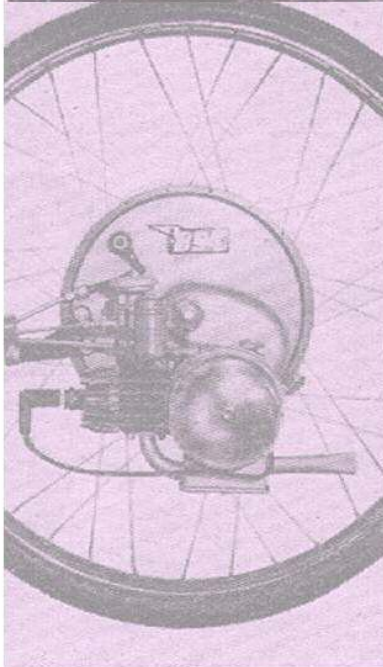


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Road Tests of New Models

49 c.c. Mosquito-Centrimatic

Easy-to-Control Italian Cyclemotor Incorporating a Centrifugally-operated Automatic Clutch

WHEN first imported into this country several years ago, the Italian Mosquito cyclemotor was a 38 c.c. unit employing helical-gear transmission to the tyre-driving roller and a rotating-magnet magneto incorporated within that roller. The latest Mosquito unit has a capacity of 49 c.c. and incorporates a crankshaft-mounted driving roller and a flywheel magneto. Further, the de-luxe version is equipped with a simple centrifugal clutch which is entirely automatic in operation. Fully described in *The Motor Cycle* for September 15, the clutch operates in such a way that the drive is taken up when engine speed reaches a given level. Disengagement of the drive is likewise automatic when engine speed drops below that level. Hence there is no manual clutch control and, when running under

By means of a lever which is locked in the off position by a cam device the entire unit can be moved forward relative to the bicycle frame to the extent that the friction roller is drawn clear of the rear tyre.

The unit tested was fitted to a Mosquito bicycle specially built for use with the Mosquito engine (though the power unit can be fitted to any suitable pedal cycle). The machine is of robust build and incorporates 3½-in-diameter internal-expanding brakes which are operated by handlebar levers. Under both wet and dry conditions the brakes provided adequate stopping power.

Not once did the Mosquito fail to start promptly and easily. When starting from cold it was necessary to depress three or four times the pump plunger accessibly provided on the Dellorto carburettor. Then, with the throttle approximately half open, the machine was pedalled to a speed of about 4 m.p.h. when closure of the compression-release valve brought an immediate response from the engine. The compression-release lever is mounted close to the right-hand grip. When starting with the power unit warm, only a single depression of the carburettor plunger was required.

Riding the machine was extremely simple. When the throttle was opened, the clutch took up the drive smoothly from a standing start without pedal assistance, and acceleration was equal to that of a cycle pedalled normally up to a speed of about 8 m.p.h. Above that speed the machine could hold its own in city traffic.

Possessed of excellent city manners, the Mosquito could be throttled down to walking speed without evidence of four-stroking. Indeed, four-stroking occurred only when the engine was idling or on the overrun. At a cruising speed of 18 m.p.h. the exhaust produced no more than a subdued purr; and although it rose to a high-pitched buzz when the machine was travelling downhill on a wide throttle opening, the noise never became obtrusive.

Maximum speed was in the region of 24 m.p.h. on a level road with a 12½-stone rider in the saddle. The happiest cruising speed lay between 18 and 20 m.p.h. On good road surfaces the machine was comfortable to ride but was distinctly lively on cobbles and other uneven surfaces.

Normal main-road hills were no obstacle to the Mosquito. Indeed, the machine climbed a 1 in 13 hill about 350 yards long without pedal assistance and without the speed dropping below 9 m.p.h. Steeper climbs demanded light pedalling but only gradients steeper than 1 in 9 called for real physical effort.

Finish of the Mosquito bicycle is in smart dark-green enamel. The usual bright parts are chromium plated.

INFORMATION PANEL

ENGINE: 49 c.c. (40 x 39mm) two-stroke with light-alloy cylinder head. Petroil lubrication.

FRAME: Brazed-up tubular construction.

CARBURETTOR: Dellorto with built-in air filter. Throttle controlled by handlebar lever.

TRANSMISSION: To rear tyre through automatic centrifugal clutch and friction roller.

IGNITION and LIGHTING: Flywheel magneto incorporating lighting coil. Dry battery for parking lights. 3in-diameter Lucas headlamp.

FUEL CAPACITY: Approximately four pints.

WEIGHT: 76 lb.

PETROIL CONSUMPTION: 174 m.p.g.

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

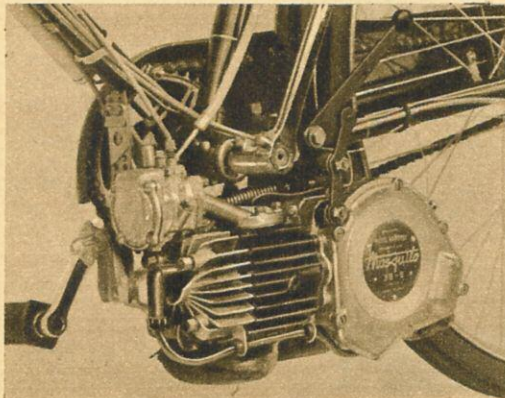
PRICE: Mosquito-Centrimatic engine only, £32 10s; with British purchase tax, £39; Mosquito bicycle, £13; with British purchase tax, £18.

IMPORTERS: Mosquito Motors, Ltd., Moorfields, Liverpool 2.

power, the machine's speed from and to a standstill is controlled entirely by the brakes and a handlebar-mounted throttle lever.

Although the engine can drive the friction roller only through the clutch, a reverse freewheel device incorporated in the clutch unit ensures that the roller can turn the engine irrespective of the clutch. Thus for starting the engine the machine is pedalled off with the compression-release valve open; further, when the throttle is closed, normal engine braking effect is available on the overrun until the machine's road speed drops below that represented by the engine's tickover speed, when the clutch frees. If desired, the machine can be pedalled as a normal bicycle.

The Mosquito power unit is mounted below the bottom bracket. The carburettor is a Dellorto with air filter



On the cyclemotor, the fuel tank is carried neatly in a bracket mounted on the seat stays

