## Road Tests of New Models

## 47 c.c. Binetta

German Two-speed Moped Notable for Comfort, Easy Starting, Good Handling and Hill-climbing

RIGINALLY mopeds bore a distinct resemblance to pedal cycles. Frames and brakes were generally of bicycle pattern and the engines frequently required pedal assist-The new type of transport achieved instant popularity. As a result, mopeds have developed into highly specialized, designedas-a-whole machines equipped in many instances with a two-speed gear box, sprung front fork and a power unit capable of climbing all but the steepest hills without recourse to the pedals. The German-made Binetta de Luxe is an excellent example of the modern trend in moped design.

Power unit of the Binetta is a 47 c.c. Sachs two-stroke engine in

unit with a twistgrip-controlled, two-speed gear box. The spinetype frame is of welded, tubular construction. A leading-link front fork is specified; the suspension medium is rubber bands in tension. Also of Sachs manufacture are the 3½ in-diameter, internal-expanding brakes. The front brake is actuated by handlebar lever and brake torque is transmitted direct to the fork left stanchion by parallelogram linkage. Thus fork action remains unaffected during braking. Operation of the rear brake is by backward pressure on

the pedals.

Irrespective of weather conditions, starting was at all times simple and positive. The method adopted was to select neutralthereby disconnecting the pedals from the rear drive but not from the engine-and push forward smartly on one of the pedals. The carburettor has a built-in automatic starting device. When starting from cold, light flooding of the carburettor was all that was required to ensure first-time response from the engine. With the engine warm, no special starting precautions were necessary. Idling was slow and reliable.

From a clutch start, acceleration was sprightly and the Binetta would keep pace in city traffic without difficulty. Under normal conditions both upward and downward gear changes were made at 10 m.p.h. although, if desired, high gear (17.06 to 1) could be held down to 7 m.p.h. With the clutch fully engaged it was possible to trickle along in low gear (27.85 to 1) at no more than brisk walking speed. The twistgrip gear-change mechanism was both light and positive in operation. The clutch took up the drive smoothly and progressively.

Maximum speed in low gear was 20 m.p.h. and in high gear approximately 31 m.p.h. At those speeds severe high-frequency vibration was felt through the saddle. Best cruising speed was between 25 and 27 m.p.h., at which vibration was negligible.

Hill-climbing capabilities of the Binetta were good. A hill of about 1 in 10 would bring the speed in high gear down to 12 m.p.h., whereupon a change into low gear would result in that speed being held without effort. In low gear a gradient of 1 in 7 was surmounted without difficulty at a speed of 7 m.p.h. On no occasion was it necessary to assist the engine by pedalling. When riding in heavy London traffic and maintaining, where possible, a cruising speed of 25 m.p.h., petroil consumption worked out at 160 m.p.g. When the machine was ridden continuously on full throttle the

Onsumption dropped to 150 m.p.g.

Braking power was adequate. Used alone, the front brake provided sufficient stopping power for normal purposes. The rear wheel could be locked easily. From a speed of 25 m.p.h., the

Binetta could be brought to rest in 34 feet.

The 2in-section tyres, well-sprung saddle and leading-link front fork combined to produce a high degree of comfort. Even on bumpy surfaces the rider was well insulated from road shocks. The riding position could be set to provide a comfortable posture for riders of greatly different stature. Both the saddle and the handlebar are adjustable for height. The handlebar is also adjustable for grip angle.

Handling of the Binetta was beyond reproach and the machine's stability was really first class under wet and greasy conditions. In wet weather the deeply-valanced mudguards afforded above-average protection from road filth. The pressed-steel shields on either side of the machine shrouding the rear chain and carburettor were equally efficient. The machine submitted for test was equipped with smart, grey canvas panniers (an extra) which were of usefully large capacity and proved completely waterproof.

Exhaust silencing was average for the class of machine although at maximum speed the note tended to become raucous. An appreciated feature was the large capacity (1\frac{1}{2} gallons) of the fuel tank. The three-position tap fitted to the tank provided a reserve

## INFORMATION PANEL

ENGINE: 47 c.c. (38 x 42mm) Sachs two-stroke with cast-iron cylinder barrel and detachable, light-alloy cylinder head. Compression ratio 6 to 1. Petroil lubrication.

FRAME: Open spine type of welded, tubular construction.

CARBURETTOR: Bing, with twistgrip throttle control; automatic starting device incorporated; built-in air cleaner.

IGNITION and LIGHTING: Bosch flywheel magneto incorporating lighting coils.

TRANSMISSION: Two-speed gear box in unit with engine and operated by handlebar twistgrip. Gear ratios: low 27.85 to 1; high 17.06 to 1. Chain primary drive; final drive by  $\frac{1}{2} \times \frac{3}{16}$  in chain.

FUEL CAPACITY: 1 gallons.

PETROIL CONSUMPTION: 160 m p.g.

TYRES: Veith, 2.00 x 23in front and rear

WEIGHT: 87 lb fully equipped but excluding panniers.

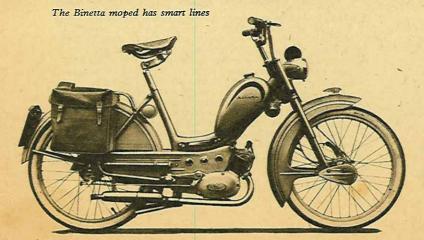
ROAD TAX: 17s 6d a year; 4s 10d a quarter.

PRICE: £57 4s 9d. With purchase tax (in Great Britain only), £70 19s 6d. Extra: Pannier equipment, £2 15s (p.t. included).

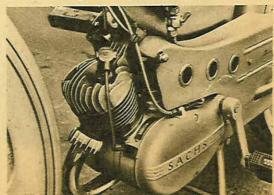
MAKERS: August Rabeneick G.M.B.H., Brackwede, Westphalia, Germany DISTRIBUTORS: Stuart and Payne, Ltd., 4, Broad Street Place, London, E.C.2.

supply of fuel sufficient for about five miles. Of approximately  $3\frac{1}{2}$  in diameter, the headlamp furnished ample illumination and the dipped beam proved inoffensive to oncoming traffic. The electric horn emitted a rather feeble noise which was considered to give inadequate warning of approach.

Standard equipment includes a magnetic speedometer cali-brated to 45 m.p.h., a luggage carrier, a robust centre stand and a cylindrical tool box attached to the rear mudguard beneath the seat stays. A steering-head lock is fitted and the wheel rims are of light alloy. Finish is sand-grey enamel and chromium.



The Sachs two-speed engine-gear unit remained perfectly oil-tight. Low-speed pulling was good



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