

Road Tests of New Models

48 c.c. Cucciolo
CyclemotorA Lively Overhead-valve Engine with Two-speed
Pre-selector Gear Box Built in Unit

ITALIAN designed and manufactured, the 48 c.c. overhead-valve Cucciolo is a cyclemotor with a difference. Translated, the name means "Little Pup," and certainly the engine is just as lively as any small canine could be. An interesting point was that the machine tested had covered 8,000 miles.

Clipped to the cycle frame bottom bracket and front down tube, the engine has a two-speed pre-selector gear box built in unit, and final drive is through the pedalling chain. Therefore with a free-wheel the cycle will coast if the throttle is closed, regardless of gear position. On the cycle tested, a fixed-wheel was fitted, and in this case advantage could be taken of the engine-braking effect when the twistgrip was closed.

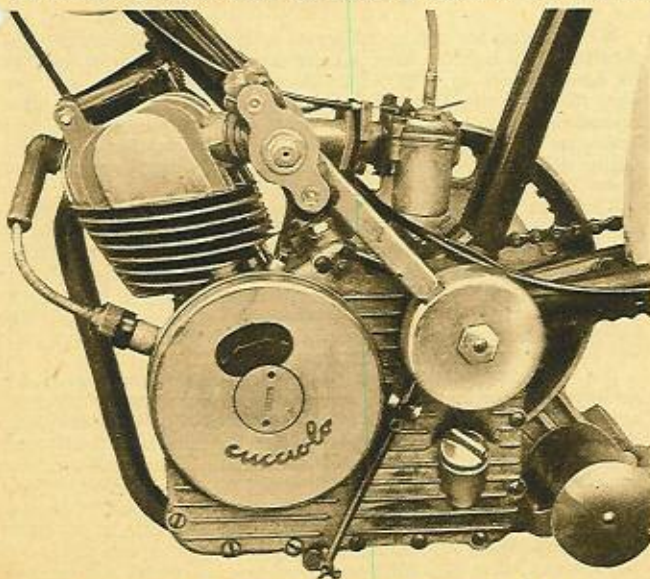
Gears are selected by positioning the bicycle pedals—left pedal forward and crank horizontal for bottom, right pedal forward for top, pedal cranks vertical for neutral.

The engine was readily started from cold by the following method. The carburettor was lightly flooded, and the gears put in neutral by positioning the pedals and then actuating the clutch. Then the machine was pedalled away, and at a speed of 4 to 5 m.p.h. the right pedal was held forward to select top gear and the bicycle allowed to coast. By actuating the clutch (one movement, out and in), and at the same time raising the exhaust valve lifter, the engine was made to revolve. When the valve lifter was released the engine would fire immediately and, with a little pedal assistance, pull away in top gear.

If one wanted to be "lazy" one could, as soon as the engine fired, select bottom gear, engage the gear by actuating the clutch, and pull away quickly in the low gear. Another method of starting was to engage top gear and pedal away with the valve lifter raised, then release it at 4 to 5 m.p.h.

The clutch, though slightly stiff in operation—it was necessary for it to be withdrawn to the full extent of its travel to engage the gears—was smooth and positive in its take-up of the drive.

There are two methods which may be adopted at a traffic halt. Neutral can be selected, the engine kept ticking over and the left pedal put forward for bottom gear preparatory to making a normal clutch start. Or, the engine can be kept ticking over in bottom gear with the clutch held out. The left pedal must, of course, be in the forward position when the clutch is engaged. Holding the



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clutch out for a few minutes is not detrimental, since it is a metal-to-metal clutch running in oil, though slight clutch-drag is usually experienced. Both methods proved to be entirely satisfactory.

It would hardly be accurate to describe the Cucciolo as a motor-assisted bicycle—rather it is a power bicycle. For at no time during the test was it necessary to use pedal assistance once the engine was running, except when starting by the first method described earlier.

At 5,200 r.p.m. the engine is said to produce 1.58 b.h.p., and this proved sufficient to propel the cycle along a level road at a speed in excess of 40 m.p.h. A cruising speed of 30-35 m.p.h. was maintained quite easily for mile after mile on mildly undulating roads. After running on full throttle for ten miles the engine showed no signs of overheating; indeed, it was possible casually to stroke the cylinder barrel fins without burning one's fingers.

INFORMATION PANEL

ENGINE: 48 c.c. (38 x 42 mm) four-stroke, with pullrod-operated overhead valves. One-piece light-alloy cylinder barrel and head; cast-iron liner. Wet-sump lubrication; oil sump capacity, approximately 1 pint.

CARBURETTOR: Weber, 2-jet, single lever.

TRANSMISSION: Two-speed pre-selector gear box. Gear ratios: Top, 7.5 to 1. Bottom, 13.5 to 1. Nine-plate all-metal clutch running in oil. Final drive through pedalling chain.

IGNITION AND LIGHTING: Flywheel magneto; lighting coils incorporated giving 6 v. 12 w. a.c. output for lights.

FUEL CAPACITY: Half a gallon.

WEIGHT OF UNIT: 17½ lb. (including petrol tank).

ROAD TAX: 17s. 6d. a year; 4s. 10d. a quarter.

PETROL CONSUMPTION: Approximately 140 m.p.g. under fairly hard riding conditions.

PRICE: £40.

CONCESSIONAIRES: Britax (London) Ltd., 115-129 Carlton Vale, London, N.W.6.

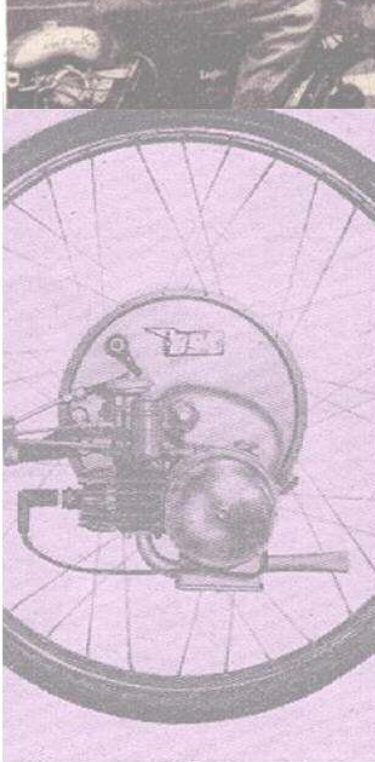
Hill-climbing abilities of the diminutive engine were exceptional. Shooter's Hill West, in the south-east London area, is over half a mile long, with an average gradient of 1 in 17 and a maximum gradient of 1 in 6. With a light following breeze and an approach speed of 30 m.p.h., the Cucciolo climbed the full length of the hill in top gear; the speed never dropping below 20 m.p.h. On another run, a stop and re-start was made on the steepest part of the hill. The machine pulled away in bottom gear without use of the pedals, and without the rider resorting to an abnormal amount of clutch-slipping.

On a run up the opposite, or east, side of the hill, bottom gear had to be engaged in the face of the wind, but the speed was maintained at 20 m.p.h.

Petrol consumption during average in-and-out-of-town running worked out at 140 m.p.g. The exhaust was fairly well silenced for normal running, and with the machine pottering along at 25 m.p.h. in top gear was quite unobtrusive. As might be expected with such a potent little engine, the exhaust sounded distinctly "healthy" when full power was used in bottom gear; the exhaust note was then rather like that of a distant lusty single at high revs. During normal acceleration there was a slightly obtrusive harsh-sounding whine from the gear primary drive.

The cycle to which the unit was attached was a Phillips' light-weight roadster, and the hub brakes on the machine were considered to be above average. Stopping distance from 30 m.p.h. was approximately 33 ft. Lighting is supplied direct from a generator incorporated in the flywheel magneto. A Britax sprung saddle which was fitted to the bicycle was much appreciated.

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