Road Tests of New Models

45 c.c. VeloSolex Motorized Cycle

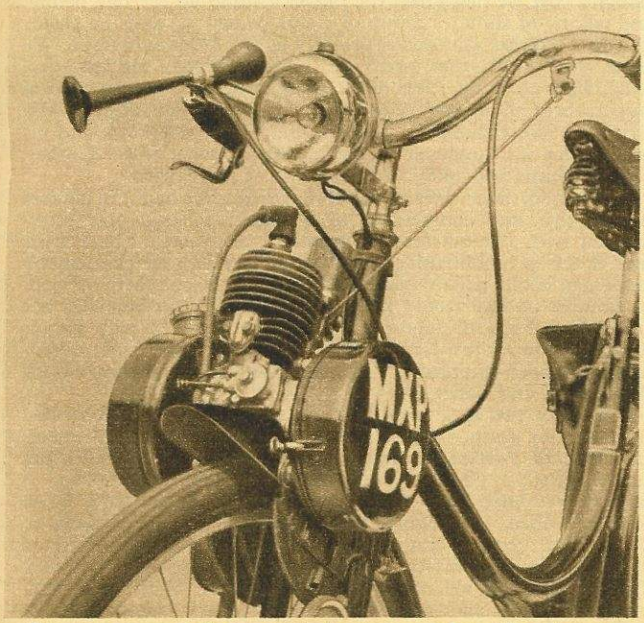
A Sturdy, Built-as-a-whole Runabout with Adequate Performance and Exceptional Ease of Control

THE VeloSolex motor-assisted cycle is probably the most popular machine of its type in the world, since tens of thousands are in use on the Continent, particularly in France and Holland. The machine is supplied as a complete unit, comprising a sturdy, open-frame bicycle propelled by a 45 c.c. two-stroke engine mounted over the front wheel. Transmission is by means of a composition friction roller bearing on the front tyre. Petroil is carried in a 1¾-pint tank on the right side of the engine. Since the tank is similar in shape and size to the flywheel housing on the other side, the engine has a symmetrical, well-balanced appearance.

The design is simple, for the engine unit does not employ gears, chains or pinions, and there is no petrol tap. The carburation, while novel, is also notable for its simplicity. Briefly, petrol is pumped from tank to carburettor by a membrane pump which is actuated by differences of pressure in the crankcase. In the carburettor, a constant level is secured by an overflow system which ensures that excess petrol is returned to the tank. Thus the normal float chamber, float and needle-valve are obviated.

Controls are few, and simple in operation. There are the normal cycle cable-operated caliper brakes front and rear. The engine control is in the form of a thumb-operated combined throttle and compression release lever on the left handlebar. The control is spring-loaded in the throttle fully-open position, and to slow the engine it is necessary to move the lever towards the handlebar grip with the thumb. As the lever is moved over, it first closes the throttle, and then, on the final part of its travel, operates a compression-release valve which stops the engine firing and causes it to act as a brake. A choke lever is fitted to the carburettor close by the rider's right hand, and it can be easily operated when the machine is under way.

Starting was at all times delightfully easy. As there was no petrol tap, the drill was simply to mount the machine and pedal off, with the engine control pulled right over in order to open the compression-release valve; once the machine was on the move, the control was released and the engine could be guaranteed to fire immediately. During the mild weather in which the machine was tested, it was usually unnecessary to make use of the choke when starting.



This picture reveals the symmetrical appearance of the 45 c.c. power unit, which is shown locked up in the disengaged position. The petrol pump mounted on the front of the crankcase will be noted

On a measured pint of petroil the machine covered 25 miles, giving a consumption figure of 200 miles per gallon.

At its normal maximum speed of about 16 m.p.h. on a level road, the engine ran smoothly and without fuss, and with the feeling that it would run indefinitely at that speed without strain or fatigue. Vibration was felt in the handlebar, but it was slight and mostly absorbed by the rubber grips.

Seat and handlebar heights are adjustable to provide a comfortable riding position, and the three large coil saddle springs insulate the rider from all but the worst road shocks. In fact, the machine, with its 1¾ in tyres, is far more comfortable than the normal clip-on employing ordinary cycle tyres.

The open frame is most convenient for either a man or woman owner. Unlike most open bicycle frames, however, its lateral rigidity is adequate. The bottom bracket is lower than normal, thus enabling the rider to employ a comfortable riding position and yet be able to plant a foot flat on the ground when the machine is stationary.

INFORMATION PANEL

ENGINE: 45 c.c. (38 x 40 mm) two-stroke, with cast-iron cylinder barrel and detachable, die-cast, light-alloy cylinder head.

CARBURETTOR: Solex injector, with no float chamber, float or needle; fed by diaphragm pump operated by crankcase-pressure.

IGNITION: Flywheel magneto.

LIGHTING: Lighting coils in flywheel magneto; dry battery for parking lights.

TRANSMISSION: Drive by composition friction roller bearing on the front tyre.

FUEL CAPACITY: 1¾ pints.

FUEL CONSUMPTION: 200 m.p.g.

WEIGHT: 60 lb (complete machine).

BRAKES: Rim-type caliper brakes front and rear.

PRICE: £37 10s.; with Purchase Tax (in Great Britain only), £47 18s 4d.

The frame is built in four sections, which facilitates repairs, and brake cables and wires are neatly concealed inside the frame. A sturdy carrier is a feature. Indeed, the whole machine shows abundant evidence of careful design; there is a pleasing "fitness for its purpose" about it.

The VeloSolex is as easy to ride as a bicycle; easier, in fact, since it does not have to be pedalled on the level. Gentle slopes were surmounted by a 13-stone rider without pedalling at about 10 m.p.h., and normal main-road hills called for only light pedal assistance. With the throttle almost closed the machine would run smoothly at little more than a walking pace. Steering was light, and there was no feeling of clumsiness due to the weight of the engine which is over the front wheel.

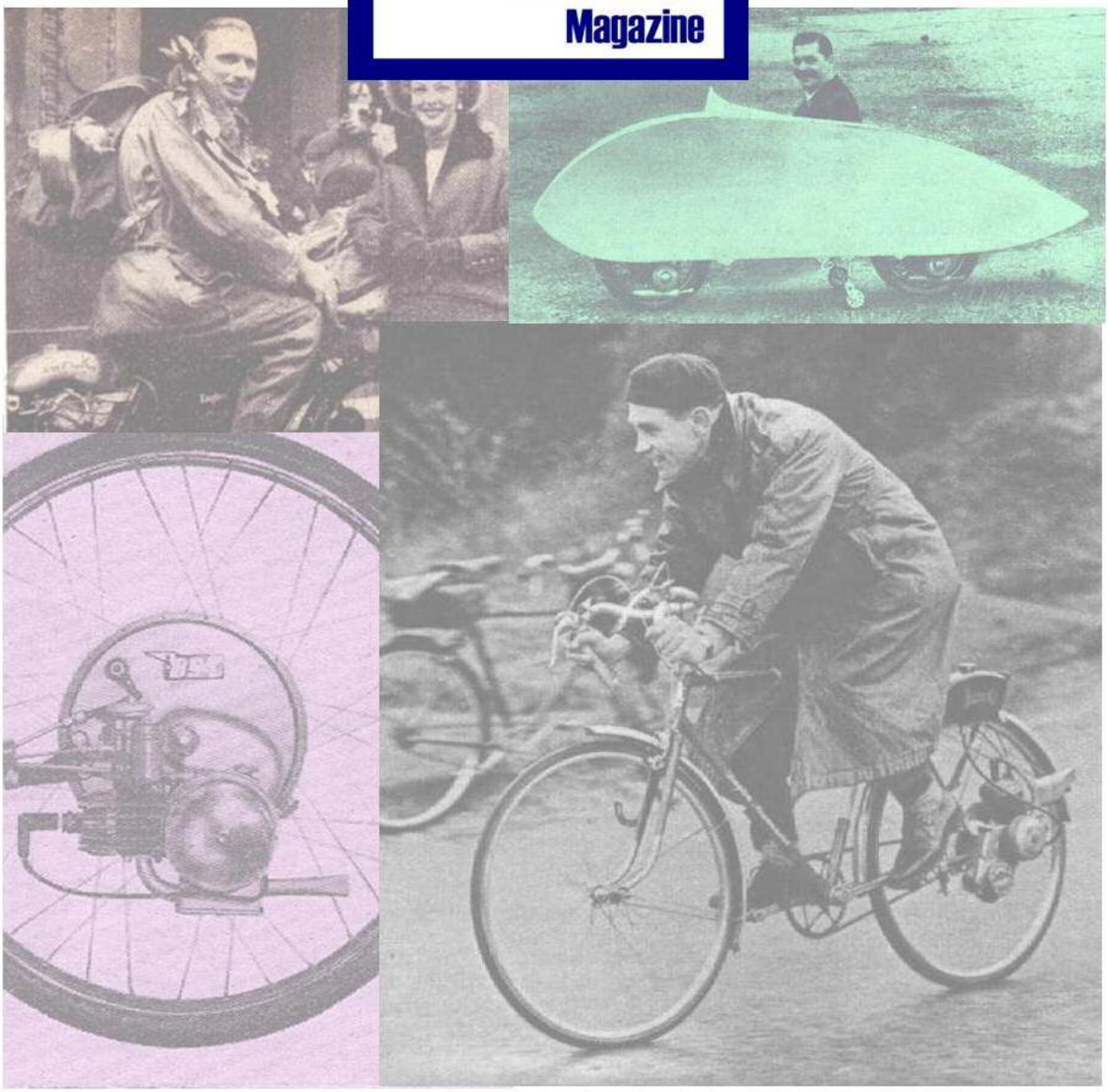
The brakes were adequate, though not fierce enough for emergency stops. In fairness, however, it may be stated that the brakes were capable of overriding the engine and would stop the machine even with the throttle wide open.

The engine control was open to criticism in that it was too far from the left handlebar grip for a rider with small hands effectively to operate the brake while holding the throttle in the closed position.

The engine is easily disengaged from the front wheel by pulling with one hand on the carburettor casing protruding above the level of the cylinder head. To re-engage the engine, a support beneath the flywheel casing is released and the unit pushed forward until the drive roller is in contact with the tyre. With the engine disengaged, the machine could be pedalled and steered with no more effort than that required for an ordinary bicycle.

IceniCAM
Information Service

The Iceni CAM
Cyclemotor Autocycle & Moped
Magazine



www.icenicam.org.uk