ROAD TEST REPORT

The CYCLEMATE

POWERED by the same engine as the famous wheel unit and with the cycle part built by one of the oldest firms in the industry with both cycle and motor cycle experience, the *Norman "Cyclemate"* is one of the few new things in the new light autocycle field that can to a great extent be taken for granted. With that parentage the youngster was bound to turn out all right.

The frame is of the twin top tube type that gives very good rigidity without massiveness and overweight. 26in. x 2in. wheels and tyres provide safety and comfort. Hand-operated internal expanding hub brakes are fitted front and rear. The saddle is large and comfortable, of the mattress type and fully adjustable for position and angle. There is a strong built-in carrier and full length sheet metal guards for the driving chains. The five-pint fuel tank, with reserve tap, is set between the down tubes. Finish is an attractive and durable looking metallic green.

Exactly the same as the wheel unit, the engine is a 32 c.c. (36 mm. x 32 mm.) two stroke with flat-topped piston and claims ·8 b.h.p. at 4,500 r.p.m. It is petroil lubricated at a standard recommended mixture of 25 to 1 with SAE 30 oils. Ignition is by *Wipac* flywheel magneto with lighting coils and the carburettor is a *B.E.C.* type A. The single plate clutch runs in oil and both primary and secondary drives are by chain, with an independent chain drive for pedalling.

Brakes are operated by inverted levers from the handle-bars. The clutch lever is on the left bar and has a trigger catch which enables it to be held in the "free" position. The throttle is twist-grip controlled by the right hand. There is a small rich mixture device for cold starting mounted directly on the body of the carburettor itself. As the engine is mounted directly in front of the bracket the fuel feed is short and the fuel tap and carburettor can be reached from the saddle with a little effort.

On the Road

Starting from cold the *Cyclemate* took a little time to fire evenly and deliver power and it seemed that a more accessible control for the carburettor starting device would be useful in these circumstances. When warm or hot the start was always easy and certain and power immediately usable.

It was possible to drive the machine off on the level by careful use of the clutch but easier to pedal off the first twenty yards or so. The engine took over at about 5/6 m.p.h., and provided positive acceleration up to the maximum of just under 25 m.p.h. The big factor in the excellent all round performance of the machine is its useful gearing. The engine is itself a good puller and the gearing is just right to strike a nice balance between comfortable cruising speed, acceleration and hill-climbing.

Ordinary main road hills could be taken without pedal assistance and it was noticeable that the engine never seemed to tire on drags. Wrotham Hill in Kent, well known and much cursed by generations of cyclists who have walked up it, was climbed with only a little very light pedal assistance on the steepest part near the top. On really steep climbs the pedal work became heavy but the combination of fairly low pedal gearing and good engine pulling power made the climb certain and there was never any prospect of having to get off and walk.

The engine will apparently cruise at its maximum indefinitely if required, the speed varying up to 30 m.p.h. on favourable grades without fuss and the cycle handling easily and comfortably throughout the speed range. The real pleasure of riding the *Cyclemate*, however, was found in by-lane travel at rather under half throttle, around 16/18 m.p.h., at which speed the unit could hardly be heard or felt and the comfort of the machine was

fully appreciated. Silencing standards are good and there was little noticeable vibration.

Petrol consumption tends to be a bone of contention with this engine because there is a very big difference in the figures obtained when letting the motor do all the work at mostly full throttle or using it for true motor-assistance to the pedal cycle. On our test with a heavy rider, pedalling only when necessary and averaging 20 m.p.h. the figure was 131 miles per gallon.

There are some criticisms to be made, but mostly of a minor character. The worst feature was the positioning of the brake levers. "Clean" handlebars with inverted levers and inside cables are a good thing in principle, but these were non-adjustable for angle and had too long a reach for ease of handling. We found it possible to set the clutch lever down so that it and the front brake could be operated together or separately at will, but impossible to handle the rear brake comfortably. Modification is needed here. There seems little doubt that the positioning of the petrol tank directly above the engine does add to the impression of mechanical noise and the under-the-saddle position of the early prototypes would probably be better from this point of view. The tyre pressure recommended in the instruction book is frankly silly, if only because one figure is quoted for both tyres, but we understand that new figures are being issued that offer reasonable proportions and are only a little too high. We found 18 lbs. per square inch in the front and 28 lbs. rear gave a reasonable compromise between the rival ideals of rider, machine and tyres. At these pressures the steering, roadholding and braking were all very good indeed.

Impressions

The "First of the Few" in British light autocycles is a good all-rounder backed by famous names and some real service facilities. It is designed to suit that great majority of potential riders who want machines mainly for pure and simple transport purposes and count economy, reliability and ease of handling as its major virtues.

A Test with a Difference

ONCE upon a time, when the editor of *Power and Pedal* was a very young motor cyclist, there was a famous annual event called the Stock Machine Trial in which motor cycles were selected by independent officials from agents' stocks and put through a six days trial under close observation. It was a most instructive test, perhaps too much so, because it shewed up the defects of the machines of the day until eventually the manufacturers called it off.

We were delighted, therefore, when an invitation came from Cyclemaster, Ltd., to go to the Byfleet Works, pick any machine in the place at random and take it away for any test we liked. This is the sort of confidence we admired —We went—We picked out a machine partly assembled and watched it finished. Number plates were painted ; we faced a camera for the record, started up the engine at a few turns of the pedals and rode 50 miles non-stop in 2¾ hours, including some of the toughest hill country in Kent.

THE EDITOR leaving the Byfleet Works of Cyclemaster Ltd., with the "Mate" just off the assembly line.

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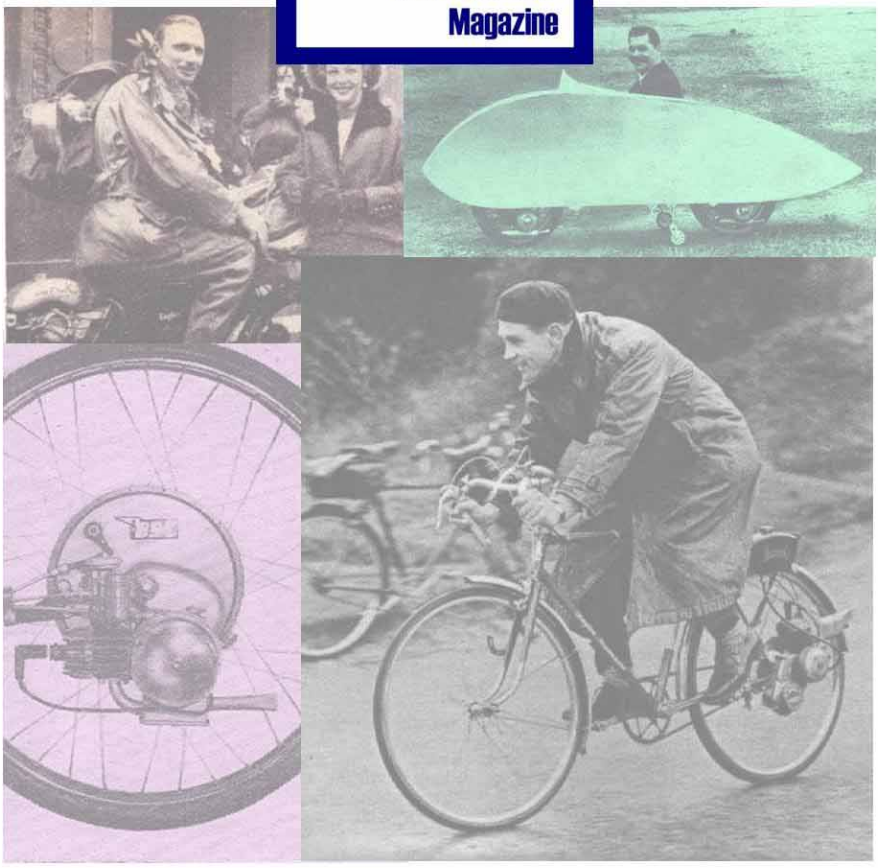

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