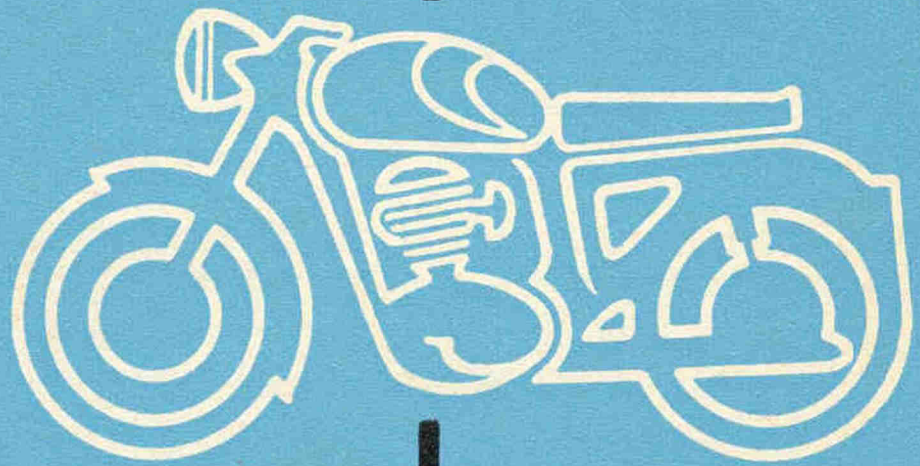


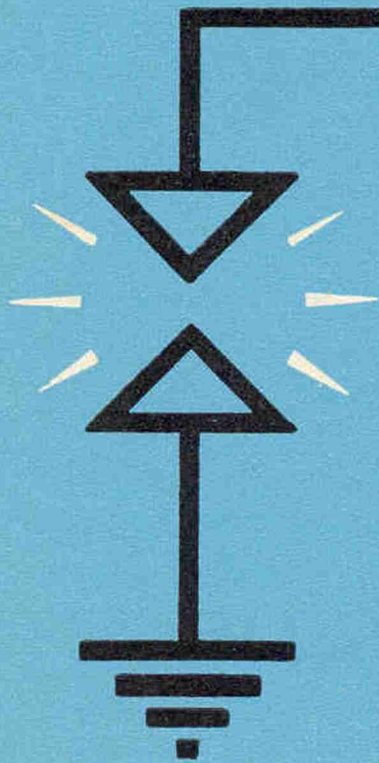
**ELECTRICAL
SYSTEMS**



for O. H. C.

DUCATI

**MOTORCYCLES
U. S. A. MODELS**



DUCATI MECCANICA S. p. A. - BOLOGNA - ITALY



ELECTRICAL SYSTEMS OF MOTORCYCLES

Quite all the motorcycle Firms use the electrical system with the dynamo or with the flywheel ignition magneto.

As you will know the good working of the Dynamo system depends from the efficiency of some parts particularly delicate as the commutator, the brushes and the regulator.

The flywheel ignition Magneto even if is very simple and strong has the inconvenient to change the intensity of the lighting proportionally with the revolutions of the engine.

ELECTRICAL SYSTEM OF THE DUCATI MOTORCYCLES

To gather the advantages of the two above systems, has been realized the electrical system with a complete rectifier.

It consists in a flywheel alternator which gives alternate current which is changed in direct current by a selenium rectifier.

As the lighting does not need always the same current (day, night in town, and night in country) the output must correspond to these various needs.

We settled this matter by a special double winding, the commutation of which happens in the same time of the commutation of the lights.

The electrical balance of the rectified current and of the electrical input from the battery, concerning the three abovementioned positions, happens during the day between $600 \div 900$ R.P.M., during night in town between $900 \div 1400$ R.P.M. and during night in country between $2400 \div 2800$ R.P.M.

Anyway the maximum output current in each of the three abovementioned positions, never will give damage to the battery.

The advantages of this electrical system are the following:

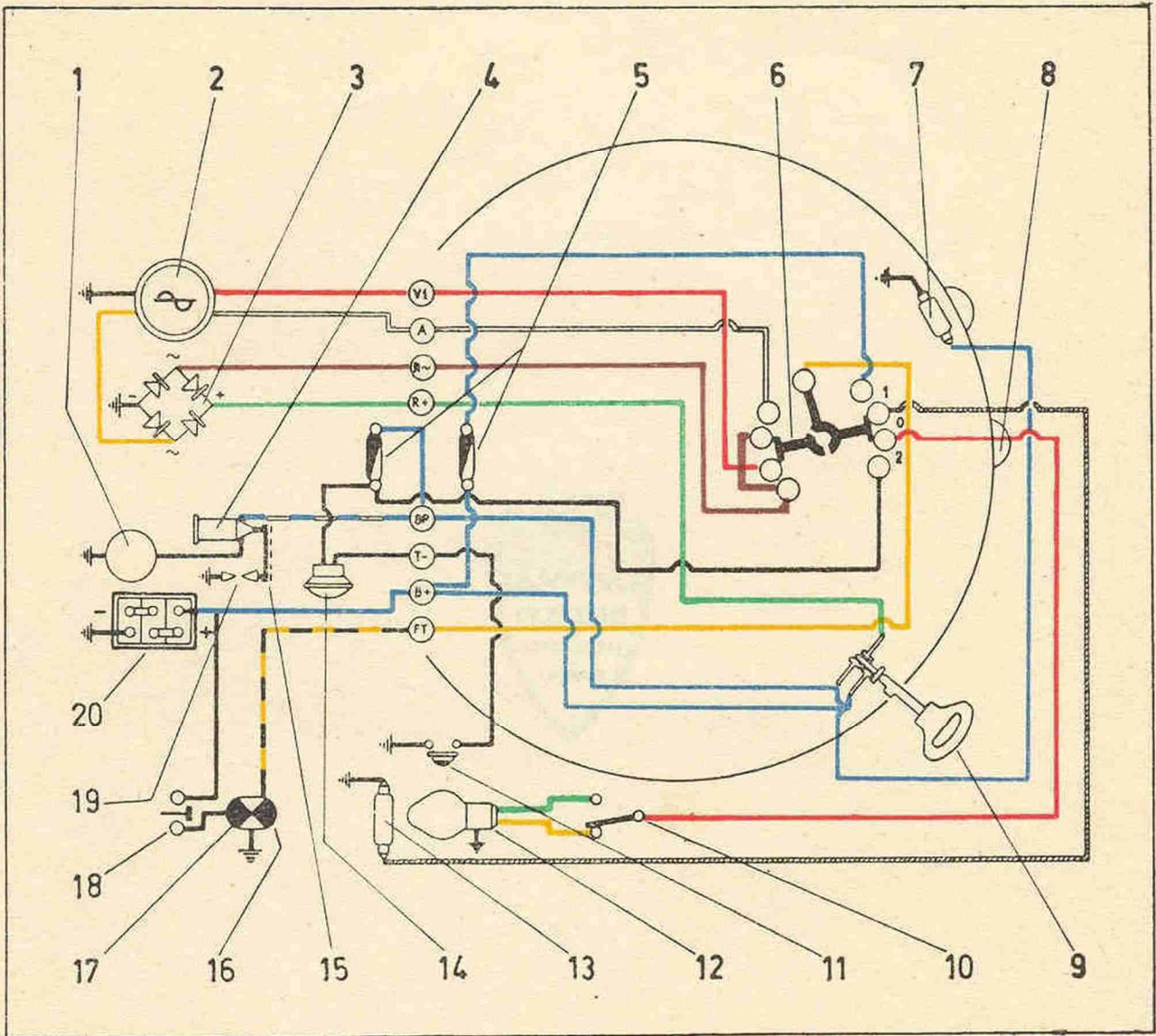
- 1) During the day, which is the 80% of the total life of the machine, the current balance happens at a lower R.P.M. than that one of a normal electrical dynamo system.
- 2) During the night in country, which is the worst, even if the current balance happens at a higher R.P.M. than with a Dynamo system, the alternator has always an electrical output, so that the unbalance between the consumption and the charge has always the possibility to be balanced by the battery charge which permits a regular running for more than ten hours in these conditions.
- 3) In case the battery is completely discharged this system permits an easier starting than by a Dynamo system.



THIS SCHEME IS AVAILABLE FOR THE U.S.A. MODELS:

125 S
125 Scrambler
175 TS Americano
175 SS

175 Scrambler
200 TS Americano
200 SS
200 Scrambler



Note:

The - (minus) of the rectifier is connected to the fixing screw whereas the + (plus) is connected to the red coloured isolated clamp. The other two clamps are in common for alternating current (~)

- | | |
|--|--------------------------------------|
| 1 - Contact breaker-Condenser | 10 - Light switch |
| 2 - Generator | 11 - Horn button |
| 3 - Westinghouse rectifier 6V-10A | 12 - Head light lamp 6V-20/20 W |
| 4 - Ignition coil | 13 - Town light 6V-3W |
| 5 - Fuses | 14 - Horn |
| 6 - Three position dimmer switch | 15 - High tension pickup |
| 7 - Lamp of the warning light for the battery coil ignition 12V-3W | 16 - Lamp for the number plate 6V-3W |
| 8 - Warning light for the town light | 17 - Stop lamp 6V-10W |
| 9 - Key for three contacts | 18 - Stop switch |
| | 19 - Spark plug |
| | 20 - Battery 13.5 Ah - 6V - SAFA 3L3 |

