

OWNER'S  
MANUAL



SUZUKI 50 MODEL M15 / M15D

The Suzuki 50 Model M 15 & M 15 D which were designed originally by the Suzuki technical staff with their rich experiences and most advanced techniques, have been developed into the most modernistic and reliable machines for you after constant and continuous efforts of researches. Besides the Suzuki machines are produced with utmost precision in our up-to-date plants equipped with machine tools of top quality, and so we are convinced you will be satisfied with your Suzuki 50 in such basic qualities as endurance, fuel economy, appearance etc. not to mention performance.

To help you get the best and longest service from your Suzuki 50, this booklet has been prepared. It is hoped that you will enjoy miles and miles of trouble-free and pleasant driving on your Suzuki by carefully following the instructions contained herein.



|                                              |    |
|----------------------------------------------|----|
| Names of the various parts . . . . .         | 2  |
| Specifications . . . . .                     | 3  |
| Special features . . . . .                   | 5  |
| Breaking in your 50M15 & M15D . . . . .      | 6  |
| How to drive . . . . .                       | 7  |
| Starting . . . . .                           | 7  |
| Getting under way . . . . .                  | 8  |
| Cruising . . . . .                           | 9  |
| Parking . . . . .                            | 9  |
| Electrical parts and their care . . . . .    | 10 |
| Daily checks and maintenance . . . . .       | 12 |
| Daily checks . . . . .                       | 12 |
| Periodic inspections . . . . .               | 13 |
| Tool kit . . . . .                           | 22 |
| When replacing parts . . . . .               | 22 |
| Diagnosing malfunctions . . . . .            | 23 |
| Optional parts . . . . .                     | 26 |
| Memo                                         |    |
| Fuel consumption record                      |    |
| The chart for preparation of gas-oil mixture |    |
| Wiring diagram                               |    |

# 1 Names of the various parts

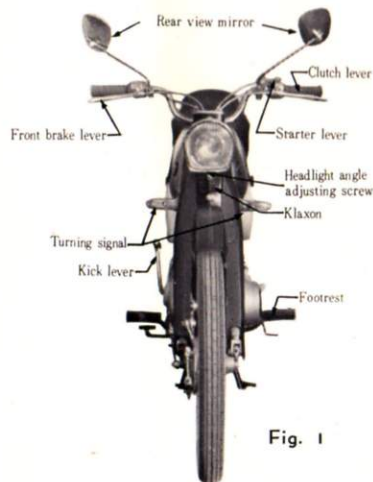


Fig. 1

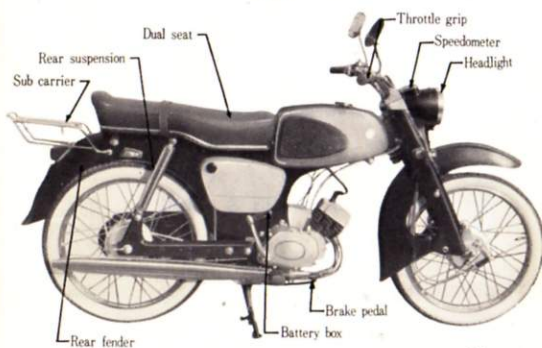


Fig. 2

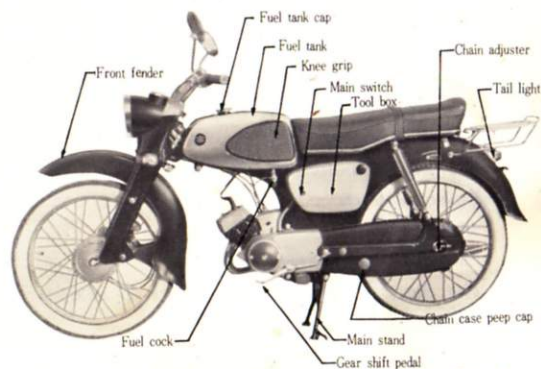


Fig. 3

# 2 Specifications

## Principal dimensions:

|                                          |                     |
|------------------------------------------|---------------------|
| Length . . . . .                         | 1,760 mm (59.4")    |
| Width . . . . .                          | 613 mm (23.6")      |
| Height . . . . .                         | 930 mm (35.0")      |
| Wheel base . . . . .                     | 1,150 mm (45.0")    |
| Ground clearance . . . . .               | 120 mm (4.7")       |
| Dry weight . . . . .                     | 58 kg (128 lbs)     |
|                                          | *60 kg (133 lbs)    |
| Distribution of weight (front) . . . . . | 26 kg (57.2 lbs)    |
|                                          | *26.5 kg (58.4 lbs) |
| Distribution of weight (rear) . . . . .  | 32 kg (70.4 lbs)    |
|                                          | *33.5 kg (78 lbs)   |
| Weight equipped . . . . .                | 64 kg (140.8 lbs)   |
|                                          | *66 kg (145.4 lbs)  |
| Tire size (front and rear) . . . . .     | 2.25"—17" 4PR       |
| Steering angle . . . . .                 | 45°                 |
| Caster . . . . .                         | 63°                 |
| Trail . . . . .                          | 69 mm               |
| Fuel tank capacity . . . . .             | 6 l (1.59 US gal)   |

## Performance:

|                            |                           |
|----------------------------|---------------------------|
| Maximum output . . . . .   | 4.2 PS/8,000 r.p.m.       |
| Maximum torque . . . . .   | 0.38 kg-m/7,000 r.p.m.    |
| Braking distance . . . . . | 5 m (at 25 km/h)          |
| Maximum speed . . . . .    | 80 km/h (50 m.p.h.)       |
| Fuel consumption . . . . . | 65 km/l (154 mile/US gal) |
|                            | on a flat paved road      |

## Engine:

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| Type . . . . .              | Air-cooled, 2-stroke single cylinder              |
| Capacity . . . . .          | 50 cc                                             |
| Bore and stroke . . . . .   | 41×38 mm                                          |
| Compression ratio . . . . . | 6.7:1                                             |
| Timing . . . . .            | 27° before top dead center                        |
| Carburetor . . . . .        | VM 15 SC 1                                        |
| Ignition . . . . .          | Fly wheel high power ignition                     |
| Starting . . . . .          | Kick starter                                      |
|                             | *Electric starter (kick starter is also attached) |
| Generator . . . . .         | Fly wheel magneto                                 |
|                             | *Starter dynamo                                   |
| Battery . . . . .           | 6 V 4 AH                                          |
|                             | *12 V 7 AH                                        |
| Air cleaner . . . . .       | Steel wool type with silencer                     |

## Lubrication:

|                        |                                   |
|------------------------|-----------------------------------|
| Cranksahft . . . . .   | Mixed fuel (gas/oil, 15/1)        |
| Transmission . . . . . | Oil bath type (SAE #20~40) 550 cc |

## Transmission:

|                                     |                                                                                    |
|-------------------------------------|------------------------------------------------------------------------------------|
| Clutch . . . . .                    | multiple wet disc clutch                                                           |
| Transmission gear . . . . .         | 4-speed constant mesh                                                              |
| Gear shifting . . . . .             | left foot-operated rotary shift type or return shift type (two types are provided) |
| Primary reduction ratio . . . . .   | 4.40 (gear)                                                                        |
| Secondary reduction ratio . . . . . | 2.46 (chain)                                                                       |
| Gear ratio . . . . .                | Low 1:3.17 Third 1:1.43                                                            |
|                                     | Second 1:1.94 Top 1:1.04                                                           |
| Chain . . . . .                     | # 420×100 L                                                                        |

## Brake system:

|                 |                                                           |
|-----------------|-----------------------------------------------------------|
| Front . . . . . | mechanical, internal expanding type (right hand-operated) |
| Rear . . . . .  | Mechanical, internal expanding type (right foot-operated) |

## Suspension:

|                 |                                                |
|-----------------|------------------------------------------------|
| Front . . . . . | Bottom link type with hydraulic shock absorber |
| Rear . . . . .  | Pivot swing type with hydraulic shock absorber |

## Electrical system:

|                          |                                      |
|--------------------------|--------------------------------------|
| Headlight . . . . .      | 6 V • 15W/15W (non-sealed beam type) |
|                          | *12 V • 25W/25W                      |
| Tail light . . . . .     | 6V • 2W *12V • 5W                    |
| Stop light . . . . .     | 6V • 8W *12V • 20W                   |
| Turning signal . . . . . | 6V • 8W *12V • 10W                   |
| Klaxon . . . . .         | 6V • 0.8A, 95~100 phon               |
|                          | *12V • 0.8A, 95~100 phon             |
| Flasher relay . . . . .  | Electromagnetic bimetallic           |

**Note:** \*Marks stand for the model M15D and the items without mark are common to the Model M15D & the M15.

## Easier to start

With the aid of the special starter device fitted to the carburetor, the quick and easy starting of the engine is ensured, even in frigid regions where the temperature is as low as 20°C below zero.

## Comfortable to ride, easy to drive

The front and rear cushions, the saddle and the handle bar have been positioned so that riding comfort is at a maximum. The knee grips have been so planned that the rider gets a feeling of being a part of the cycle.

## Third gear indicator (Model M15) and charge light (M15D)

A third gear indicator has been attached to M15 so that it is possible to tell if the cycle is in third or top quickly by glancing at the speedometer. But in case of M15D this red light is so called a charge light which dims out when engine begins to charge battery.

## Strong, efficient engine and four speed transmission

The Suzuki 50 Model M15 & M15D can speed up to 80km/h (50 m.p.h.) and torque is so great at low speeds that it is possible to start out even in second gear. Dash is splendid just like that of a jaguar.

## Modern design

The harmonizing combination of lustrous frame color and brilliant chrome plated tank and the backbone type frame give the Suzuki 50 Model M15 & M15D a sporty and modern appearance.

## Economy

The Suzuki 50 Model M15 & M15D are indeed economical forms of transportation and travel 65km per litre (or 154 miles per US gallon) on a level road.

## 4 Breaking in your 50 M15 & M15D

During the breaking-in period, do not subject your 50 M15 & M15D to rigorous driving conditions or use. Keep within speed limits specified below:

**up to 500km (312miles)** . . . less than 35km/h(22m.p.h.)  
**from 500~1000km (312~665miles)**  
 . . . . . less than 50km/h(31m.p.h.)

Always use the clutch when changing gears.

Be sure the brake is properly adjusted always.

Be sure the fuel mixture is kept to the following ratios:

**when using fresh Mobil Oil** . . . . . 15:1

**when using 2-stroke Engine Oil**

15:1 (during the 1st 3,000km)  
 20:1 (after 3,000km)

The life of the engine can be greatly affected by the quality of the oil you use. Be sure to use oil of sufficiently good quality or it may be impossible to guarantee maximum service.

Do not race the motor since this will waste fuel and can damage the engine.

Be sure to check the battery fluid and use distilled water to replenish it when necessary. In summer check fluid once a week and in the winter, check it once every two weeks.

Use the head lock when parking your cycle.

Turn the handlebar to the left and line up the hole for the lock in the under bracket. Insert key and lock. After unlocking, always remove key.

Be sure to carry out daily check-ups and periodic inspections faithfully. The life of your cycle and the number of malfunctions you have depends directly upon whether you do so.

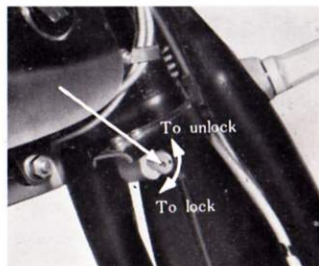


Fig. 4

## 5 How to Drive

### Starting

#### When the engine is cold

1. Turn the fuel cock to position (1).

*Note:* When all the fuel has been used up in section (1), turn the cock to position (2) and use the reserve supply (1.5l).

2. When the key is inserted and turned one position to the right, the green neutral indicator in the speedometer will light up.

*Note:* If this indicator fails to light up, it means that the cycle is in gear and change the clutch in neutral.

3. When starting up the engine, turn the starter lever to the starting position.

4. Next, without working the throttle grip, start the engine by pressing the starter button (M15D). In case of M15, use the kick starter.

*Note:* If the throttle grip is open even slightly, the fuel mixture will be too thin and the cycle will not start readily.

5. When the engine has started, let it warm up with the starter lever in the starting position. When the engine has warmed up, return the lever to its original position (riding position).

*Note:* Failing to return the starter lever to its original position will not prevent the cycle from operating but fuel consumption will rise and the cycle will not run at top speeds.

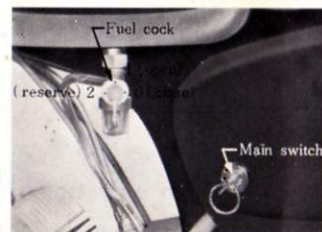


Fig. 5



Fig. 6

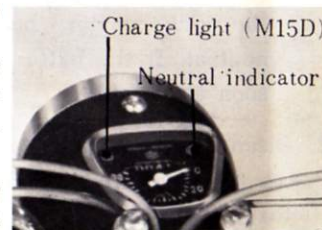


Fig. 7

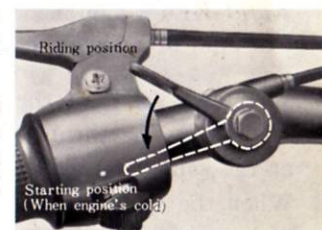


Fig. 8

## When the engine is already warmed up

1. Open the throttle about 1/8 to 1/4 of the way, and start the engine.

2. It is unnecessary to use the starter lever.

Cautions in operating the starter dynamo (M15D):

- a) The starter button should not be kept pressed on for more than 5 seconds. There should be at least an interval of 5 to 10 seconds before the starter button is pressed again.
- b) If the engine won't start after several pushes of the starter button check the ignition system and the fuel line.
- c) If the starter won't operate well because of a poorly-charged battery, use the kick starter. Before using the kick starter, be sure to shift the gear to neutral. If the battery is not charged, charge it as soon as possible.

2. Disengage the clutch by means of the clutch lever and use the foot to put the cycle in 1st. Rotate the throttle grip inward and engage the clutch slowly. This will put the cycle in motion.

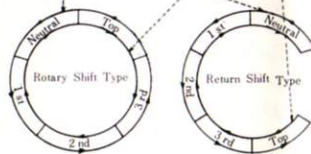
*Note:* If the clutch is engaged too rapidly the cycle will stall or may lurch forward irregularly.

3. When the speed of the cycle reaches 10 km/h, (6 m.p.h.) close the throttle while disengaging the clutch at the same time and then put the cycle into second. When the cycle is in gear, slowly engage the clutch and open the throttle again. When the speed of the cycle reaches 20 km/h, (12.5 m.p.h.) using the same procedure to put it into third gear and when the speed gets above 30 km/h, (19 m.p.h.) put the cycle into top gear.

4. When extra accelerating strength is necessary, change gear according to the following:



- |                        |                                |
|------------------------|--------------------------------|
| <b>First</b> . . . . . | 25 km/h<br>(15.5 m.p.h.)       |
| <b>Second</b> . . . .  | 20~40 km/h<br>(12.5~25 m.p.h.) |
| <b>Third</b> . . . .   | 35~55 km/h<br>(22~34 m.p.h.)   |
| <b>Top</b> . . . .     | above 50 km/h<br>(31 m.p.h.)   |



In case of "Return Shift Type", you can't shift from "Top" to "Neutral" as the stopper is fixed on the change-cam.

Fig. 10

5. Once the cycle is in top gear, the speed can be regulated by using the throttle.

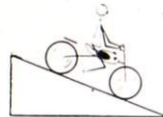
## Cruising

1. Be careful to obey the speed laws in force in the area in which you are driving.
2. The cycle is easy to slip during or after rain so that special care should be taken when applying the brakes.
3. When going up a hill, if the cycle begins to slow down, change gears (by stepping on the rear of gear change pedal) in the following way:



*If the cycle is in top gear and speed falls below 30 km/h (19 m.p.h.) change to third gear.*

*If the cycle is in third and speed falls below 20 km/h (12.5 m.p.h.).*



*If the cycle is in second and the speed falls below 15 km/h (9.4 m.p.h.) change to low.*

4. When descending a hill, leave the gear in top and turn the throttle grip outward all the way to close the throttle valve. When descending a steep hill, shift the gear down to 3rd, 2nd or 1st as required, with the throttle closed.

## Parking

1. Close the throttle.
2. When bringing the cycle to a complete stop in areas where pedestrian and motor traffic is heavy, use both the front and rear brakes and disengage the clutch just before coming to a stop to prevent noise. When traffic is no problem and the area is safe, put the cycle in neutral before stopping it.
3. Be sure to develop the habit of using both the front and rear brakes in emergencies.
4. When the switch is turned all the way to the left, the engine will stop.
5. When parking the cycle, remember the following things:
  - a. The key should be removed from the ignition.
  - b. The fuel cock should be turned to the off position.
  - c. The head should be locked.

## Electrical parts and their care

### Main switch

1. The main switch is located on the left side tool box.
2. Key cannot be removed unless it is turned all the way to left.
3. The key works as follows:

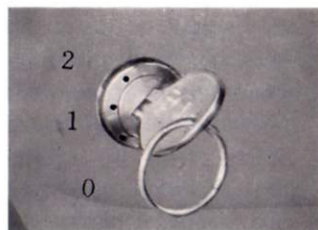


Fig. 10

|                       | On zero<br>parking | On one<br>day time<br>riding | On two<br>night time<br>riding |
|-----------------------|--------------------|------------------------------|--------------------------------|
| Engine Start          | —                  | ○                            | ○                              |
| Neutral indicator     | —                  | ○                            | ○                              |
| Third indicator (M15) | —                  | ○                            | ○                              |
| Charge light (M15D)   | —                  | ○ off when<br>charging       | ○ off when<br>charging         |
| Speedmeter light      | —                  | —                            | ○                              |
| Horn                  | —                  | ○                            | ○                              |
| Turning signals       | —                  | ○                            | ○                              |
| Head light            | —                  | —                            | ○                              |
| Tail light            | —                  | —                            | ○                              |

## Headlight

12V-25w/25w (M15D)

6V-15w/15w (M15)

Turn switch to the left for high beam and to the right for the low beam. To adjust angle of beam turn the adjusting screw. Screwing in raises beam and loosening lowers it.

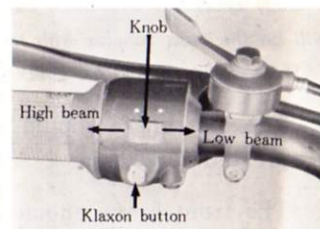


Fig. 11

## Turning signals

12V-10w/10w (M15D)

6V-8w/8w (M15)

Turn the switch to the left for the left side and to the right for the right side. Front and rear turning signals blink at the same time with the same brightness. Signals will not blink properly unless bulbs of specified voltage are used.

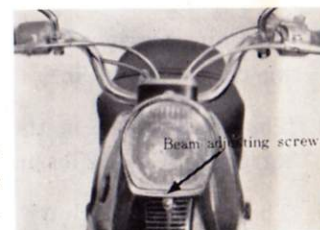


Fig. 12

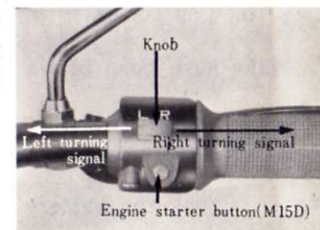


Fig. 13

# 6 Daily checks and maintenance

## Daily check-ups

Daily check-ups should be carried out by you the user since you will be the most familiar with the cycle.

These points should be checked:

1. The foot brake should begin to catch when it is depressed 20~30mm.
2. The front brake should be adjusted so that it begins to catch when the lever is about 20mm from the throttle grip.
3. The air pressure in the front tire should be 1.69 kg/cm<sup>2</sup>. (24 lbs/in<sup>2</sup>)
4. The air pressure in the rear tire should be 2.11~2.25 kg/cm<sup>2</sup>. (30~32 lbs/in<sup>2</sup>)
5. The play in the clutch cable should be 4mm.
6. Check to see that there is fuel in the tank (capacity 6l or 1.59 US gal).
7. Make sure horn blows with a regular tone.
8. Check to see that turning signals, headlight and tail light are working properly.

*Note:* Check the battery fluid once every two weeks in the winter and once every week in the summer.

## Periodic inspection

Be sure to have your cycle inspected by your local dealer.

| Items to be checked                              | Mileage | 500km           | 1,000km     | 3,000km         | 5,000km            | 7,000km         | 10,000km        | Note                                                                                                    |
|--------------------------------------------------|---------|-----------------|-------------|-----------------|--------------------|-----------------|-----------------|---------------------------------------------------------------------------------------------------------|
| Gear box oil                                     |         | Change          | Replenish   | Change          | Replenish          | Change          | Change          |                                                                                                         |
| Carburetor                                       |         | Adjust          | —           | Adjust          | Overhaul and Clean | Adjust          | Adjust          | Remove dust and dirt by using a brush or cleaning in gasoline                                           |
| Air cleaner                                      |         | —               | —           | Clean           | Clean              | Clean           | Clean           | Clean with gasoline.                                                                                    |
| Fuel cock                                        |         | Clean           | —           | Clean           | Clean              | Clean           | Clean           | Remove carbon from exhaust port.                                                                        |
| Cylinder                                         |         | —               | —           | —               | Remove carbon      | —               | Remove carbon   | Remove carbon from combustion chamber.                                                                  |
| Cylinder head                                    |         | Tighten         | —           | Tighten         | Remove carbon      | —               | Remove carbon   |                                                                                                         |
| Clutch                                           |         | Adjust          | —           | Adjust          | Adjust             | Adjust          | Adjust          |                                                                                                         |
| Fly wheel magneto (M15)<br>Starter dynamo (M15D) |         | —               | —           | Check adjust    | Check adjust       | Check adjust    | Check adjust    | Check points to make sure they are clean and that gap is 0.3~0.4mm.                                     |
| Battery                                          |         | Check fluid     | Check fluid | Check fluid     | Check fluid        | Check fluid     | Check fluid     | Always use distilled water to replenish battery fluid, make sure fluid is not too high or too low.      |
| Engine mounting bolts                            |         | Tighten         | —           | Tighten         | Tighten            | Tighten         | Tighten         |                                                                                                         |
| Muffler and exhaust pipe                         |         | —               | —           | —               | Remove carbon      | —               | Remove carbon   |                                                                                                         |
| Chain                                            |         | Check lubricate | —           | Check lubricate | Check lubricate    | Check lubricate | Check lubricate | Use spindle oil.                                                                                        |
| Spokes                                           |         | —               | Tighten     | —               | Tighten            | —               | Tighten         |                                                                                                         |
| Brakes                                           |         | Adjust          | Adjust      | Adjust          | Adjust             | Adjust          | Adjust          | Front brake should be adjusted as mentioned in the former page. Play of brake pedal should be 20~30 mm. |
| Cables, grease nipples                           |         | —               | —           | Lubricate       | Lubricate          | Lubricate       | Lubricate       |                                                                                                         |
| Bolts and nuts                                   |         | Tighten         | —           | Tighten         | Tighten            | Tighten         | Tighten         |                                                                                                         |

### Inspecting the points

When oil gets on the points they have a tendency to burn and foul so that firing becomes irregular. Thus they should be cleaned every 2,000 ~3,000km. After polishing the points, they should be set with a point gap of 0.3-0.4mm.

### Adjusting the contact points gap

1. Remove the cap from the left cover.
2. Rotate the crankshaft slowly to obtain the spot where points are widest apart and stop it there.
3. Loosen the screw (a).
4. Pry "h" with the screw driver until the points are fully wide apart. Then bring them closer together until the gap between them is 0.3-0.4mm. Use the thickness gauge (0.35 mm) attached to the point wrench.
5. Tighten the screw firmly.

*Note:* Adjusting of the ignition timing should be done by your dealer.

### Cleaning the spark plugs

1. NGK B-4 plugs are the suitable type.
2. The ceramic portion of the plug should turn light brown.
3. If carbon collects on the plug, the spark will become inhibited so that plugs should be checked every 1,000km and the carbon should be removed from the ceramic portion of the plug by scraping inside and outside with a pen point being careful not to scratch the surface.
4. Adjust the spark gap tapping or prying the electrode.

The spark gap should be 0.5mm~0.7mm

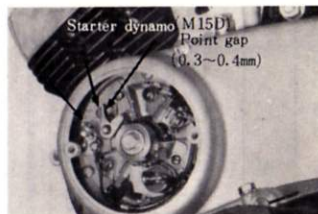


Fig. 14

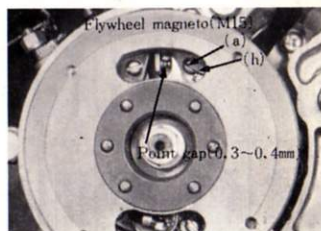


Fig. 15

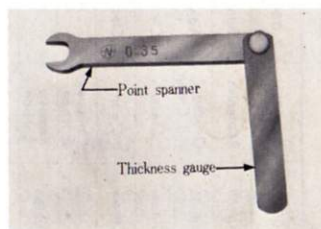


Fig. 16

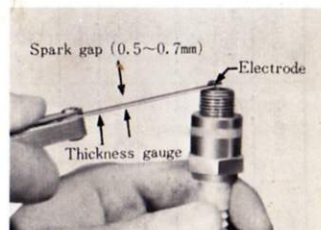


Fig. 17

### Adjusting the carburetor

#### Adjusting the throttle cable

1. It is necessary to allow a certain amount of play in the throttle cable itself so that the cable should be adjusted before attempting to adjust the carburetor.



Fig. 18

4. Adjust the play in the throttle cable to 0.5~1.0 mm by using the cable adjuster fitted on the top of the carburetor.

*Note:* Remove the suction pipe, loosen the throttle stop screw and check whether the throttle valve is pointing all the way down or not.

3. Open and close the throttle grip all the way several times and check to see whether the throttle valve moves up and down smoothly. If the movement is not smooth, lubricate the cable and make sure it is not bent or twisted.
4. Tighten the adjuster lock nut all the way and reattach the suction pipe.

#### Adjusting the idle on the carburetor

1. Start the engine and let it warm up (for a few minutes).
2. Open the throttle about one-fourth of the way and when the engine is turning over smoothly, screw the air screw all the way in. Then begin to screw the air screw back open until the engine begins to turn over regularly (about 1 3/4 turns back). Stop at this point.



Fig. 19

3. Next, screw in the throttle stop screw all the way. Then start screwing it back gradually. This will slow the engine down. Screw the stop screw back to the point where the engine is at the lowest steady speed.

*Note:* The air screw should be open about 1 3/4 turns. If you desire to increase acceleration the air screw can be opened less and if you desire to save fuel, it can be opened more.

4. Set the jet needle clip according to the following procedure:

- During the breaking-in period, if there is a lot of driving in the mountains to be done, set it in the third groove from the top. If driving does not involve much strain to the cycle during the breaking-in period, it should be set in the second groove from the top (the standard position).
- After the cycle is broken in, set it in the second groove from the top.

### Changing the gear box oil

- 0.55 l (1.16 pint) of SAE  $\pm 20 \sim 40$  motor oil should be put in the gear box.
- The thickness of the oil varies with the temperature so that the correct oil should be chosen according to the following:

| (Temperature of oil when starting the engine)               | (SAE number)    |
|-------------------------------------------------------------|-----------------|
| a. Above $0^{\circ}\text{C}$ . . . . .                      | $\pm 40$        |
| b. $-5^{\circ}\text{C} \sim 0^{\circ}\text{C}$ . . . . .    | $\pm 30$        |
| c. $-10^{\circ}\text{C} \sim -5^{\circ}\text{C}$ . . . . .  | $\pm 20$ or 20W |
| d. $-25^{\circ}\text{C} \sim -10^{\circ}\text{C}$ . . . . . | $\pm 10$ or 10W |

*Note:* SAE is the abbreviation for Society of Automotive Engineering (America).

- Change the gear box oil every 2,000~3,000km.

### Procedure to follow when changing the oil

- Remove drain plug at the bottom of engine and drain off all the used oil.
- Remove oil plug and pour in oil until it begins to flow out from around the oil level screw (0.55 l).

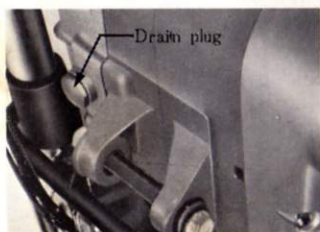


Fig. 20



Fig. 21

### Adjusting the clutch cable

- Loosen the adjuster lock nut and use wrench to change position of adjuster.

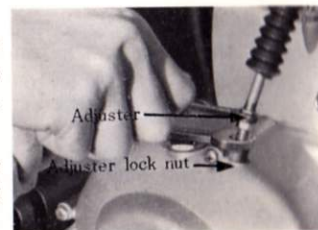


Fig. 22

- If the adjuster is loosened, the play will decrease.
- If the adjuster is tightened up, the play in the clutch cable will increase.

- There should be about 4mm of play in the cable at the lever (see picture).

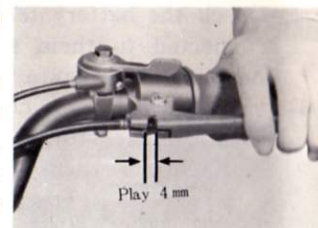


Fig. 23

- If the clutch fails to disengage and the play is too great even though the adjuster has been utilized, internal adjustments are necessary which should be done by your dealer.

### Checking the battery fluid

6V-4AH (M15)

12V-7AH (M15D)

- The battery is located inside the right box.
- Be sure to check the battery every week in summer and every two weeks in winter.

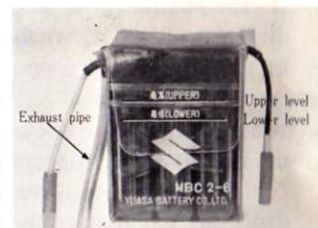


Fig. 24

- The battery fluid must be kept above the lower level marked on the case at all times. If the fluid is found to be below this level at periodic checkup, add distilled water to raise the fluid level up. Keep the fluid between upper and lower levels.
- A hydrometer should be used to measure the specific gravity of the liquid in each of the cells. This value should be approximately 1.26 (at  $20^{\circ}\text{C}$ )
- Other points:
  - Do not put dilute sulphuric acid into the battery when replenishing the fluid.

- b. Check to see that the exhaust pipe of the battery is not blocked up.
- c. If the fluid has a tendency to decrease over rapidly, take the cycle to your dealer for a check-up.
- d. Check to see that the outside of the case does not show signs of cracks, etc.
- e. Keep the battery clean.

*Note:* When storing the battery for some purpose, be sure to store it in a dry place out of the direct rays of the sun.

- f. Check the battery terminals to see if the cables are connected to them secure and tight. Loose connections often cause malfunctioning of the starter (M15D) and insufficient charging of the battery. To prevent corrosion of the terminals, grease may be applied to them.

#### *Cleaning the muffler*

1. Remove the screw at the rear end of the muffler and draw out the baffle pipe using a pair of pliers.
2. If the baffle pipe is too dirty, to clean it, wash it in gasoline or kerosene to remove the carbon.
3. When the carbon is caked on heavily, heat the entire pipe with torch or over a coal fire and cool it suddenly. Now the carbon will drop off, when the pipe is tapped.

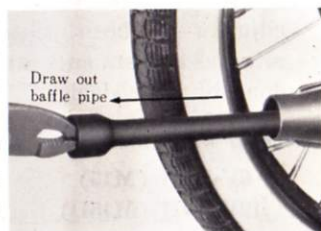


Fig. 25

#### *Air cleaner*

*The air cleaner is the steel wool type with a silencer attached.*

1. Remove the battery box, disconnect the battery and take the battery set plate off the frame (M15).
2. The air cleaner is attached to the inside of the frame. Use a screw driver to remove it.

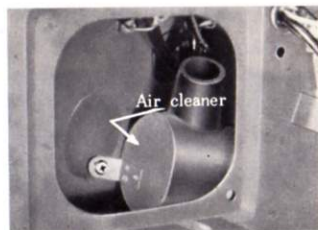


Fig. 26

3. Clean the air cleaner thoroughly with gasoline. Then dry it in a breezy place in the shade.
4. If the air cleaner is blocked up and is difficult to clean, take it to a garage and have it cleaned with an air compressor.



Fig. 27

#### *Adjusting the chain.*

1. Remove the chain case peep cap from the chain case.
2. Loosen nut A.
3. Turn the adjusting nut until the chain has a sag of 35~40 mm with the cycle on the center stand. Tightening the nut will tighten the chain and loosening the nut will cause the chain to become slack.

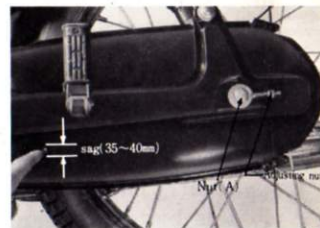


Fig. 28

*Note:* Both right and left adjusting nuts should be utilized to adjust the tension of the chain.

If this is not done, the rear wheel will wobble.

4. When finished adjusting the chain, tighten A securely.
5. Be sure to lubricate the chain periodically.

#### *Adjusting the brakes.*

##### **Front-brake**

1. Adjust the front brake by means of an adjusting nut so that the brake is perfectly applied when the brake lever is squeezed about 20mm from the throttle grip.



Fig. 29

- When the adjusting nut is tightened the play will decrease, and when it is loosened the play in the cable will increase.

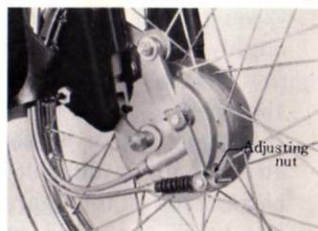


Fig. 30

### Rear-brake

- Adjust so that the brake begins to catch when the pedal is depressed 20~30 mm. When the adjusting nut is screwed in the play of the pedal decreases and when it is unscrewed, the play increases.

*Note:* When using the cycle to carry baggage daily, it is better to adjust the rear brake so that the play of the pedal is a little larger than usual.

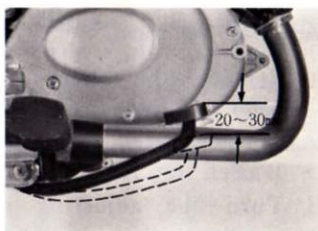


Fig. 31



Fig. 32

### Oil and grease

Be sure to provide enough lubrication for all moving parts.

### Points to grease



Fig. 33



Fig. 34

### Points to oil



Fig. 35



Fig. 36

### Tightening the various removable parts

Vibration will cause the various nuts and bolts to become loose so that they should be checked and tightened periodically in order to prevent possible accidents before they occur.

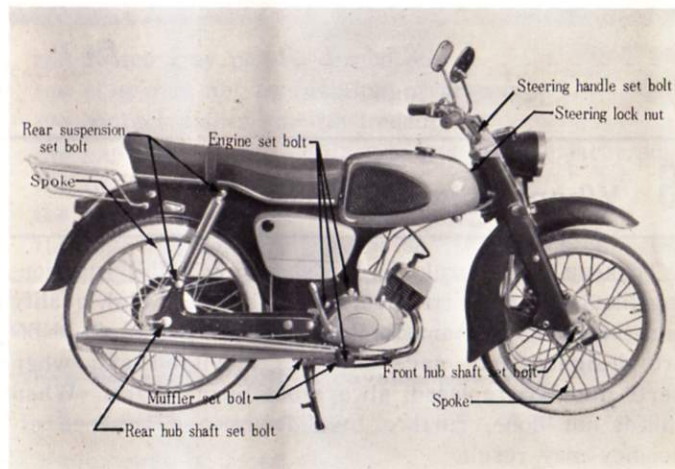


Fig. 37

## 7 Tool kit

In the tool box located on the left side of the cycle are a set of tools to be used for daily check-ups and maintenance.

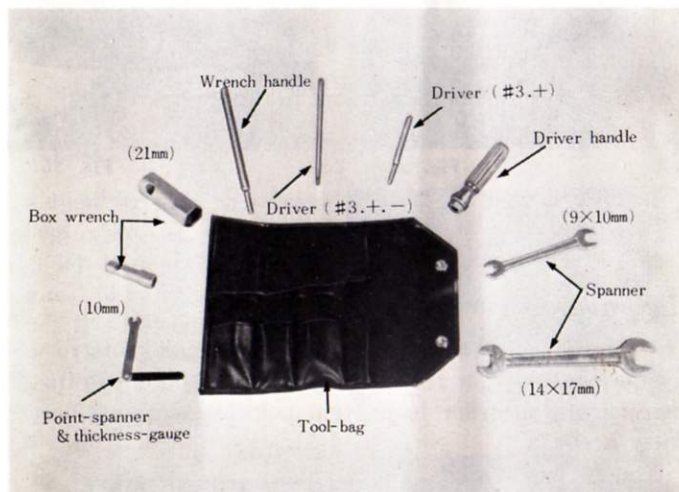


Fig. 38

## Diagnosing malfunctions

*Regardless of how superior design and manufacture may be, every piece of machinery is subject to wear and occasional malfunction. The following list will help you locate the cause of most common breakdowns.*

*When the engine fails to start or starts with difficulty*

### Fuel system

- there may be no fuel in tank
- the fuel cock may not be open
- the fuel line may be clogged up
- the strainer in the fuel cock may be clogged
- air hole in the fuel tank cap may be clogged
- compression too low
- main jet or pilot jet of the carburetor may be clogged
- air may be leaking into the carburetor from somewhere other than on air intake
- the float of the carburetor may be punctured.
- air and fuel mixture may be too lean or too rich

### Electrical system

- the switch may not be turned on
- the plug may not be functioning properly
- the contact points may be fouled.
- the gap between the contact points may be incorrect.
- the timing may be off
- the condenser may be malfunctioning
- the high tension cord may be shorted or disconnected

*When the engine turns over but does not run properly*

### When the engine fails to develop power

1. the compression may be weak
  - a plug may be loose
  - the oil seal may be leaking
  - the packing may be worn
  - the piston rings may be worn
  - the piston may be worn
  - the cylinder may be worn
  - the tightening parts may be loose
  - a gasket may be worn

## 8 When replacing parts

To keep your Suzuki 50 Model M15 & M15D functioning like new, all parts must be of the same high quality and precision. No matter how well the 50M15 & M15D are designed and made, wear is inevitable and when parts must be replaced, always use Suzuki parts. When this is not done, further breakdowns and lessened efficiency may result.

2. *Timing may be off*

3. *The carburetor may be malfunctioning*

the needle clip may be in the wrong position (the fuel mixture may be too thin)  
the size of the main jet may be wrong

4. *Fuel*

the hole in the tank cap may be blocked  
the fuel lines may be blocked  
the fuel mixture may be wrong  
the gasoline may be of poor quality

5. *The chain may be too tight*

6. *The air pressure in the tires may be too high*

**When the engine makes a strange noise**

1. *Metal knock*

the cylinders may be worn  
the crank shaft pins or roller bearings may be worn  
the pistons or connecting rods may be worn

2. *Gas knock*

ignition timing may be too fast or too slow  
fuel may have too low an octane rating

3. *Over-heating of the engine*

the clutch may be slipping  
the engine may be under severe strain  
the amount of oil in the fuel may be wrong  
carbon may have collected in the engine  
air and fuel mixture may be too lean  
oil in fuel may be of poor quality

**When the engine misfires**

1. *The carburetor maybe malfunctioning*

the fuel mixture may be too rich  
fuel may not be flowing to the carburetor in sufficient quantities  
there may be water in the fuel system  
the main jet may be clogged up

2. *Ignition may be irregular*

the wiring may be shorted or contact may be poor  
the breaker point may be wrong  
the plug may be fouled or the unsuitable type  
the timing may be wrong

**When the engine stops suddenly**

bridging may be occurring at the spark plug  
the piston may be seized  
various other reasons (see section under starting at page 23)

**When the battery fail to charge sufficiently**

the magneto may be malfunctioning (M15)  
the dynamo may be malfunctioning (M15D)  
the selenium rectifier may have been broken (M15)  
the regulator may have been broken or maladjusted (M15D)  
there may be a short or poor contact in the system  
the battery may be malfunctioning  
there may be insufficient fluid in the battery

**When shifting is not smooth**

the clutch may be failing to disengage  
the quantity and quality of the oil in the gear box may be improper

**When the brakes fail to work properly**

*Fail to catch properly*

the brake may have been adjusted improperly  
oil or water may have gotten inside the brake drum  
the brake shoe may be worn

*Brakes still applied when pedal or lever released*

too little play in the pedal  
moving parts may be rusted  
the shoe return spring may be malfunctioning

*When the cycle is difficult to drive*

*When the cycle does not handle smoothly*

air pressure in the tires may be too low  
steering shaft may have been tightened too much

*When the cycle cannot be steered properly*

there may be too much air in the tires  
the front and rear wheels may not be aligned properly  
the front and rear wheels may be loose or wobbling  
the steel balls or races may have been worn or broken

### Optional parts

The following parts are available at your dealer as optional parts.

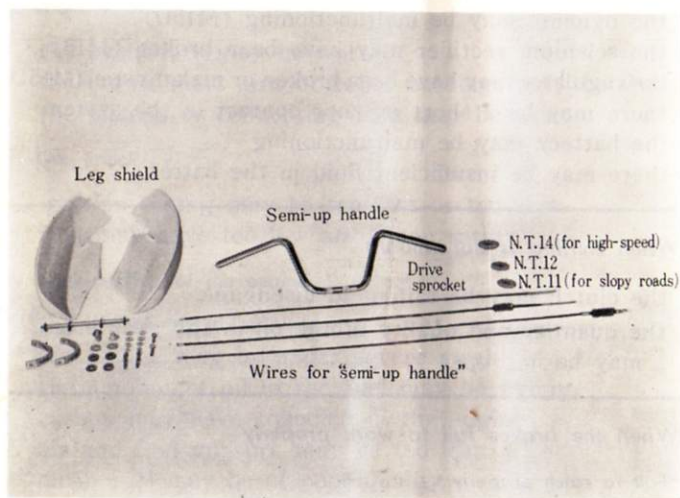


Fig. 39

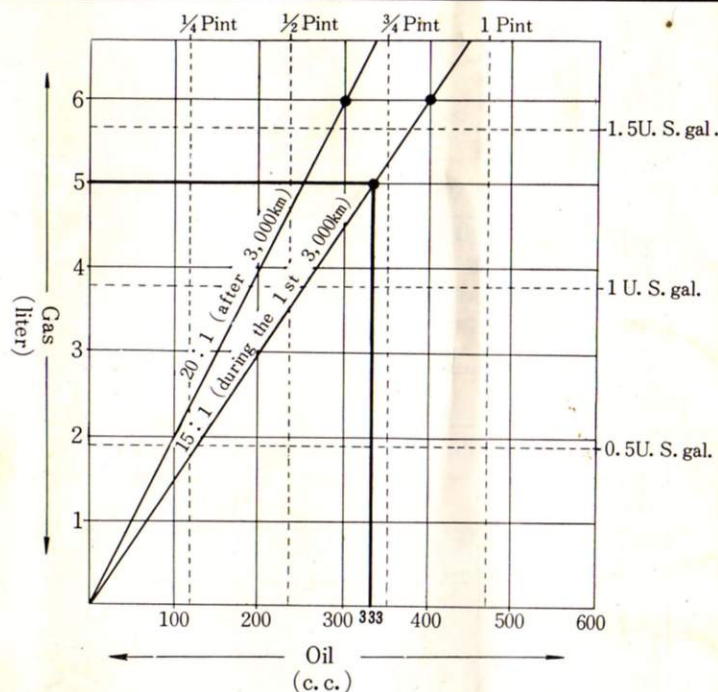
Gasoline and oil consumption (fuel consumption) to be filled up by yourself each time you purchase it

| month     | Purchased quantity of gasoline |  |  | Monthly total | Purchased quantity of gasoline |  |  | Monthly total |
|-----------|--------------------------------|--|--|---------------|--------------------------------|--|--|---------------|
| January   |                                |  |  |               |                                |  |  |               |
| February  |                                |  |  |               |                                |  |  |               |
| March     |                                |  |  |               |                                |  |  |               |
| April     |                                |  |  |               |                                |  |  |               |
| May       |                                |  |  |               |                                |  |  |               |
| June      |                                |  |  |               |                                |  |  |               |
| July      |                                |  |  |               |                                |  |  |               |
| August    |                                |  |  |               |                                |  |  |               |
| September |                                |  |  |               |                                |  |  |               |
| October   |                                |  |  |               |                                |  |  |               |
| November  |                                |  |  |               |                                |  |  |               |
| December  |                                |  |  |               |                                |  |  |               |

Grand total at the end of the year (Annual total)

# The Chart for Preparation of Gas-Oil Mixture

SUZUKI 50MODEL M15/M15D



## How to refer to this chart

Now let us prepare gas-oil mixture in the ratio of 15:1 with 5 liters of gasoline. In the above chart you will find the point, where the lateral line of 5 liters meets the oblique line of 15:1, corresponds with 333 on the horizontal base. Then 333 cc of oil is required to make 15:1 gas-oil mixture of 5 liters gasoline.

Likewise you will be easily able to prepare the required quantity of gas-oil mixture.

## Cautions in blending gasoline with oil

Gasoline and oil are traced back to the same crude oil, however they are difficult to mix with each other. So they should be stirred enough when they are mixed. Otherwise various kinds of troubles could occur to the engine.

To get fully blended gas-oil mixture, say we will make 20:1 gas-oil mixture of 6 litres gasoline there is required 300cc of oil, which at first should be fully blended with 500cc or 1 litre of gasoline out of the 6 litres as they are stirred in a vessel other than the fuel tank, and then pour the remained gasoline into the mixture and stir them enough. Now you have gotten the fully blended mixture and it is ready for being put into the fuel tank.

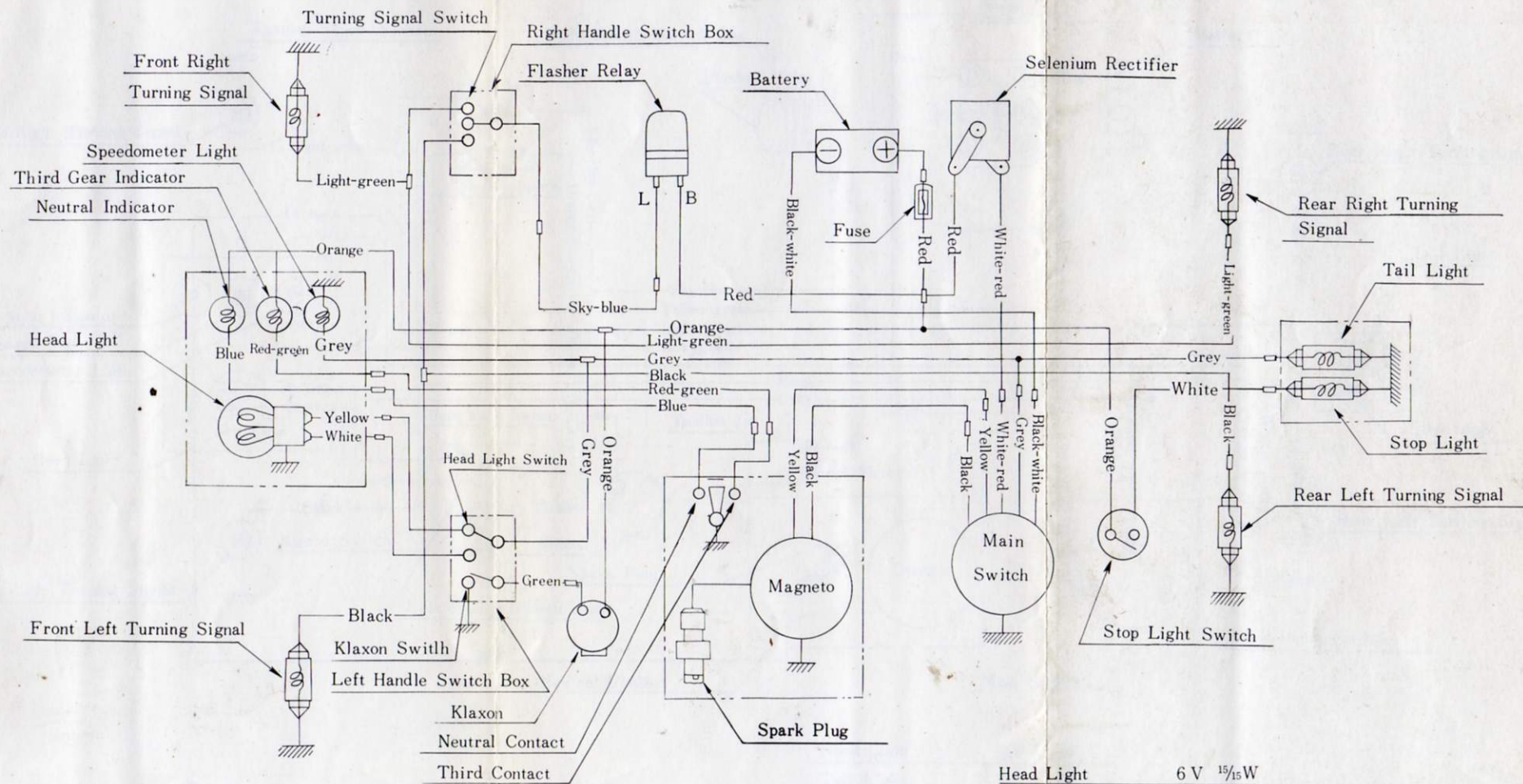
Attention must be paid to the fact that 2-stroke engine oil is comparatively easy to mix with gasoline. For this reason we highly recommend you to use 2-stroke engine oil.

Name

Home address

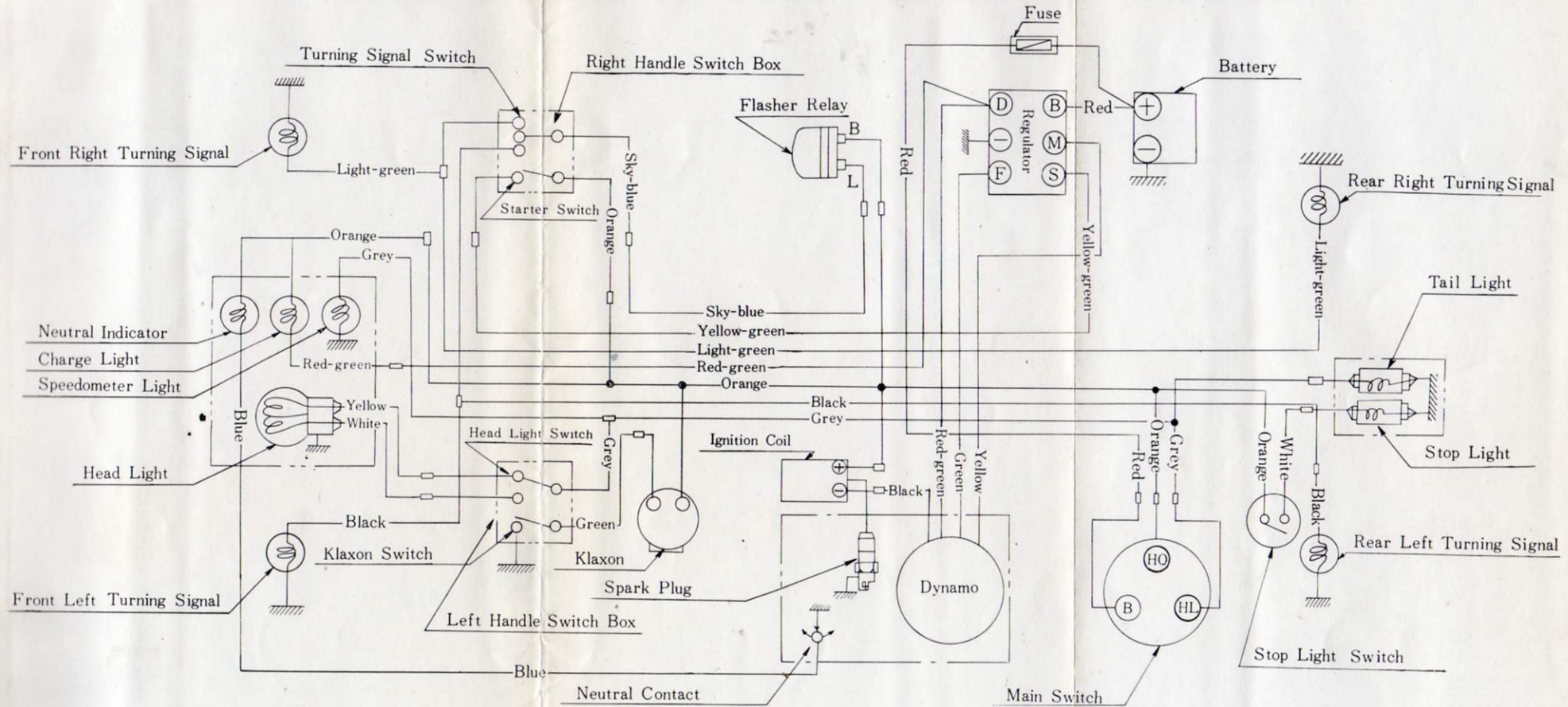
Office address

# WIRING DIAGRAM OF SUZUKI 50 MODEL M 15



|                   |             |
|-------------------|-------------|
| Head Light        | 6 V 15/15 W |
| Tail Light        | 6 V 2 W     |
| Stop Light        | 6 V 8 W     |
| Speedometer Light | 6 V 1.5 W   |
| Neutral Indicator | 6 V 1.5 W   |
| Third Indicator   | 6 V 1.5 W   |
| Turning Signal    | 6 V 8 W × 2 |
| Battery           | 6 V 4 A H   |
| Fuse              | 10 A        |

# WIRING DIAGRAM OF SUZUKI 50 MODEL M 15D



|                   |                                     |
|-------------------|-------------------------------------|
| Head Light        | 12V <sup>25</sup> / <sub>25</sub> W |
| Tail Light        | 12V 5 W                             |
| Stop Light        | 12V 20 W                            |
| Speedometer Light | 12V 2 W                             |
| Neutral Indicator | 12V 2 W                             |
| Charge Light      | 12V 2 W                             |
| Turning Signal    | 12V 10W                             |
| Fuse              | 10A                                 |
| Battery           | 12V 7 A H                           |



# **SUZUKI MOTOR CO., LTD.**

HEAD OFFICE & FACTORY

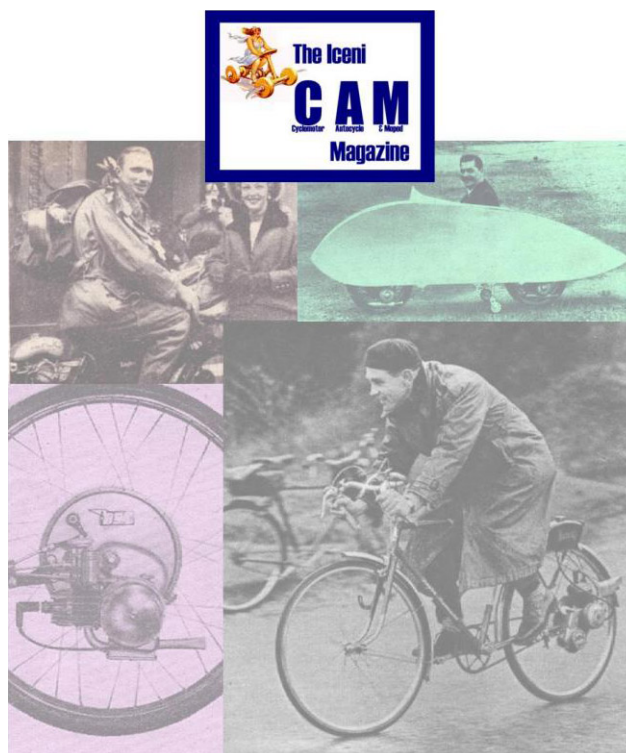
300, Takatsuka near Hamamatsu  
Shizuoka Pref., Japan

TOKYO BRANCH

No. 1, 5-chome, Shiba-shinbashi  
Minato-ku, TOKYO

PRINTED IN JAPAN

# IceniCAM On-Line Library



[www.icenicam.org.uk](http://www.icenicam.org.uk)