

## ROAD TEST REPORT

# PERFORMANCE

## The 38 c.c. Mosquito

SINCE reading the account of that remarkable performance at Pau, when a *Mosquito* engine ran for fifty-five days and nights in the hands of eight riders, to cover nearly the circumference of the world at an over-all average of 19 miles per hour, we have been eagerly awaiting the opportunity of trying out a specimen of this famous Italian engine. Now the chance has come and it has proved every bit as interesting as we could have hoped.

Sheer performance is much of the fascination of the machine. Hill-climbing, that makes the pedals unnecessary and real acceleration right from standstill to maximum are something of note in the cycle-motor field, but there is more to it than that. There is the compactness of the unit, less than four inches wide and snuggling out of the way under the bottom bracket, the light weight that makes the engine completely unnoticeable when the cycle is being pedalled with the power unit free and the extraordinary way the unit complements instead of overshadowing the cycle itself.

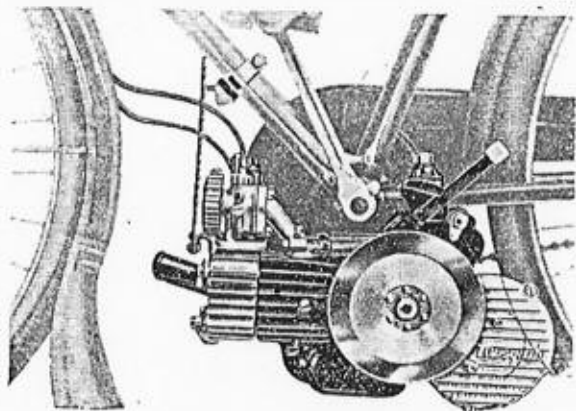
The 38.c.c. two-stroke engine is a complete unit, all in one piece, swinging on a hinged bracket under the cycle, forward to the "free" position and rearward to engage the roller with the tyre, at a point, incidentally, where it cannot sling mud! The roller itself is unusual in that its diameter and *ergo* bearing surface on the tyre is much greater than usual, in that it is geared down from the crankshaft by approximately 2 to 1 and that it contains within itself

the high tension magneto that so efficiently provides the sparks. There is an outside flywheel on the nearside of the engine, the carburettor is mounted high-up in front and the sparking plug has a completely waterproof cover.

The three-ringed piston is of cast iron, rather long in the skirt and because of its relatively low coefficient of expansion, able to fit closely into the also cast iron cylinder. The four-stud head is, of course, of light alloy. A neat and effective silencer bolts almost straight on to the exhaust port and feeds off into a short tail pipe. The only extraneous fitting is the petrol tank, a three pint cylinder clipped to the seat tube of the bicycle and feeding by gravity and a short, flexible pipe to the carburettor. The front end of the engine is supported by a strong spring-steel stay from the down

tube and the engaging lever locks positively into a gate to hold the engine in either the in or out positions.

Starting was dead certain at all times. The petrol tap turned on (obvious but often forgotten) the "tickler" depressed a couple of times and the choke set in the rich position meant a start in three pushes of the pedals from cold. With the temperature at around freezing it took some fifty yards to get the motor pulling well and another fifty before regular four-stroking indicated the need to lift the choke, which was easily done from the saddle by the rider's left toe. In more moderate weather these distances were more than halved. Once running, the engine had a fascinatingly purposeful way of getting at its work, more than willing, even eager. From almost a standstill and without touching



*Light, Lively and Powerful*

the pedals it would accelerate straight up to its mean speed level road maximum of about 22 m.p.h. taking all normal gradients in its stride.

The exhaust note was modest, although still a shade loud by the pernickety standards of *Power & Pedal*, but it was quieter than many and from the saddle could hardly be heard against a breeze. It was, therefore, more than a pity that this quietness was lost to some extent by a "Spitfire" whine, most noticeable under load about half-way up the rev. range. The source could not be positively identified but it appeared to come from the geared roller drive. It was not by any means offensive, but it marred perfection.

As might be expected from the careful attention to engine design and particularly the iron piston, the *Mosquito* will stand full throttle flogging indefinitely. During the test period we encountered the gales that devastated so much of the Eastern parts of Britain and one ride was undertaken straight into the teeth of the blustering wind. The throttle was parked wide open for mile after mile with the speed never above fifteen m.p.h. and gusts bringing it down to around 8 m.p.h., but the pedals were not used and it was the rider who demanded a rest, not the engine. Conversely, under favourable conditions of following wind or down grade, the revs went up smoothly way beyond the peak of the power curve. Speeds up to 30 m.p.h. were reached in a number of occasions and held as long as the rider's conscience permitted without any sign of distress from the engine and without any burning or whiskering of the plug points. The makers quote 4,200 r.p.m. at 20 m.p.h. and the Smith's speedometer fitted appeared to be accurate so that engine must have been turning over around the 6,000 mark and seemed quite happy.

The rear tyre on the machine tested was a standard Dunlop Roadster of

only 26in. x 1½in. with a studded tread, perhaps not the ideal tread for the job, but there was no roller slip on the motor drive except when deliberately provoked as by cramming on the brakes with the throttle open. Part of the test was made without the decompressor lever fitted and starting under these conditions in the wet did provide slip under *pedal* pressure. It would seem therefore, that the roller grip is just right for the job. No fancy tyre pressures were used and a short run deliberately undertaken with a soft rear tyre did not produce any untoward results.

### The "Alfa" Spring Fork

Apart from the *Mosquito* engine, the test was also of another Italian component of great interest to cyclistmotorists, the "Alfa" girder type spring fork.

Let it be said here and now that we have nothing but unqualified praise for this delightful fitment. The fork is light, efficient, immensely strong, much more so than any standard cycle fork and really beautiful to look at. It adds an air of purposeful grace to the machine without obtruding itself in any way.

The cycle used was an ordinary sports-roadster machine of popular make with a rigid frame, 1½in. Endrick rims and calliper brakes. The "Alfa" fork looked as if it had been designed with the machine and offered perfect "hands-off" steering at any speed. It was only the occasional shock of a mighty smack under the *back* wheel that provided the reminder of the good work the forks were doing in taking really big bumps in their stride. Safety, both in control when travelling fast on bumpy roads and in the tremendous addition to front wheel adhesion under the brakes, was greatly increased and we suggest that even without motors, serious cyclists both tourist and racing might find the extra

couple of pounds weight of the spring forks worth carrying for the real advantage in braking and roadholding.

There are built-in dampers to control spring rebound and these effectively prevent any up and down rock. Except when taking full advantage of the braking efficiency given by the forks, the movement is not noticeable at all from the saddle.

"Nothing but unqualified praise"

### The "Alfa" Spring Fork



### "Mosquito" and "Alfa"

It is difficult to find serious criticisms of this excellent engineering combination but, as *Power & Pedal* always insists, there is no such thing as the best cyclistmotor, only the best for a particular job. Not every rider sets a premium on high performance and some of the utility clan may prefer a quieter, handier machine. Older riders too are not always keen to bend down to reach petrol tap, choke and engaging gear, but for the "really" cyclist (Do cyclists still use that term?) who wants to become a "really" cyclistmotorist the *Mosquito-Alfa* products will certainly pull.

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Being subject to Import Duty neither the engine nor the fork is particularly cheap, and it is to be hoped that a manufacturer will soon be found with the plant capacity and material allocation to make these excellent components under license in Britain. But, for the man who has a few pounds to spare to pay for what he wants, and wants a light, lively cycle of real performance plus a light lively engine to go with it, the *Mosquito-Alfa* combination approaches the ideal.

### SPECIFICATION

**MOSQUITO** two-stroke engine by Meccanica Garelli, Milan. Bore 35mm. x Stroke 40 mm., 38 c.c., cast iron piston, alloy head, needle bearing big end, roller mains, Ball-bearing steel driving roller geared down 2 to 1. High tension, static-coil, magneto built into roller. Underbracket fixing, separate petrol tank. Total weight dry 17½ lbs. Price (Inc. Duty) £31.10.0 Mosquito Motors, Ltd. Moorfields, Liverpool, 2.

**ALFA** girder fork with adjustable dampers and single, central compression spring. Available for standard 21in. or 23in., cycle frames. Price (Inc. Duty) £4.17.6 Bob Sergent, Ltd., Moorfields, Liverpool, 2.

### WIPAC 1-88

**T**HE Wipac, dry-battery horn set, referred to in our January issue has now been tested for some weeks on the editorial machine and has proved quite satisfactory and definitely preferable to the "squaker" previously fitted.

The motor cycle type clip was dispensed with and the horn itself mounted direct and without adaptation on the seat tube pin, where it is completely protected from knocks or weather by the rear half of the saddle. In this position the rider does not hear much of the warning sound but the effect on pedestrians

at ranges up to 100 feet was immediate without being startling.

Four U-2 batteries are housed in a cylindrical container which was mounted below the crossbar and the switch button is on the handlebar in reach of the rider's left thumb.

It could hardly be expected that this instrument would be a road clearer and we found that the lorry in front did not automatically move over when we pressed the button. But the warning of approach was adequate for all normal needs, pleasanter than the bulb type which it replaced and safer because the hand remains on the bar when operating the switch. We are considering the experiment of running wires from the batteries to the head lamp to replace the inadequate reserve battery there and provide a really safe light for momentary halts in traffic. Further report will be made on this later.

The 1-88 is definitely suitable for cyclemotors and will appeal to those who like tidyness and efficiency at the modest expense of 27/-.

### MRS. SCHLEEB'S BERINI

see page 15

*(Import Motors, Ltd., advise us that they have now serviced Mrs. Schleeb's machine. The friction roller was not worn, nor was the tyre, and the falling off in power that she complained of was due to the impact of "Pool" on an engine that had done 1,500 miles since its last decoke. Decarbonizing was the only service required and the machine and owner went away happy. The engine has now done nearly 4,000 miles in a little over two years).*

### DEGREASER

**W**E have recently tested a very efficient and economical degreaser for industrial use known as D.G.A. 50, that should be extremely valuable for many things from the decoking of an exhaust

pipe to cleaning the garage floor.

D.G.A. 50 when used in the strength of 8 ounces to each gallon of water will remove oil, grease or combinations of these with other foreign matters even after years of accumulation.

Whether the oily matter is of mineral, vegetable or animal origin does not affect the efficiency of the material which can be used with the same degree of certainty in every case; the response to its treatment will be assured. The material, when used as directed, appears to have very effective properties as a degreasing agent. It is sold in bulk only at 68/9 per cwt bag. Sole distributors: Resday and Co., 197 Temple Chambers, E.C.4.

### FOCUS ON DRESS

—continued from page 13

we are still thinking of wool or worsted, tough tweeds or soft, smooth gabardines—what of this sphere.

The answer is that so far the Silicone Treatment of organic fabrics is still in the experimental stages and no marketing dates can be given. But there is plenty of room for hope. The experiments are completely successful at laboratory levels and it only needs the working out of practical, commercial applications for us to be able to go to our tailors and buy just the clothes we want to wear for our normal, civilised use, then wear them with the comfortable knowledge that we will be rain as well as cold proof.

New designs have to be created for our approval of garments that stay put in a wind and allow reasonable freedom of movement but it can be done and, seeing what the Bradford Dyers Association has already achieved, we feel that it will be done soon.

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