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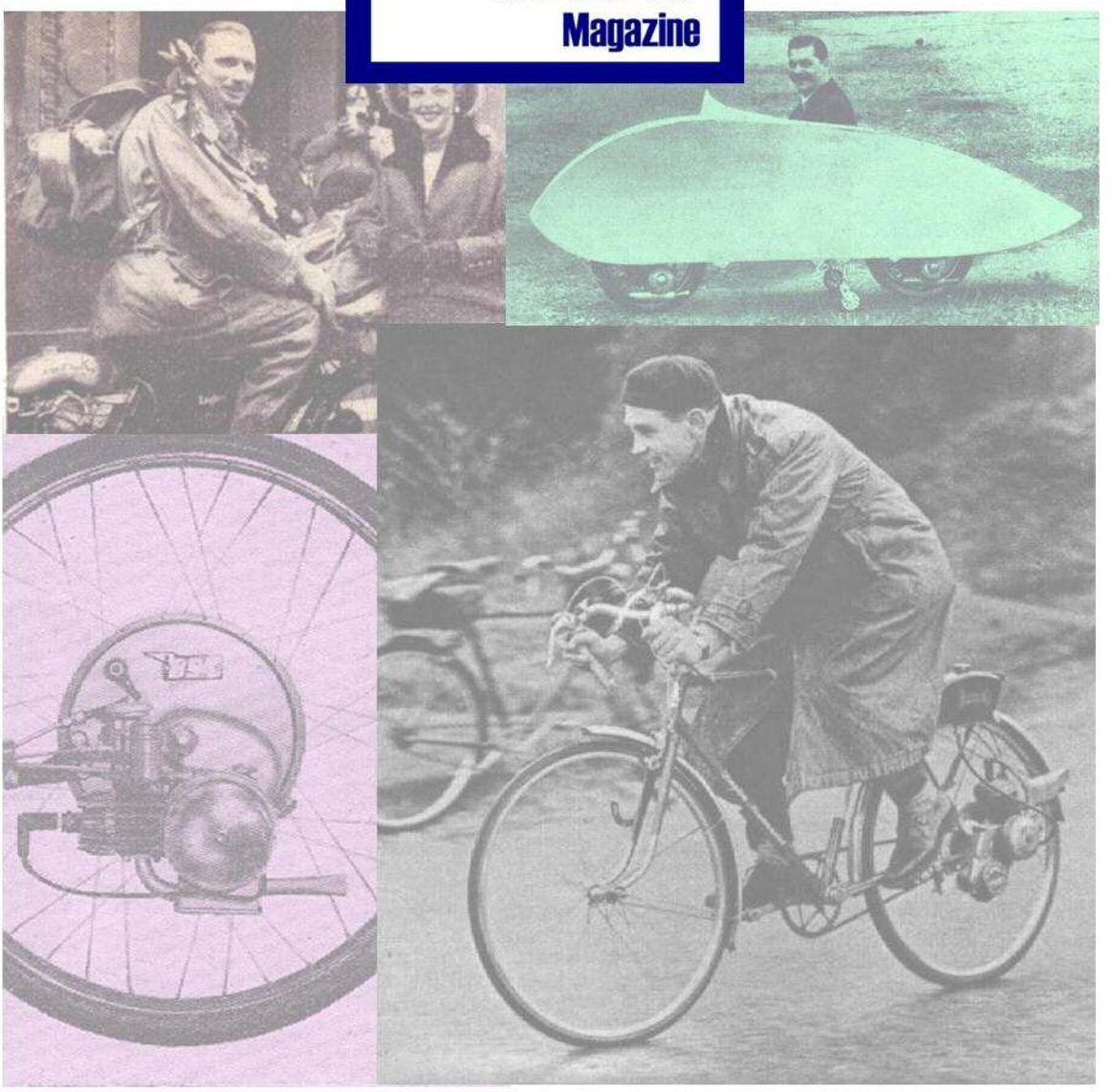

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MINI-MOTOR (GT. BRITAIN) LTD.

TROJAN WAY
CROYDON

The Universal Outboard Power Unit

OUR REF.

YOUR REF.

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N E W S - L E T T E R No.3.

TYRE WEAR.

1. NORMAL LIFE OF A TYRE USED WITH A "MINI-MOTOR".

The average life of a suitable tyre used with a Mini-Motor should be in the region of 1,500 miles. This figure, however, is dependent upon many factors, and whether a satisfactory mileage is obtained or not rests chiefly with the user.

In the first place the Unit must be fitted correctly, and the fitting instructions laid down in our Handbook should be carefully followed, bearing in mind that certain cycles - particularly old models with outsize frames - may need special attention.

Assuming that the Unit has been fitted and adjusted correctly, the only other likely cause of excessive tyre wear is an incorrect driving method and handling of the controls.

It must be borne in mind, however, that some tyres are more suitable than others. It has been found from experience that a Dunlop "Tandem" type will give excellent results, and a number of private owners have obtained over 3,000 miles from one such cover. A Firestone Power Drive De Luxe tyre has been introduced for the special benefit of Mini-Motor users, and it has been designed to obtain maximum life from bicycles fitted with Mini-Motor Units. This tyre or the previously mentioned Dunlop "Tandem" are strongly recommended.

In the absence of either of the above-mentioned tyres, when choosing a tyre the most important point is the avoidance of covers having square or diamond shaped blocks in the centre of the tread, as the corners of these will rapidly become "scuffed"; and in addition such a tread may result in excessive vibration from the Unit. The best type of tyre should have a continuous tread in the centre with reinforcing buttresses at the side to give good wheel grip.

A further point is that the rear tyre MUST be kept inflated really HARD, i.e. considerably harder than is normally entertained with an ordinary bicycle.

2. FITTING HINTS.

The Unit should be as level as possible WHEN IN THE DRIVING POSITION.

The steel sleeve forming the hinge must be free to rotate in the hinge lug, otherwise the Unit will be excessively stiff to move up and down, throwing undue strain upon the control cable and attachment fittings.

The mudguard of the cycle must not foul any part of the Unit, carburettor, roller guard etc., or it may not be possible to obtain correct driving pressure and slip with rapid tyre wear may result.

With the earlier tension-spring type of Unit, it is important that there is sufficient tension to prevent any roller slip and to provide a positive drive. As a rough guide, there should be approximately 1/16th inch between each coil of the spring with the Unit in a raised position.

On present models, employing a compression spring, the most probable cause of roller-slip is due to the spring become coil-bound before the roller is engaged sufficiently on the tyre. This may be merely because the brass block has been adjusted too high on the guide rod of the rear fork, and if so this can easily be remedied by lowering it.

It is possible that there may be a "flash" of welding which prevents the brass block going down low enough, and if so this should be removed with a file. Alternatively, there may be insufficient free length of inner wire of the lifting cable. This may be cured by removing a short length of the outer casing - usually about ¼ inch is enough - taking care not to cut the inner wire; but before altering the cable make sure that the adjuster is screwed right home.

3. DRIVING METHODS.

PLEASE NOTE - Incorrect handling of the controls may completely ruin a tyre very quickly.

NO ATTEMPT MUST EVER BE MADE TO ENGAGE A RUNNING ENGINE ON TO THE TYRE WITH THE CYCLE STATIONARY.

The correct starting and driving procedure is as follows:-

TO START(with a COLD engine): Turn on petrol. Depress priming pump a few times until resistance is felt. With Unit disengaged from the tyre, pedal cycle to about normal cycling speed(i.e. about 10 m.p.h.) Open throttle lever about half way. Then engage engine sharply. The engine will begin to fire, but continue pedalling until it is running evenly. It is assumed that the 'best' position of the mixture control has already been found by experiment; but if not try with the lever on the carburettor about two-thirds of the way to the "rich" position first, and then richen or weaken as found necessary when the engine has warmed up. It will then be possible to keep this mixture control in one position until there is a considerable change in the climatic conditions.

TO START (with WARM or HOT engine): DO NOT use priming pump at all or touch mixture control, or the mixture will be excessively rich and may wet the sparking plug. Otherwise proceed as above.

RUNNING: Control road speed by using throttle lever only. Do NOT dis-engage Unit from tyre unless it is necessary to stop.

When stopping at traffic lights, etc., it is not advisable to keep the engine running, as considerable experience and skill is necessary to judge the correct road and engine speed to re-engage a "live" engine on to the tyre without damaging the tread. If on hills the road speed drops below about 8 m.p.h. assist the engine by using the pedals. Never attempt to "slip the clutch" (i.e. to partially dis-engage the Unit) when cornering. The drive must either be fully engaged or fully dis-engaged - never half and half.