



# THE M-L "MAGLITA"

OR

## Combined Lighting and Ignition Set for Motor Cycles

Protected by British Patents Nos. 113,910, 144,024, 159,572, 164,622, 170,435, 176,032, 177,026, 178,302, 184,367, 27,328/24, 5826/25, 20,523/25, and equivalents in Colonies, U.S.A. and other countries.



### General.

The equipment described in the pamphlet covers all sizes of single cylinder motor cycles, two or four stroke.

It comprises:—

- 1.—Type FC Maglita for engine speed drive on all single cylinder engines.
- 2.—Type FB Maglita for half engine speed drive on engines up to 350 cc. capacity.

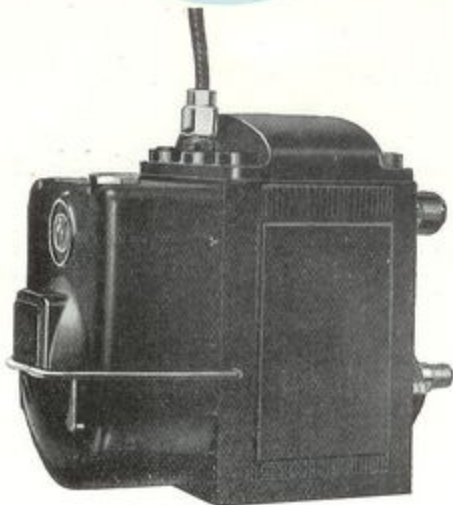
The same lamps, switchgear, and battery are used on both sets. Alternative fixings to suit touring or sports type handlebars can be provided for the headlamp and switchbox. The components are attached to the motor-cycle by means of strong clamps of neat appearance, and the Maglita takes the place of the magneto, without alteration to the existing platform.

The combined direct current generator and inductor magneto, known as the "MAGLITA" possesses the following advantages:—

- 1.—The machine is extremely simple. It has a single revolving armature, and no gearing, which makes it very silent in operation.
- 2.—The power absorbed is little more than is taken by a standard magneto.
- 3.—The ignition windings are stationary, and consequently the system is more robust than a standard magneto.

The ignition and dynamo circuits are independent of each other.

- 4.—The machines are light, the FC Maglita weighs 9-lbs. and the FB 10-lbs.



M-L "Maglita"—Type FC.

## DESCRIPTION OF EQUIPMENT.

### Generator.

The standard machine is the type FC Maglita running at engine speed, and it is recommended that this machine should be adopted whenever possible. It gives ample energy for ignition, and will generate 3 to  $3\frac{1}{2}$  amperes at normal road speeds, which is sufficient for the lighting requirements of any normal solo or sidecar machine. Engine speed drive presents no difficulties on a two stroke engine. In the case of a four stroke engine we can, when a chain drive magneto is used, supply a fine pitch duplex chain and sprockets giving a 2 to 1 ratio, which can be fitted inside the magneto chain case.

For small engines where an engine speed drive is impracticable we can supply the FC machine specially wound for driving at half engine speed, but it must be clearly realised that the lighting output will then be reduced in the ratio of about 3 to 2, and such an arrangement should only be used on small engines of about 250 cc. with a normal top gear ratio of 6 to 1, or lower.

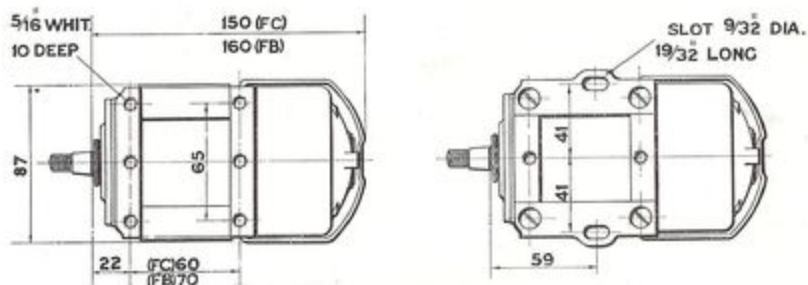
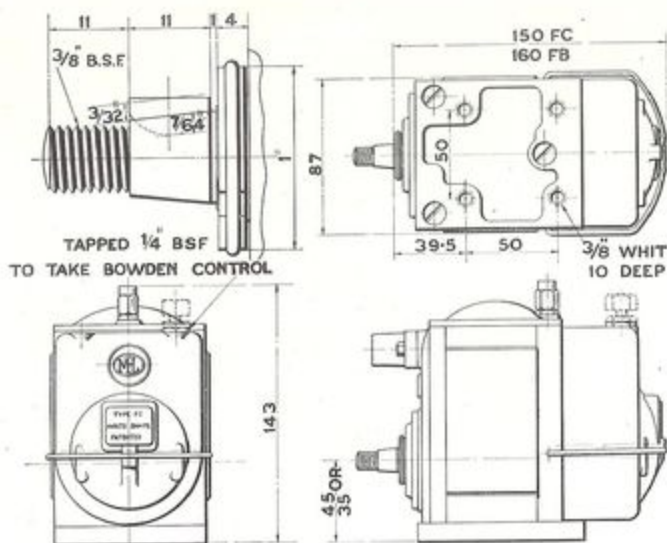
A slightly larger machine of exactly similar construction, the FB, can be supplied for half engine speed work on engines up to 350 cc. It differs from the FC in that wider magnets and a longer armature are employed. All other parts are identical on the two machines.

The outputs of the machines are shewn on curves on page 4.

### Dimensions.

The standard machine complies with the dimensions fixed by the British Engineering Standards Association for the 'K' type Magneto, and it is recommended that these dimensions should be adopted wherever possible.

By removing the base plate of the machine, the centre height is reduced from 45 mm. to 35 mm. If this is done, the tapped holes, which in the standard machine are used to secure the base plate, can be employed for fixing the machine to the platform. Dimensions of these tapped holes are given in the drawings on page 3.



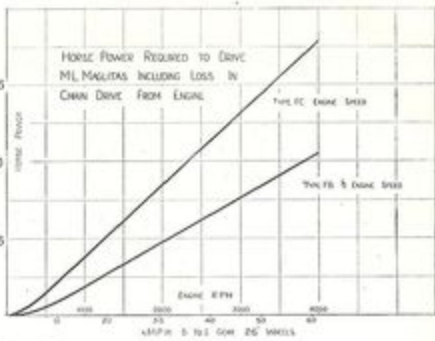
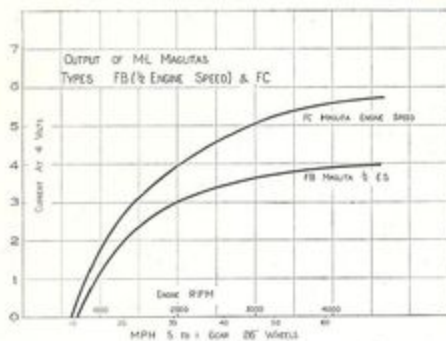
M-L "MAGLITA" -TYPE FB and FC  
Dimensions in millimeters.

Suitable for single cylinder engines only.

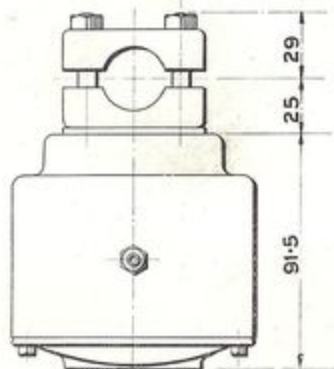
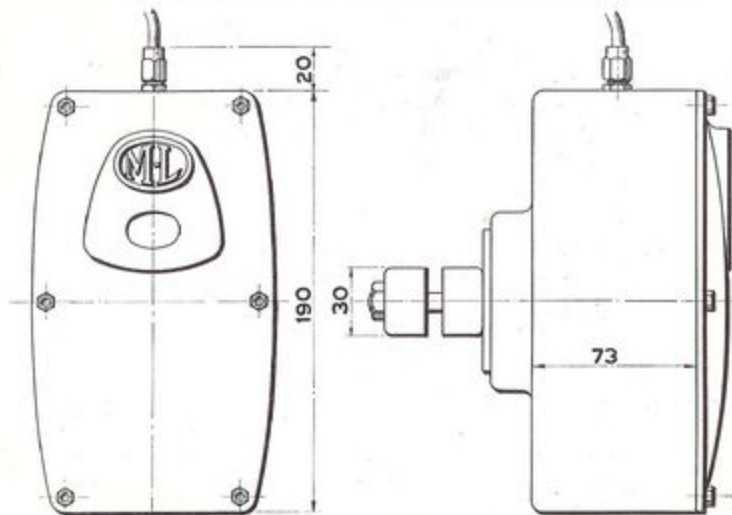
When ordering specify type of base and direction of rotation as viewed from driving end. Specify also whether control is required on right hand or left hand side of machine.

The 'FC' machine can also be supplied with extended base fixings, as specified by the B.E.S.A. for the 'M' type magneto, but we do not recommend this fixing where it is possible to adopt the 'K' type. There are cases, however, —as when the magneto is mounted directly on top of a crank case or gear box— in which the 'M' fixings are the only possible solution. Even in such cases, the 'K' type spindle should be retained, as the standard 'M' spindle is not heavy enough for combined lighting and ignition service.

Dimension drawings of the Maglita are given above.



Curves giving Electrical Output and Horse Power required for driving.



CABLE GLAND MAY BE FIXED WHERE  
DESIRED.

BATTERY BOX MAY BE SWIVELLED  
IN ANY POSITION REQUIRED.

WHEN ORDERING PLEASE STATE  
DIAMETER OF FRAME TUBE.

10 AMP. HOUR BATTERY BOX  
For Frame Mounting.



## Lamps, Switchgear, Battery and Wiring.

The head lamp and switch box are normally carried on a pair of straight rods on the handlebars. Bent rods can be supplied if desired, which will give lamp positions either higher or lower than normal. An alternative fixing is available, the lamp being carried on a pair of rods fixed on the fork girders, and the switchbox clipped on to the top tube of the frame, or other convenient point.

The head lamp is fitted with a simple focussing device for the main bulb, and carries a pilot bulb worked by a reliable push pull switch mounted on the lamp body. There are no cables inside the lamp. The reflector is of correct design and heavily silver plated.

### Switch-box.

The lights are operated by a push pull switch. The charging is governed by a semi-automatic cut-out, which opens the charging circuit when the engine stops, but does not operate if the engine is momentarily slowed, being controlled by a time element device. Provision is made for the attachment of sidecar lamp and electric horn connections.

### Wiring.

Concentric cable, thoroughly armoured and weatherproofed, anchored at all points of entry to switchbox and lamps by waterproof glands, so that no pull can come on connections.

### Tail Lamp.

This is a tubular type lamp for attachment in the rear number plate. It incorporates a patent cushioning device, which protects the bulb from mechanical shock, and so minimises the risk of filament breakage. The lamp illuminates the rear number plate, and is so constructed that the bulb holder may be withdrawn and used as an inspection light.

### Battery.

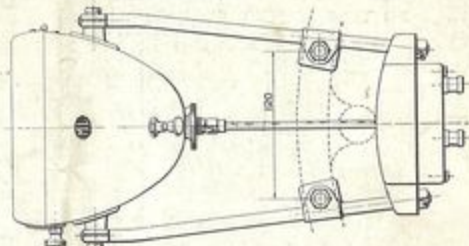
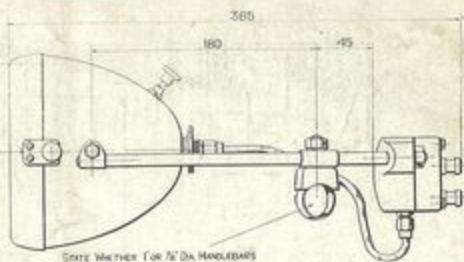
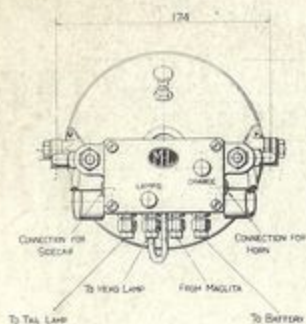
We fit a 4 volt 10 ampere-hour capacity EXIDE Battery, especially designed to stand the severe conditions of motor cycle service. Should any trouble develop, the user has the advantage of the EXIDE Battery Service System.

### Electric Horn.

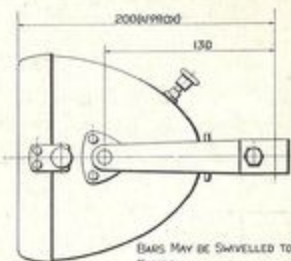
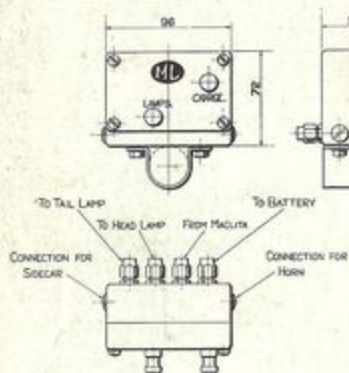
We can supply electric horns of low current consumption, and adequate sound volume, complete with switch and wiring.

### Sidecar Lamp.

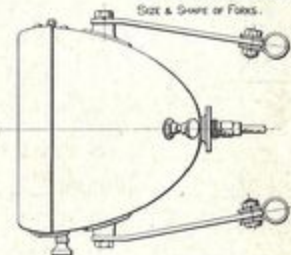
Torpedo shaped body with lens and focussing device. Arranged for securing to mudguards or to sidecar body.



**LAMP AND SWITCH GEAR ARRANGEMENT.**  
Standard handle-bar mounting.  
In ordering state diameter of handle-bars.



BARBS MAY BE SWIVELLED TO ANY POSITION.  
WHEN ORDERING PLEASE STATE THE SIZE & SHAPE OF BARBS.



**LAMP AND SWITCH GEAR ARRANGEMENT.**  
Fork mounted lamp. Tube mounted switchbox.  
In ordering specify size and shape of fork member and diameter of tube carrying switchbox.

**THE M-L MAGNETO SYNDICATE LTD., VICTORIA WORKS, COVENTRY**

Telephone: Coventry 1068 and 1099.

Telegrams: Carlton. Coventry.

To whom enquiries and correspondence from manufacturers should be addressed.

**S. SMITH & SONS (M.A.) LTD., Central Works, Cricklewood, London, N.W.2.**

Telephone: Willesden 2335.

Telegrams: Speedofac, Crickle, Lohdon.

Sole distributors overseas and to retail and trade buyers in this country.

**OVERSEAS DEPOTS.**

**AUSTRALIA:** Smith Sons & Rees Ltd., 33-32 Wentworth Avenue, Sydney.

Flinders Lane, Melbourne.

**NEW ZEALAND:** Teagle Smith & Sons Ltd., 226-279, Wakefield Street, Wellington

**SOUTH AFRICA:** M. W. Curtis & Co., 40, Field Street, Durban.

Logan's Motor Accessory Co., 141, Adderley Street, Cape Town.