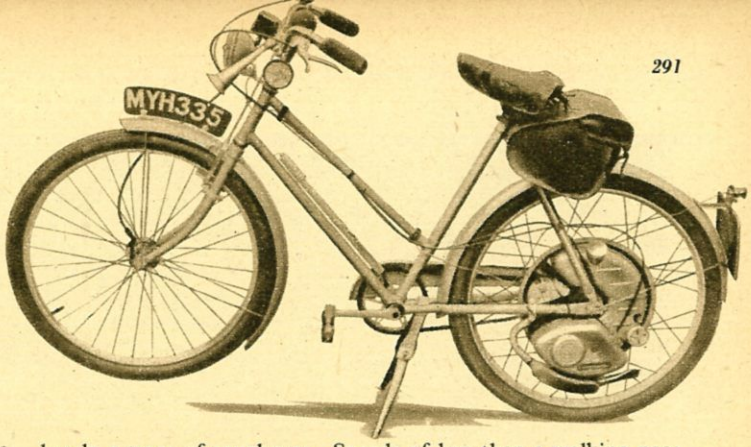
Road Tests of New Models

32 c.c. Cyclemaster

A Power Wheel of Increased Engine Capacity with Excellent Characteristics for Town and Country Riding

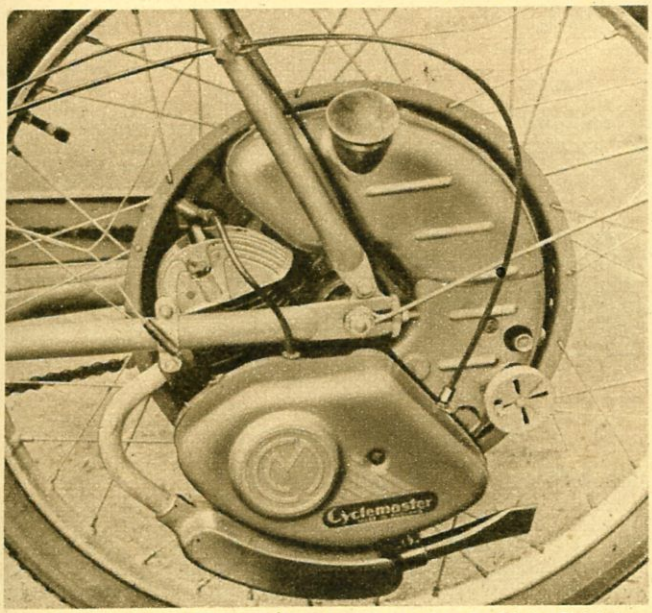


UNIQUE in that it is sold as a powered wheel to replace existing rear wheels of cycles, the Cyclemaster has achieved wide popularity on the roads of Britain and elsewhere. Recently the capacity of the engine has been increased from 25 to 32 c.c. This has been achieved by enlarging the bore from 32 to 36 mm.—with the object of stepping up the power output without increase in piston speed; the stroke, of course, remains as before, namely, 32 mm. Except that the engine casing and cover plate are finished in polychromatic grey instead of black, there is no outward change in the appearance of the new unit as compared with the former 25 c.c. model. An appreciated feature, however, is that the new engine has a flywheel magneto equipped with coils to supply lighting current (a description of the new generator appears on a later page of this issue).

The unit tested was fitted to a Mercury bicycle, a machine which has been specially made for use in conjunction with the Cyclemaster. It is built on much sturdier lines than the average pedal cycle, and is marketed without a rear wheel, so that purchasers are not hampered with a surplus bicycle wheel.

Starting the Cyclemaster was simple and certain in all circumstances. During the test period the weather was, for the most part, hot, and it was necessary only to turn on the fuel, disengage the clutch, and pedal away. When the speed equalled that of a slow walking pace, the clutch was engaged and, provided the throttle was approximately half open, the engine started almost immediately. On one occasion—on a chilly evening—it was necessary to close the strangler control on the carburettor, but the strangler was opened after a hundred yards had been covered and was not needed again.

At speeds under 7 m.p.h. and, of course, on the overrun, there was a tendency for the engine to four-stroke. Above that speed, however, two-stroking was almost perfect provided the engine was pulling, albeit lightly. In spite of the four-stroking tendency, the low-speed pulling characteristics of the Cyclemaster are of a high order. It was possible to throttle down and reduce speed until the transmission was on the point of snatching. When the throttle was opened in such circumstances, the engine picked up with barely a trace of roughness. Speeds of less than a walking pace could be maintained with the clutch fully engaged.



The two-stroke engine is neatly enshrouded by the wheel hub. Finish is in polychromatic grey

In heavy traffic the clutch was found to be a tremendous advantage. It was possible to come to a halt and remain stationary with the engine ticking over quietly and reliably. On level surfaces it was not really necessary to use the pedals when moving off, although a few light twirls were sometimes called for on a slight gradient.

Maximum speeds are of academic interest only in the cyclemotor world, but the Cyclemaster several times exceeded 28-30 m.p.h. under favourable conditions. What is more to the point is that the machine could be cruised at 20-25 m.p.h. for miles on end without protest from the engine. In the higher limits of the speed range, the exhaust note was raucous—a fact which limited to some extent the speed used in towns and built-up areas.

INFORMATION PANEL

ENGINE: 32 c.c. (36 x 32 mm.) two-stroke, with cast-iron cylinder barrel and detachable, die-cast, light-alloy cylinder head.
CARBURETTOR: Amal. Handlebar lever control for throttle.
IGNITION AND LIGHTING: Wico-Pacy flywheel magneto with lighting coils.
TRANSMISSION: Chain drive through clutch running in oil.
FUEL CAPACITY: 2½ pints (petroil lubrication).
FUEL CONSUMPTION: Steady, country riding, 208 m.p.g.; town traffic conditions, 148 m.p.g.
WEIGHT: Cyclemaster power wheel, 34 lb; complete machine, 73 lb.
BRAKES: Eadie coaster-hub rear brake; stirrup-type front brake.
PRICE: Cyclemaster power wheel only, £27 10s.; Mercury bicycle £13 19s.

Hill-climbing capabilities of the unit are excellent for so small an engine. Provided a run at the hill could be made, a gradient of 1 in 25, more than a quarter of a mile long, could be climbed with only the lightest of pedal assistance. Steeper hills required slightly more energetic help, but at no time was there any need for really hard work. Unless head winds were above average in strength, the machine's performance was not affected to any great extent. When pedal assistance was needed against a wind, the effort required was small.

The coaster-hub rear brake, which is operated by rotating the pedal cranks in reverse, was disappointing. It was found to be difficult to operate the brake with any degree of finesse, and it was necessary to exert considerable effort to slow down the machine quickly. On the other hand, the front, stirrup-type brake was powerful and progressive; in most circumstances it provided commendable deceleration.

The built-in lighting set is exceptionally good. At half-throttle speeds the beam of light was strong enough to maintain daytime averages, and the rear light provided a good warning glow. No provision is made for a parking light.

Owing largely to the 2in tyres and robust frame, the Mercury bicycle is an unusually comfortable machine to ride. The rather large handlebar furnishes a natural wrist angle, and this, in conjunction with the low-mounted saddle, gives an excellent riding position. The model tested had an open-type frame, but a machine with a top rail crossbar is also available at no extra cost.

To sum up, the combination of Mercury cycle and Cyclemaster unit is a first-class example of the cyclemotor type of machine; the new 32 c.c. engine should win even greater favour than its popular predecessor.

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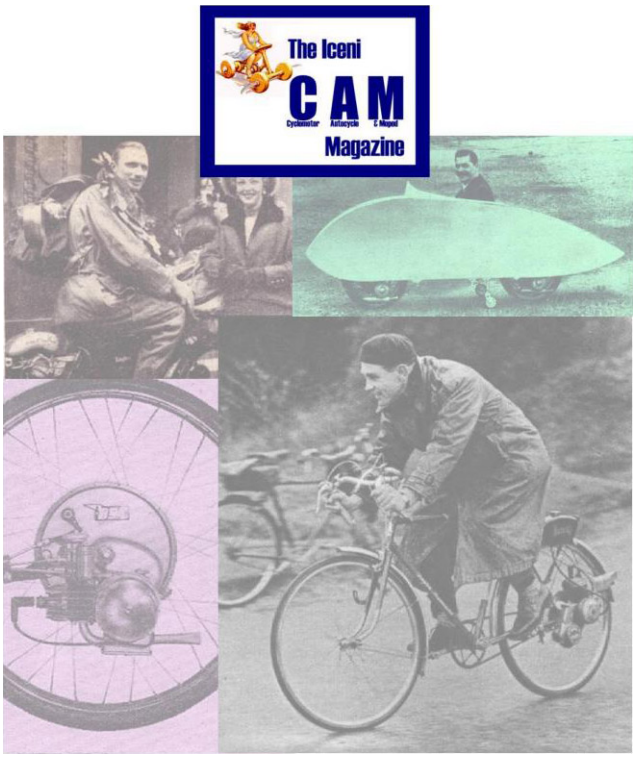

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