

## ING PROCEDURE

sts given are relatively simple and can be carried out with the  
ments mentioned.

## 1AL TESTING

.C Voltmeter scale 0-15 volts.

.C Voltmeter scale 0-15 volts (or DC ammeter scale 0-15 amps).

ohm load resistance.

## GENCY TESTING (6 volt 36 watt bulb).

grade moving coil meters must be used in every case, with a  
cale so that the meter can be read accurately to  $\frac{1}{4}$  of a volt  
he range 5v to 9v (AC and DC).

## NE SPEEDS FOR TESTING

e main tests using the AC voltmeter and DC voltmeter the  
: must be run at 4,000 rpm (approx). At this speed the out-  
:ltages are steady and even if the engine is running a few rpm  
or slower the valves stated in the tests will be obtained from  
l alternator.

e emergency bulb test the engine should be run at only 1,000  
equivalent to fast idling) otherwise the bulb will burn out.

## M LOAD RESISTANCE

hm load resistance is required and this must be accurate other-  
orrect voltages (or currents) will not be obtained; the resistance  
l be capable of carrying 8 amps without overheating.  
able resistance can be made from 18 swg (.048" dia.) wound to  
ctions already available in SB/GN/3 (Page 25).

## ORTANT NOTES

### EMAGNETISED ROTORS

a current from the battery passes through the alternator  
indings when the engine is running the rotor can become partly  
magnetised. This may happen if the rectifier breaks down or  
the battery connections are reversed—always make sure that  
e **Battery Positive** terminal is connected to the frame of the  
otor cycle.

### MERGENCY STARTING

his is only for use when starting with a discharge battery. **Do**  
**ot** run the engine continuously with the Ignition Switch in the  
EMG" position since the output, which only goes to the coil,  
ill be large and can result in overheating.

## COMMON FAULTS AND CUSTOMERS' COMPLAINTS

This will obviously depend on the customers' complaints. We have  
listed the most important faults and related these where necessary,  
to the Fault Diagnosis Chart (Page 31).

### 1. Battery - No Charge

Check Battery condition and test the alternator—Test 1B  
onwards.

### 2. Battery - Insufficient Charging

(a) Test Battery condition.

(b) If the rider uses the bike for low speed travelling, reconnect  
the alternator leads for higher output (page 31). If normal  
speeds are used:—

(c) Carry out Fault Diagnosis Test 1 onwards.

### 3. Rough Running - "IGN" Position

Can be caused by faulty earth connection from battery or high  
resistance connection in the battery feed through the headlamp  
switches to the coil. Check all these points.

### 4. Rough Running - "EMG" Position

In this position the spark is retarded and will only give steady  
running at low speeds. In any case the Emergency position  
should not be used, except for starting with a flat battery or for  
very short runs, when the battery is completely out of circuit.

### 5. Will not run in "EMG" Start Position

Check the rectifier Test 3, replace if faulty. If rectifier is O.K.  
examine leads and connections from ignition switch to coil and  
from coil to distributor. Check condition of contacts, condenser  
etc. If machine still refuses to start, check alternator Test 1.

### 6. "Light Lift" or Blown Bulbs

Either of these can be due to faulty high resistance battery or  
switch connections which allow high voltages to build up in the  
circuit.