SUZUKI
2-Stroke
Service Bulletin

Subject: AUTOMATIC PETCOCK MISUSE

Bulletin No: GENERAL-10
Date: May 1, 1975

Read and Initial

Manager_____
Parts_____
Service_____

PROBLEM:

Motorcycle seems to be locked up after being parked overnight. When kickstarting or pushing is tried, the engine will not turn over. Extreme Case: If engine is forced in this condition, a bent connecting rod, expelled crank seals, or broken piston skirt results.

CAUSE:

The automatic petcock was left in the PRIME position when the motorcycle was parked. This allows fuel to flow into the carburetors when the engine is not running. If the float valve is not perfectly seated, the fuel will then flow into the engine crankcase. This liquid fuel fills the crank chamber. When the owner tries to start the motorcycle, the piston cannot compress this "solid" fluid. This is termed a hydrastatic lock condition.

CORRECTION:

1. Warn new owners to park the motorcycle in the MAIN (#1) or RESERVE (#2) positions.

2. If this condition is present, drain the excess gasoline using the crank chamber drain plugs.

3. Since this type of engine failure is caused by misuse, U. S. Suzuki will not honor any warranty claim for bent connecting rods on these models.

SUZUKI
2-Stroke
Service Bulletin

Subject: CLEANING CARBURETORS

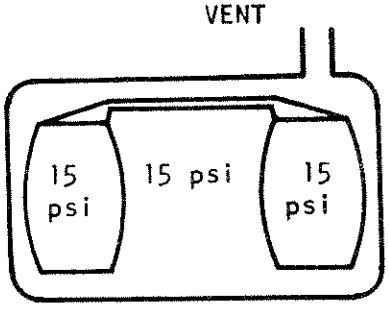
Bulletin No: GENERAL-11
Date: May 1, 1975

Read and Initial

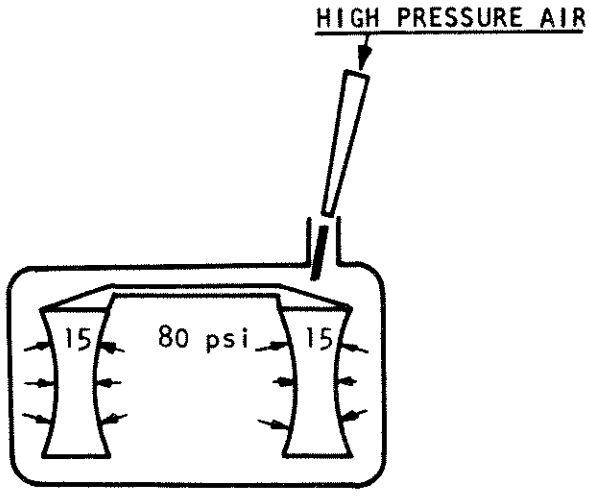
Manager_____
Parts_____
Service_____

PROBLEM: Motorcycle runs very rich at all throttle positions. Jets are standard and air filter is clean. In an extreme case, cylinder and piston will seize, because the lubricating oil has been washed off the cylinder wall by the raw gasoline.

CAUSE: One cause of this problem could be collapsed floats. If high pressure compressed air is used on an assembled carburetor, the float chamber is pressurized. This high pressure will collapse the floats and disrupt the standard fuel level.



FLOAT CHAMBER



COLLAPSED FLOATS

CORRECTION: Don't use compressed air to clean an assembled carburetor. Compressed air is only recommended for blowing out channels and jets in a carburetor that has been disassembled.

SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GENERAL-12
Date: May 1, 1975

Read and Initial

Manager_____
Parts_____
Service_____

Subject: OIL PUMP LEVER STICKING

PROBLEM:

We have received reports that the oil pump lever on some units sticks open in the first half of its range of movement while the engine is running and does not return to the idle position when the throttle is closed.

SYMPTOMS:

A. Spark plug fouling on all cylinders.

B. Engine runs rough at low engine speeds.

C. Engine will not idle correctly.

CAUSE:

These oil pumps are designed to eliminate O-ring seal leakage. The O-ring may cause the oil pump lever to stick when the motorcycle is new. With mileage, the problem will disappear.

CORRECTION:

If you have a motorcycle which has this problem -

A. Spray the oil pump shaft with penetrating oil or Dri-Slide. Normally, this will correct the sticking problem.

B. Install a front brake cable spring (cut to appropriate length) on the oil pump cable between the cable adjuster and lever. This spring can be removed after mileage has loosened the O-ring. Or you can loosen the nut holding the lever to the shaft and wrap the existing spring around the lever another 1/3 turn. Don't take the nut off altogether.

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SUZUKI
2-Stroke
Service Bulletin

Subject: OIL TANK CAP VENT

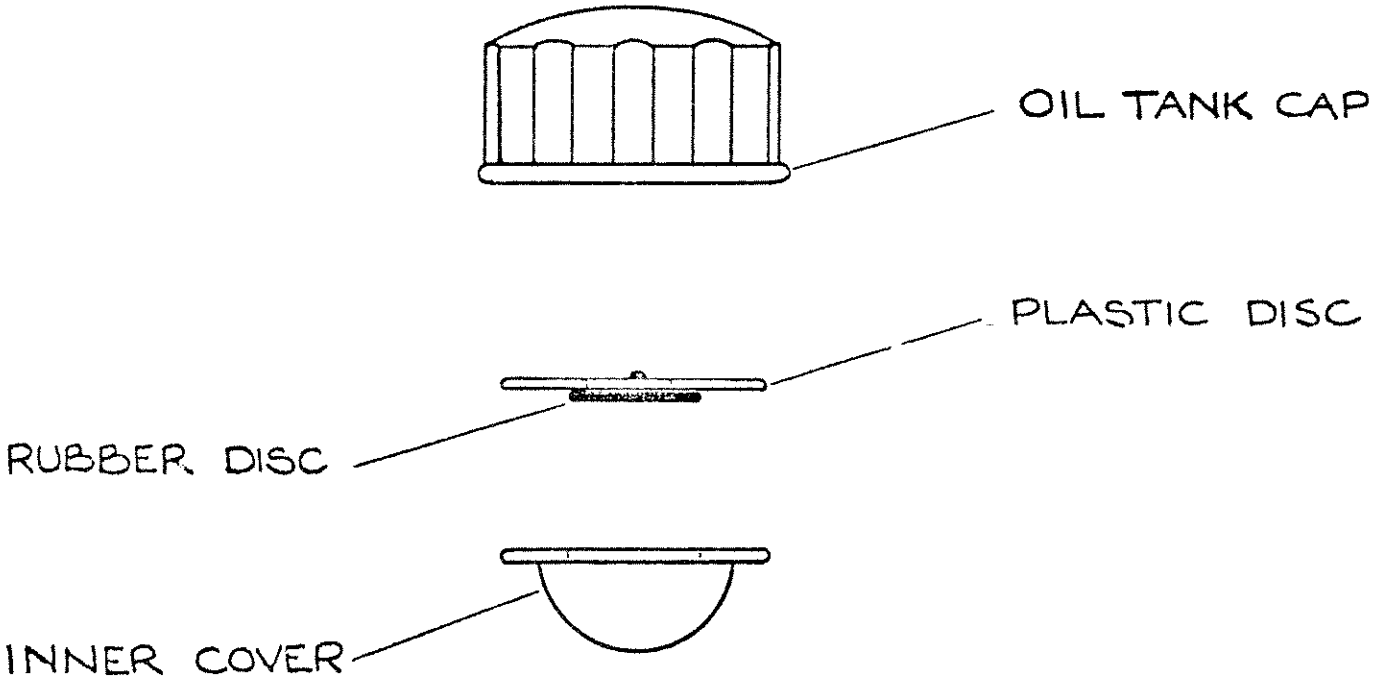
Bulletin No: GENERAL-13
Date: May 1, 1975

Read and Initial

Manager
Parts
Service

There is a possibility that certain units of earlier models may have the breather valve in the oil tank cap installed incorrectly by the owner.

As illustrated below the flat rubber disc should be on the tank, or lower side, of the white plastic breather plate.



CORRECT INSTALLATION

Please check the installation of this item on all applicable models that you may service. Obviously, failure to correct this problem could result in oil starvation and possible engine seizure.

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SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GENERAL-14
Date: May 1, 1975

Read and Initial

Manager_____
Parts_____
Service_____

Subject: OIL TANK BREATHER OBSTRUCTION

There have been reported instances of engine damage, caused by oil starvation, due to a partial or total obstruction of the breather hole in the oil tank cap.

In each case it was found that the hole was covered by items such as: shop rags, rain gear, owner's manuals, etc, placed under the seat, and over the oil cap, by the individual owners.

Please caution your customers about this possibility since this is not a manufacturers defect and any necessary repairs would therefore not be covered under warranty.

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SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GENERAL-15
Date: May 1, 1975

Read and Initial

Manager_____
Parts_____
Service_____

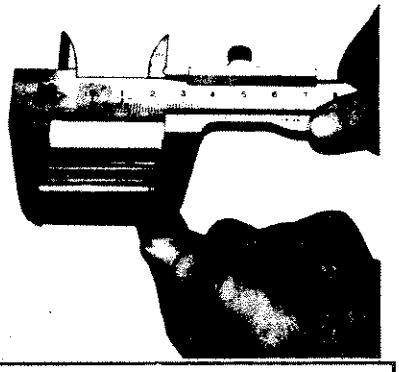
Subject: CLUTCH RATTLE ON TWIN CYLINDER MODELS

REFERENCE: Pg. 44, T20 Service Manual

PROBLEM: Distinct rattle in the right primary case when the engine is idling, clutch lever released transmission in neutral. Noise worsens as the engine warms up. Noise disappears when the clutch lever is pulled.

CAUSE: The usual cause of this problem is the clutch housing "walking" on the transmission countershaft. The housing has too much axial play because of normal wear on the thrust side of the clutch hub.

CORRECTION: Disassemble the clutch and measure the difference in length of the spacer and the thickness of the clutch housing. This difference is the amount of clearance that the clutch housing can slide back and forth on the shaft.



MODEL	AXIAL PLAY	
	MAXIMUM	MINIMUM
X6, TC250, T200, TC200, T250, T350, T305, TC305	.007 inch	.003 inch
S32	.008 inch	.004 inch
T10	.006 inch	.004 inch
T500	.007 inch	.002 inch

If the measurement is more than the maximum, rub one end of the clutch spacer on a honing stone until the difference is near the minimum above. Don't use a file or grinder. Don't overdo it, or the clutch will not release.

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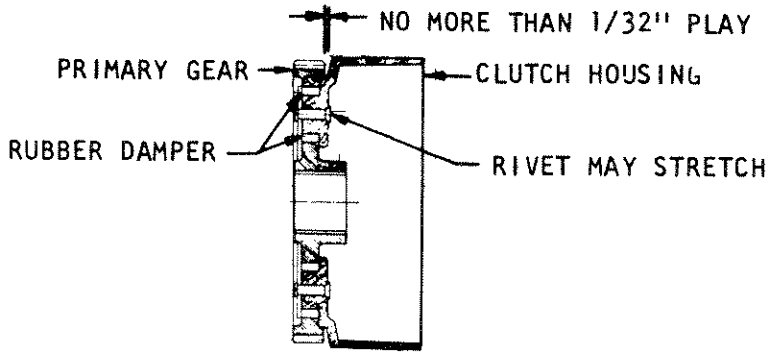
OTHER CHECKPOINTS:

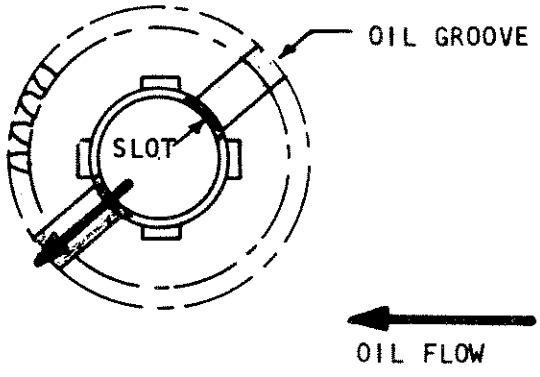
A. The clutch housing/primary gear is a riveted assembly. There are rubber dampers which cushion the drive shock between these two parts. If the rivets stretch or the dampers soften, the clutch housing will wobble and make the same noise. Try to separate the two parts with your hands.



There should be less than 1/32 inch play between the two parts. Don't try to tighten the rivets. Instead, replace the assembly.

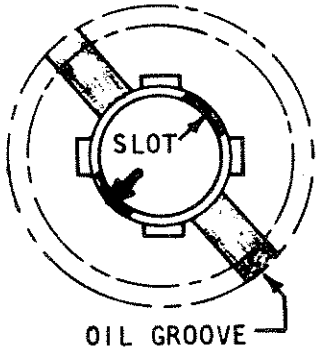
B. Check the clutch hub nut and the primary pinion nut for tightness. Use a torque wrench when tightening these critical nuts.

C. The X6, TC250, T200, TC200, T250, T305, TC305, T350,clutch housing is fitted with the kickstart drive gear on its backside. Be sure that the oil grooves in the gear are matched with the slots in the clutch bearing sleeve. Otherwise, the thrust face of the housing will prematurely wear due to lack of oil.



RIGHT

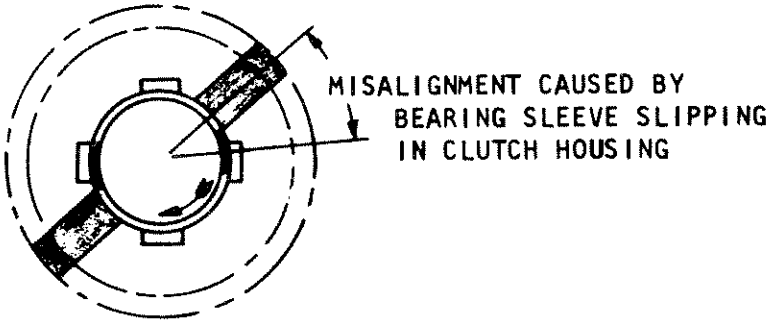
Slots Lined Up



WRONG

Gear Installed
90° off on Splines

(cont.)

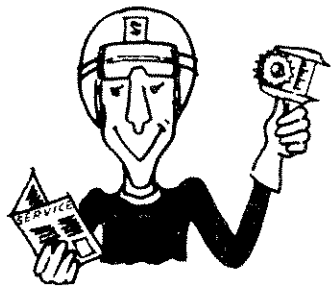


WRONG

Bearing has seized on shaft, causing sleeve to slip in housing.

D. If the transmission oil level is too low, or if extreme heat is present in the clutch assembly, the clutch housing bearing will seize on the transmission driveshaft. The engine will stop suddenly, and the inertia of the rolling motorcycle will cause the clutch bearing sleeve, which is pressed into the housing, to spin in the housing. After it frees up, the clutch will work well. However, the thrust surface of the clutch housing will starve for oil and wear too quickly, again causing this "rattling" noise.

E. Another possible cause is transmission oil level too low. Or the transmission oil viscosity is incorrect. The correct type is a 20W-40 multigrade detergent.



SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GENERAL-16
Date: May 1, 1975

Read and Initial

Manager
Parts
Service

Subject: SUZUKI LIQUID GASKET NO. 4

INSTALLATION:

This improved liquid gasket should be used in place of standard "Suzuki Seal" when reassembling the crank halves on all Suzuki models. It is of particular importance on the GT750 model due to the additional possibility of coolant leakage into the transmission space.

For the best results, proceed as follows:

1. Thoroughly clean all old seal, oil, moisture or other foreign materials from crankcase mating surfaces.

2. Carefully apply a thin even layer of Suzuki liquid gasket No. 4 to upper crankcase half only.

3. Wait for at least 10 minutes for the seal to partially dry.

4. Assemble and torque crankcase halves.

5. Caution: Wait three hours before adding coolant, in case of GT750.

PARTS:

Suzuki Liquid Gasket No. 4, Part No. 99000-31030 is available from the U. S. Suzuki Parts Department.

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SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GENERAL-17
Date: May 1, 1975

Read and Initial

Manager_____
Parts_____
Service_____

Subject: WHEEL ALIGNMENT

REFERENCE: T500 II Serv. Manual Pg. 98-99

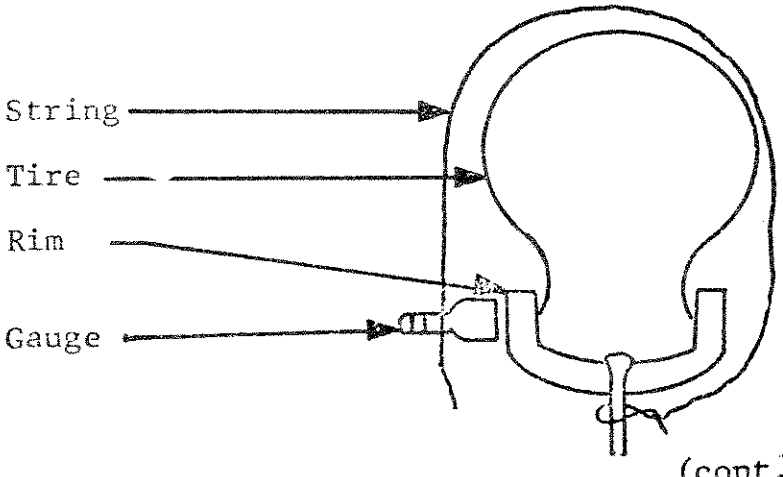
1. For high speed stability, the importance of correct wheel alignment cannot be stressed enough on all models and it is expecially important on the following because of their high speed capabilities: GT380, T500, GT550, and GT750 (Customers who own models equipped with a manual type steering dampener should be advised on its proper use).

2. A method of adjusting wheel alignment, using the special wheel alignment gauge (Part No. 09827-00001), is described in the T500 II Service Manual. This alignment operation is recommended if any of your customers should complain regarding high speed stability. Two other methods of checking wheel alignment are described on Pages 65 and 66 of the GT550 Service Manual.

3. The alignment gauge mentioned previously is available now from the Parts Department, and four pieces are required when adjusting the wheel alignment.

ADDITIONAL HINTS:

1. The string should be placed as high as possible without any interference from the chassis.
2. The string should be held firmly and parallel to the front wheel.
3. Tie the string to a spoke or the inner tube valve as shown below.

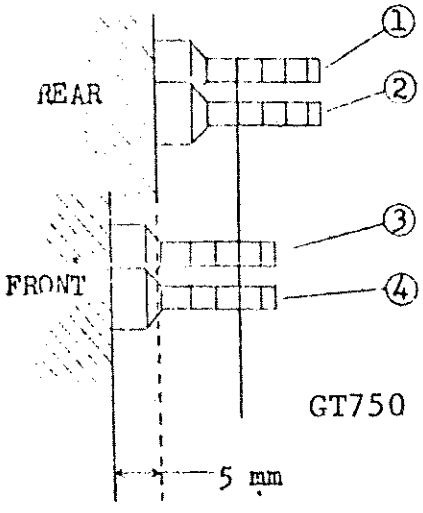


(cont.)

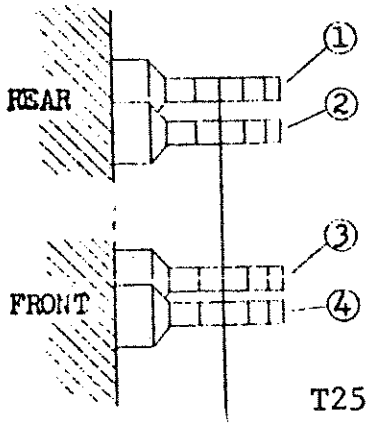
4. On the following models the front wheel is 10 mm smaller in width than the rear wheel.

T250R	T250J	GT550
GT250	T350	GT750
T500	GT380	

The width of the T250 I and T250 II front and rear wheels are the same. When uncertain of the width of the rims of a certain model, measure the difference between the front and rear wheels and apply half of the measurement to the alignment gauge measurement. Each measurement of the gauge is equal to 2.5 mm. For example: The difference between the front and rear wheels of a GT750 is 10 mm. Therefore, 5 mm should be applied to the alignment gauge and the string should cross the gauges as shown below if the wheels are properly aligned.



GT750



T250 I

5. Instead of using string to align the gauges, a piece of elastic rubber band or thin piece of elastic material may be used. This is stretched across the tread of the rear wheel and the ends joined across the tread of the front wheel. Use of an elastic band will make the wheel alignment easier for one person to perform.

U. S. SUZUKI
TECHNICAL SERVICE DEPARTMENT

SUZUKI
2-Stroke
Service Bulletin

Bulletin No: GENERAL-18
Date: May 1, 1975

Read and Initial

Manager_____
Parts_____
Service_____

Subject: COLD WEATHER STORAGE

1. We have noted a number of customer letters reporting damage to Suzuki motorcycle engines from disuse during the cold winter months. One common note is the statement: "I carefully stored the motorcycle in my heated garage for the entire winter. When I took it out in the spring, the crankshaft bearings, cylinder walls, and piston rings were corroded. Is this covered under warranty?"

2. The general inclination is to store the motorcycle in a warm shelter. Surprisingly, this is the worst place a bike could be stored for any length of time. The warm temperatures accelerate corrosion and condensation, the two major causes of engine damage in storage. It is preferable to keep the motorcycle in a cold shelter to arrest these two damaging processes.

3. There are four benefits a motorcycle dealer can anticipate when considering initiation of storage services:

   A. Added income through the relatively weak winter months. There is a small investment in manpower at the beginning and end of the storage process, but the major problem is acquirement of sufficient storage space.

   B. His customer will have a machine in optimum condition at the start of the riding season. Word-of-mouth advertising is valuable, and even better is the exposure of a Suzuki motorcycle running in top condition during the most enthusiastic buying period of the year.

   C. The dealer has the owner in his shop at the peak buying period of the year. He has had the customer's machine in his shop and has a definite idea of the machine's trade-in value. This is the time to propose trading up to the owner when he comes to pick up his machine. The customer is already sold on the Suzuki concept, and he is ripe for a more exciting, larger machine for the coming season.

   D. This will give your shop the opportunity to schedule repair, modifications, or installation of accessories on the stored machine. When the owner brings in his motorcycle, ask him if he would like any work performed on his machine while in storage. You should be able to estimate the repair at a reduced price, because this work will fill your service shop's dead time in the winter. It is also suggested that you help the owner pay for the job by offering monthly payments so that the machine will be paid off when spring arrives.

4. The suggested procedure for preparing motorcycles for storage is as follows:

MATERIALS

5:1 Mixture Gasoline/Oil
Commercial rust preventive (Aerosol)
10W oil
Kerosene and spraying apparatus

A. Fill the fuel tank with a 5:1 mixture of gasoline/oil. Run the engine until the exhaust turns white, indicating that the mixture has run through the carburetors. Push the cold-start lever and open the throttle to soak the engine with this rich oil mixture. Shut the engine off.

B. Turn the fuel off. Refill the fuel tank to prevent rust.

C. Use the drain plug on the carburetor to drain all the gasoline from the float bowl and fuel line. This prevents shellac from clogging the jets.

D. Remove the spark plugs and spray inside the cylinder with a commercial rust preventive. WD-40, Zip corrosion preventive, or other compounds are available at auto parts supply houses. Kick the engine over to coat the cylinder walls and piston rings. Replace the spark plugs.

E. Remove the battery and store in a cool area off of the floor. A wooden shelf is the best place. If the battery will be stored at freezing temperatures, recharge once a month to keep the electrolyte from freezing. Otherwise, charge the battery every two months.

F. Drain the transmission completely and fill to overflowing with 10W oil.

G. Fill oil tank to the top with a good 2-cycle oil.

H. Spray the entire motorcycle with kerosene to arrest corrosion.

5. DURING STORAGE

Once a week, kick the engine over a few times to free the piston rings and keep the crank seals flexible. In humid, warm localities it is advisable to pull the spark plugs and spray the inside of the cylinder with rust preventive. Spin the rear wheel to move the transmission gears and keep them from "locking" due to corrosion.

(cont.)

RESTORATION

A. Drain the gas tank completely. Pull the petcock and check for sediment around the pipe inside the fuel tank and on top of the petcock. Replace the petcock, fill the fuel tank with clean gasoline, and turn the petcock on.

B. Install the new spark plugs.

C. Drain the transmission and refill with 20W-40 oil to proper level.

D. Charge the battery and install in frame.

E. Wash motorcycle with soap and water to remove kerosene. Lubricate the chain.

F. Test ride.

6. Be prepared for the spring rush with Suzuki touchup paint accessories, and the inevitable tune up items; contact points, condenser, spark plugs, air cleaner elements, tires, chains, and sprockets. DO NOT WAIT UNTIL THE SEASON STARTS! U. S. Suzuki's Parts Department is flooded every spring with rush orders for high volume items. Many orders are delayed because of the large volume of parts required. Anticipate your requirements. Your additional profits will reflect your wisdom.

7. A good dealer will maintain a customer mailing list. In some states, it is possible to obtain motor vehicle registration lists for a specific make of motorcycle. From this data, you can determine the potential for storage customers.