. 6 mm Allen wrench



## RACING TUNE-UP

The PE250 is tuned before it is shipped from the Suzuki factory. However, the carburetor, final reduction ratio and spark plug may have to be adjusted or replaced depending on conditions in the field. For improved performance, the following steps should be taken.

#### ADJUSTING CARBURETOR

If carburetion is not perfect, the performance of the engine will be adversely affected. Therefore, the carburetor should be set correctly to meet such conditions as weather, race field, etc. First, clean the carburetor thoroughly, and adjust the following parts as necessary:

#### Carburetor specifications

Bore	36 mm	
Main jet	260	
Jet needle	6DH3-2	
Needle jet	Q-0	
Cut-away	2.5	
Pilot jet	40	
Pilot air adjusting screw	11/2 turns back open	
Float level	13.9 mm	

## How to judge carburetion

Item	Proper	Mixture is rich	Mixture is lean
Spark plug	Porcelain is light brown Porcelain is tan color	Porcelain is sooty Porcelain is oily	Porcelain is whitish Porcelain is burned away
Engine revolution	Engine runs smoothly	Engine does not run smoothly	Engine rpm fluctuates even if the throttle grip is held steady

## Overall carburetor adjustment

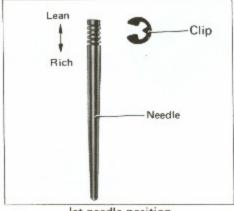
Item	When mixture is rich	When mixture is lean
Engine idling	Screw out pilot air screw	Screw in pilot air screw
Half-throttle	Raise needle clip position	Lower needle clip position
Full-throttle	Replace with main jet having a smaller calibration number	Replace with main jet having a larger calibration number

#### Jet needle

The jet needle determines the fuel-air mixture ratio at half-throttle.

It has five grooves for the clip position. The gasoline flow rate can be varied by changing the position of the clip.

The higher the clip position, the less the gasoline flow rate.

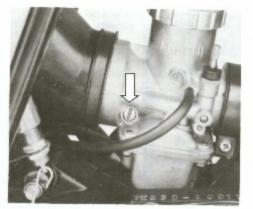


Jet needle position

#### Adjusting pilot air screw

Warm up the engine and turn the pilot air screw clockwise until it seats in the carburetor.

Open the pilot air screw 1½ turns counter-clockwise. Slowly turn the pilot air screw in or out within ¼ turn from the standard setting (1½ turns) until the engine runs smoothly.



#### SPARK PLUG

The standard spark plug for this motorcycle is the NGK B-8EV. This spark plug is 0.55 in (14 mm) thread diameter with a % in (19.0 mm) reach. This spark plug is the right heat range for normal operation in most locales. If the spark plug shows overheating (whitish appearance at the electrode) or is wet and dirty (black or sooty appearance) this could indicate that the spark plug is of the wrong heat range for the conditions under which the motorcycle is being operated.

Generally, when the spark plug heat range is correct, the plug electrode shows a light brown or tan color. Spark plugs of a different heat range may be chosen according to the following table.

NGK	Remarks
B-7EV	If the standard plug is apt to get wet, replace with this plug.
B-8EV	Standard
B-9EV	If the standard plug is apt to overheat, replace with this plug.

#### Caution:

- The heat range selection may be made only under the condition that the carburetion is set properly.
- If another brand of spark plug is to be used other than NGK consult your authorized Suzuki dealer.
- 3) When installing the spark plug, screw it in with your fingers to prevent stripping the threads, then tighten with a torque wrench to  $18.0 \sim 22.0$  ft-lb  $(2.5 \sim 3.0 \text{ kg-m})$

## TROUBLESHOOTING

There can be various causes for problems which might occur on the motorcycle. The following procedures may be used to troubleshoot possible trouble spots.

#### **ENGINE WILL NOT START**

#### Fuel system

- Check that there is sufficient gasoline in the fuel tank.
- Make sure the fuel petcock and fuel tank breather hose are not clogged.

#### Spark plug

- Check that the spark plug gap has not been bridged and short circuited by carbon.
- Check that the plug is not fouled with wet gasoline or oil.
- Clean the spark plug gap and lay the connected spark plug against the cylinder head. Kick over the engine and see if a spark is produced. If not, replace the spark plug or check your ignition system.
- 4. To check the ignition system, remove the spark plug cap from the high tension wire and hold it about 0.28 in (7 mm) from the cylinder head (ground). Kick the engine over and see if a spark jumps this gap. If so, the system is functioning and the problem is probably in the spark plug cap. If this does not produce a spark, have your Suzuki dealer check your ignition system.

#### CLUTCH SLIPPAGE

- If there is no clutch lever play, adjust the cable adjuster for 0.16 in (4 mm) play.
- The clutch will also slip if the plates are worn or the springs have weakened. If so, these items must be replaced.

### EXCESSIVE ENGINE VIBRATION

- Loose engine mounting bolt.
- 2. Crack in the frame.

#### **ENGINE OVERHEATS**

- Carburetion is lean caused by the carburetor setting (main jet selection) not being suitable for running conditions and weather.
- Carbon has collected on the combusion chamber, piston crown, cylinder exhaust port and expansion chamber.
- The spark plug has too hot a heat range.

#### BAD RUNNING STABILITY

- Improper front or rear tire air pressure.
- Improper front or rear wheel alignment.
- Improperly tightened front axle nut or steering stem lock nut.

# ENGINE WILL NOT REV UP OR WILL NOT RUN SMOOTHLY

- The carburetor choke knob is not fully returned.
- Too rich carburetion.
- Clogged air cleaner element.

## MAINTENANCE SCHEDULE (For competition use)

Service Item	Each race	Every 2 races	Every 5 races	Remarks
Piston ring		Replace		
Transmission oil	_	Change	_	
Engine sprocket	_	77004	_	Replace every 10 races
Drive chain	Lubricate and adjust slack	_	Replace	
Rear sprocket	_	_	Replace	
Drive chain buffer	_		Replace	
Drive chain guide roller	_	Replace	_	
Spoke nipple	Retighten	_	_	

Service Item	Each race	Every 2 races	Every 5 races	Remarks
Air cleaner	Check	Clean	_	
Kick starter lever		Apply grease		
Throttle, brake & clutch cable	Lubricate and adjust	_	Replace	
Bolts and nuts	Retighten (see page 52)	_	_	
Spark plug	Check & clean	_	<u></u>	Replace every 10 races

\*

## MAINTENANCE SCHEDULE (For off-road use)

Distance	Initial 600 Miles	Every 2,000 Miles	Every 4,000 Miles	Every 8,000 Miles
Item	Initial 1,000 Km	Every 3,000 Km	Every 6,000 Km	Every 12,000 Km
Air cleaner element	7	Wash and apply CCI oil		-
Carburetor	Adjust with throttle valve screw and pilot air screw	Adjust with throttle valve screw and pilot air screw		Overhaul and clean
Clutch	Adjust	Adjust	_	_
Cylinder head and cylinder	Retighten cylinder head nuts	Retighten cylinder head nuts	Remove carbon	_
Drive chain	Adjust, wash	Adjust	Wash	
Muffler	_		Remove carbon	_

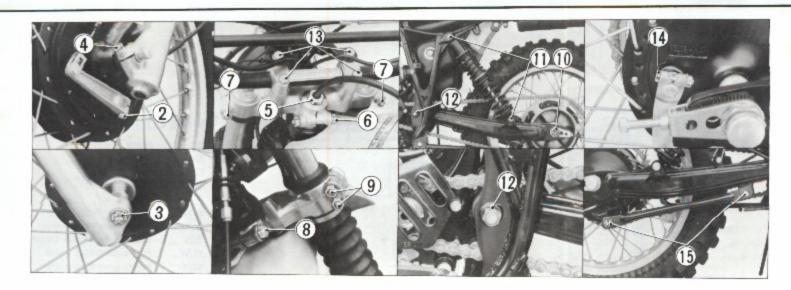
Distance	Initial 600 Miles	Every 2,000 Miles	Every 4,000 Miles	E 2
	Initial 1,000 Km	Every 3,000 Km	Every 6,000 Km	Every 2 years
Spark plug	Clean	Clean and adjust gap	Replace	_
Brakes	Adjust play	Adjust play	_	_
Transmission oil	Change	Change	_	_
Steering stem	Check play	-	Check play	_
Bolts and nuts	Retighten	_	Retighten	
Fuel hose		_	_	Replace

## TORQUE SPECIFICATIONS

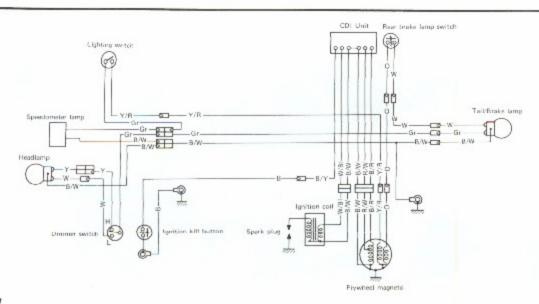
Bolts and nuts in a motorcycle must be expected to become loose more or less in the long course of usage because of cruel shocks and vibrations to which the vehicles of this kind are subjected. Thus, it is highly desirable and, for some critical bolts and nuts, mandatory to check and retighten them from time to time.

Bolts and nuts, listed below, are keynotes for safety. They must be retightened to the torque values indicated. Never use ordinary wrenches; use torque wrenches in servicing the listed bolts and nuts.

1.	Cylinder head nuts	190 ~ 250 kg-cm	(13.5 ~ 16.5 ft-lb)
2.	Front brake cam lever bolt	60 ~ 80	(4.0 ~ 5.5)
3.	Front axle nut	450 ~ 520	$(32.0 \sim 37.5)$
4.	Front axle clamp bolt	200 ~ 250	$(14.0 \sim 18.0)$
5.	Steering stem head bolt	450 ~ 550	$(32.0 \sim 39.5)$
6.	Steering stem upper clamp bolt	200 ~ 250	$(14.0 \sim 18.0)$
7.	Front fork upper clamp nuts	200 ~ 250	$(14.0 \sim 18.0)$
8.	Steering stem lower clamp bolt	250 ~ 300	$(18.0 \sim 21.5)$
9.	Front fork lower clamp bolts	200 ~ 250	$(14.0 \sim 18.0)$
10.	Rear axle nut	650 ~ 800	$(46.5 \sim 57.5)$
11.	Rear shock absorber fitting bolts	250 ~ 300	$(18.0 \sim 21.5)$
12.	Rear swinging arm pivot nut	650 ~ 800	$(46.5 \sim 57.5)$
13.	Handlebar clamp bolts	160 ~ 200	$(11.5 \sim 14.0)$
14.	Rear brake cam lever bolt	60 ~ 80	$(4.0 \sim 5.5)$
15.	Rear torque link nuts	120 ~ 150	( 8.5 ~ 10.5)



## WIRING DIAGRAM



#### WIRE COLOR

B . . . . Black
Gr. . . . Gray
O . . . Orange
W . . . . White
Y . . . Yellow
B/R . . Black with Red tracer
B/W . . Black with White tracer
B/Y . . Black with Yellow tracer
R/W . . Red with White tracer
W/BI . . White with Blue tracer
Y/R . . Yellow with Red tracer



#### Prepared by

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