

1982

**SUZUKI**

**OWNER'S MANUAL**

**GS300L**

## **IMPORTANT BREAK-IN INFORMATION FOR YOUR MOTORCYCLE**

The first 1 000 miles (1 600 km) are the most important miles in the life of your motorcycle. Proper break-in operation during this time will help ensure maximum life and performance from your new motorcycle. Suzuki parts are manufactured of high quality materials, and machined parts are finished to close tolerances. Proper break-in operation allows the machined surfaces to polish each other and mate smoothly.

Vehicle reliability and performance depend on special care and restraint exercised during the break-in period. It is especially important that you avoid operating the engine in a manner which could expose the engine parts to excessive heat.

Please refer to the Break-In section of this manual for specific break-in recommendations.

*THANK YOU for choosing Suzuki. We at Suzuki have designed, tested and produced this motorcycle using the most modern technology available to provide you with many happy, enjoyable, safe miles of riding. Motorcycling is one of man's most exhilarating sports and to insure your riding enjoyment, you should become thoroughly familiar with the information presented in this Owner's Manual before riding the motorcycle.*

*The proper care and maintenance that your motorcycle requires is outlined in this manual. By following these instructions explicitly you will insure a long trouble free operating life for your motorcycle. This motorcycle also conforms to the U.S. Environmental Protection Agency emission regulations which apply to new motorcycles. The proper adjustment of engine components is necessary for this motorcycle to comply with the EPA regulations. Therefore, please follow the maintenance instructions closely to ensure emission compliance. Your Suzuki dealer has experienced technicians that are trained to provide your machine with the best possible service with the right tools and equipment.*

**SUZUKI MOTOR CO.,LTD.**

# IMPORTANT NOTICE

FOREWORD

*Please read this manual and follow its instructions carefully.*

*To emphasize special information the words **WARNING**, **CAUTION** and **NOTE** carry special meanings and should be carefully reviewed.*

**WARNING:** . . . . . *The personal safety of the rider may be involved. Disregarding this information could result in injury to the rider.*

**CAUTION** . . . . . *These instructions point out special service procedures or precautions that must be followed to avoid damaging the machine.*

**NOTE** . . . . . ***Special informaion to make maintenance easier or important instructions more clear.***

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*All information, illustrations, photographs and specifications contained in this manual are based on the latest product information available at the time of publication. Due to improvements or other changes, there may be some discrepancies in this manual. Suzuki reserves the right to make changes at any time.*

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(3) inspect for proper ground clearance and bank angle. An improperly mounted load could critically reduce these two safety factors. Also determine that the "load" does not interfere with the operation of the suspension, steering or other control operations.

# CONSUMER INFORMATION

## ACCESSORY INSTALLATION AND PRECAUTION SAFETY TIPS

There are a great variety of accessories available to Suzuki owners. Suzuki cannot have direct control over the quality or suitability of accessories you may wish to purchase. The addition of unsuitable accessories can lead to unsafe operating conditions. It is not possible for Suzuki to test each accessory on the market or combinations of all the available accessories; however, your dealer can assist you in selecting quality accessories and installing them correctly.

Use extreme caution when selecting and installing the accessories for your Suzuki. We have developed some general guidelines which will aid you when deciding whether, and how to equip your motorcycle.

- (1) Never exceed the GVWR (Gross Vehicle Weight Rating) shown on the Safety Label Attached to the steering stem frame tube. The GVWR is the combined weight of the machine, accessories, payload, rider and passenger. When selecting your accessories, keep in mind the weight of the rider and passenger as well as the weight of the accessories. The additional weight of the accessories may not only create an unsafe riding condition but may also affect the steering ease.

**GVWR—GS300L : 790 lbs (358 kg)** at tire pressure (cold) front: psi 24 psi (1.69 kg /cm<sup>2</sup>) rear: 32 psi (2.25 kg/cm<sup>2</sup>)

- (2) Anytime that additional weight or aerodynamic affecting accessories are installed, they should be mounted as low as possible, as close to the motorcycle and as near the center of gravity as is feasible. The mounting brackets and other attachment hardware should be carefully checked to insure that it provides for a rigid, non-moveable mount. Weak mounts can allow the shifting of the weight and create a dangerous unstable condition.
- (3) Inspect for proper ground clearance and bank angle. An improperly mounted load could critically reduce these two safety factors. Also determine that the "load" does not interfere with the operation of the suspension, steering or other control operations.

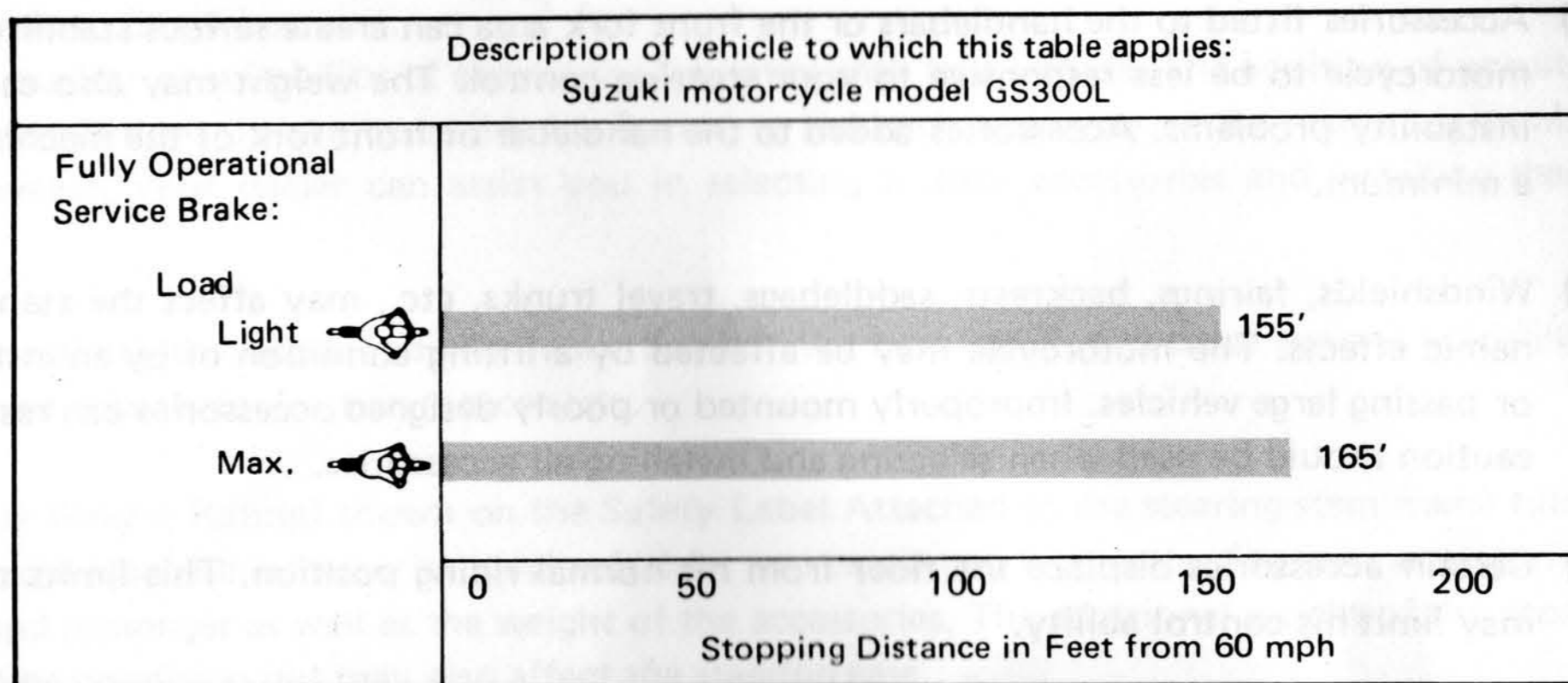
- (4)** Accessories fitted to the handlebars or the front fork area can create serious stability problems. This extra weight will cause the motorcycle to be less responsive to your steering control. The weight may also cause oscillations in the front end and lead to instability problems. Accessories added to the handlebar or front fork of the machine should be as light as possible and kept to a minimum.
- (5)** Windshields, fairings, backrests, saddlebags, travel trunks, etc., may affect the stability of the motorcycle due to their aerodynamic effects. The motorcycle may be affected by a lifting condition or by an instability in cross winds or when being passed or passing large vehicles. Improperly mounted or poorly designed accessories can result in an unsafe riding condition, therefore, caution should be used when selecting and installing all accessories.
- (6)** Certain accessories displace the rider from his normal riding position. This limits the freedom of movement of the rider and may limit his control ability.
- (7)** Additional electrical accessories may overload the existing electrical system. Severe overloads may damage the wiring harness or create a dangerous situation due to the loss of electrical power during the operation of the motorcycle.

When carrying a load on the motorcycle, mount it as low as possible and as close as possible to the machine. An improperly mounted load can create a high center of gravity which is very dangerous and makes the motorcycle difficult to handle. The size of the "load" can also affect the aerodynamics and handling of the motorcycle. Balance the load between the left and right side of the motorcycle and fasten it securely.

### VEHICLE STOPPING DISTANCE

This figure indicates braking performance that can be met or exceeded by the vehicle to which it applies, without locking the wheels, under different condition of loading.

**NOTICE:** The information presented represents results obtainable by skilled driver under controlled road and vehicle conditions, and the information may not be correct under other conditions.





## **SAFE-RIDING RECOMMENDATION FOR MOTORCYCLE RIDERS**

Motorcycle riding is great fun and an exciting sport. Motorcycle riding also requires that some extra precautions be taken to insure the safety of the rider and passenger. These precautions are:

### **WEAR A HELMET**

Motorcycle safety equipment starts with a quality safety helmet.

One of the most serious injuries that can happen is a head injury. ALWAYS wear a properly approved helmet. You should also wear suitable eye protection.

### **RIDING APPAREL**

Loose fancy clothing can be uncomfortable and unsafe when riding your motorcycle. Choose good quality motorcycle riding apparel when riding your motorcycle.

### **INSPECTION BEFORE RIDING**

Review thoroughly the instructions in the "INSPECTION BEFORE RIDING" section of this manual. Do not forget to perform an entire safety inspection to insure the safety of the rider and its passenger.

### **FAMILIARIZE YOURSELF WITH THE MOTORCYCLE**

Your riding skill and your mechanical knowledge form the foundation for safe riding practices. We suggest that you practice riding your motorcycle in a non-traffic situation until you are thoroughly familiar with your machine and its controls. Remember practice makes perfect.

## **KNOW YOUR LIMITS**

Ride within the boundaries of your own skill at all times. Knowing these limits and staying within them will help you to avoid accidents.

## **BE EXTRA SAFETY CONSCIOUS ON BAD WEATHER DAYS**

Riding on bad weather days, especially wet ones, requires extra caution. Braking distances double on a rainy day. Stay off of the painted surface marks, manhole covers and greasy appearing areas as they can be especially slippery. Use extreme caution at railway crossings and on metal gratings and bridges. Whenever in doubt about road conditions, slow down!

## **MOTORCYCLE SAFETY FOUNDATIONS "RIDING TIPS FOR THE MOTORCYCLIST" HANDBOOK**

This special manual, supplied in the pouch with your Owner's Manual, contains safety tips on a wide variety of topics. This manual can increase your riding enjoyment and safety and should be read thoroughly.

### SERIAL NUMBER LOCATION

The frame and/or engine serial numbers are used to register the motorcycle. They are also used to assist your dealer when ordering parts or referring to special service information.

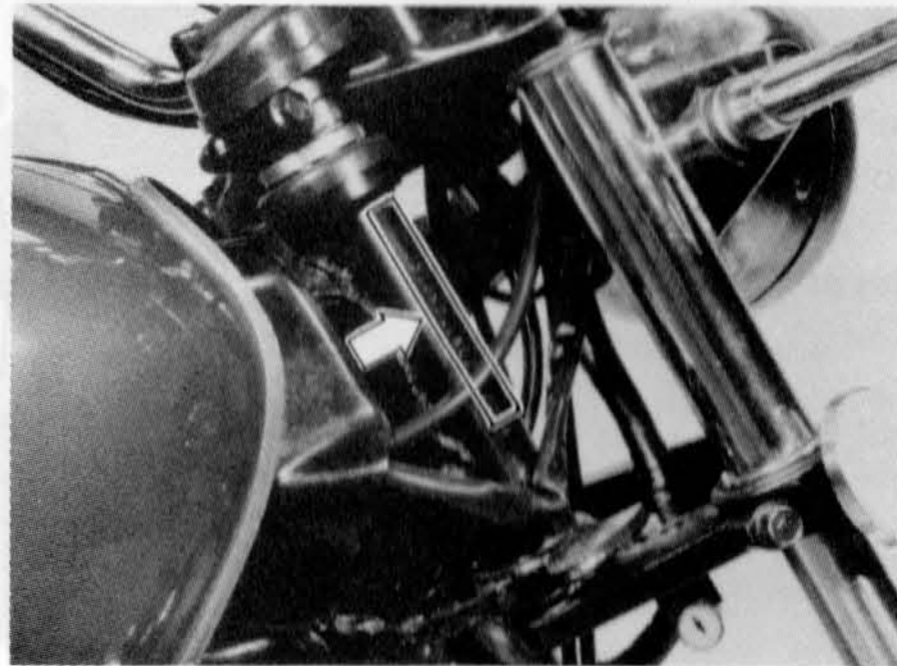
The frame number is stamped on the steering head tube. The engine serial number is stamped on the right side of the crankcase assembly.

Please write down the numbers here for your reference.

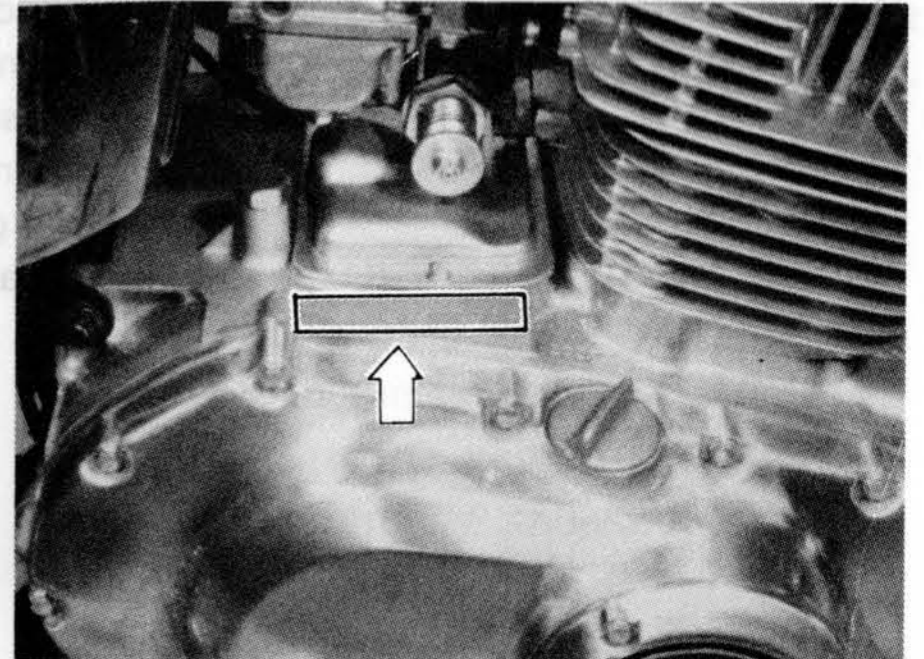
Frame number.:

Engine number.:

### IGNITION SWITCH



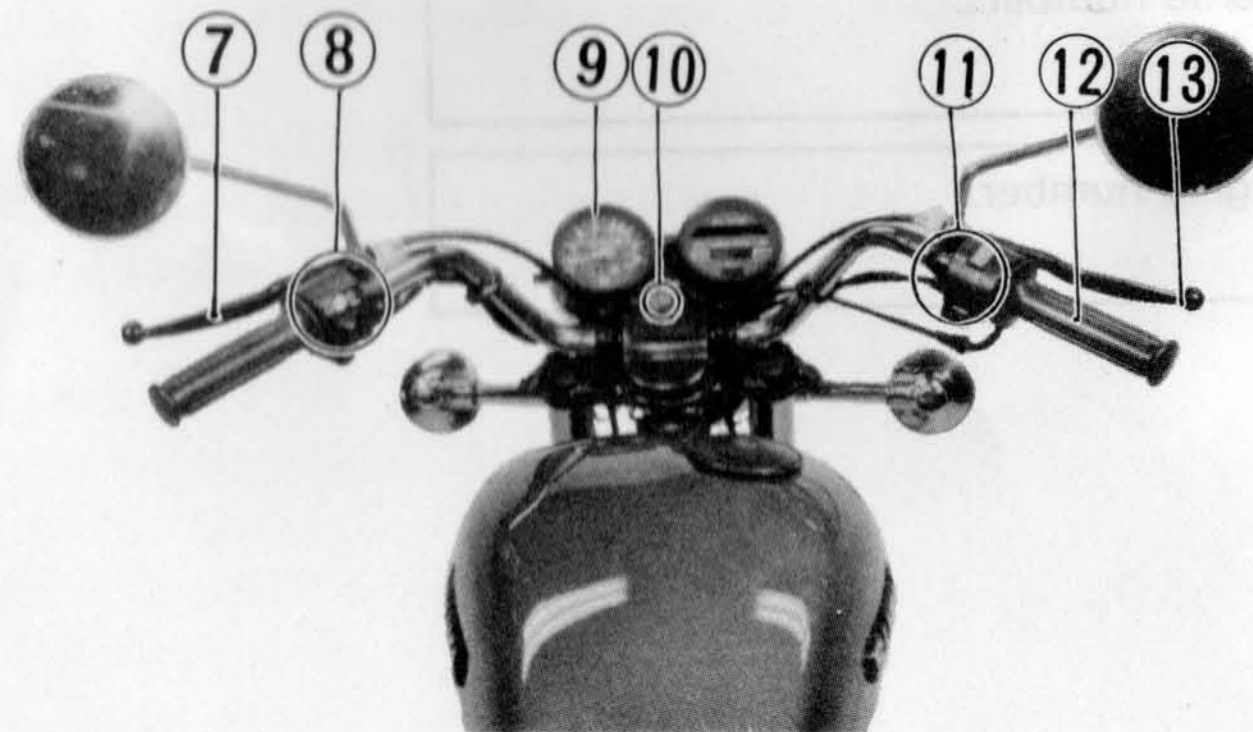
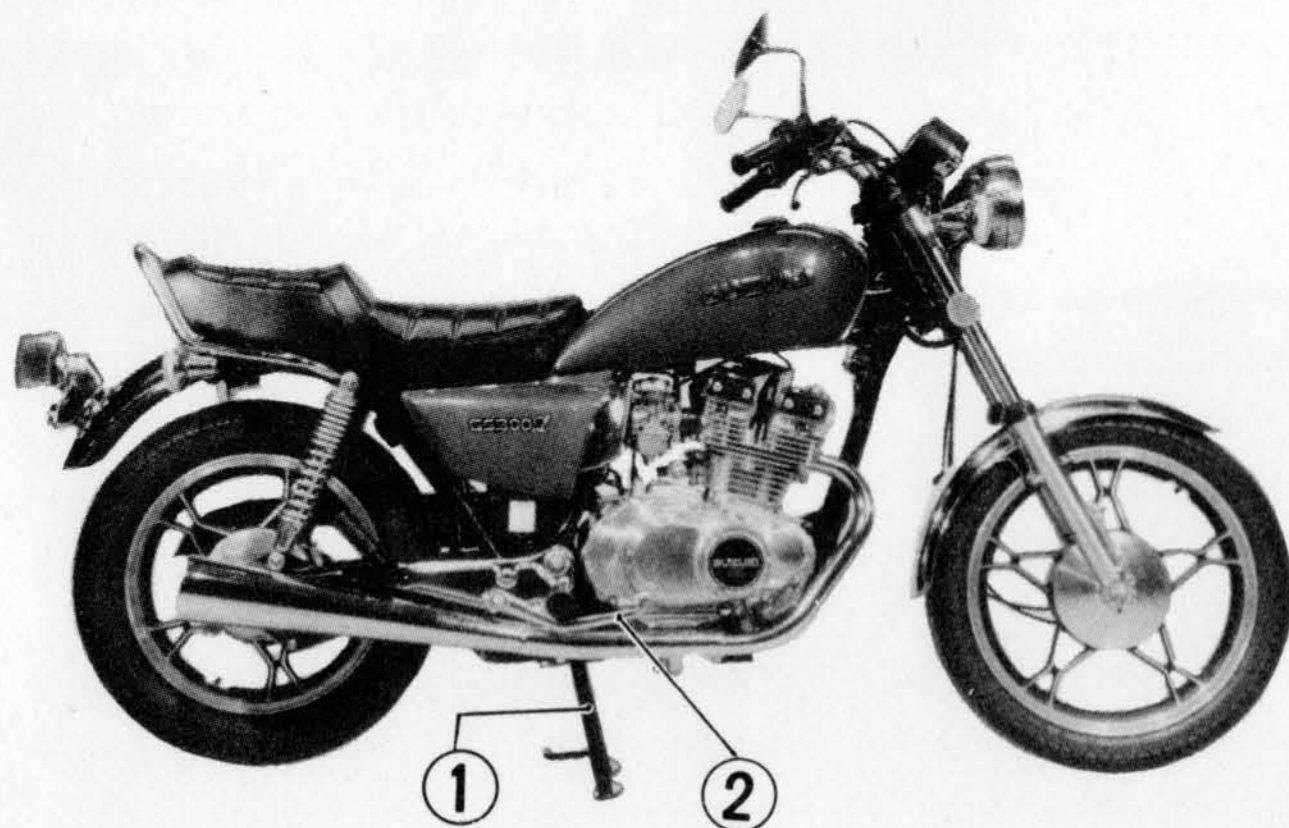
Frame number



Engine number

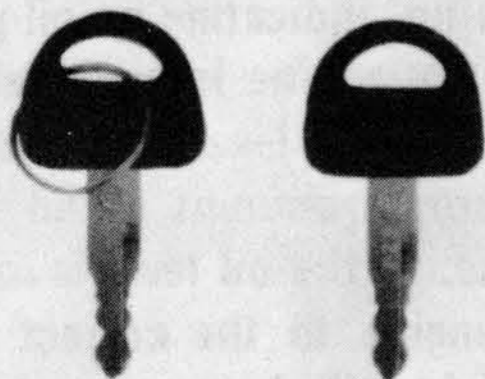
# LOCATION OF PARTS

- |                         |                          |
|-------------------------|--------------------------|
| ① Center stand          | ⑧ Left handlebar switch  |
| ② Rear brake pedal      | ⑨ Speedometer            |
| ③ Fuelcock              | ⑩ Ignition switch        |
| ④ Carburetor choke knob | ⑪ Right handlebar switch |
| ⑤ Gearshift lever       | ⑫ Throttle grip          |
| ⑥ Side stand            | ⑬ Front brake lever      |
| ⑦ Clutch lever          |                          |



# CONTROLS

## KEY



This motorcycle comes equipped with two (2) identical keys. Keep the spare key in a safe place.

Your motorcycle ignition keys are stamped with an identifying number. This number is used when making replacement keys.

Please write your key number in the box provided for your future reference.

KEY NO.:

## IGNITION SWITCH



The ignition switch has four (4) positions:

### "OFF" POSITION

All electrical circuits are cut off.

### "ON" POSITION

The ignition circuit is completed and the engine can now be started. The headlight and taillight will automatically be turned on when the key is in this position. The key cannot be removed from the ignition switch in this position.

### "PARKING" POSITION ("P" POSITION)

When parking the motorcycle, turn the handlebar all the way to the left. The key can now be removed and the taillight

will remain lit. This position is for night time roadside parking to increase visibility.

### "LOCK" POSITION

To lock the steering, turn the handlebar all the way to the right or the left. Push down and turn the key to the "LOCK" position and remove the key. All electrical circuits are cut off.

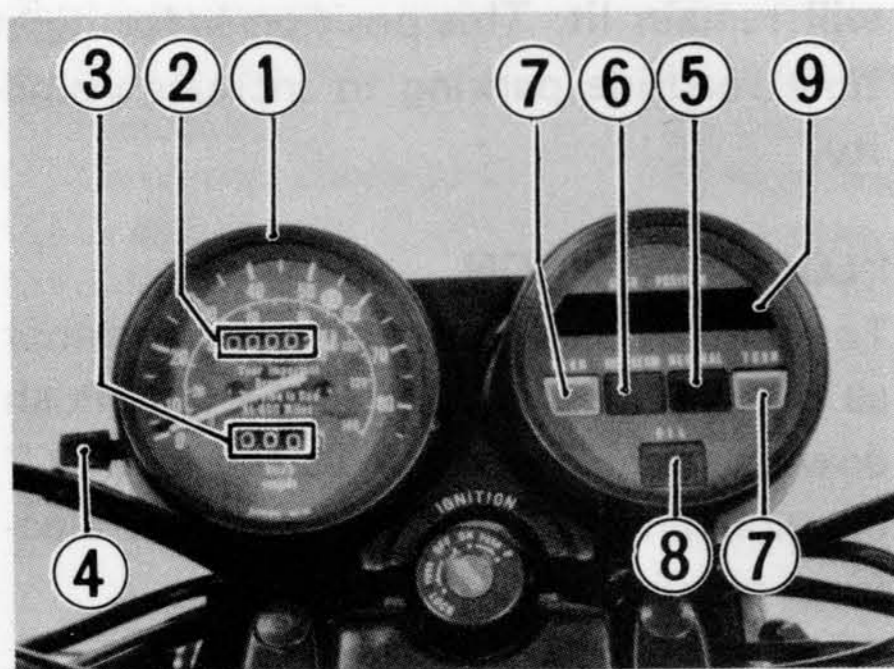
### CAUTION:

**Start the engine promptly after turning the ignition key to the "ON" position. The reason for this is that the headlight and taillight come on at the same time the ignition is turned on and will cause the battery to lose power.**

### WARNING:

**Before turning the ignition switch to the (P) "PARK" or "LOCK" position, stop the motorcycle and place the motorcycle on either the side stand or the center stand.**

**INSTRUMENT PANEL**



**SPEEDOMETER ①**

The speedometer indicates the road speed in miles per hour and/or kilometers per hour.

**ODOMETER ②**

The odometer registers the total distance that the motorcycle has been ridden.

**TRIP METER ③**

The trip meter is a resettable odometer located in the speedometer assembly. It can be used to indicate the distance traveled on short trips or between fuel stops. Turning the knob ④ counter-

clockwise will return the meter to zero.

**NEUTRAL INDICATOR LIGHT ⑤**

The green light will come on when the transmission is in neutral. The light will go out when you shift into any gear other than neutral.

**HIGH BEAM INDICATOR LIGHT ⑥**

The blue indicator light will be lit when the headlight high beam is turned on.

**TURN SIGNAL INDICATOR LIGHT ⑦**

When the turn signals are being operated either to the right or left side, the amber indicator light will flash.

**OIL PRESSURE INDICATOR LIGHT ⑧**

With the ignition switch in the "ON" position but the engine not started, the oil pressure indicator light should be lit. As soon as the engine is started, the light should go out.

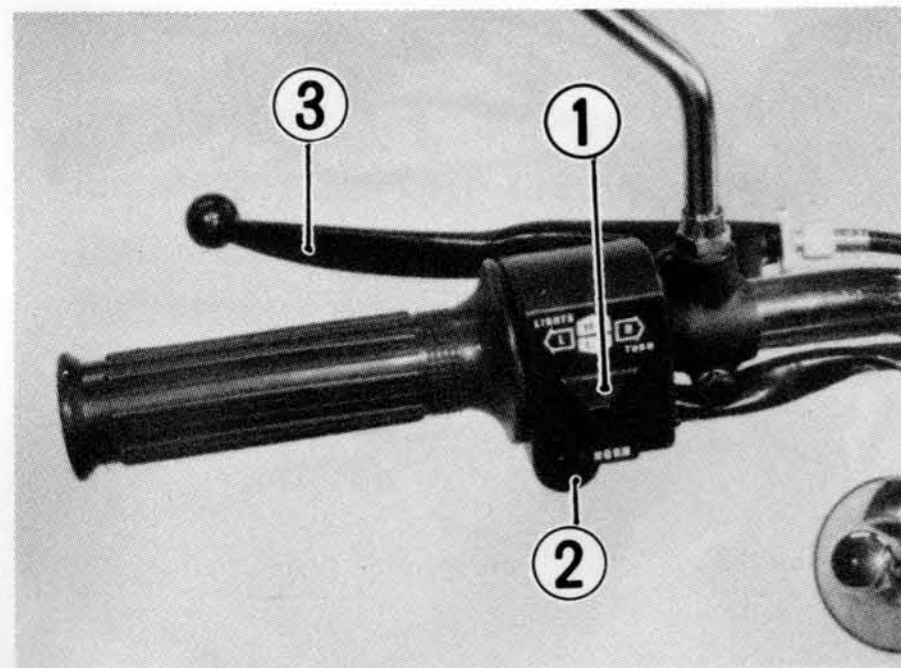
**CAUTION:**

Whenever the oil pressure indicator lights up, indicating no oil pressure, stop the engine immediately. First check the oil level and determine if the proper amount of oil is in the engine. If the oil level is low, refill the engine to the correct level. If the light still does not go out, then have your authorized Suzuki dealer inspect your motorcycle to determine the difficulty. Do not operate the motorcycle when the light is lit as it may cause serious damage to the internal parts of the engine or transmission.

**GEAR POSITION INDICATOR ⑨**

The numeral in this indicator shows the gear position, 1, 2, 3, 4 or 5. The numeral disappears as you shift back to neutral; NEUTRAL INDICATOR LIGHT (green) will burn instead.

## LEFT HANDLEBAR



### LIGHTS OPERATING SWITCH DIMMER OPERATING ①

The headlight on this motorcycle will always be lit when the ignition switch is in the "ON" position. When the lights operating switch is moved to the "HIGH" position, the high beam will be lit. At the same time that the high beam is lit, the high beam indicator light will also light in the center instrument panel. When the lights operating switch is moved to the "LO" position, the low beam will be lit.

### TURN SIGNAL OPERATING ①

Sliding the lights operating switch to the "L" position will flash the left turn signal. Moving the switch to the "R" position will flash the right turn signal. The pilot or indicator light will also flash intermittently.

#### **WARNING:**

Always use the turn signal when you intend to change lanes or make a turn. ALWAYS be sure to turn the turn signal switch to the "OFF" position after completing the turn or lane change.

### HORN BUTTON ②

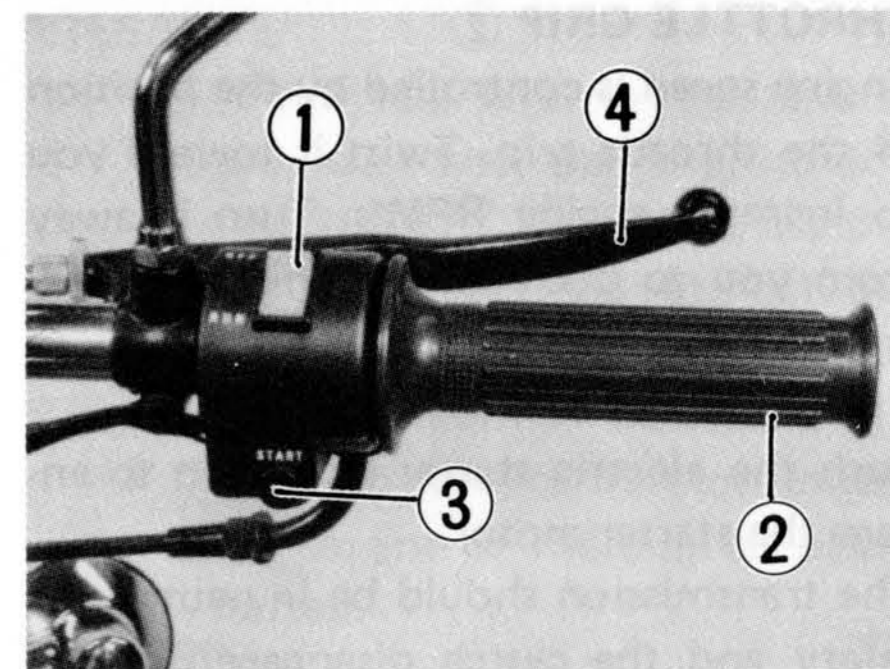
Press the button to honk the horn.

### CLUTCH LEVER ③

The clutch lever is used to interrupt drive to the rear wheel when starting the engine or shifting the transmission gear.

Squeezing the lever disengages the clutch.

## RIGHT HANDLEBAR



### ENGINE KILL SWITCH ①

The engine "kill switch" is located on the top of the right handlebar grip switch housing. This is a "rocker" style switch which pivots in the center.

In the "RUN" position the ignition circuit is on and the engine will operate. The switch is intended primarily as a safety or emergency switch. When the switch is in the "OFF" position the starter motor cannot be energized, nor will the ignition circuit be energized.

### THROTTLE GRIP ②

Engine speed is controlled by the position of the throttle grip. Twist it toward you to increase engine RPM's. Turn it away from you to decrease the engine RPM's.

### ELECTRIC STARTER BUTTON ③

Push the electric starter button in to engage the starter motor.

The transmission should be in neutral for safety and the clutch disengaged during starting.

*NOTE: The starter interlock switch is equipped on this motorcycle. If the clutch lever is not disengaged, the starter motor will not rotate.*

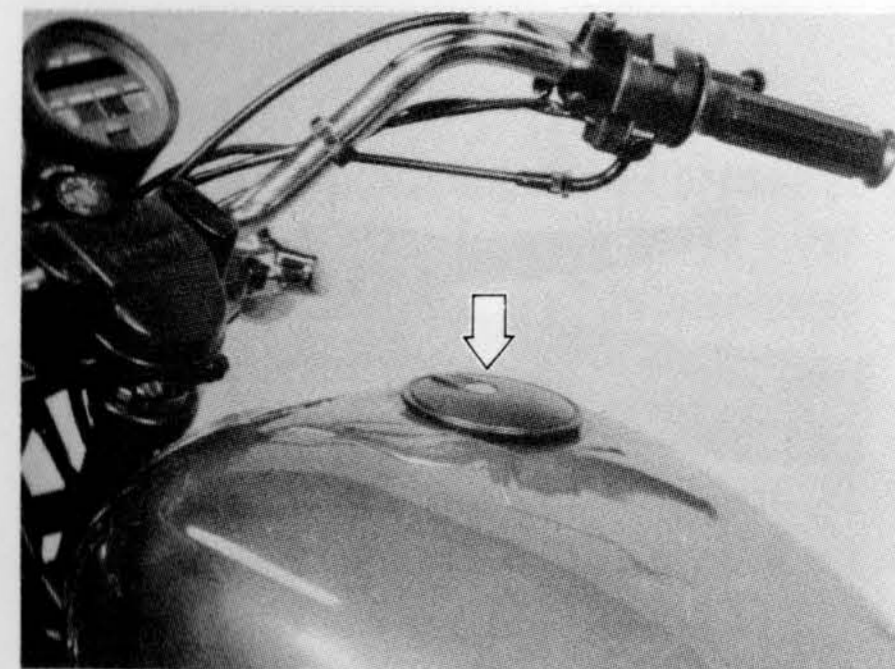
#### **CAUTION:**

**Do not engage the starter motor more than five (5) seconds at a time as it may overheat the wiring harness and starter motor. If the engine does not start after several attempts, check the fuel supply and ignition systems. (Refer to the troubleshooting section).**

### FRONT BRAKE LEVER ④

The front brake is applied by squeezing the right handlebar brake lever gently towards the throttle grip.

### FUEL TANK CAP



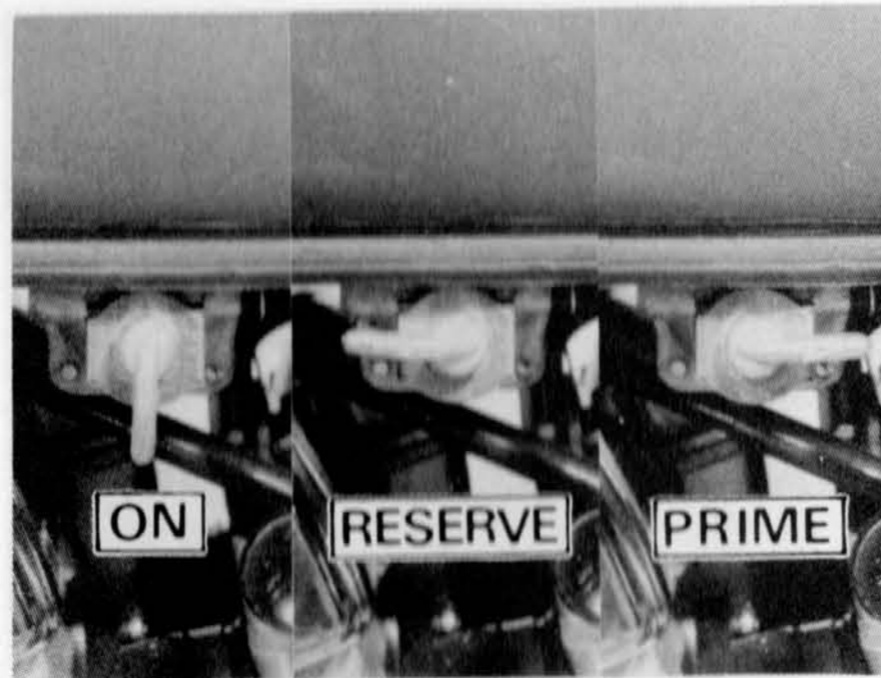
The fuel tank cap is a new low profile style which blends in smoothly with the lines of the fuel tank. To open the fuel tank cap insert the ignition key and turn the key clockwise. With the key still held in a clockwise position, lift up on the key and remove the filler cap. To install the fuel tank cap, face the arrow mark on the cap forward, simply line up the fuel tank cap guide pins and push down until the locking pins click into position. The key must be in the cap lock or turned before installing cap. Turn the key counter-clockwise and remove it.



**WARNING:**

When re-fueling, always shut the engine off and turn the ignition key the "OFF" position. Never re-fuel around an open flame.

**FUELCOCK**



This motorcycle is equipped with an automatic type, diaphragm style fuelcock. There are three positions: "ON", "RESERVE" and "PRIME".

**"ON"** The normal position for the cock lever is on the "ON" position. In this position, no fuel will flow from the cock to the carburetor unless the engine is running or being started.

**"RESERVE"**

If the fuel level in the tank is too low, turn the lever to the "RESERVE" position to use the 2.0 liters (2.1 US qt.) of the reserve fuel supply. In this position, no fuel will flow from the cock to the carburetor unless the engine is running or being started.

**"PRIME"**

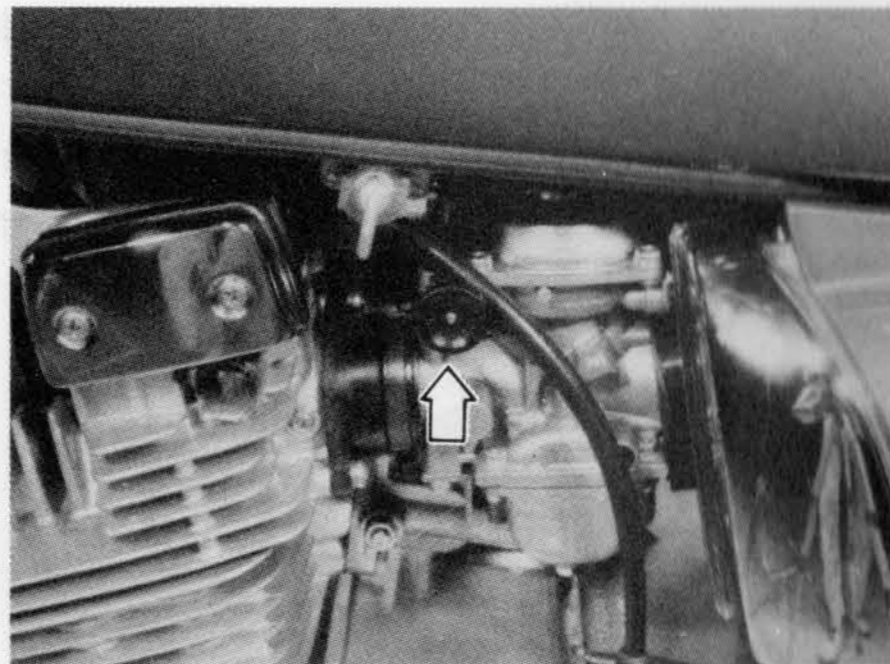
If the motorcycle has run out of fuel or has been stored for an extended period, there may not be any gasoline in the carburetors. In this instance the fuelcock lever should be moved to the "PRIME" position. This will allow the fuel to flow directly into the carburetors even though the engine is not operating. Upon starting the engine, be sure to return the lever to the "ON" position or, if necessary, to the "RESERVE" position.

**CAUTION:**

Leaving the cock in the "PRIME" position may cause the carburetors to overflow and fuel to run into the engine. It is possible that this may cause severe mechanical damage when the engine is started.

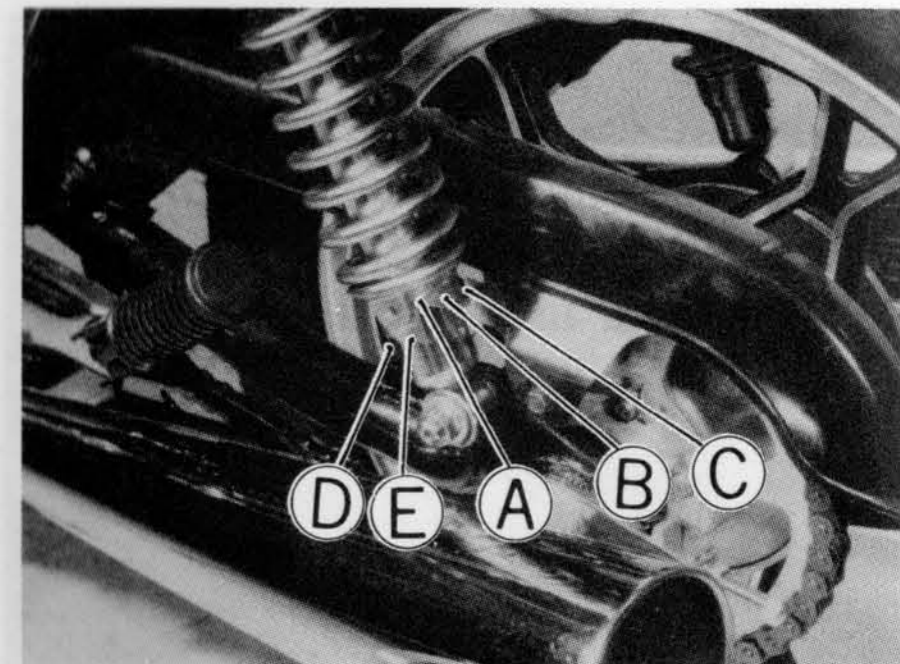
*NOTE: After switching the fuel tank supply to the "RESERVE" position, it is advisable that the tank be refilled at the closest gas station. After re-fueling be sure to move the cock to the "ON" position.*

**CARBURETOR CHOKE KNOB**



The carburetors of this motorcycle are equipped with a "choke" system to provide easy starting. When starting a cold engine, pull the choke knob all the way and engage the electric starter. After the engine starts, try to limit the engine speed to approximately 2 000 RPM by varying the choke knob position. The choke system will operate only when the throttle is in the closed position as opening the throttle will bypass the choke system. When the engine is warm, the choke system does not need to be used for starting. Always be certain to return the choke knob back to its normal position after the engine reaches normal operating temperatures.

**REAR SUSPENSION**

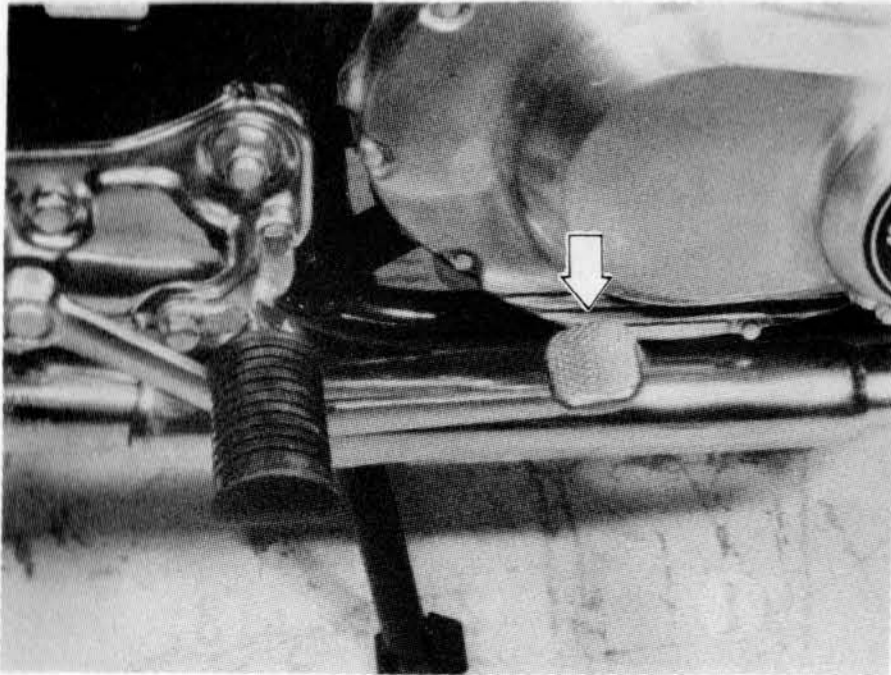


The rear shock absorbers spring tension should be adjusted to meet road condition and motorcycle speed. To change the spring preload setting ②, turn the bottom spring seat to the desired notch. Position ① provides the softest spring tension and position ⑤ provides the stiffest spring tension. Position ③ is for normal riding.

**WARNING:**

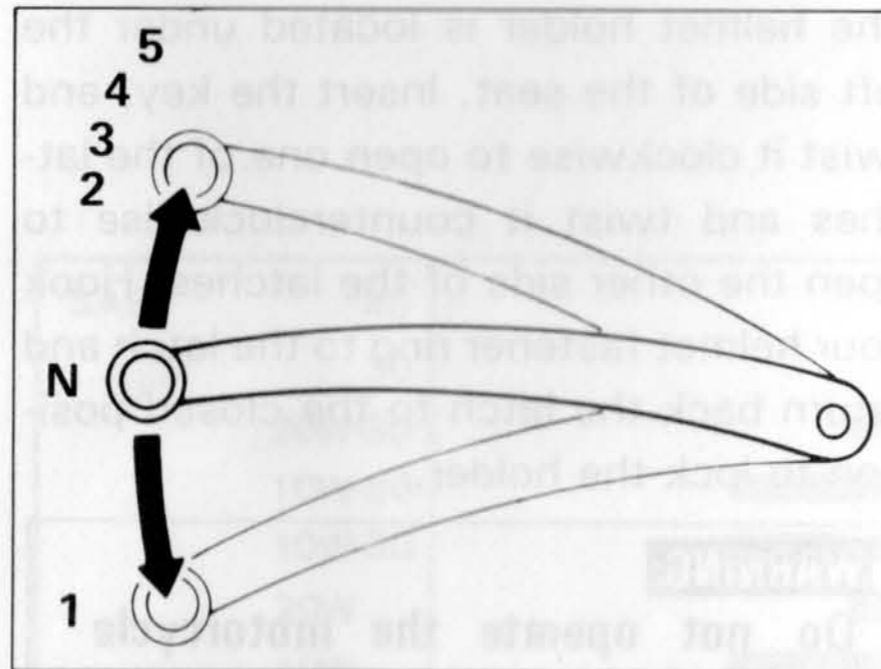
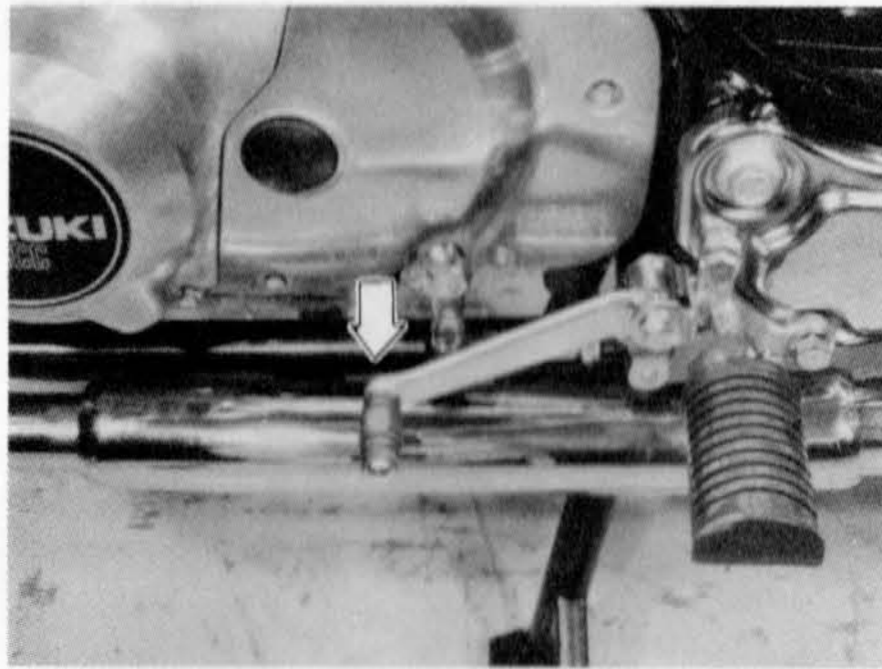
Be sure to adjust the springs of the two absorbers equally. Making one spring stiffer than the other disturbs the running stability of the machine.

### REAR BRAKE PEDAL



Depressing the rear brake pedal will apply the rear brake. The brake light will be lit when the rear brake is operated.

### GEARSHIFT LEVER



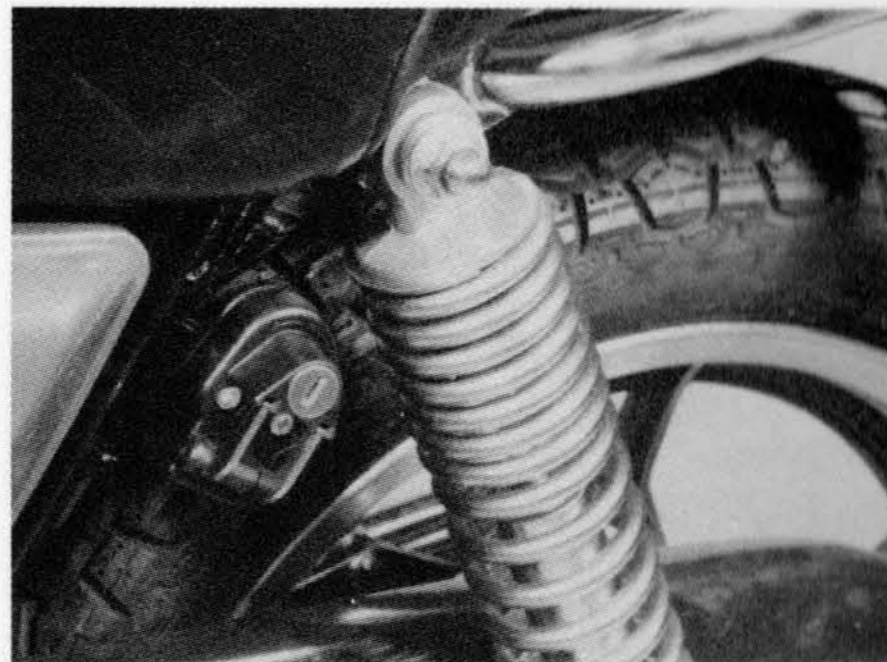
This motorcycle equipped with a 5-speed constant mesh transmission which operates as shown in the figure. The shift lever is attached to a ratchet type mechanism in the transmission. Each time that a gear is selected, the gear shift lever will return to its normal position ready to select the next gear. Neutral is located between low and 2nd gear. Low gear is engaged by depressing the lever downward from the neutral position. Shifting into the higher gears is accomplished by lifting up on the shift lever once for each gear. It is not possible to up shift or down shift more than one gear at a time due the ratchet mechanism being used. When shifting from low to 2nd gear or 2nd gear to low, neutral will be automatically skipped. When neutral is desired, depress or lift the lever to a position halfway between low and 2nd gear.

**CAUTION:**

When the transmission is in neutral the green indicator light will be lit on the instrument panel. However, even though the light is lit, cautiously release the clutch lever slowly to determine whether the transmission is positively in neutral.

Reduce your road speed before downshifting. When down shifting, the engine speed should be increased before the clutch is engaged. This will prevent unnecessary wear on the drivetrain components and rear tire.

**HELMET HOLDER**

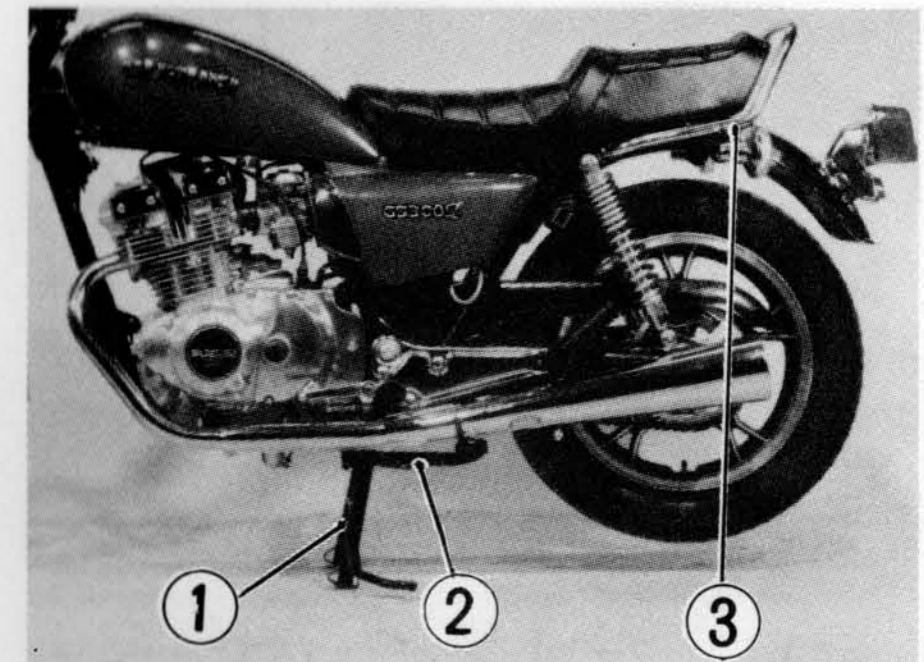


The helmet holder is located under the left side of the seat. Insert the key, and twist it clockwise to open one of the latches and twist it counterclockwise to open the other side of the latches. Hook your helmet fastener ring to the latch and return back the latch to the closed position to lock the holder.

**WARNING:**

Do not operate the motorcycle with a helmet fastened to the helmet holder. The helmet may be caught in the wheel causing an accident, or interfere with safe operation of the motorcycle.

**STANDS**



- ① Center stand
- ② Side stand
- ③ Lift bar and Passenger handrail

This motorcycle is equipped with both a center stand and a side stand. To place the motorcycle on the center stand, place your foot firmly on the stand extension and then rock the motorcycle to the rear and upward with the lift bar with your right hand, while steadying the handlebars with your left hand.

# FUEL AND OIL RECOMMENDATION

## FUEL

Use only unleaded or low-lead type gasoline of at least 85 – 95 pump octane ( $\frac{R+M}{2}$  method) or 89 octane or higher rated by the Research method. If engine pinging is experienced, substitute another brand as there are differences between brands.

*NOTE: Unleaded and low-lead gasoline will extend spark plug life.*

## ENGINE OIL

SUZUKI recommends the use of **SUZUKI PERFORMANCE 4 MOTOR OIL** or an oil which is rated SE or SF under the API (American Petroleum Institute) classification system.

The viscosity rating should SAE 10W-40. If an SAE 10W-40 oil is not available, select an alternate according to the chart below.



This is a very high performance, SAE 10W-40 SF oil with special friction modifier added.

SAE	40								
	30								
	20W-50								
	10W-50								
	10W-30								
	20W								
	10W								
Temperature		°C	-20	-10	0	10	20	30	40
		°F	-4	14	32	50	68	86	104

# BREAK-IN

The foreword explains how important proper break-in is to achieving maximum life and performance from your new Suzuki. The following guidelines explain proper break-in procedures.

## MAXIMUM SPEED RECOMMENDATIONS

This table shows the maximum allowable speed in km/h and mile/h for each gear position during the break-in period. However, do not exceed the speed limit under applicable traffic laws and regulations in your area.

Gear position		Initial 500 miles (800 km)	Up to 1 000 miles (1 600 km)	Over 1 000 miles (1 600 km)
1st	km/h	20	30	45
	mile/h	12	19	28
2nd	km/h	30	50	70
	mile/h	19	31	43
3rd	km/h	40	65	95
	mile/h	25	40	59
4th	km/h	50	80	115
	mile/h	31	50	71
Top	km/h	60	90	135
	mile/h	37	56	84
Corresponding Engine speed r/min		4000 r/min	6000 r/min	9000 r/min

## VARY THE ENGINE SPEED

The engine speed should be varied and not held at a constant speed. This allows the parts to be "loaded" with pressure, and then unloaded, allowing the parts to cool. This aids the mating process of the parts.

It is essential that some stress be placed on the engine components during break-in to ensure this mating process. Do not, though, apply excessive load on the engine.

## AVOID CONSTANT LOW SPEED

Operating the engine at constant low speed (light load) can cause parts to glaze and not seat in. Allow the engine to accelerate freely through the gears, without exceeding the recommended maximum limits. Do not, however, use full throttle for the first 1 000 miles (1 600 km).

## ALLOW THE ENGINE OIL TO CIRCULATE BEFORE RIDING

Allow sufficient idling time after warm or cold engine start up before applying load or revving the engine. This allows time for the lubricating oil to reach all critical engine components.

## OBSERVE YOUR FIRST, AND MOST CRITICAL, SERVICE

The 600 miles (1 000 km) service is the most important service your motorcycle will receive. During break-in all of the engine components will have worn in and all of the other parts will have seated in. All adjustments will be restored, all fasteners will be tightened, and the dirty oil and oil filter will be replaced.

Timely performance of the 600 miles service will ensure optimum service life and performance from the engine.

### CAUTION:

The 600 miles service should be performed as outlined in the Periodic Maintenance Schedule portion of this Owner's Manual. Pay particular attention to the cautions and warning in page 26.

# INSPECTION BEFORE RIDING

Before riding the motorcycle, be sure to check the following items. Never underestimate the importance of these checks. Perform all of them before riding the machine.

WHAT TO CHECK	CHECK FOR:
Steering	1) Smoothness 3) No play or looseness 2) No restriction of movement
Brakes	1) Proper pedal and lever play 3) No fluid leakage 2) No "sponginess"
Tires	1) Proper pressure 3) No cracks or cut spots 2) Adequate tread depth
Fuel	Enough fuel for the planned distance of operation
Lighting	Operation of all lights-HEADLIGHT, TAILLIGHT, BRAKE LIGHT, INSTRUMENT LIGHTS, TURN SIGNALS
Indicator Lights	Oil pressure, High beam, Neutral, Turn signal, Gear position
Horn and "Kill Switch"	Proper function
Engine Oil	Proper level
Throttle	1) Proper play in the throttle cable 2) Smooth operation and positive return of the throttle grip to the closed position
Clutch	1) Proper play in the cable 2) Smooth and progressive action
Drive chain	1) Proper tension or slack 2) Adequate lubrication

## RIDING TIPS

### STARTING THE ENGINE

Check that the fuelcock lever is in the "ON" position and that the engine kill switch is in the "RUN" position. Insert the ignition key into the ignition switch and turn it clockwise one notch to the "ON" position. The neutral indicator light will light if the transmission is in neutral.

#### **CAUTION:**

**Always start the engine with the transmission in neutral, the clutch lever pulled in, and the rider in the normal riding position.**

#### **When the engine is cold:**

Pull the carburetor choke knob to the engaged position all the way. Close the throttle completely and squeeze the clutch lever.

Push the electric starter button, and the engine will start. Immediately after the engine starts, keep the engine revolutions between 2 000 rpm by using the choke knob position ofr throttle control. Return the choke knob all the way back to its

normal disengaged position approximately 40 seconds after the engine starts. In extremely cold weather it may be necessary to use the choke longer than 40 seconds.

#### **When the engine is warm:**

Open the throttle 1/8th to 1/4th turn and push the electric starter button. Operation of the carburetor choke system is usually not necessary when the engine is warm.

#### **WARNING:**

**Do not run the engine indoors where there is little or no ventilation available. Carbon monoxide fumes are extremely poisonous. Never leave the motorcycle running while unattended, even for a moment.**

### STARTING OFF

Pull the clutch lever in and pause momentarily. Engage first gear by depressing the gear shift lever downward. Twist the throttle grip toward you and at the same time release the clutch lever gently and smoothly. As the clutch engages, the motorcycle will start forward.

To shift to the next higher gear, accelerate gently, then close the throttle and pull the clutch lever in simultaneously. Lift the gear shift lever upward to select the next gear and release the clutch lever and open the throttle again. Select the gears in this manner until top gear is reached.



## USING THE TRANSMISSION

The transmission is provided to keep the engine operating smoothly in its normal operating rpm range. The gear ratios have been carefully chosen to meet the characteristics of the engine. The rider should always select the most suitable gear for the prevailing conditions. Never slip the clutch to control road speed, but rather downshift to allow the engine to run within its normal operational range. The table below shows the approximate speed range for each gear.

### Shifting up schedule

miles/h	0–12	12–19	19–25	25–31	Over 31
Gear position	1st	2nd	3rd	4th	5th
km/h	0–20	20–30	30–40	40–50	Over 50

### Shifting down schedule

miles/h	19	12
Gear position	5th 4th	4th 3rd
km/h	30	20

\* Disengage the clutch when speed drops below 15 km/h (9 miles/h).

## RIDING ON HILLS

- When climbing steep hills, the motorcycle may begin to slow down and “lug” the engine excessively. At this point you should shift to a lower gear so that the engine will again be operating in its normal power range. Shift rapidly to prevent the motorcycle from losing momentum.
- When riding down a hill, the engine may be used for braking by shifting to a lower gear.
- Be careful, however, not to allow the engine to over rev.

### **WARNING:**

- (1) If this is the first time that you have ridden a machine of this type, we suggest that you practice on a non-public road to become thoroughly familiar with the controls and operation of the motorcycle.
- (2) Before starting off, always return the side stand to its normal “up” position.
- (3) Slow down to a safe speed before starting around a corner.
- (4) Don’t down shift in the midst of cornering.
- (5) One-hand riding is extremely dangerous. Keep both hands firmly on the handlebars and both feet securely on the foot rests. Under no circumstances should both hands be removed from the handlebars.

### USING THE BRAKES AND PARKING

- Twist the throttle grip away from yourself to close the throttle completely.
- Apply the front and rear brakes evenly and at the same time.
- Downshift through the gears as road speed decreases.
- Select neutral with the clutch lever squeezed towards the grip (disengaged position) just before the motorcycle stops. Neutral position can be confirmed by observing the neutral indicator light.
- Disengage the clutch when speed drops below 15 km/h (9 miles/h).

*NOTE: Inexperienced riders tend to use the rear brake only. This can lead to premature brake wear and excessive stopping distances.*

**WARNING:**

Using only the front or rear brake is dangerous and can cause skidding and loss of control.

- Apply the brakes lightly and with great care on wet highway pavement or other slippery surfaces and at all corners. Any abrupt braking on slippery or irregular roads can be particularly dangerous.
- If the motorcycle is to be parked on the side stand and on a slight slope, you may wish to leave the motorcycle in 1st gear to prevent it from rolling off of the side stand. Return to neutral before starting engine.
- Turn the ignition switch to the "OFF" position to stop the engine.
- Lock the steering for security.
- Remove the ignition key from the switch.

### HIGH SPEED RIDING

The rear suspension spring setting should be adjusted to meet the suspected road conditions and motorcycle speeds to increase the stability. Tire pressures should also be increased for high speed riding as described in INSPECTION AND MAINTENANCE section.

**CAUTION:**

Never allow the engine to exceed 9 000 rpm's in any gear.

**WARNING:**

High speed cruising requires special care. Be sure that you review the pre-ride instruction chart and be sure that your machine is in top condition. Do not exceed the posted speed limits.

# EMISSION INFORMATION

## EPA

MAINTENANCE, REPLACEMENT OR REPAIR OF THE EMISSION CONTROL DEVICES AND SYSTEMS MAY BE PERFORMED BY ANY MOTORCYCLE REPAIR ESTABLISHMENT OR INDIVIDUAL USING ANY MOTORCYCLE PART WHICH HAS BEEN CERTIFIED UNDER THE PROVISIONS IN THE CLEAN AIR ACT SECTION 207 (a)(2).


## COMPLIANCE LABEL

The EPA compliance label is located on the frame behind the left frame cover. It provides much of the data required to perform an engine tune up on your GS300L.

### CAUTION:

**DO NOT MODIFY THIS EXHAUST SYSTEM. IT IS DESIGNED TO GIVE MAXIMUM PERFORMANCE WITHOUT EXCESSIVE NOISE.**

### VEHICLE EMISSION CONTROL INFORMATION

ENGINE FAMILY NAME: CSKO29942A9 SUZUKI: GS30 SUZUKI MOTOR CO., LTD.  DISPLACEMENT: 299cc  
EXHAUST EMISSION CONTROL SYSTEM: ENGINE MODIFICATION  
ENGINE TUNE-UP SPECIFICATIONS: ALL ADJUSTMENTS ARE TO BE PERFORMED WITH TRANSMISSION IN NEUTRAL.  
VALVE LASH: 0.08-0.13 mm IGNITION TIMING: 15 BTDC AT IDLE SPEED.  
IDLE SPEED: 1,250 RPM ADJUSTMENT IS MADE BY TURNING THE THROTTLE STOP SCREW.  
IDLE AIR/FUEL: NO ADJUSTMENT IS NECESSARY. FUEL: LOW-LEADED OR UNLEADED GASOLINE.  
ENGINE OIL: SF OR SE IN API CLASSIFICATION, AND VISCOSITY RATING OF SAE 10W-40  
REFER TO YOUR OWNER'S MANUAL FOR ADDITIONAL MAINTENANCE INSTRUCTIONS.  
THIS VEHICLE CONFORMS TO U.S. EPA AND CALIFORNIA REGULATIONS APPLICABLE TO 1982 MODEL YEAR NEW MOTORCYCLES.

# PERIODIC MAINTENANCE SCHEDULE

## MAINTENANCE SCHEDULE

The chart indicates the intervals between periodic services in miles (kilometers) and months. At the end of each interval, be sure to inspect, check, lubricate and service as instructed. If your motorcycle is used under high stress conditions such as continuous full throttle operation, or operation in a dusty climate certain services should be performed more often to insure reliability of the machine as explained in the maintenance section. Your Suzuki dealer can provide you with further guidelines. Steering components, suspension and wheel components are key items and require very special and careful servicing. For maximum safety we suggest that you have these items inspected and serviced by your authorized Suzuki dealer, or a qualified service mechanic.

### CAUTION:

Periodical inspections may reveal one or more parts that may need replacement. Whenever replacing parts on your motorcycle, it is recommended that you use Genuine Suzuki replacement parts or their equivalent. Whether you are an expert or do-it-yourself mechanic, Suzuki recommends that those items on the Inspection Chart marked with an asterisk (\*), be performed by your authorized Suzuki dealer or qualified service mechanic. You may perform the unmarked items easily by referring to the instructions in this section.

### WARNING:

Proper break-in maintenance (600 miles or 1,000 km) is a **MANDATORY** item for making certain that your machine is reliable and gives full performance at all times. Be sure that this periodic maintenance is performed thoroughly and in accordance with the instructions in this manual.

# INSPECTION AND MAINTENANCE

## TOOLS

INTERVAL: THIS INTERVAL SHOULD BE JUDGED BY ODOMETER READING OR MONTHS, WHICHEVER COMES FIRST	miles	600	4 000	7 500	11 000	15 000
	km	1 000	6 000	12 000	18 000	24 000
	months	2	12	24	36	48
Battery (Specific gravity of electrolyte)	—	I	I	I	I	I
* Cylinder head nut & exhaust pipe bolt	T	T	T	T	T	T
Air cleaner element	—	C	C	C	C	C
* Valve clearance	I	I	I	I	I	I
Spark plugs	—	C	R	C	R	C
* Fuel line	I	I	I	I	I	I
		Replace every four years.				
Engine oil and oil filter	R	R	R	R	R	R
Carburetor idle rpm	I	I	I	I	I	I
Clutch	I	I	I	I	I	I
Drive chain	I	I	I	I	I	I
		Clean and lubricate every 600 miles (1 000 km)				

NOTE: T = Tighten, I = Inspect, R = Replace, C = Clean.

# PERIODIC MAINTENANCE SCHEDULE

## MAINTENANCE SCHEDULE

INTERVAL: THIS INTERVAL SHOULD BE JUDGED BY ODOMETER READING OR MONTHS, WHICHEVER COMES FIRST	miles	600	4 000	7 500	11 000	15 000
	km	1 000	6 000	12 000	18 000	24 000
	months	2	12	24	36	48
* Brakes		I	I	I	I	I
Tires		I	I	I	I	I
* Steering stem		I	I	I	I	I
* Chassis bolt and nut		T	T	T	T	T
Front forks		—	—	I	—	I

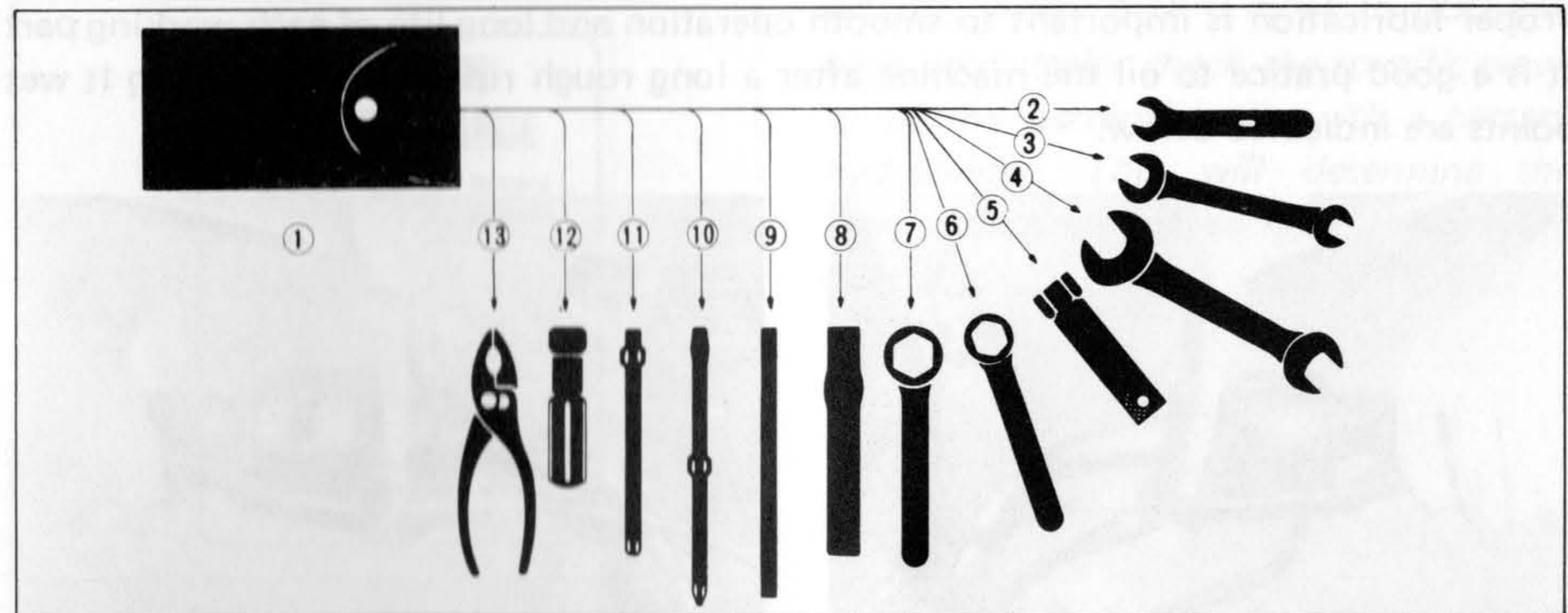
**NOTE:** T = Tighten, I = Inspect, R = Replace, C = Clean

# INSPECTION AND MAINTENANCE

## TOOLS

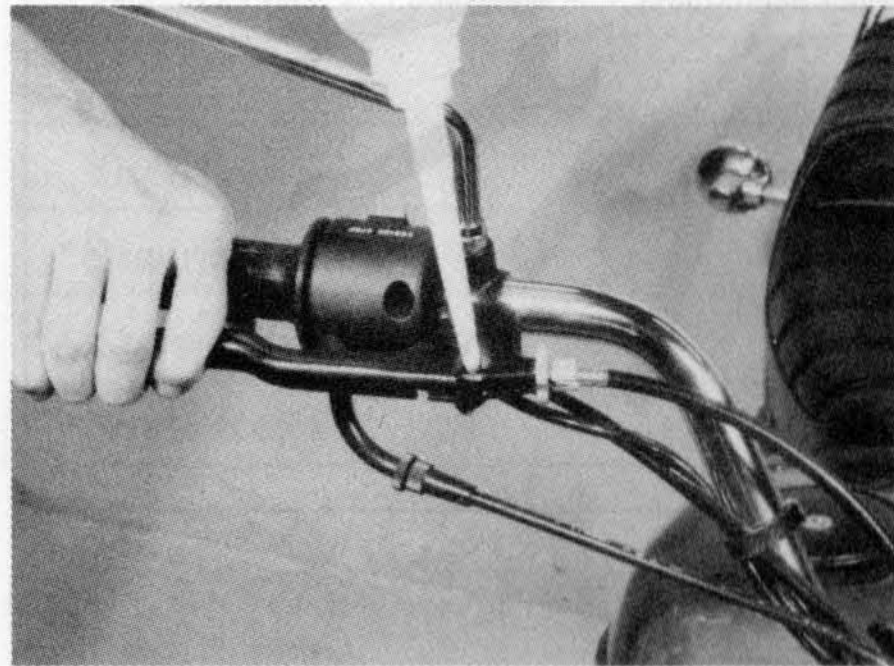
To assist you in the performance of periodic maintenance, a tool kit is supplied and is located under the right frame cover. The tool kit consists of the following items.

Ref. No.	Item
①	Tool Bag
②	8mm Open End Wrench
③	10 x 12mm Open End Wrench
④	14 x 17mm Open End Wrench
⑤	Spark Plug Socket Wrench
⑥	19mm Ring Wrench
⑦	24mm Ring Wrench
⑧	Ring Wrench Handle
⑨	Socket Wrench Handle
⑩	Combination Screw Driver
⑪	Cross Head Screw Driver
⑫	Screw Driver Handle
⑬	Pliers

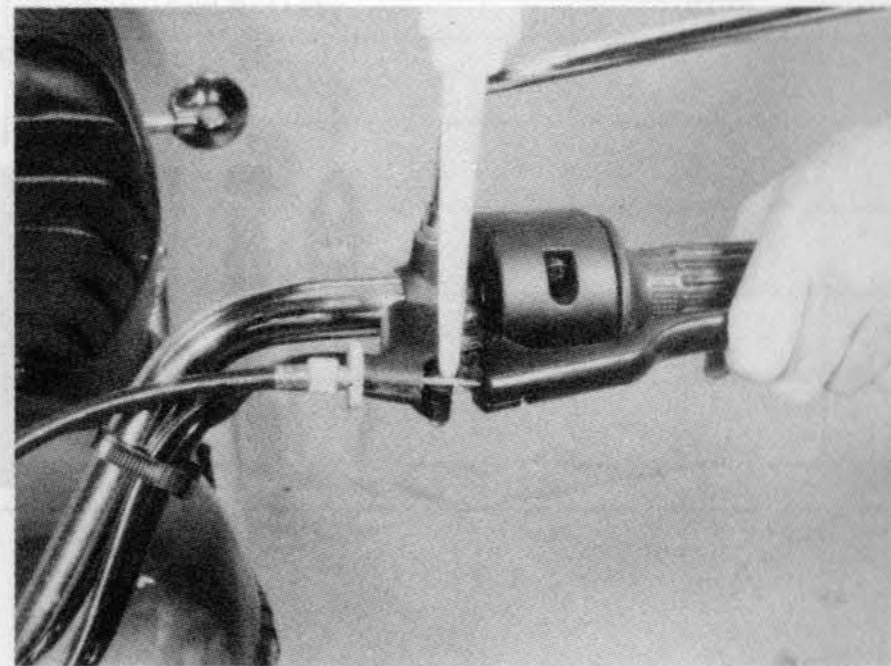


### OILING CHART

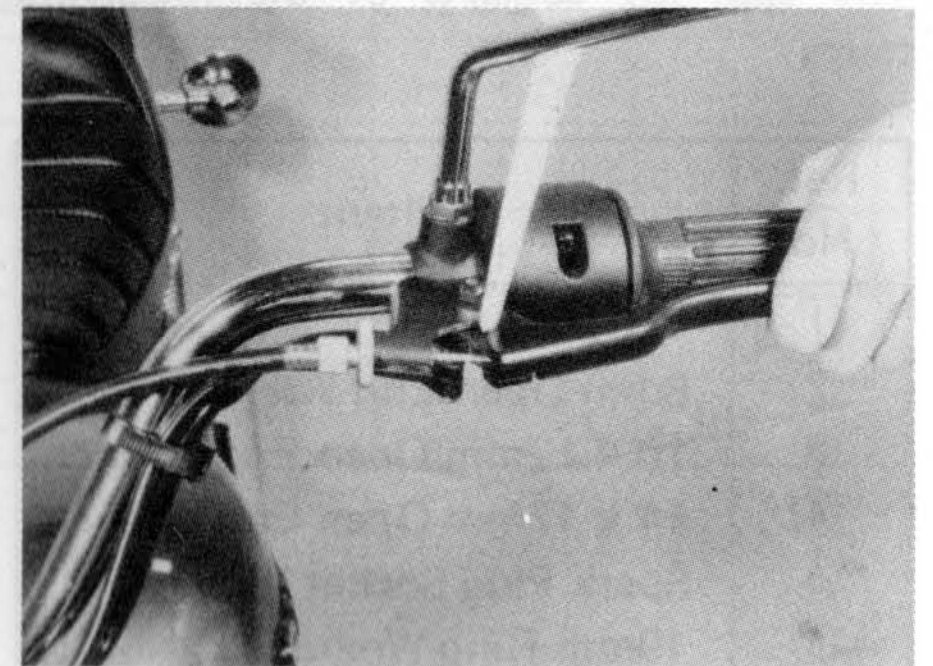
Proper lubrication is important to smooth operation and long life of each working part of your motorcycle and also for safe riding. It is a good practice to oil the machine after a long rough ride and after getting it wet in the rain or after washing it. Major oiling points are indicated below.



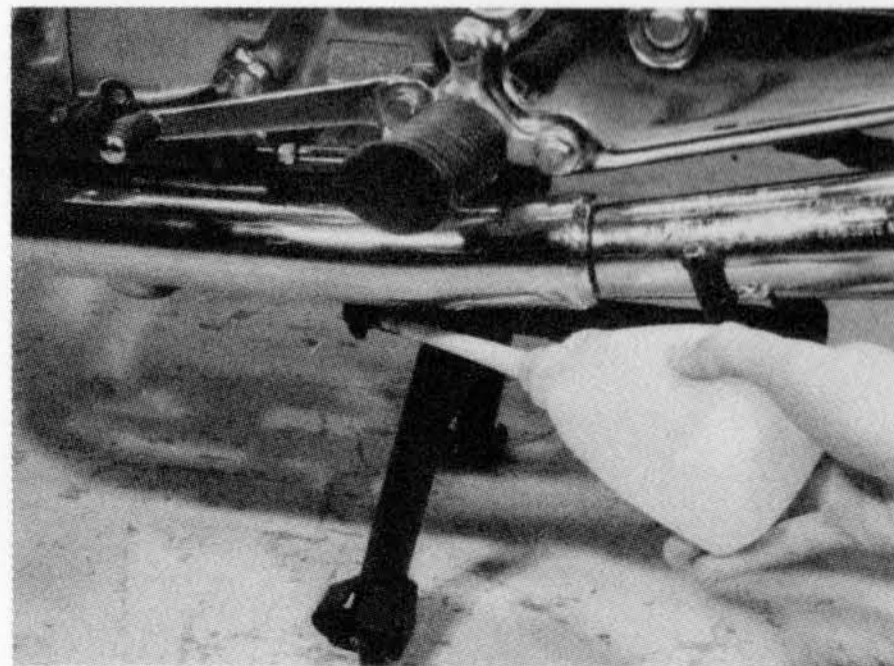
Brake lever holder



Clutch cable



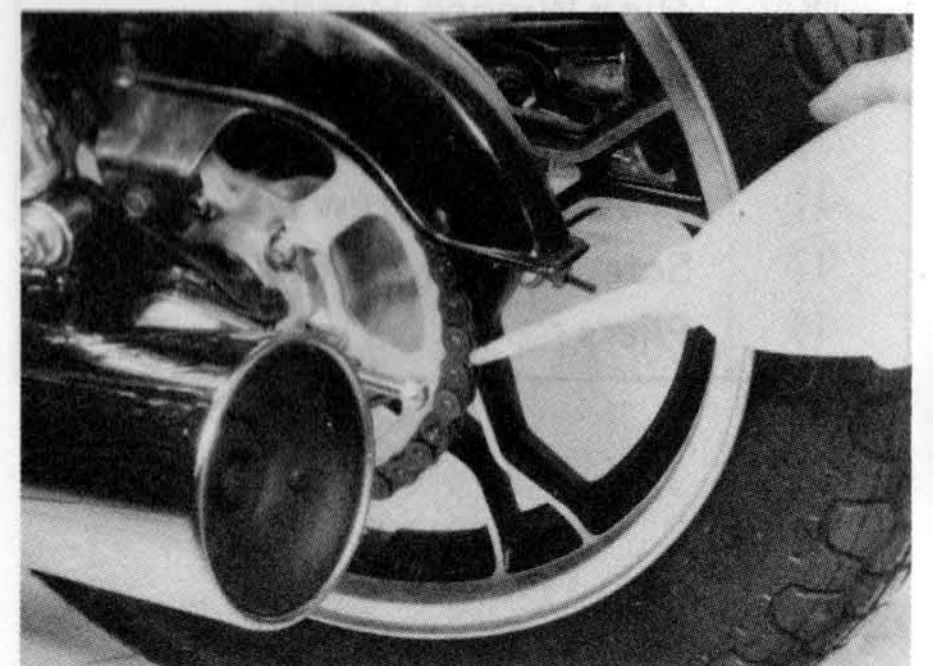
Clutch lever holder



Side stand pivot



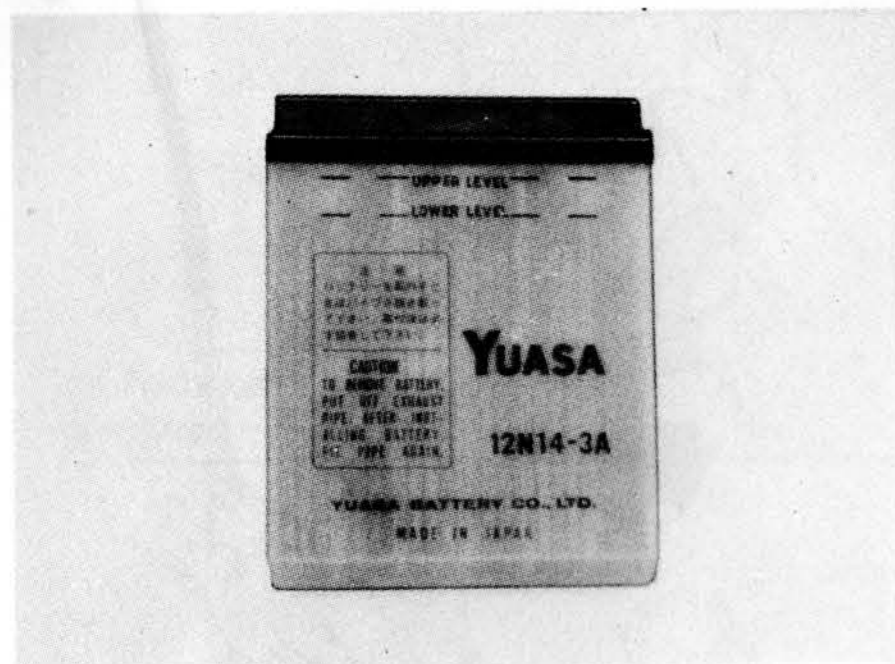
Rear brake rod link



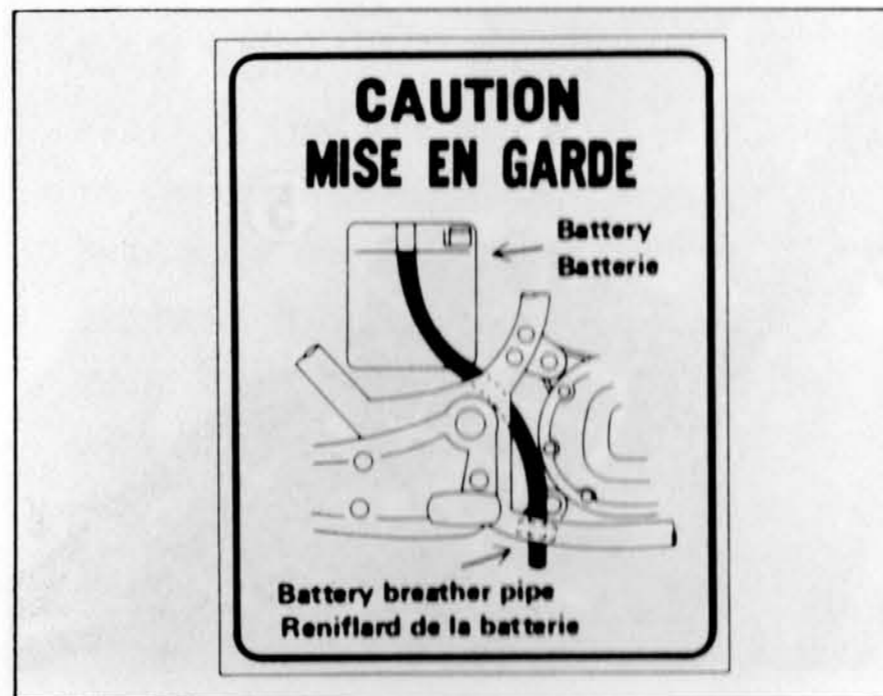
Drive chain



## BATTERY



The battery solution level may be inspected by removing the right frame cover. The solution level must be kept between the upper and lower level lines at all times. If the solution level is below the lower limit line, add **ONLY** distilled water up to the upper limit line. **NEVER** use tap water.



### **WARNING:**

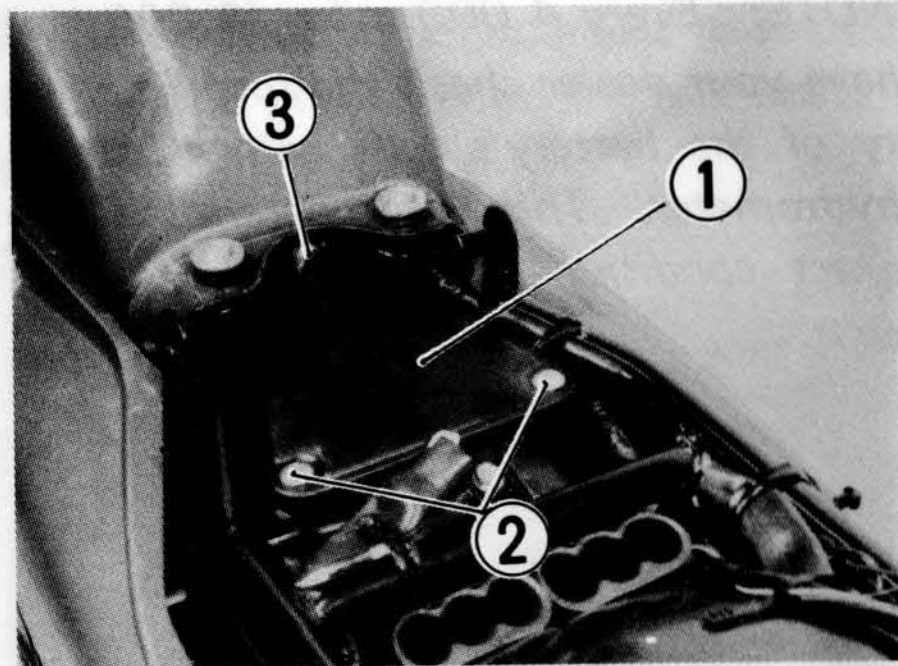
Once the battery has been initially serviced, **NEVER** add diluted sulphuric acid.

### **CAUTION:**

Be careful not to bend, obstruct, or change the routing of the air vent tube from the battery. Make certain that the vent tube is attached to the battery vent fitting and that the opposite end is always open.

*NOTE: Every 4 000 miles (6 000 km) have your dealer check the specific gravity of the battery's cells with a battery hydrometer. This will determine the exact condition of each of the six (6) cells.*

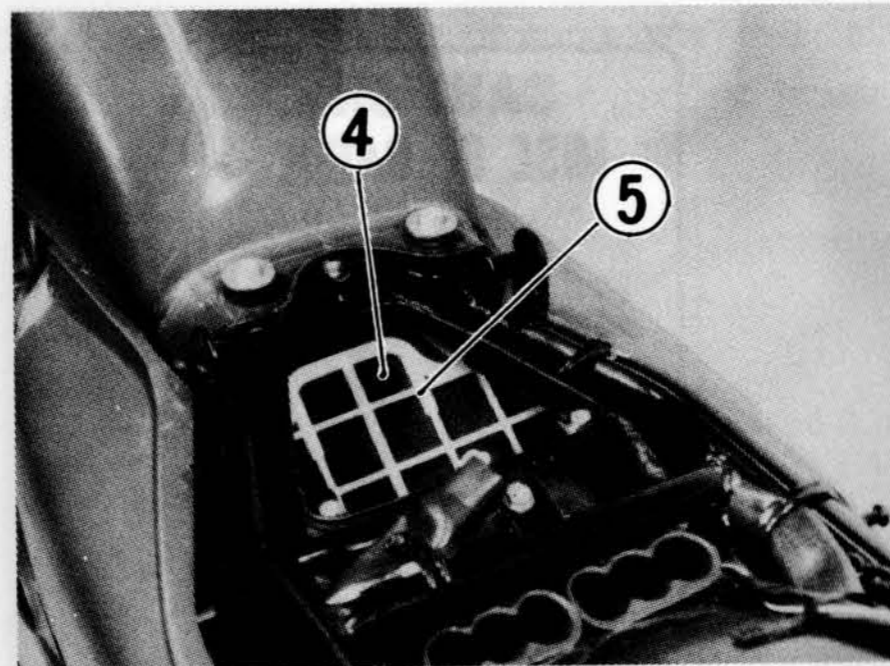
## AIR CLEANER



- ① Air cleaner case cover
- ② Screws
- ③ Wing nut

If the air cleaner is clogged with dust, intake resistance will increase with a resultant decrease in output and an increase in fuel consumption. Check and clean the cleaner every 4 000 miles (6 000 km) according to the following procedures.

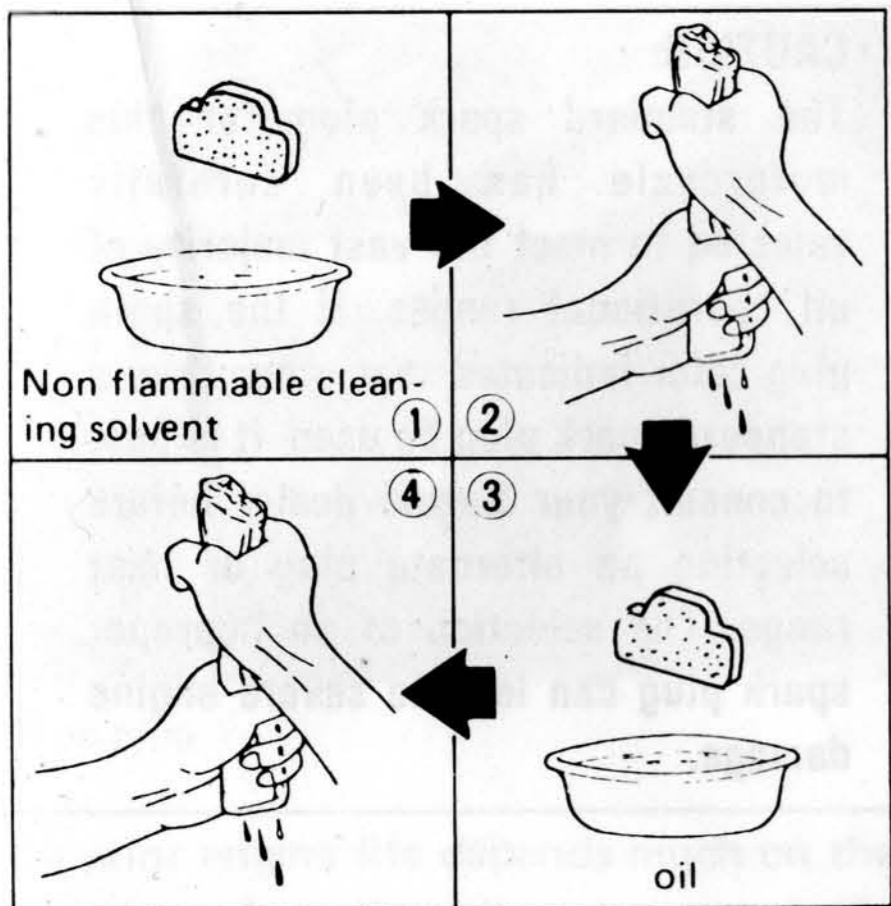
- 1) Open the seat and remove the air cleaner case cover by loosening the two screws and the wing nut.



- ④ Polyurethane foam element
- ⑤ Element frame

- 2) Take out the air cleaner element complete with the element frame.
- 3) Remove the polyurethane foam element from the element frame.
- 4) Fill a washing pan of a proper size with non flammable cleaning solvent. Immerse the element in the solvent and wash it clean.

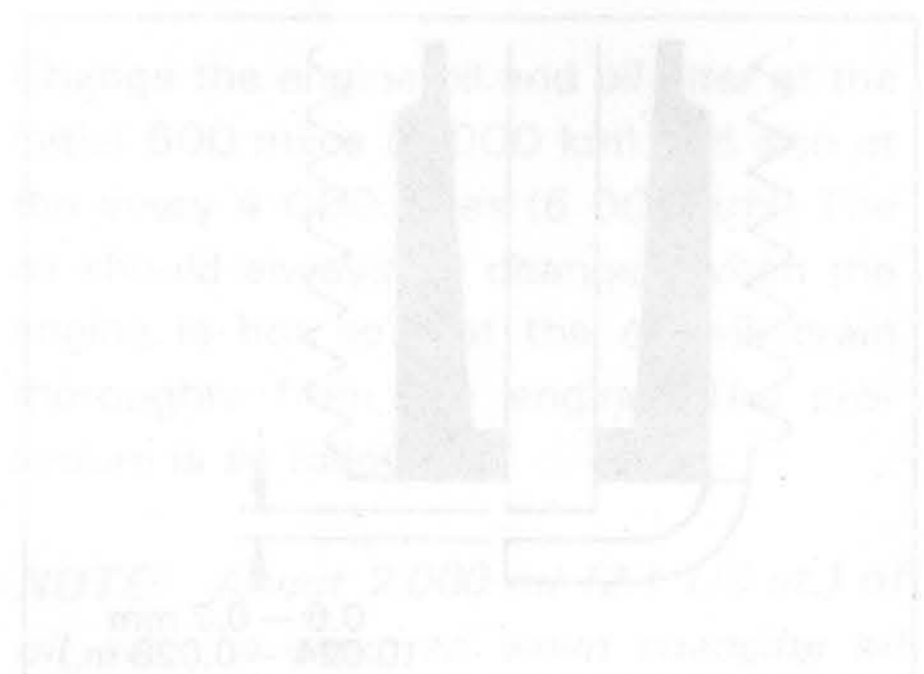
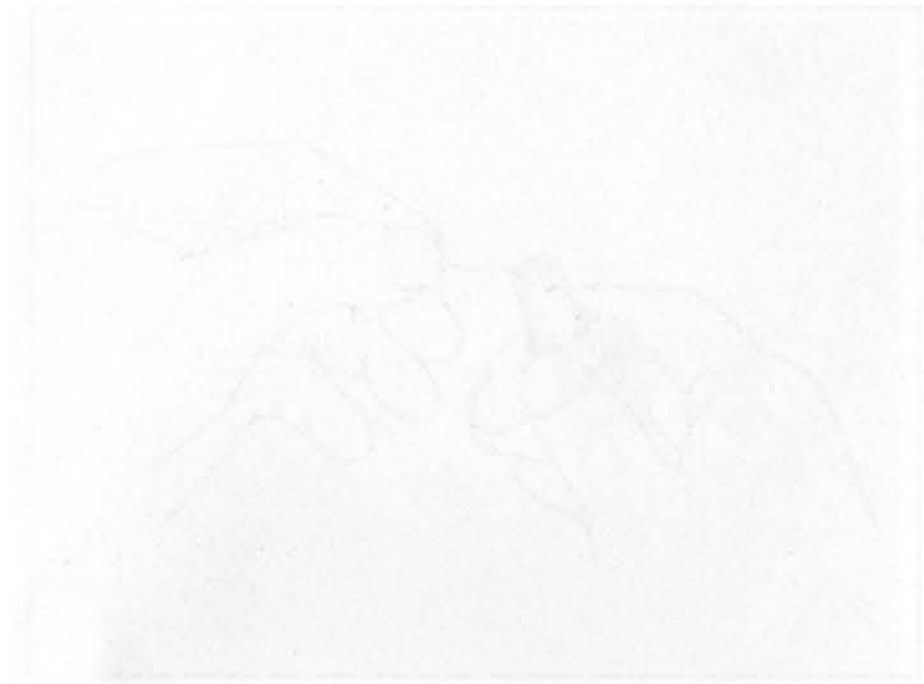
- 5) Squeeze the solvent off the washed element by pressing it between the palms of both hands: do not twist and wring the element or it will develop fissures.
- 6) Immerse the element in a pool of motor oil, and squeeze the oil off the element to make it slightly wet with the oil.



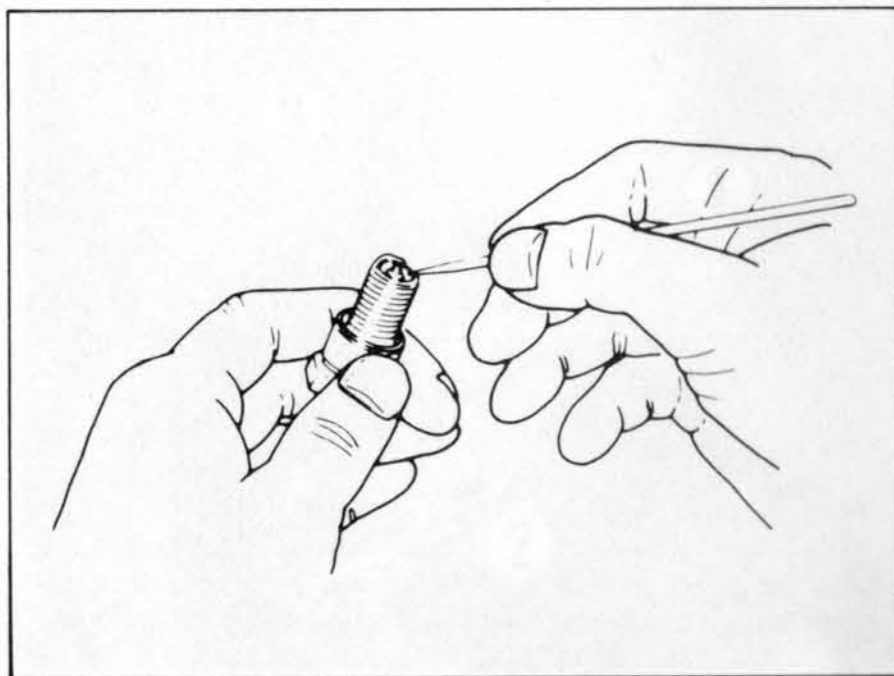
**CAUTION:**

When fitting the air cleaner element in the air cleaner case, be sure that a tongue on the lower part of the element frame properly fits on the case. Before and during the cleaning operation, examine the element to see if it has a rupture or fissure. A ruptured or fissured element must be replaced.

7) Reinstall the cleaned element in reverse order of removal. Be absolutely sure that the element securely in position and is sealing properly.



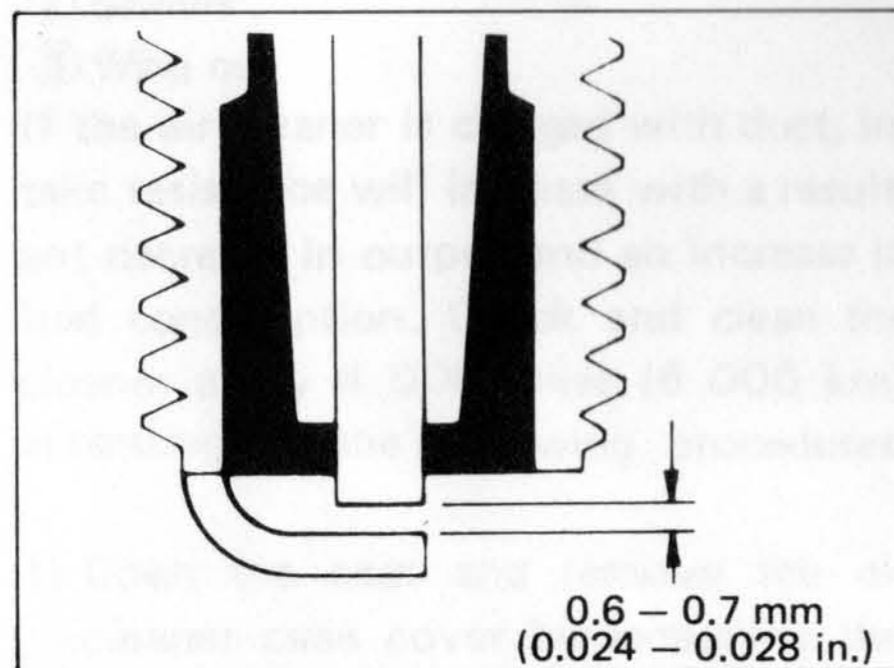
## SPARK PLUGS



At 4 000 miles (6 000 km), remove the carbon deposits from the spark plug with a small wire brush or a spark plug cleaning machine. Readjust the spark plug gap to 0.6 – 0.7 mm (0.024 – 0.028 in.) by using a spark plug gap thickness gauge.

The spark plugs should be replaced every 7 500 miles (12 000 km).

Whenever removing the carbon deposits, be sure to observe the operational color of each spark plug's porcelain tip. This color tells you whether or not the standard spark plug is suitable for your type of usage. If the standard plug is wet appearing or very dark in color, the hotter spark plug may be more suitable. A normal operating spark plug should be very light gray in color.

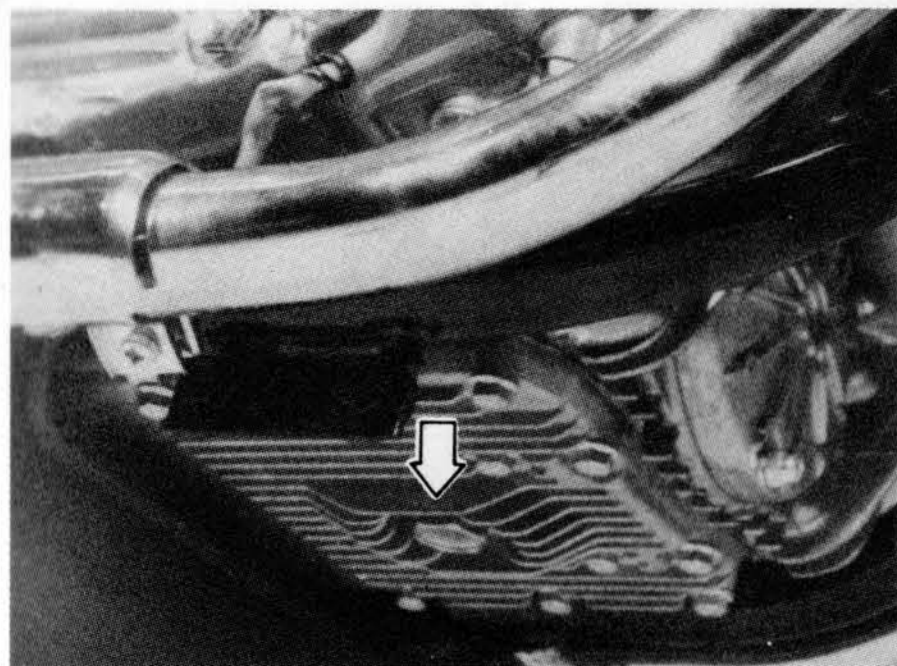


### CAUTION:

The standard spark plug for this motorcycle has been carefully selected to meet the vast majority of all operational ranges. If the spark plug color indicates that other than a standard spark plug be used, it is best to consult your Suzuki dealer before selecting an alternate plug or heat range. The selection of an improper spark plug can lead to severe engine damage.

NGK	NIPPON DENSO	REMARKS
D8EA	X24ES-U	If the standard plug is apt to get wet, replace with this plug.
D9EA	X27ES-U	Standard

## ENGINE OIL



Drain plug

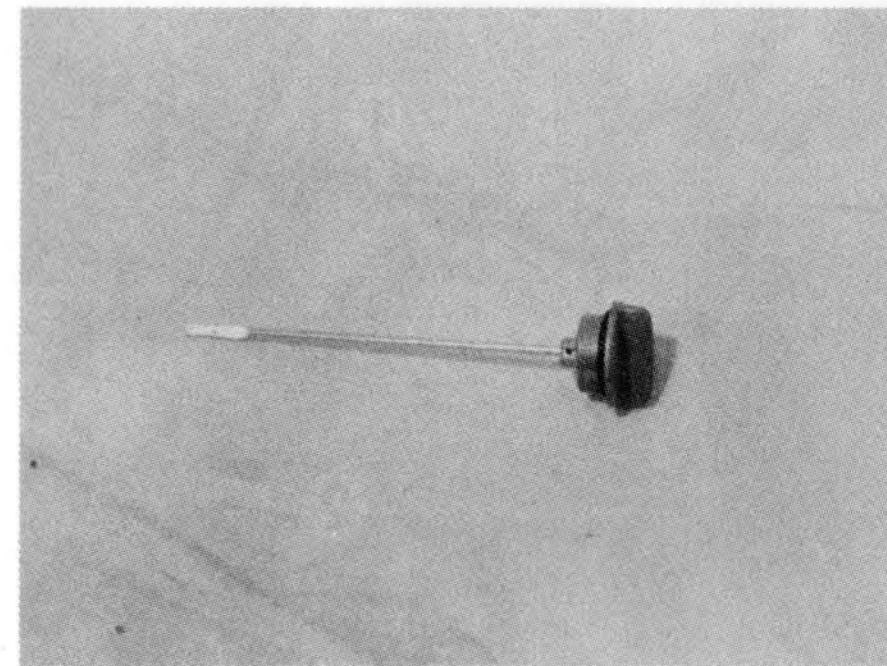
Superior engine life depends much on the selection of quality oil and the periodic changing of the oil. Daily oil level checks and periodic changes are two of the most important maintenances to be performed.



Oil filler cap (Engine oil inspection gauge)

### CAUTION:

**Never operate the motorcycle if the engine oil level is below the "L" (low) line on the inspection gauge. Never fill the engine oil level above the "F" (full) line.**

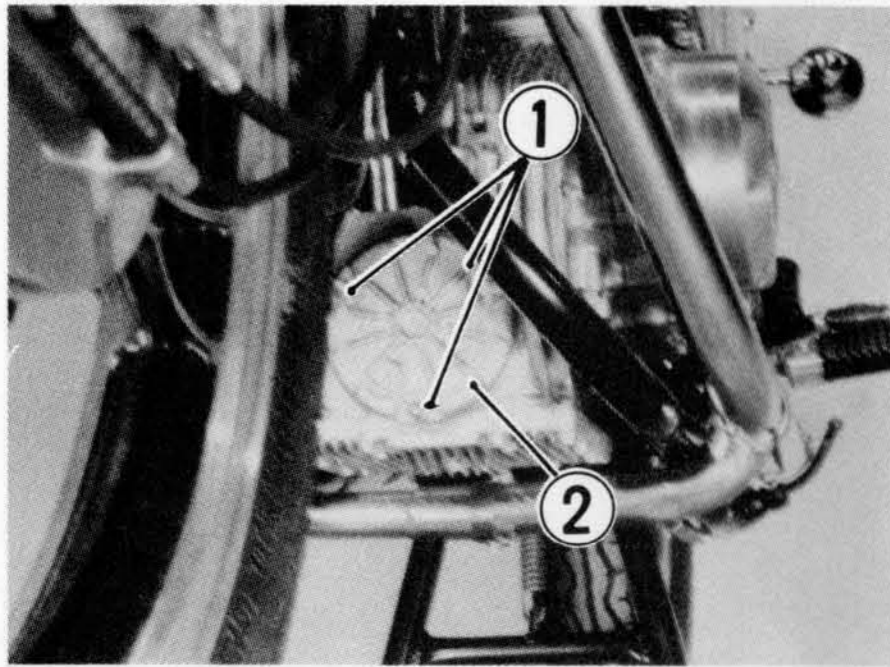


Engine oil inspection gauge

Change the engine oil and oil filter at the initial 600 miles (1 000 km) and also at the every 4 000 miles (6 000 km). The oil should always be changed when the engine is hot so that the oil will drain thoroughly from the engine. The procedure is as follows:

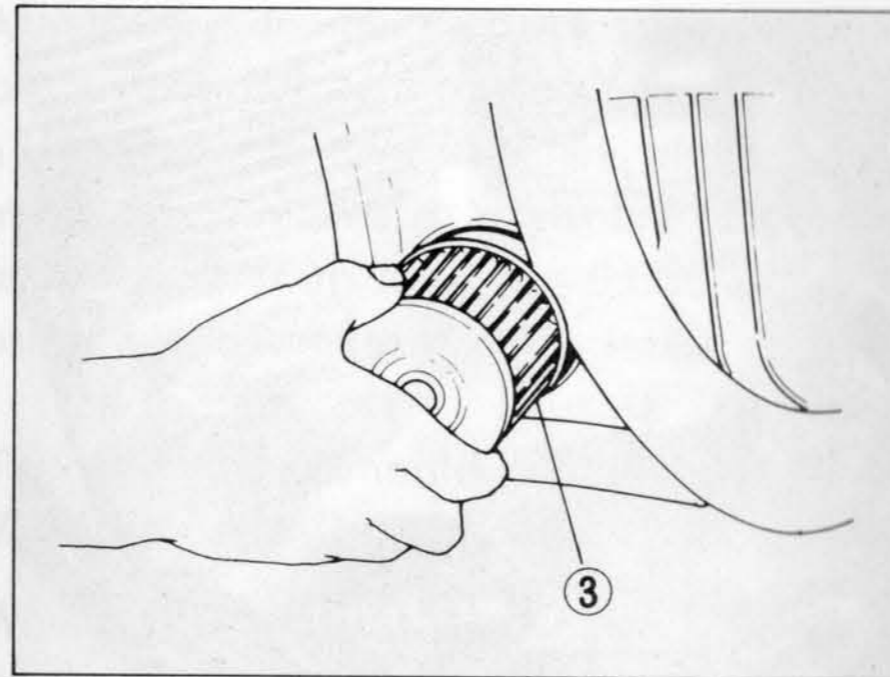
*NOTE: About 2 000 ml (2.1 US qt.) of oil will be required when changing oil only.*

## ENGINE OIL AND FILTER CHANGE



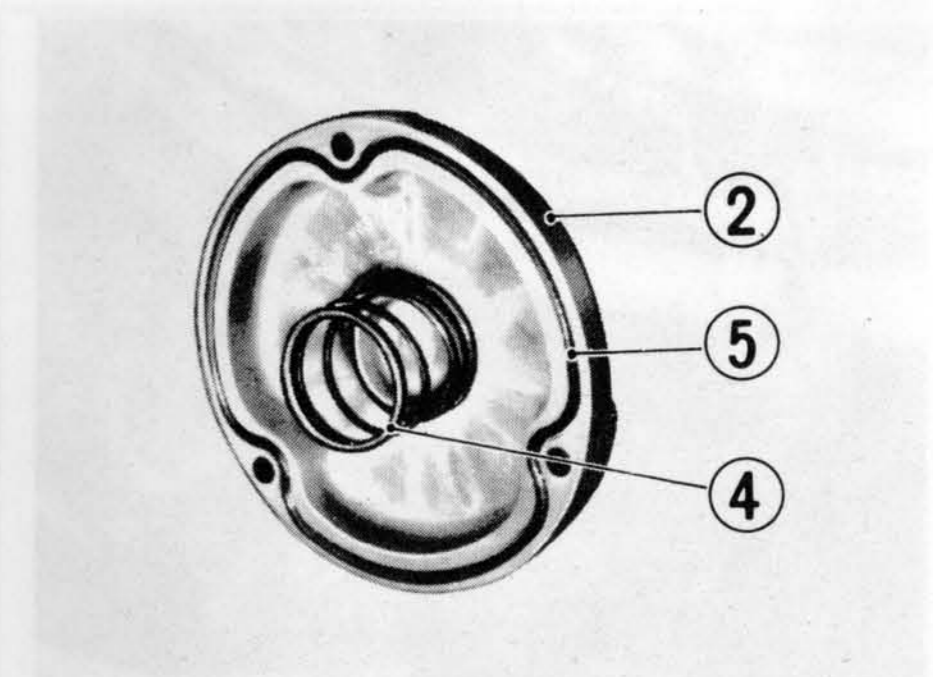
① Nut ② Filter cap

- (1) Place the motorcycle on the center stand.
- (2) Drain the engine oil by removing the drain plug from the bottom of the engine.
- (3) Remove the three (3) nuts holding the filter cap in place.



③ Oil filter

- (4) Remove the filter cap, pull out the element and replace with a new oil filter element. The rubber sealing ring is installed facing the engine.
- (5) Before replacing the oil filter cover, check to be sure that the filter spring and the cap "O" ring are installed correctly.
- (6) Replace the oil filter cover and tighten the nuts securely.
- (7) Replace the drain plug and tighten it securely. Add fresh oil through the filler hole approximately 2 600 ml (2.7 US qt.) will be required.



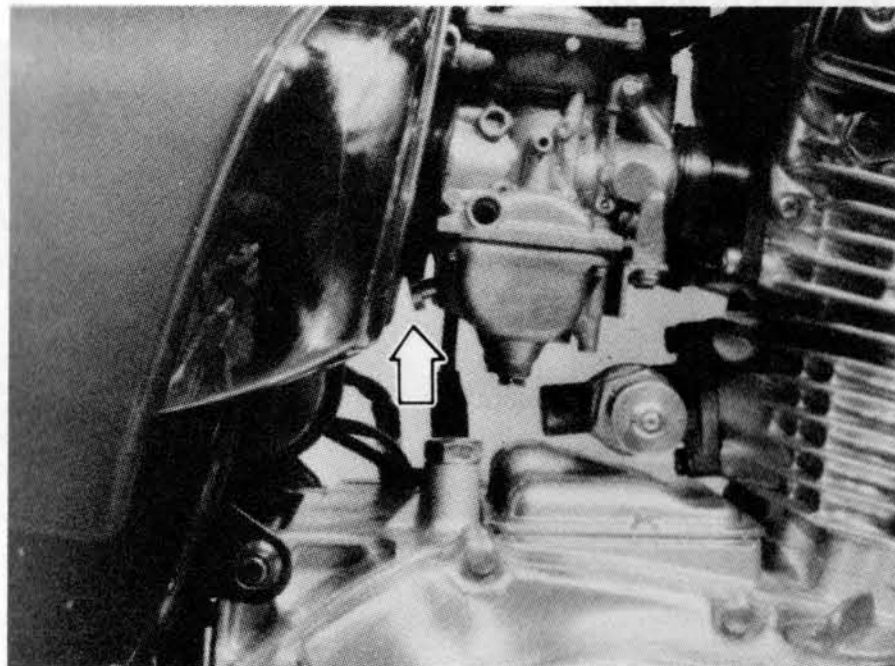
② Filter cap ④ Spring ⑤ "O" ring

- (8) Start the engine and allow it to idle for several seconds.
- (9) Turn the engine off and wait approximately one (1) minute, then recheck the oil level by the engine oil inspection gauge. The oil level should be at the "F" mark. If lower than the "F" mark, add oil until it reaches the mark.

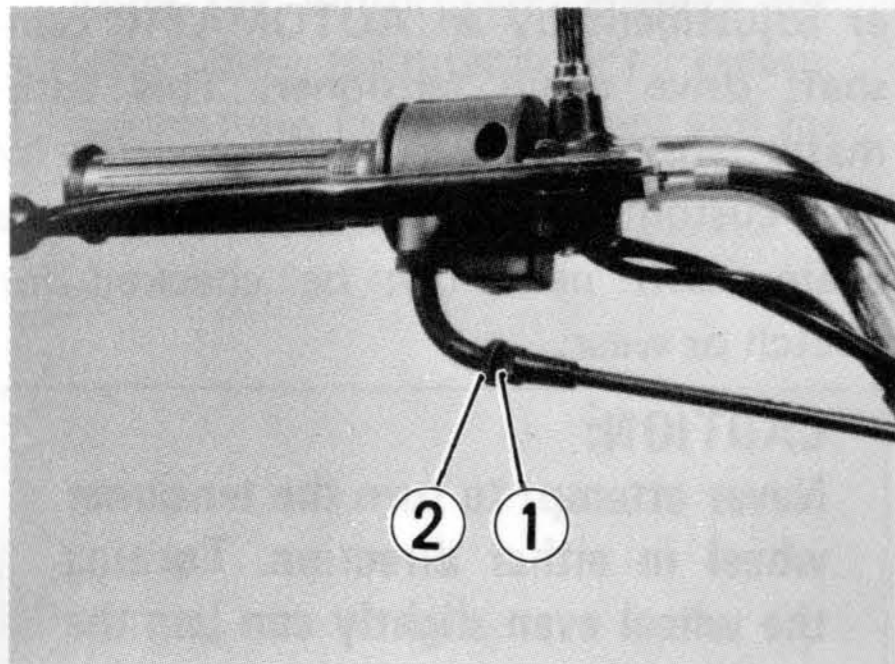
### CAUTION:

Be sure to always use the specified engine oil described in FUEL AND OIL RECOMMENDATION section.

## CARBURETOR



Throttle stop screw



- ① Throttle cable adjuster
- ② Lock nut

Undisturbed carburetion is the basis of the performance you ought to expect of your engine. The carburetor is factory set for the best carburetion. Do not attempt to alter its setting. There are two items of adjustment, however, under your care: carburetor idle rpm and throttle cable play.

Adjust the carburetor idle rpm and throttle cable play at initial 600 miles (1 000 km) and every 4 000 miles (6 000 km).

### CARBURETOR IDLE RPM ADJUSTMENT

- (1) Start up the engine and warm it up by running it at 2 000 rpm for 10 minutes in summer (where ambient temperature is 30°C (86°F) or thereabout) or for 20 minutes in winter (where ambient temperature is down to -5°C (23°F) or thereabout).
- (2) After engine warms up, turn the throttle stop screw ① located on the carburetor in or out so that engine may run at 1 250 ± 100 rpm.

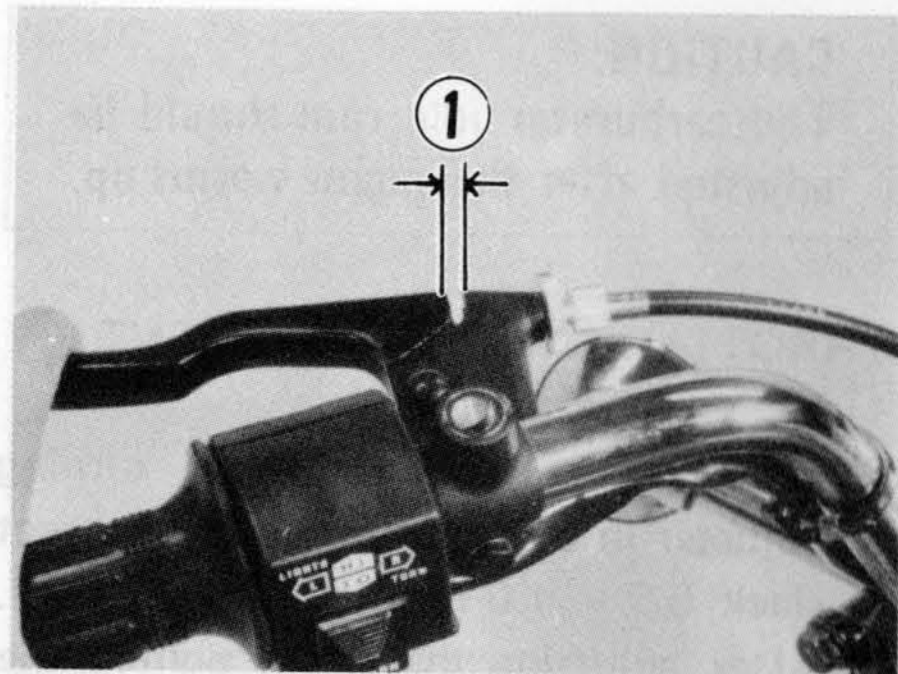
### CAUTION:

The carburetor idle rpm should be adjusted after the engine warms up.

### THROTTLE CABLE ADJUSTMENT

- 1) Loosen lock nut.
- 2) Adjust the cable slack by turning adjuster in or out to obtain the correct slack 0.5 – 1.0 mm (0.02 – 0.04 in).
- 3) After adjusting the slack, tighten the lock nut.

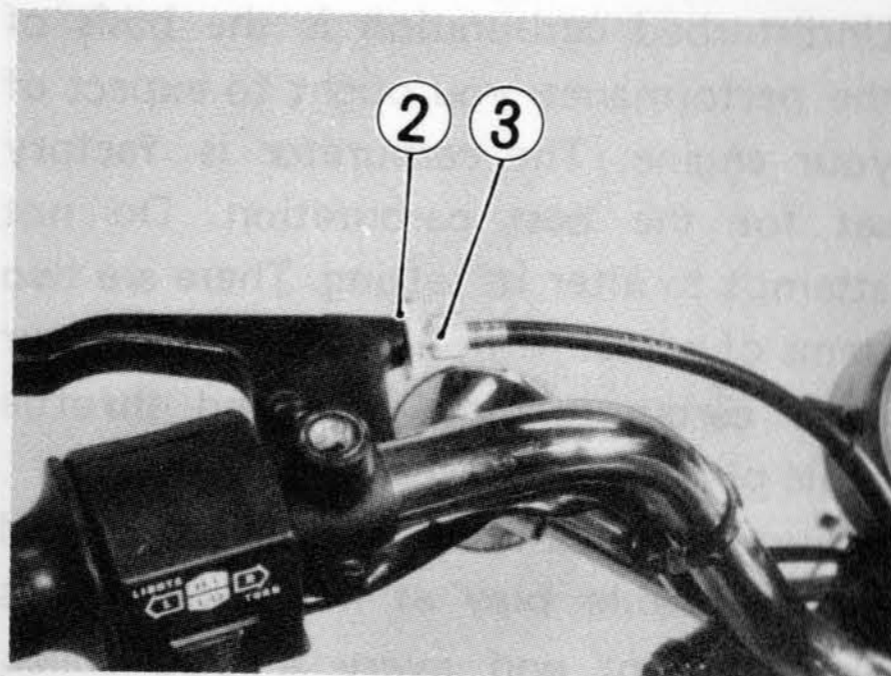
## CLUTCH ADJUSTMENT



① Clutch cable play

At initial 600 miles (1 000 km) and every 4 000 miles (6 000 km), adjust the clutch by means of clutch cable adjuster.

The play of the clutch should be 4 mm (0.16 in.) as measured at the clutch lever holder before the clutch begins to disengage. If you find the play of the clutch incorrect, adjust it in the following way.

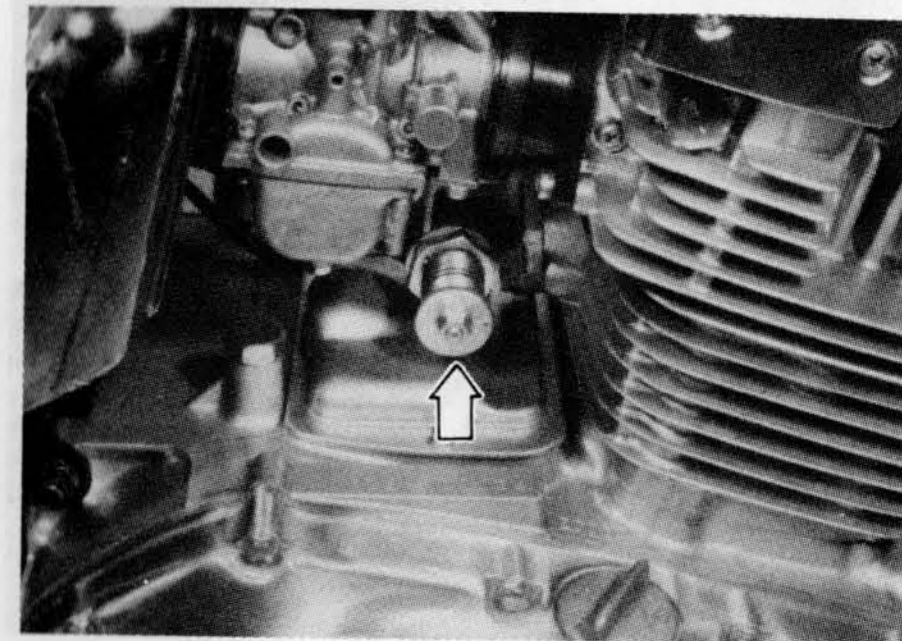


② Lock nut    ③ Cable adjuster

- (1) Loosen clutch cable adjuster lock nut.
- (2) Turn the clutch cable adjuster to provide the specified play (4 mm).
- (3) Tighten the lock nut.

At the same intervals, lubricate the clutch cable with motor oil.

## CAMSHAFT DRIVE CHAIN TENSIONER



The camshaft drive chain is kept in proper adjustment by an AUTOMATIC camshaft drive chain tensioner. This automatic tensioner never needs servicing by the customer and the camshaft drive chain itself need not be checked for stretch or wear.

### CAUTION:

Never attempt to turn the tensioner wheel in either direction. Turning the wheel even slightly can jam the mechanism which will prevent it from adjusting the chain properly. An improperly adjusted chain can cause severe engine damage.



## DRIVE CHAIN

This motorcycle is equipped with a special drive chain. It is an endless type that does not use a master link. We recommend that you take your motorcycle to your authorized Suzuki dealer to have the drive chain replaced when it becomes worn.

### **WARNING:**

**For maximum safety, the drive chain condition and adjustment should be checked prior to operating the motorcycle. Always follow the manufacturer's recommendations for replacement and for proper lubrication.**

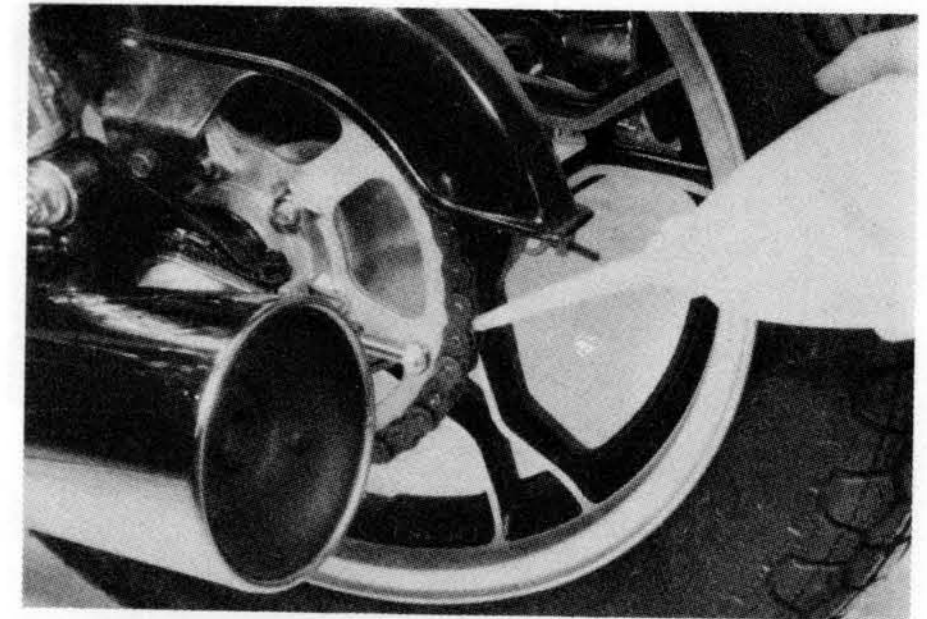
At the periodic inspections, performed at the initial 600 miles (1 000 km) and every 4 000 miles (6 000 km), the drive chain should be inspected for the following conditions.

- (1) Loose pins
- (2) Damaged rollers
- (3) Dry or rusted links
- (4) Kinked or binding links
- (5) Excessive wear
- (6) Improper chain adjustment

If the drive chain has any of these items wrong with it, then there is a strong possibility that the sprockets will have some damage to them also. Inspect the sprockets for the following:

- (1) Excessively worn teeth
- (2) Broken or damaged teeth
- (3) Loose sprocket mounting nut(s)

## DRIVE CHAIN CLEANING AND OILING



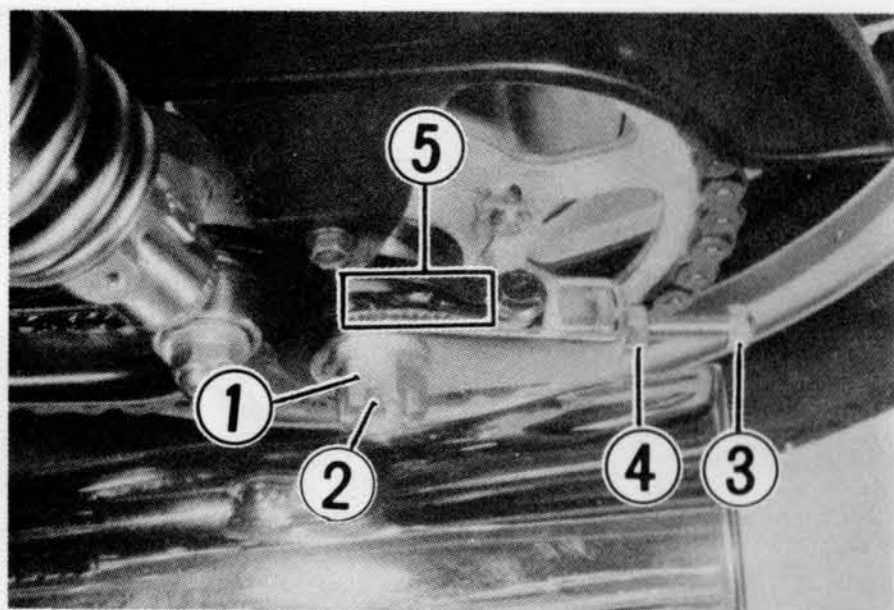
This motorcycle is equipped with a special drive chain which is constructed of the sintered metal.

Sintered bush chain does not require the cleaning and/or lubricating so frequently, because the bush has been impregnated with special grease at the factory.

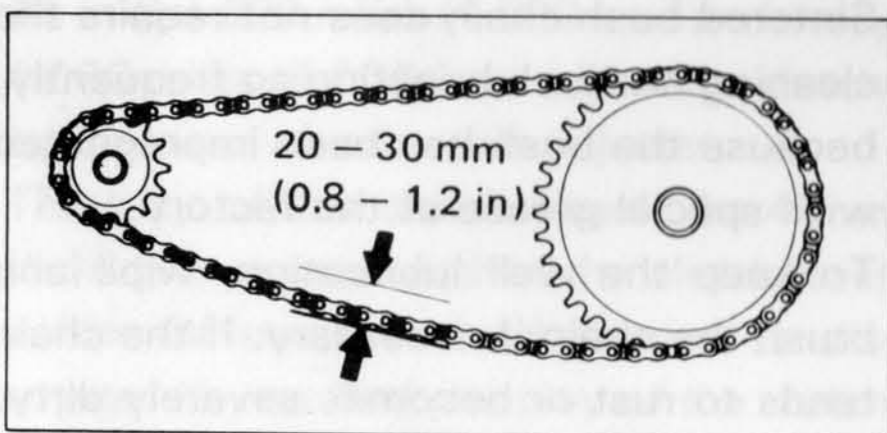
To keep the well lubrication, wipe and brush the chain if necessary. If the chain tends to rust or becomes severely dirty, clean it with kerosene. After thoroughly washing the chain and allowing it to dry, oil the links with a heavy weight gear oil SAE 90.

### **CAUTION:**

**Do not use gasoline, trichlene or other commercial sold cleaning solvents.**



- ① Axle nut
- ② Cotter pin
- ③ Chain adjuster bolt
- ④ Lock nut
- ⑤ Reference mark



### ADJUSTING DRIVE CHAIN

At the initial 600 miles (1 000 km) and a minimum of every 4 000 miles (6 000 km) adjust the drive chain to the proper specification. The chain may require more frequent adjustments depending upon your riding conditions.

### **WARNING:**

These recommendations are the maximum intervals between the adjustment periods. The drive chain adjustment should be checked every time that the machine is operated. Excessive chain slack could cause the chain to come off the sprockets and result in an accident or serious engine damage. To adjust the drive chain, follow these directions:

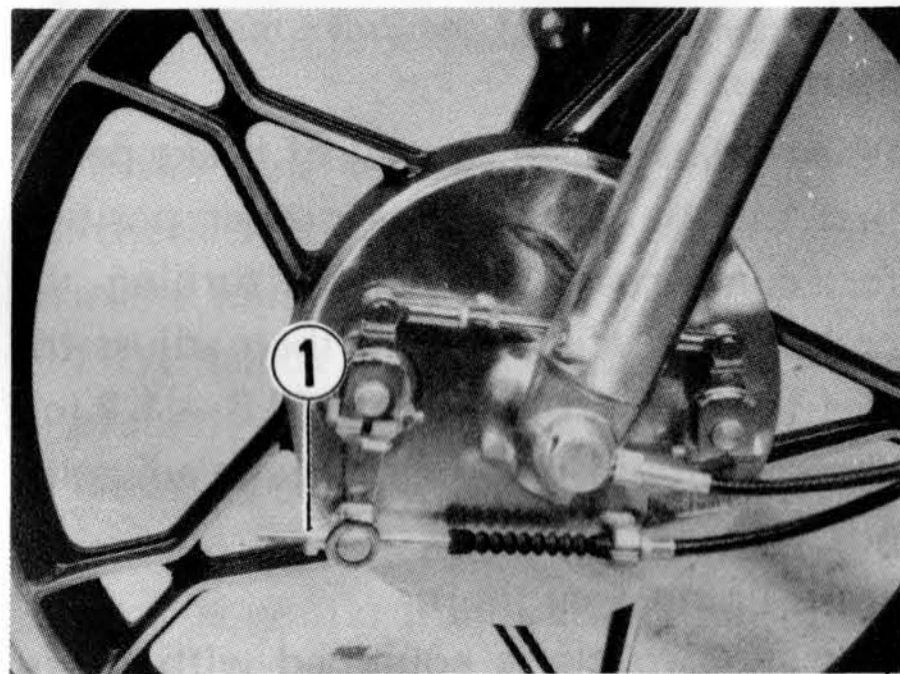
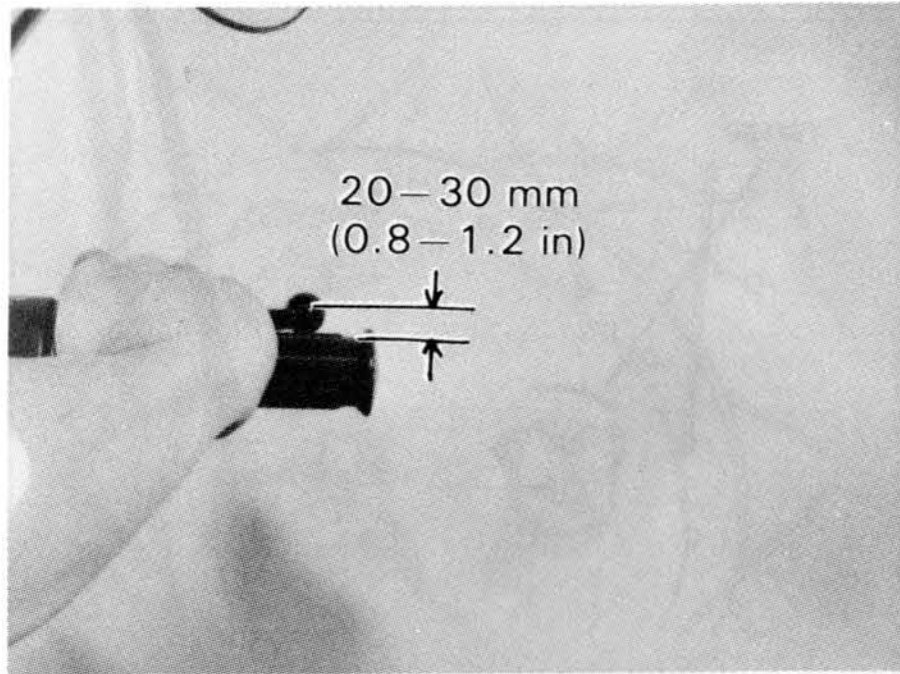
- (1) Place the machine on the center stand.
- (2) Remove the cotter pin and loosen the axle nut.
- (3) Loosen the lock nuts.
- (4) Adjust the slack in the drive chain by turning the right and left chain adjuster bolts in after loosening the lock nut. At the same time that the chain is being adjusted, the rear sprocket must be kept in perfect alignment with the front sprocket. To assist you in performing this procedure, there are reference marks on

the swing arm and each chain adjuster which are to be aligned with each other and to be used as a reference from one side to the other. After aligning and adjusting the slack in the drive chain to 20 – 30 mm (0.8 – 1.2 in.), retighten the axle nut securely and replace the cotter pin with a new one. Tighten the chain adjuster lock nuts and perform a final inspection.

### **CAUTION:**

The drive chain for this motorcycle is made of a special material. The chain should be replaced with either a DAIDO D.I.D.520UB or TAKASAGO RK520SU. Use of another chain may lead to premature chain failure.

*NOTE: The two sprockets should be inspected for wear when a new chain is installed and replaced if necessary.*



① Adjuster

### REAR BRAKE LIGHT SWITCH

Check the brakes at initial 600 miles (1 000 km) and every 4 000 miles (6 000 km).

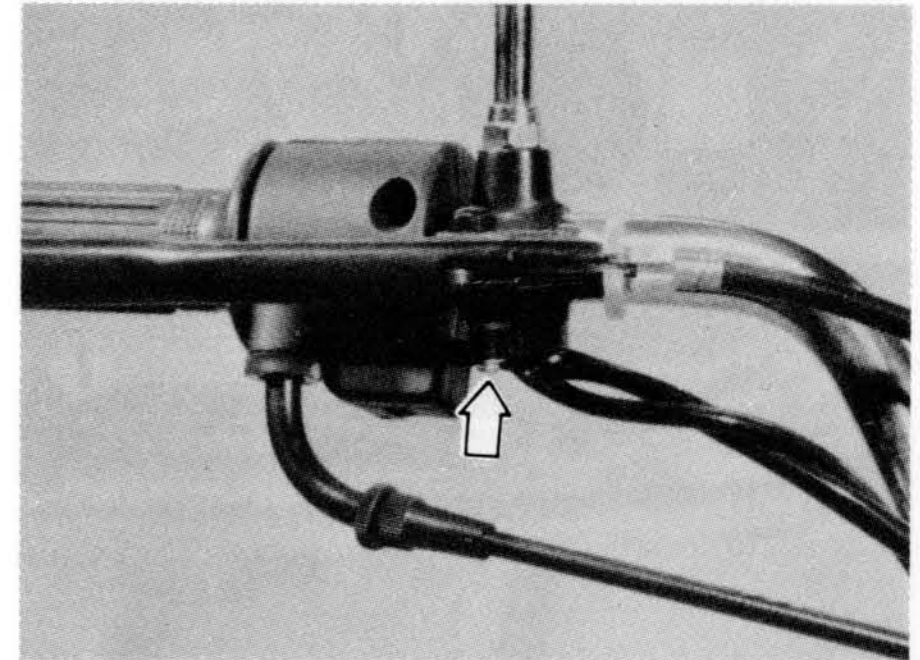
#### **WARNING:**

**Brakes are items of personal safety and should be maintained in proper adjustment.**

### FRONT BRAKE

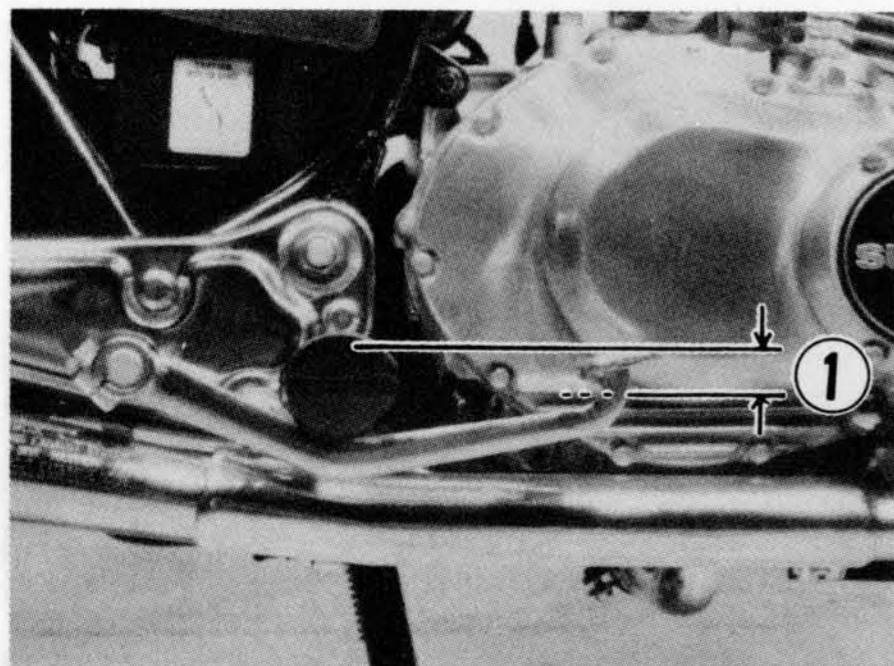
1. Measure the amount of the front brake level distance between the brake lever end and throttle grip when the brake is operated. The distance should be 20-30 mm (0.8-1.2 in).
2. If adjustment is necessary, turning the front brake cable adjuster in the counterclockwise direction will increase the distance.

### FRONT BRAKE LIGHT SWITCH

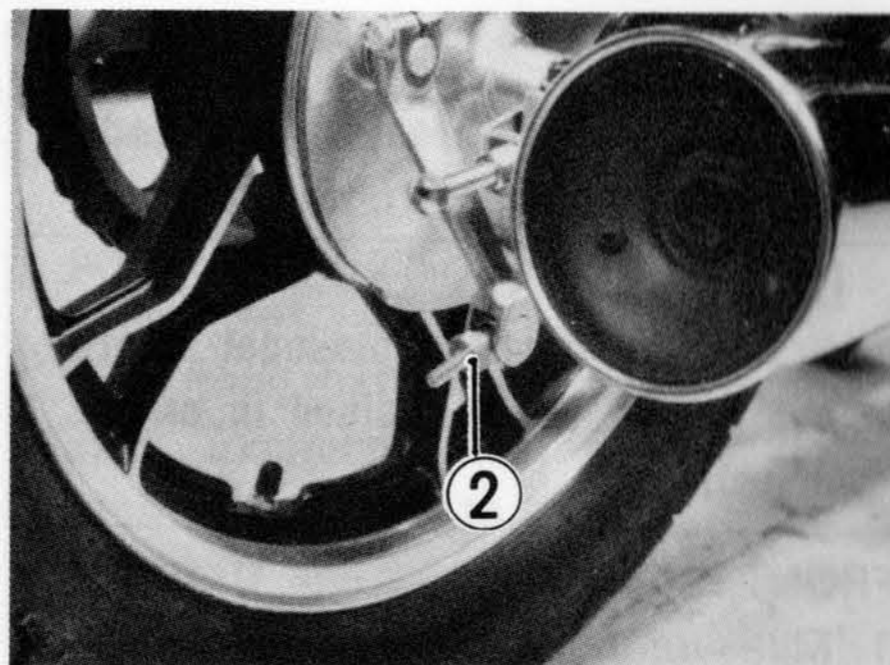


The front brake light switch is located beneath the front brake lever. Loosen the switch fitting screws and adjust the actuating point by moving the switch body to the right or to the left so that the brake light will come on just before a pressure rise is felt at the lever.

## REAR BRAKE ADJUSTMENT



① Free travel



② Brake adjusting nut

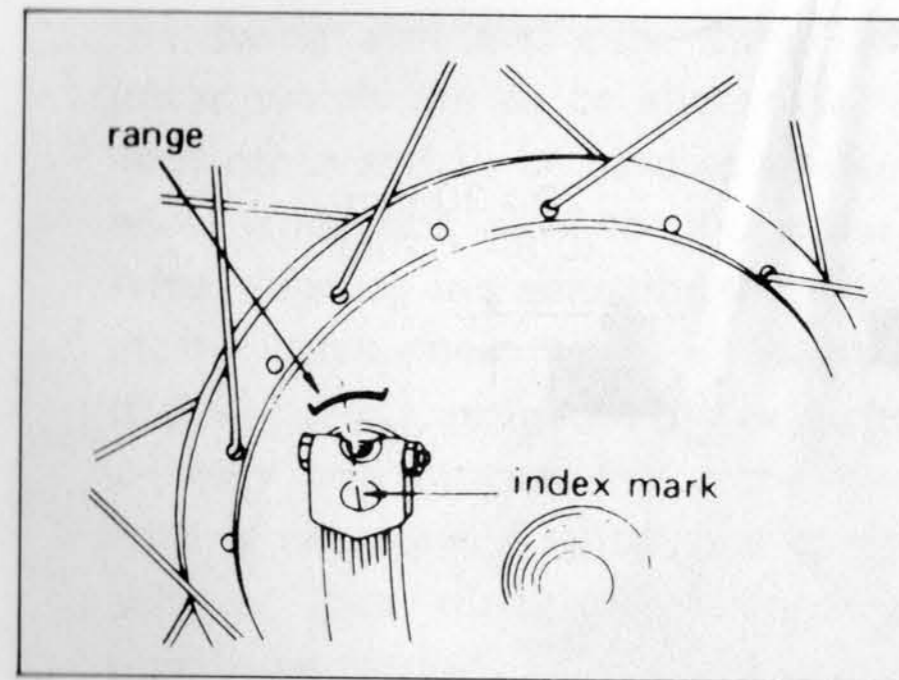


Fig. A

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

When adjusting the travel of brake pedal, first set the pedal at its proper position for comfortable riding by turning the brake pedal stopper, and then adjust the free travel to 20 – 30 mm (0.8 – 1.2 in.) by screwing in or out the brake adjusting nut.

### Brake lining wear limit:

This motorcycle is equipped with brake lining wear limit indicator on rear brake. 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

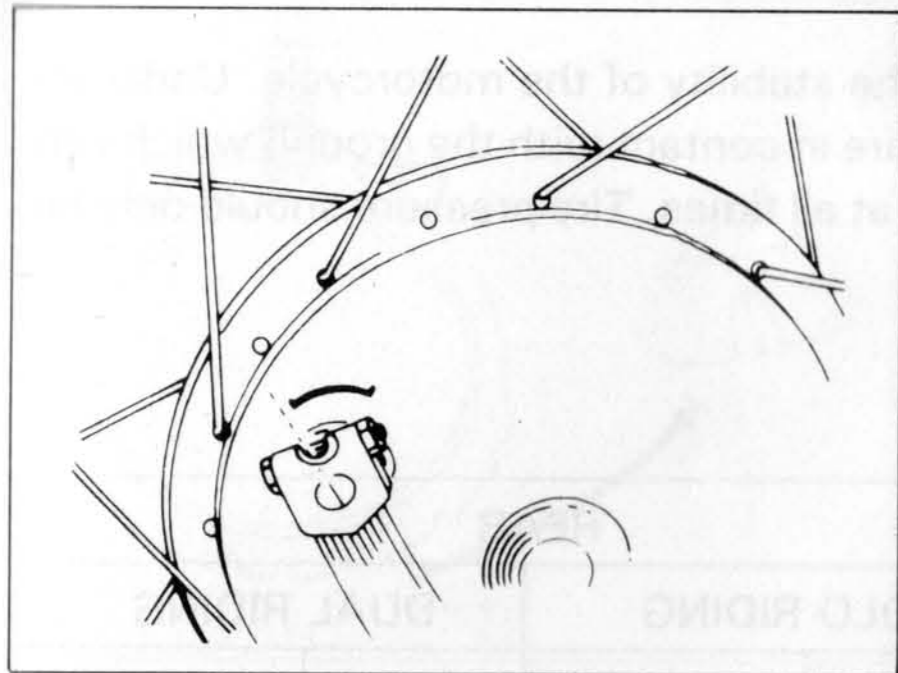


Fig. B

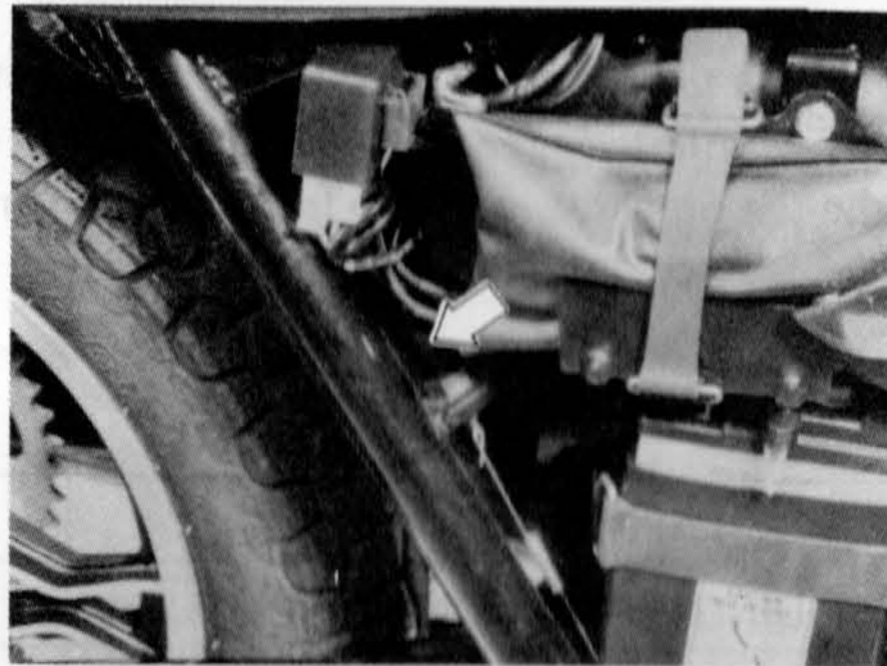
The extension line of the index mark is out of the range.

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.

## REAR BRAKE LIGHT SWITCH



The rear brake light switch is located under the right frame cover. To adjust the brake light switch: raise or lower the switch so that the brake light will come on just before a pressure rise is felt when the brake pedal is depressed.

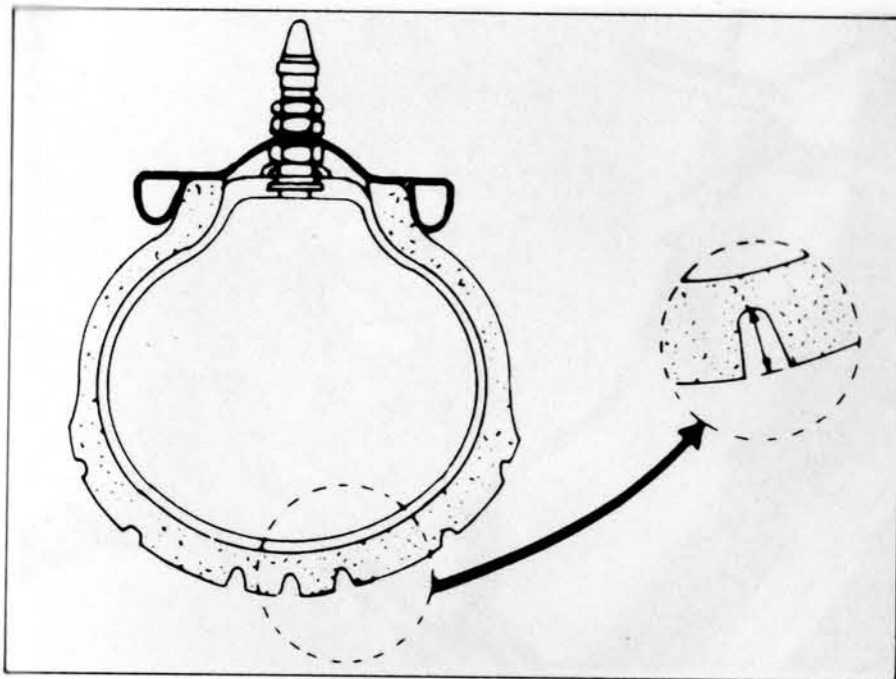
## TIRES

Check the tire inflation pressure and tire tread condition at the initial 600 miles (1,000 km) and each 4 000 miles (6 000 km) inspection. For maximum safety and good tire life, the tire pressures should be inspected more often.

## TIRE PRESSURE

Insufficient air pressure in the tires not only hastens tire wear but also seriously affects the stability of the motorcycle. Under inflated tires make smooth cornering difficult and overinflated tires decrease the amount of tire in contact with the ground which can lead to skids and loss of control. Be sure that the tire pressure is within the specified limits at all times. Tire pressure should only be adjusted when the tires are cold.

COLD INFLATION TIRE PRESSURE	FRONT				REAR			
	SOLO RIDING		DUAL RIDING		SOLO RIDING		DUAL RIDING	
	P.S.I.	KG/CM <sup>2</sup>	P.S.I.	KG/CM <sup>2</sup>	P.S.I.	KG/CM <sup>2</sup>	P.S.I.	KG/CM <sup>2</sup>
NORMAL RIDING	24	1.75	24	1.75	28	2.00	32	2.25
CONTINUOUS HIGH SPEED RIDING	28	2.00	28	2.00	32	2.25	36	2.5



### TIRE TREAD CONDITION

Operating the motorcycle with excessively worn tires will decrease riding stability and can lead to loss of control. It is recommended that the front tire be replaced when the remaining depth of tire tread becomes 1.6 mm (0.06 in.) or less. The rear tire should be replaced when the tread becomes 2.0 mm (0.08 in.) or less.

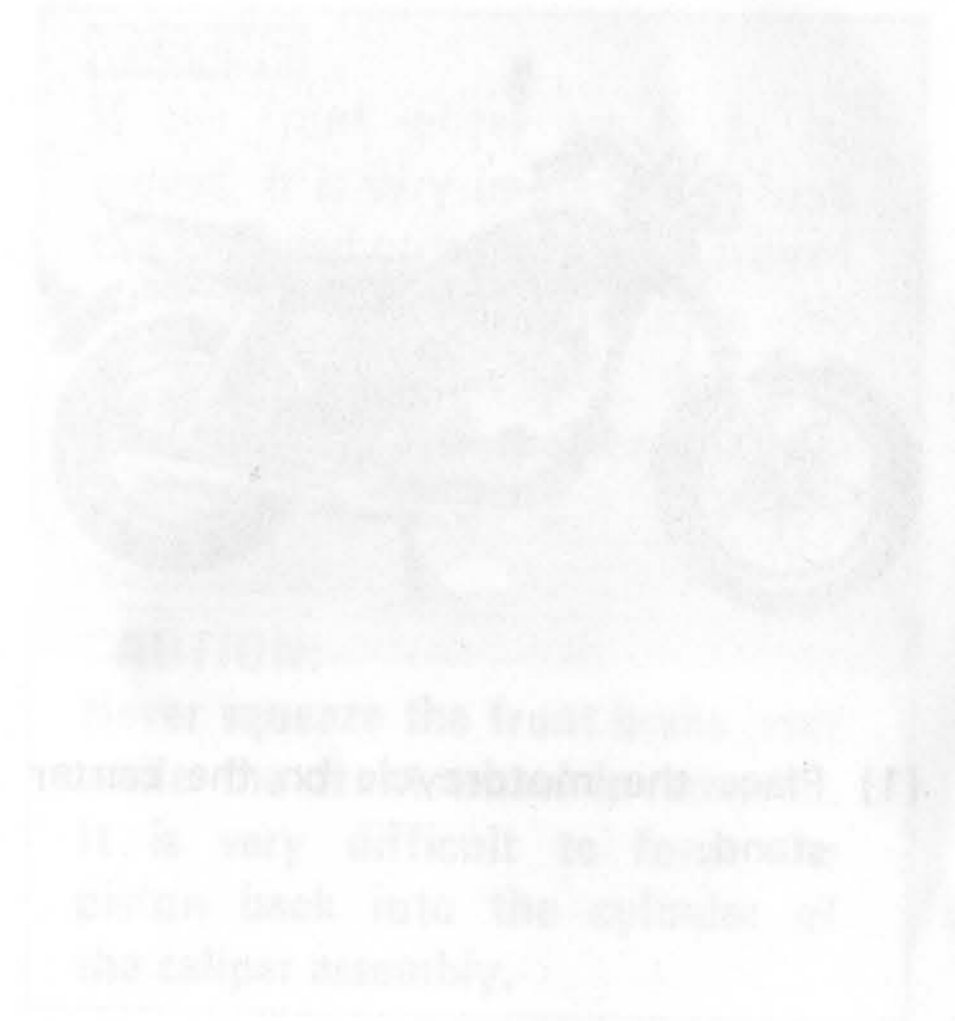
#### **WARNING:**

Tire inflation pressures and the general tire condition are extremely important to the proper performance and safety of the vehicle. Check your tires frequently for both wear and inflation pressures.

#### **WARNING:**

The standard tire on your motorcycle is 3.60S18-4PR for front, 4.60S16-4PR for rear. The use of a tire other than standard may cause trouble. It is highly recommended to use a SUZUKI Genuine Tire.

FRONT WHEEL REMOVAL

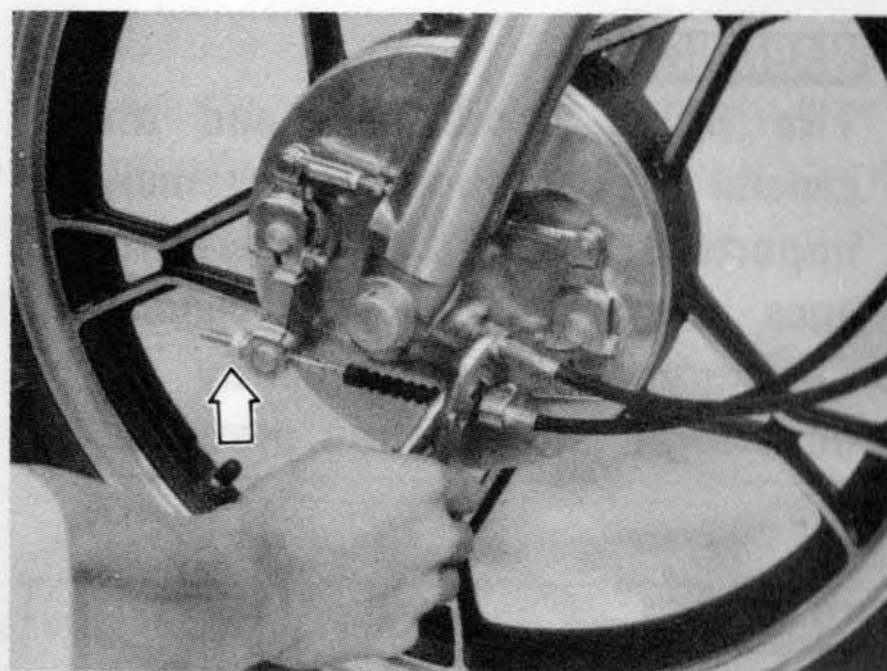


(3) Remove the axle nut after pulling off the cotter pin.  
 (4) Draw out the axle.

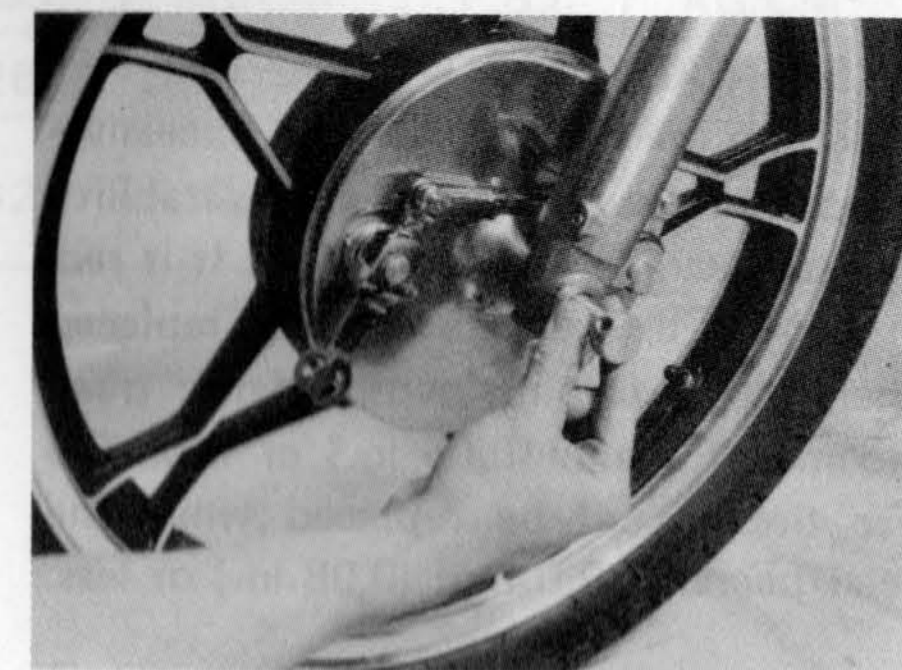
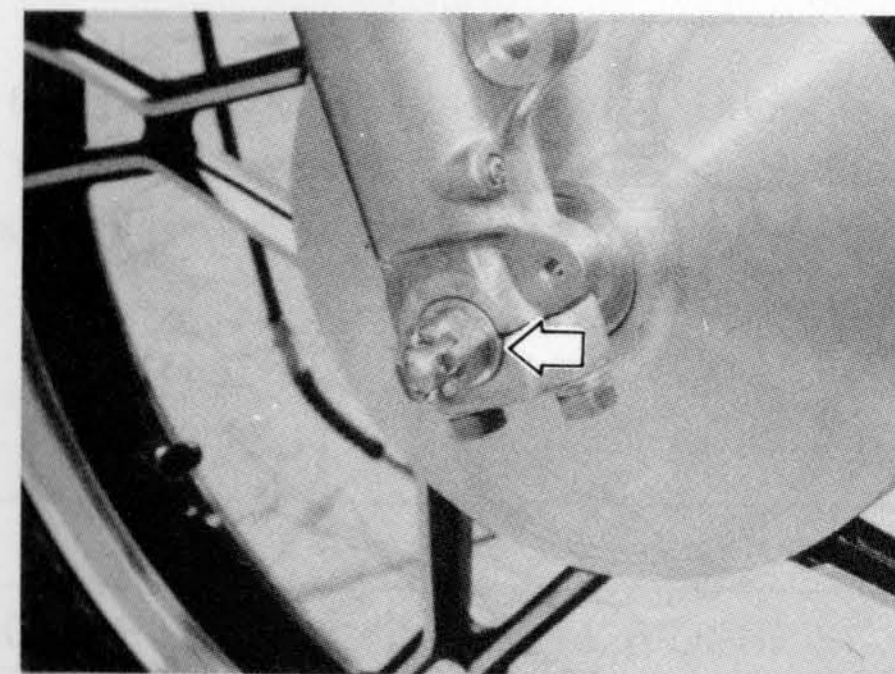
## FRONT WHEEL REMOVAL



(1) Place the motorcycle on the center stand.



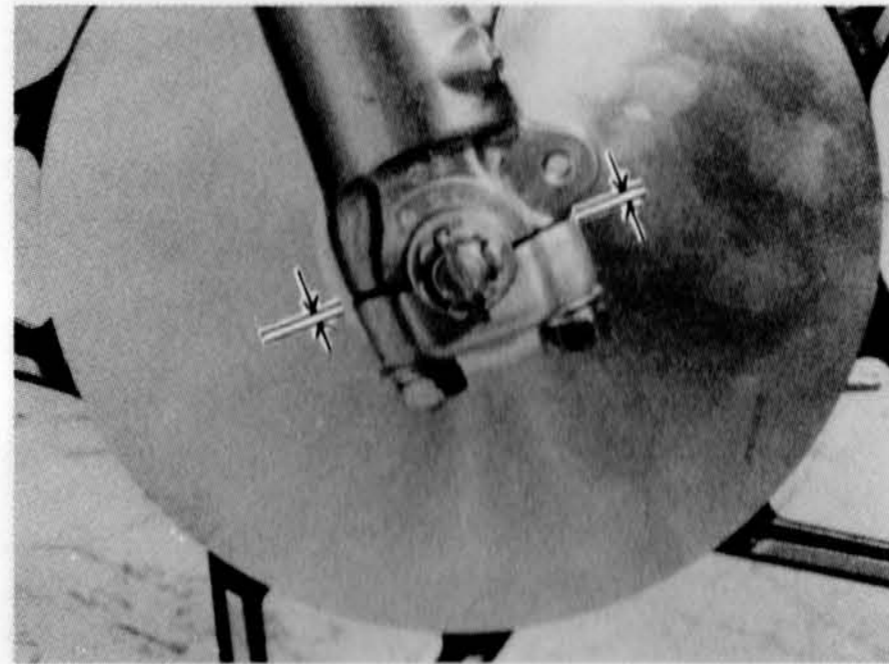
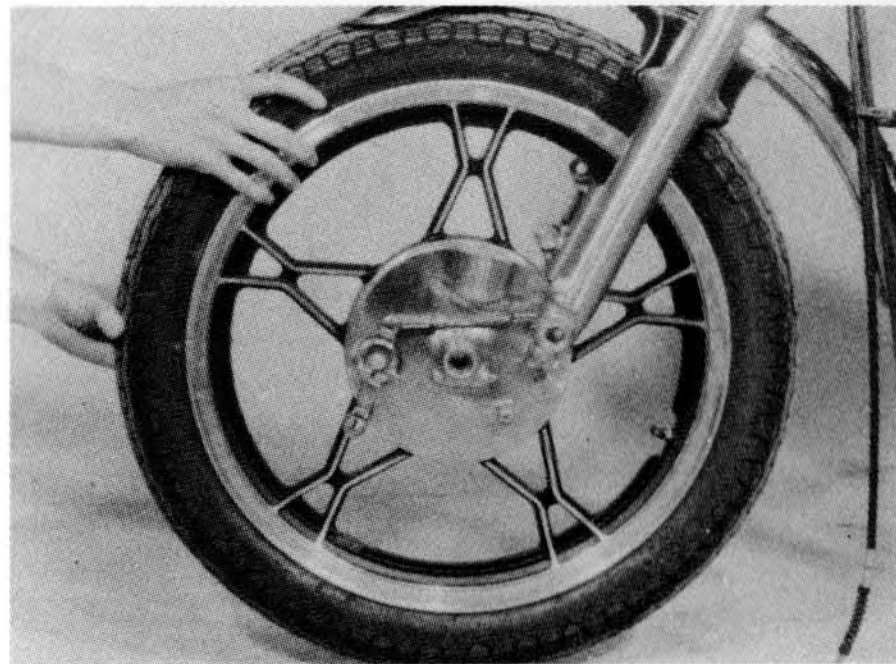
(2) Disconnect the speedometer cable and front brake adjuster from the front wheel. When the cable is released, prevent the inner drive cable from sliding out of the outer cable housing.



(3) Remove the axle nut after pulling off the cotter pin.

(4) Draw out the axle.





- (5) Lift the front end of the motorcycle up and place a jack or a block under the engine or chassis tubes.
- (6) Slide the front wheel forward. To re-install the wheel assembly reverse the sequence as described.

**CAUTION:**

Before tightening the axle nut in place, locate the speedometer drive gear box so that the arrow on the gear box housing points up. This will align the speedometer cable properly when installed. To secure the axle properly, the axle holder should be tightened down so that the gap on each side of the cap is equal.

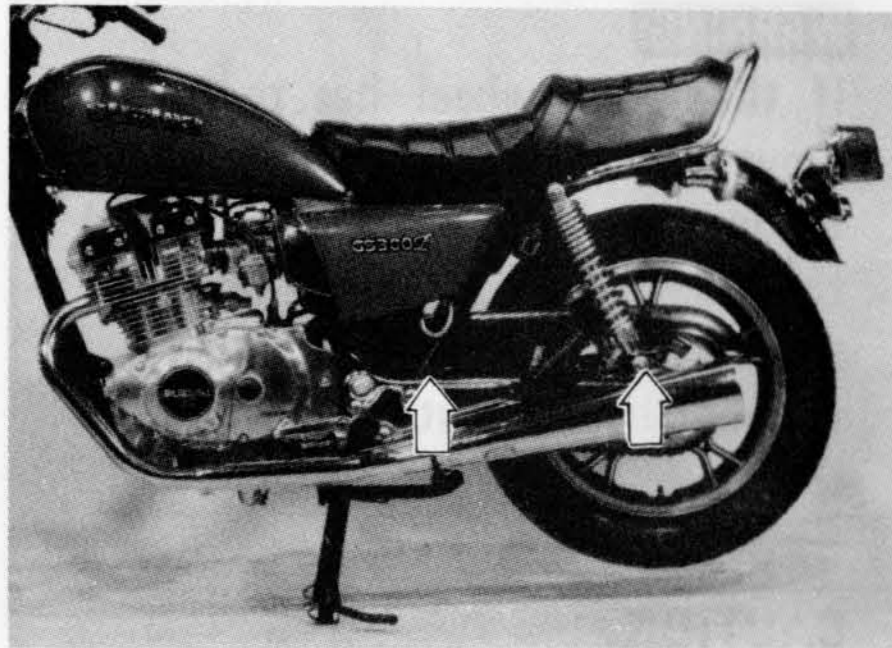
**WARNING:**

If the front wheel has to be removed, it is very important to have the loosened nuts and bolts torqued to the proper specifications. We suggest that you have this performed by an authorized Suzuki Dealer.

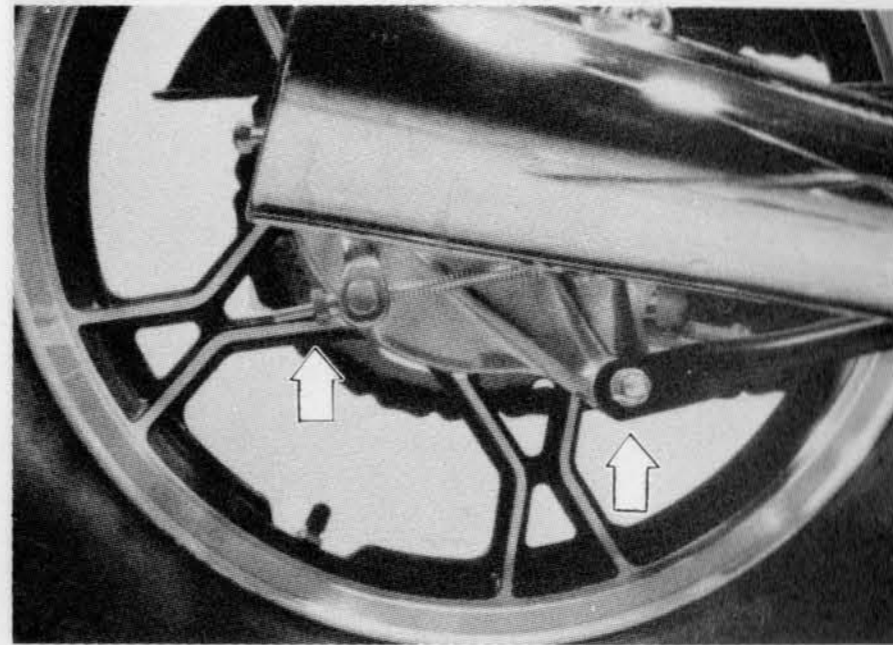
**CAUTION:**

Never squeeze the front brake lever while the front wheel is removed. It is very difficult to force the piston back into the cylinder of the caliper assembly.

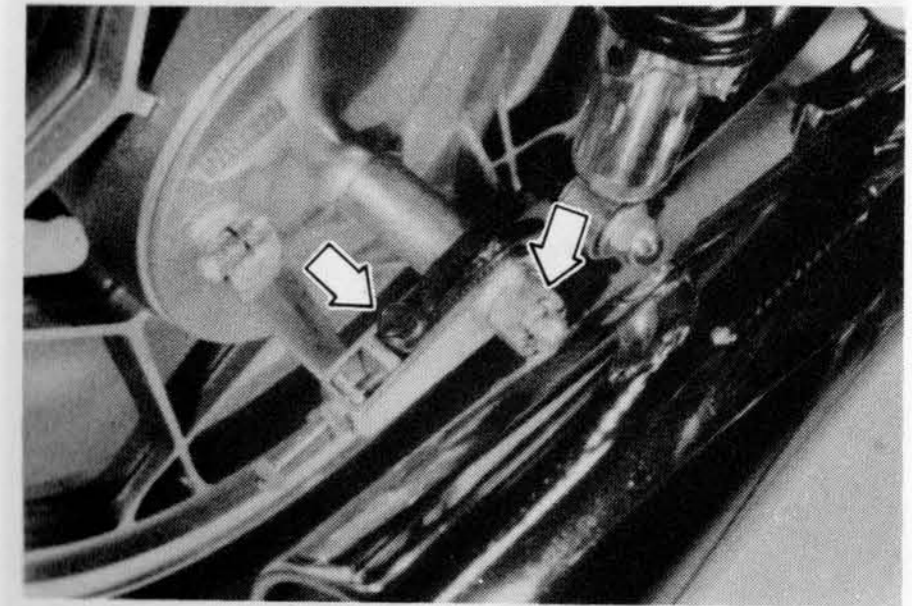
## REAR WHEEL REMOVAL



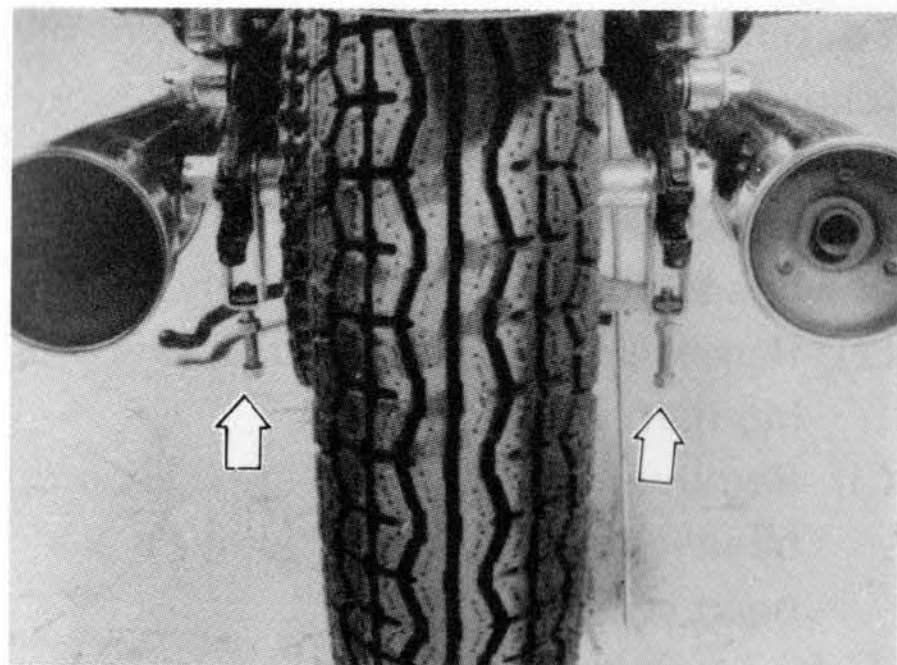
- (1) Place the motorcycle on the center stand.
- (2) Remove the two chain guard bolts and then remove the drive chain guard.



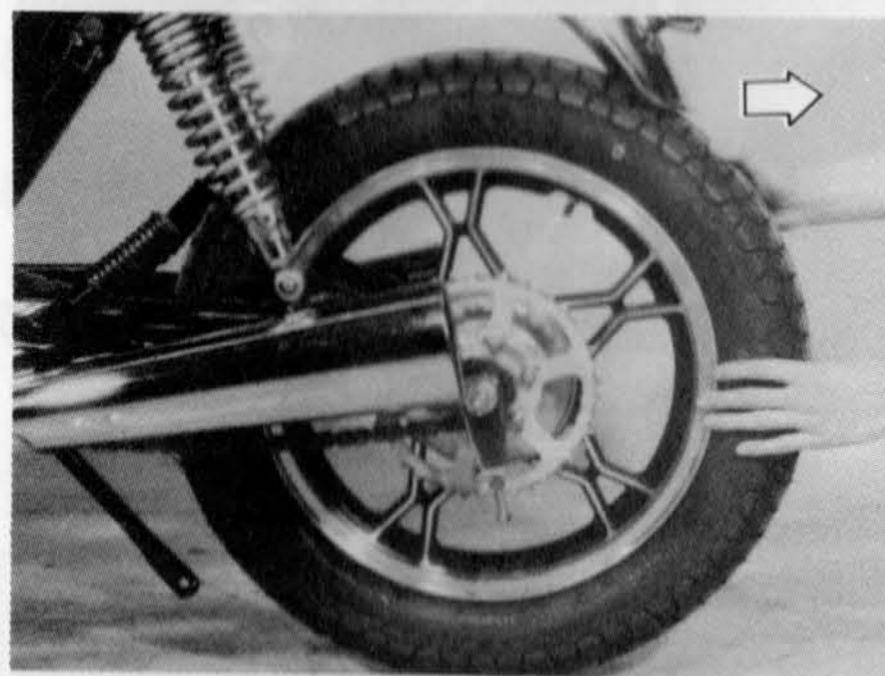
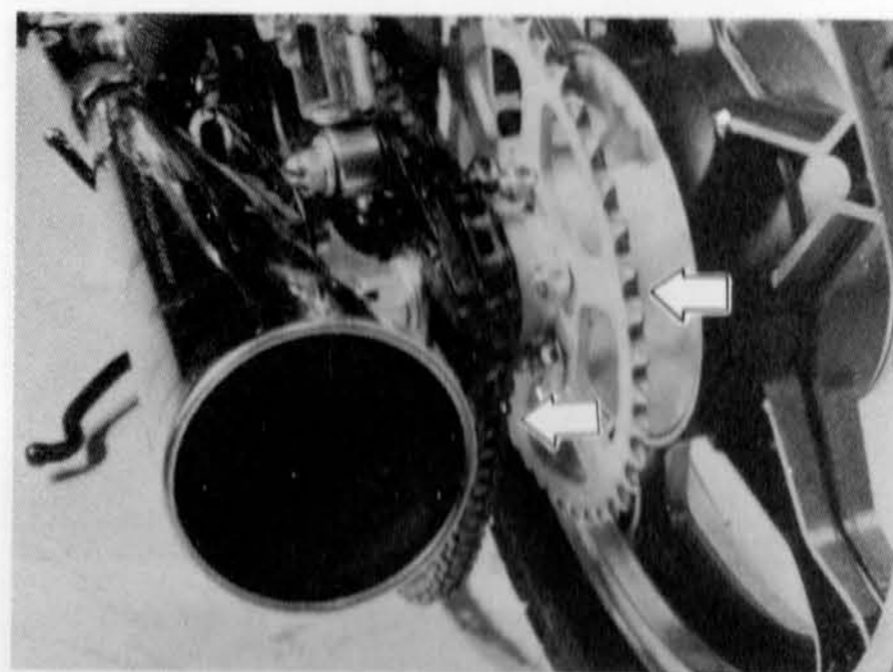
- (3) Remove brake adjuster nut, and remove torque link.



- (4) Remove the cotter pin that locks the axle nut into position, then loosen the axle nut.



- (5) Pivot both chain adjusters downward, allowing the wheel to be pushed forward.
- (6) Remove the support bolts from each chain adjuster block and remove the adjuster block from swingingarm.



- (7) With the wheel moved forward, remove the chain from the sprocket by slowly rotating the wheel, at the same time pulling the chain to the side.

- (8) Pull the wheel assembly rearward and remove it from the swingingarm. Slide the drive chain off of the hub when the wheel is far enough to the rear to provide the clearance required.
- (9) To replace the wheel reverse the complete sequence listed.

**WARNING:**

If you have found it necessary to remove the rear wheel, it is very important that the nuts and bolts be torqued to the proper specification. We strongly recommend that you have these bolts checked and retorqued by your authorized Suzuki Dealer.

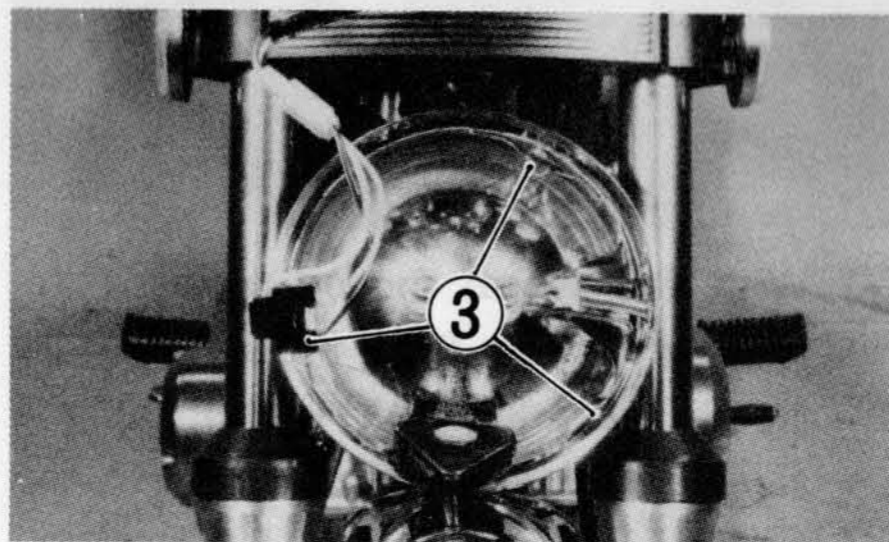
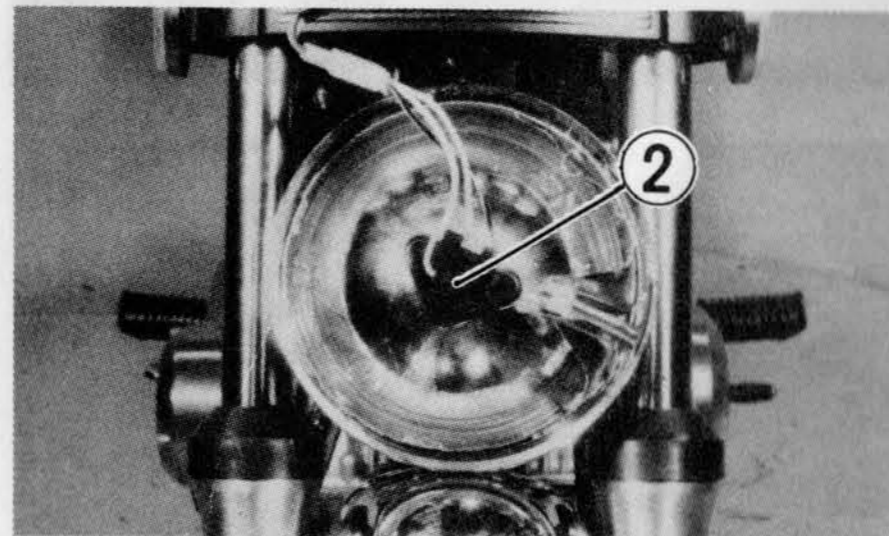
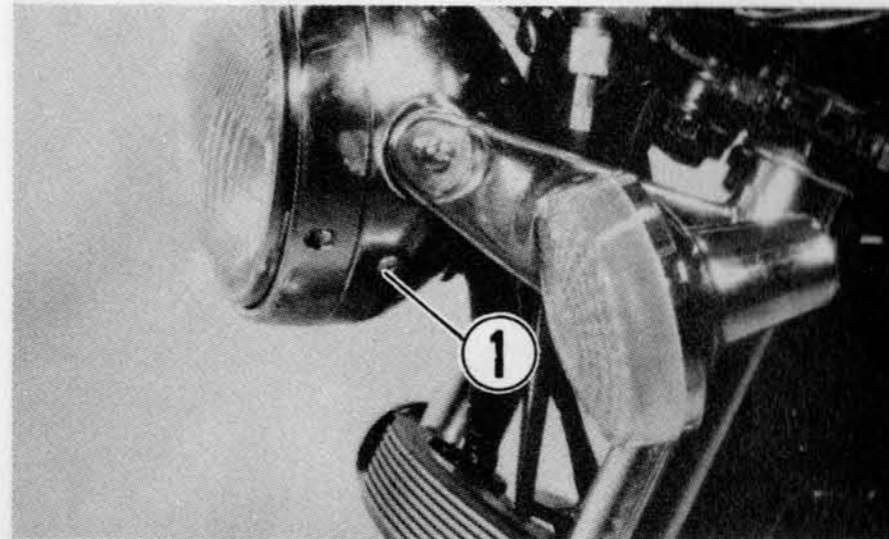
**CAUTION:**

When reinstalling the rear wheel, be sure to follow the procedure outlined in the drive chain adjustment section. Double check all nuts, bolts and cotter pins after reinstalling the rear wheel.

## LIGHT BULB REPLACEMENT

The wattage rating of each bulb is shown on the chart below. When replacing a burned out bulb, always use the exact same wattage rating. Using other than the specified rating can result in overloading the electrical system or premature failure of a bulb.

Headlight	12V 50/35W
Tail/Brake light	12V 8/23W (3/32 cp)
Turn signal light	12V 23W (32 cp)



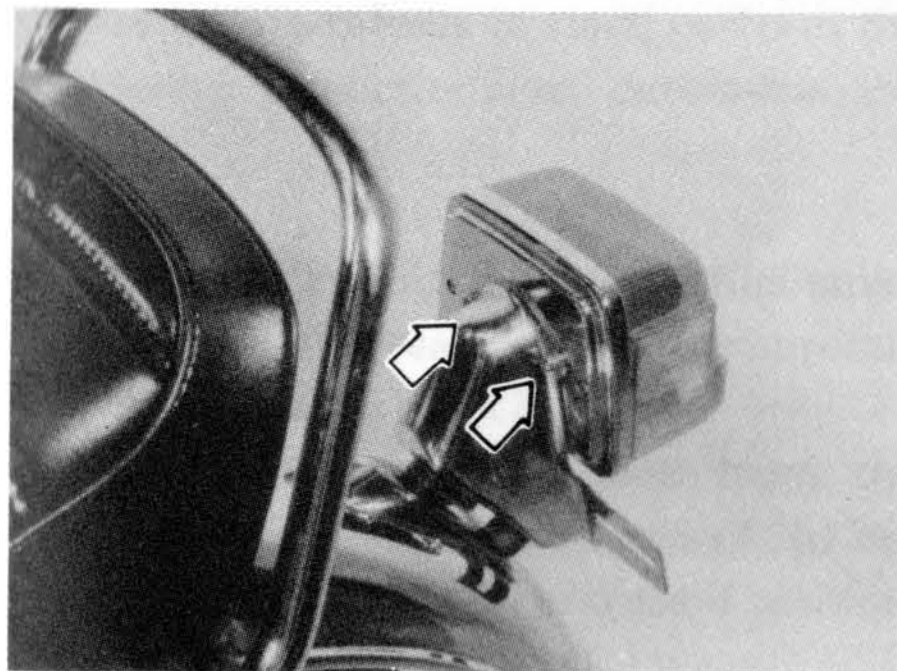
To remove the headlight perform the following steps:

- (1) Remove the two screws ① from the outer headlight ring. Remove the headlight assembly.
- (2) Remove the headlight from the wiring harness socket ②.
- (3) Remove headlight unit by pulling up headlight clamp pins ③ with a plane head screwdriver.

### **WARNING:**

After remounting the headlight assembly, be sure to check the horizontal adjustment.

## TAIL/BRAKE LIGHT



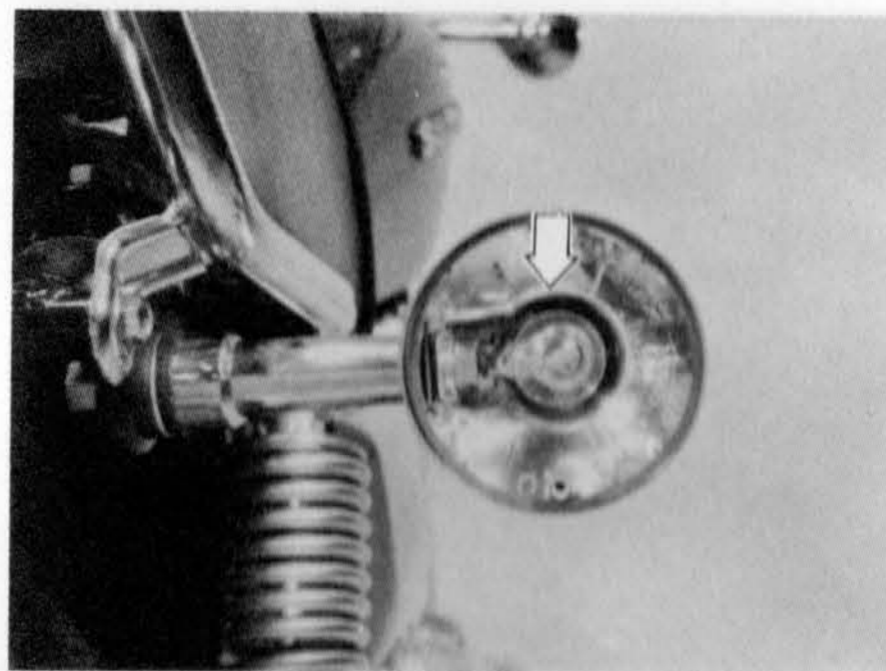
To replace the tail/brake light bulb, follow these directions:

- (1) Remove the two screws back side of the housing.
- (2) Push the bulb in, twisting it to the left until the engagement pins are disconnected and remove the bulb. To fit the replacement bulb into position, push the bulb in firmly and twist it to the right while pushing in.

### CAUTION:

When replacing the lens, do not overtighten the two securing screws.

## TURN SIGNAL LIGHT

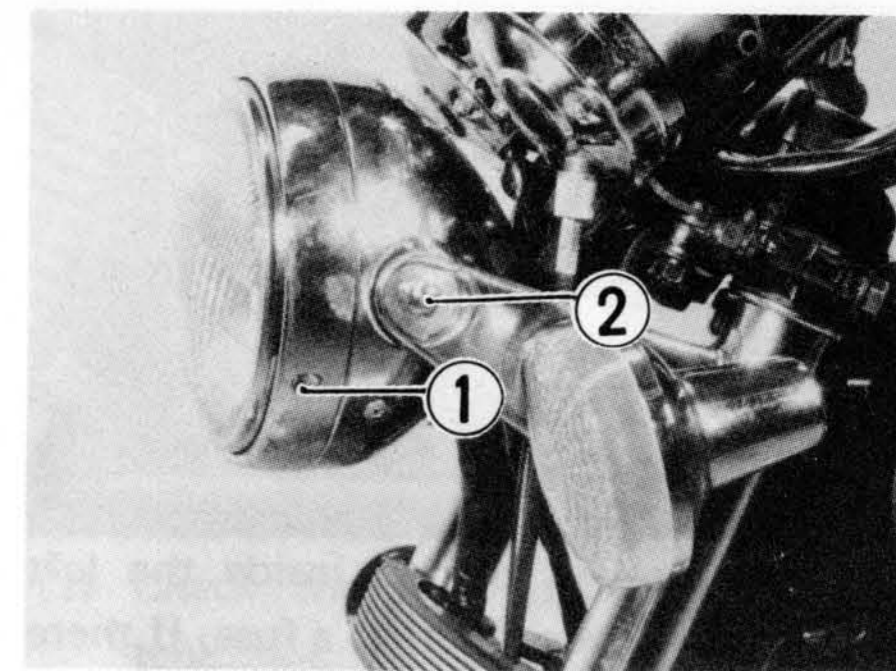


- (1) Remove two screws and take off the lens.
- (2) Push the bulb, twisting it to the left, and pull it off.
- (3) To fit the replacement bulb, push it in and twist it to the right while pushing.

### CAUTION:

After setting the lens, be careful not to overtighten the two securing screws lest the lens should break.

## HEADLIGHT



The headlight beam can be adjusted both horizontally and vertically if necessary.

### To adjust beam horizontally:

Turn the cross head screw ① located on the left side of the headlight unit clockwise or counter-clockwise.

### To adjust beam vertically:

Loosen the headlight housing fitting bolt ② and move the headlight housing up and down as required.

## FUSE



The fuse box is located inside the left hand frame cover. There is a fuse. If there is a sudden halting of the engine while running or any electrical system failure then the fuse must be checked. In case the fuse blows there is one fuse, a 15A fuse.

### CAUTION:

Always be sure to replace the blown fuse with the correct amperage fuse. Never use a substitute, for example aluminum foil or wire, to replace a blown fuse. If the spare fuse installed blows out in a short period of time it means that you could have a major electrical problem. You should consult your SUZUKI dealer immediately.

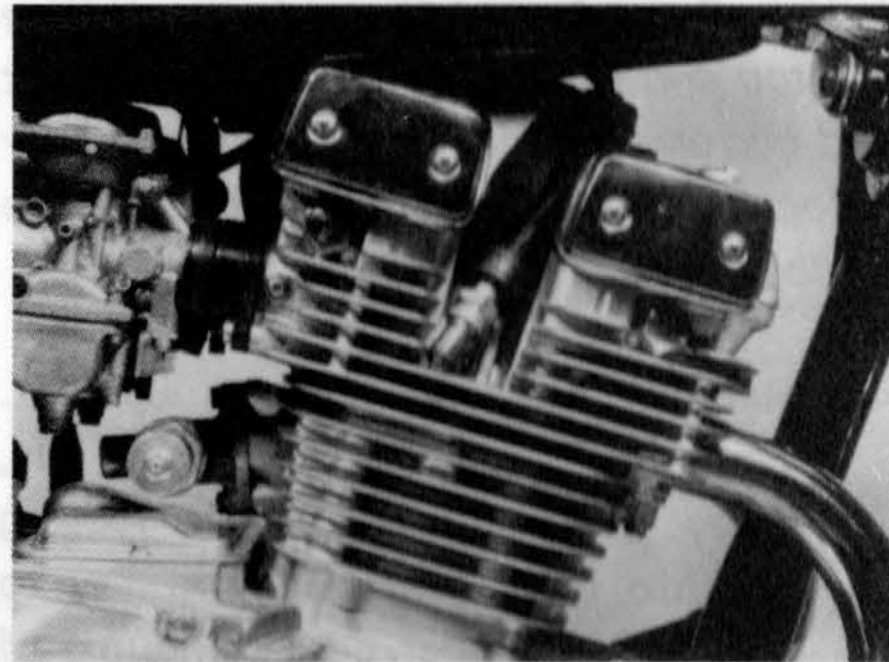
# TROUBLESHOOTING

If the engine refuses to start, perform the following inspections to determine the cause.

- (1) Is there enough fuel in the fuel tank?
- (2) Is the fuel reaching the carburetors from the fuelcock?
- (3) Disconnect the fuel line from the carburetor, turn the fuelcock to the "PRIME" position and see if gasoline flows from the hose.
- (4) Then turn the fuelcock to the "ON" position and crank the engine for a brief moment and see if fuel still flows.
- (5) If it has been determined that fuel is reaching the carburetor, the ignition system should be checked next.

**WARNING:**

**Do not allow the fuel to spill, catch the fuel in a container.**



- (1) Remove a spark plug and re-attach it to the spark plug lead.
- (2) While holding the spark plug firmly against the engine, push the starter button with the ignition switch in the "ON" position and the engine "kill" switch in the "RUN" position. If the ignition system is operating properly, a blue spark should jump across the spark plug gap. If there is no spark, consult your Suzuki Dealer for repairs.

**WARNING:**

**Do not hold the spark plug close to the open spark plug hole in the cylinder head as gasoline vapor inside the cylinder could be ignited, creating a fire hazard.**

## ENGINE STALLING

- (1) Check the fuel supply in the fuel tank.
- (2) Check the ignition system for intermittent spark.
- (3) Check the engine idle speed.

It is best to consult your Suzuki dealer before attempting to troubleshoot any problem. If the machine is still within the warranty, then the Suzuki dealer should definitely be consulted before any repairs are attempted on the machine by yourself. Tampering with the machine while in warranty may affect warranty consideration.

# STORAGE PROCEDURES

## PROCEDURE FOR STORAGE

### Materials Needed

1. Motor Oil.
2. Commercial Gasoline Stabilizer.
3. Commercial Rust Preventative Fogging Oil. (outboard motor type)
4. Commercial Aerosol Rust Preventative. (moisture displacing lubricant)
5. Commercial Vinyl and Rubber Preservative.
6. Hydrometer for Checking Battery Condition.
7. 1 Amp Battery Charger.

1. Place the motorcycle on its center stand.
2. Thoroughly clean the entire motorcycle. Run the bike until all traces of moisture are gone.
3. Pour the gasoline stabilizer into the fuel tank using the amount of stabilizer recommended by its manufacturer. Unstabilized fuel will form "gum" or "varnish" deposits that will plug the fuelcock and carburetor passageways.

*NOTE: Steps 4a and 4b are for protecting the top end engine components from rust and corrosion. Step 4b is to be used only if fogging oil is not available. Do either 4a or 4b, but DO NOT do both.*

- 4a. Remove the air cleaner element. While the engine is running at idle, spray the rust preventative fogging oil into the air cleaner box. Try to give each cylinder equal amounts of fogging oil. Do this until the engine stalls or emits smoke.
- 4b. Run the engine for a few minutes to get the stabilized fuel into the carburetors. Then, remove the spark plugs and pour 1 to 2 tablespoons of motor oil into each spark plug hole. Reinstall the spark plugs. DO NOT reinstall the spark plug caps at this time. Turn the engine over a few times with the electric starter. Now reinstall the spark plug caps.
5. Drain the old engine oil and remove the oil filter, but DO NOT replace it at this time. With fresh oil, refill the

crankcase all the way up to the filler cap hole. This step is necessary because the old oil contains acid, moisture and other contaminants that will damage the engine while it is stored.

6. Refill the fuel tank as completely as possible to eliminate any air space and to reduce the chances of the fuel becoming contaminated.
7. Remove the battery. Make sure to remove the negative terminal before the positive terminal. This will remove the battery from the circuit and will eliminate the chance of grounding the positive terminal with the screwdriver or wrench. Clean the outside of the battery with a mild baking soda and water solution and dry it carefully. Be sure not to get any solution inside the cells. Remove any corrosion from the terminals and from the wiring harness connections. Store the battery in a room that stays above freezing, off the floor, and preferably on a wooden shelf.



8. Spray all of the vinyl and rubber parts with the rubber preservative.
9. Spray the unpainted surfaces of the motorcycle with the rust preservative.
10. Deflate the tires to approximately 20 PSI and block up the front of the motorcycle so both front and rear tires are off of the ground. This will keep the tires from developing permanent "flat" spots.

During the storage period, be sure to do the following things:

#### Once A Week

Turn the engine over a few times by removing the spark plugs and putting the transmission in 6th gear and turning the rear wheel. This will keep the piston rings free and top end coated with oil. Reinstall the spark plugs and visually inspect your machine for any other things that would be detrimental to the condition of your GS250T.

#### Once A Month

Recharge the battery with the one amp battery charger until it is fully charged. If the battery is not kept fully charged, it may become permanently damaged and

will have to be replaced.

### PROCEDURE FOR RETURNING TO SERVICE

1. Clean the entire motorcycle.

*NOTE: Use of a commercial degreaser may stain the finish on the engine. Instead, use a mild detergent and water solution.*

2. Drain the oil that was in the engine during the storage period. Install a new oil filter and fill the engine with oil as outlined in your owner's manual.
3. Reinstall the battery. Make sure that the vent hose is connected and routed properly. Install the positive terminal before the negative terminal.
4. Lubricate all places as instructed in the lubrication table in the owner's manual.
5. Inflate the tires to the correct pressure.
6. Before starting the engine, remove the two spark plugs and slowly turn the engine over by putting it in 6th gear and turning the rear wheel. Listen for any abnormal noises and

check for smooth movement. If you think a problem has occurred, contact your local authorized Suzuki dealer for assistance. If there are no problems, reinstall the spark plugs and return the transmission in neutral.

7. Do the "Inspections Before Riding" as listed in the owner's manual.

Often times it's easier to let these sort of services be done by your dealer. Most dealers in the areas where motorcycle storage is common are set up to properly prepare motorcycles for storage. Whether you do it yourself, or have your dealer do it, we sincerely hope you follow our suggestions. This is the only way that your GS can serve you in the manner it was designed. If your dealer does the service for you, you should be among the first to be back on the road when winter becomes spring.

**CAUTION:**  
Clean the brake disc with alcohol only. This will ensure positive braking.

# SPECIFICATIONS

## DIMENSIONS AND DRY MASS

Overall length . . . . .	2 020 mm (79.5 in)
Overall width . . . . .	840 mm (33.1 in)
Overall height . . . . .	1 100 mm (43.3 in)
Wheelbase . . . . .	1 410 mm (53.9 in)
Ground clearance . . . . .	140 mm ( 5.5 in)
Dry mass . . . . .	159 kg (348 lbs)

## ENGINE

Type . . . . .	Four-stroke, air-cooled, DOHC
Number of cylinders . . . . .	2
Bore . . . . .	62.0 mm (2.362 in)
Stroke . . . . .	49.6 mm (1.740 in)
Piston displacement . . . . .	299 cm <sup>3</sup> (15.2 cu.in)
Compression ratio . . . . .	8.9 : 1
Carburetor . . . . .	MIKUNI BS30SS, twin
Air cleaner . . . . .	Polyurethan foam element
Starter system . . . . .	Electric
Lubrication system . . . . .	Wet sump

## TRANSMISSION

Clutch . . . . .	Wet multi-plate type
Transmission . . . . .	5-speed constant mesh
Gearshift pattern . . . . .	1-down, 4-up
Primary reduction . . . . .	3.125 (75/24)
Final reduction . . . . .	2.800(47/15)
Gear ratios, Low . . . . .	2.500 (30/12)
2nd . . . . .	1.625 (26/16)
3rd . . . . .	1.210 (23/19)
4th . . . . .	1.000 (21/21)
Top . . . . .	0.863 (19/22)
Drive chain . . . . .	DAIDO D.I.D. 520UB or TAKASAGO RK520SU 108 links

## CHASSIS

Front suspension . . . . .	Telescopic, oil dampened
Rear suspension . . . . .	Swinging arm, oil dampened, spring 5-way adjustable
Steering angle . . . . .	42° (Right and Left)

**CAUTION:**  
Clean the brake disc with alcohol  
only. This will ensure positive brak-  
ing.

Caster . . . . .	62° 00'
Trail . . . . .	104 mm (4.09 in)
Turning radius . . . . .	2.3 m (7.5 ft)
Front brake . . . . .	Internal expanding
Rear brake . . . . .	Internal expanding
Front tire size . . . . .	3.60S-18 4PR
Rear tire size . . . . .	4.60S-16 4PR

**ELECTRICAL**

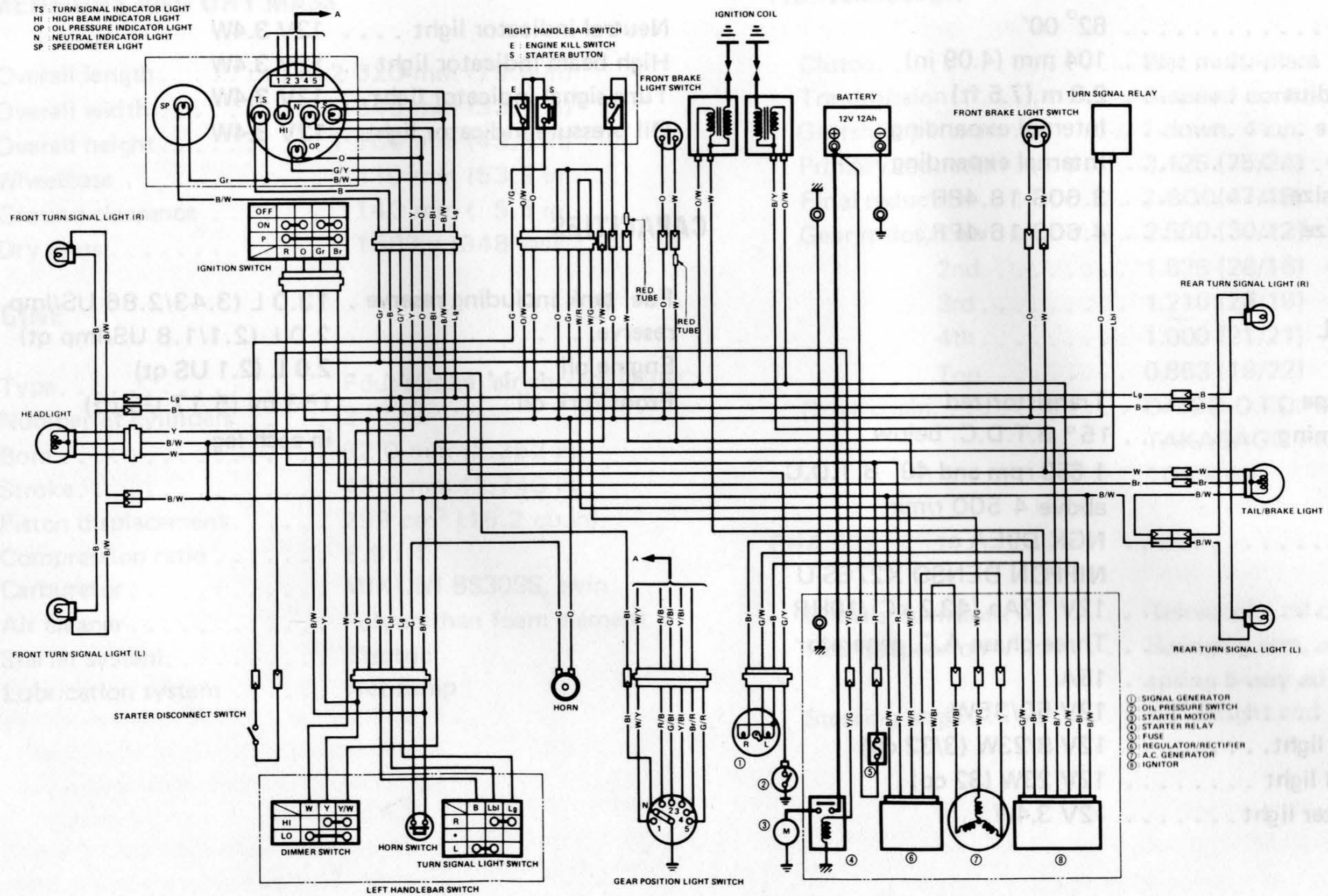
Ignition type . . . . .	Transistorized
Ignition timing . . . . .	15° B.T.D.C. below 1 650 rpm and 40° B.T.D.C. above 4 500 r/min
Spark plug . . . . .	NGK D9EA or NIPPON DENSO X27ES-U
Battery . . . . .	12V 12Ah (43.2 kC)/10HR
Generator . . . . .	Three-phase A.C. generator
Fuse . . . . .	15A
Headlight . . . . .	12V 50/35W
Tail/Brake light . . . . .	12V 8/23W (3/32 cp)
Turn signal light . . . . .	12V 23W (32 cp)
Speedometer light . . . . .	12V 3.4W

Neutral indicator light . . . . .	12V 3.4W
High beam indicator light . . . . .	12V 3.4W
Turn signal indicator light . . . . .	12V 3.4W
Oil pressure indicator light . . . . .	12V 3.4W

**CAPACITIES**

Fuel tank including reserve . . . . .	13.0 L (3.43/2.86 US/Imp gal)
reserve . . . . .	2.0 L (2.1/1.8 US/Imp qt)
Engine oil . . . . .	2.0 L (2.1 US qt)
Front fork oil . . . . .	153 ml (5.17 US oz)
	in each leg

# WIRING DIAGRAM



## WIRE COLOR

B . . . . .	Black	B/Y . . . . .	Black with Yellow tracer
Bl. . . . .	Blue	Br/R . . . . .	Brown with Red tracer
Br. . . . .	Brown	G/Bl . . . . .	Green with Blue tracer
G . . . . .	Green	G/W . . . . .	Green with White tracer
Gr . . . . .	Gray	G/Y . . . . .	Green with Yellow tracer
Lbl . . . . .	Light blue	O/W . . . . .	Orange with White tracer
Lg . . . . .	Light green	R/B . . . . .	Red with Black tracer
O . . . . .	Orange	W/G . . . . .	White with Green tracer
R . . . . .	Red	W/R . . . . .	White with Red tracer
W . . . . .	White	W/Y . . . . .	White with Yellow tracer
Y . . . . .	Yellow	Y/Bl . . . . .	Yellow with Blue tracer
B/W . . . . .	Black with White tracer	Y/G . . . . .	Yellow with Green tracer
		W/Bl . . . . .	White with Blue tracer

# MEMO

## WIRE DIAGRAM



### WIRE COLOR

- Black with Yellow tracer B/Y
- Brown with Red tracer B/R
- Green with Blue tracer G/B
- Green with White tracer G/W
- Green with Yellow tracer G/Y
- Orange with White tracer O/W
- Red with Black tracer R/B
- White with Green tracer W/G
- White with Red tracer W/R
- White with Yellow tracer W/Y
- Yellow with Blue tracer Y/B
- Yellow with Green tracer Y/G
- White with Blue tracer W/B

- B . . . . . Black
- Bl . . . . . Blue
- Bc . . . . . Brown
- G . . . . . Green
- Gr . . . . . Gray
- Lbl . . . . . Light blue
- Lg . . . . . Lightgreen
- O . . . . . Orange
- R . . . . . Red
- W . . . . . White
- Y . . . . . Yellow
- BW . . . . . Black with White tracer



MEMO



EMISSION CONTROL WARRANTY

SUZUKI MOTOR CO., LTD. warrants to the original purchaser and each subsequent purchaser that this vehicle is designed, built, and equipped to meet the requirements of the U.S. emission standards in effect at the time of manufacture and to meet all applicable Federal, State, and local emission control laws and regulations. This warranty is void if the vehicle is altered, modified, or tampered with in any way. For more information, contact your Suzuki dealer or the Suzuki Motor Corporation, U.S. Division, 1500 West End Avenue, Ann Arbor, Michigan 48106.

SUZUKI MOTOR CO. LTD.

January, 1982

Part No. 99011-11920-01A

Printed in Japan

Prepared by

**SUZUKI MOTOR CO., LTD.**

Administration Department

Overseas Service Division

January, 1982

Part No. 99011-11920-03A

Printed in Japan

## **EMISSION CONTROL WARRANTY**

**SUZUKI MOTOR CO., LTD. warrants to the ultimate purchaser and each subsequent purchaser that his vehicle (GS300L) is designed, built, and equipped so as to conform at the time of sale with all U.S. emission standards applicable at the time of manufacture and that it is free from defects in materials and workmanship which would cause it not to meet these standards within the period of 5 years or 30 000 km (18 645 miles), whichever occurs first. Failures, other than those resulting from defects in material or workmanship, which arise solely as a result of owner abuse and/or lack of proper maintenance are not covered by the warranty.**

**SUZUKI MOTOR CO.,LTD.**

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Part No. 99011-11920-03A  
January, 1982 ①  
Printed in Japan