

## The 49 c.c. Two-stroke BB Centri

## PEUGEOT MO-PED

with Novel Form of Automatic Clutch



*The little Peugeot provided plenty of room for a tall rider. The saddle can be moved some 6 inches vertically, giving a greater range of adjustment than is usual on a machine in this class.*

**B**UILT in France by Cycles Peugeot S.A. of Paris and handled in this country by Scooter Concessionaires (Sales and Service), Ltd., of London, W.1, the 49 c.c. two-stroke BB Centri Peugeot moped was on view to the public for the first time at the Geneva Show in March this year. Its major feature is an automatic, centrifugal, metallic powder clutch.

The crankshaft of the very robust Peugeot two-stroke engine drives a circular casing surrounding a disc which is coupled to the pulley of the primary drive. In this disc are pressed a number of radial "ridges" and between disc and casing is packed metallic powder. At low engine speeds this powder

remains "loose" and there is no drive. When the engine is speeded up, centrifugal force compels the powder to pack itself progressively tighter towards the periphery of the casing, so dragging round the disc. The disc in turn drives the belt and final chain. Above a road speed of about 4 k.p.h. (2½ m.p.h.), centrifugally operated shoes, mounted on the back of the belt pulley in the clutch, "bite" the drum (coupled to the crankshaft) in which they run. Direct drive results, the shoes disengaging when the speed falls and allowing the automatic "powder" drive to take charge.

No driving technique is called for on the Peugeot; it is rather like riding a tandem bicycle with someone else doing the pedalling! To start the engine, the petrol tap, reached easily from the saddle, was turned on, the handlebar-operated choke

pressed and a few turns given to the pedals. With the motor spinning merrily, accompanied by a perceptible hum from the powder clutch, a turn of the throttle either way was all that was required to go faster or slower.

The getaway from a standstill was not outstanding for the powder drive had much the same effect as a slipping clutch, but once the centrifugally operated shoes "bit" acceleration was clean and swift, although noisy, up to the Peugeot's maximum speed of 31 m.p.h.

Cruising speed of the Peugeot was within two or three m.p.h. of its maximum, but at this speed the "clutch" housing became extremely hot, due to the friction of the metallic powder—even hotter than the crankcase. On braking to a standstill, the centrifugally-operated shoes showed a marked reluctance to disengage, resulting in slight and very brief snatch. Under all conditions the powder clutch was perfect in operation and despite many town miles under stop-and-start conditions never gave occasion for a moment's concern. It brings the Peugeot very close indeed to the ideal of the moped which demands no more riding skill than a bicycle.

It is interesting to note the machine's other affinity to a cycle—the twin handlebar-operated brakes. The arrangement of the brake levers reverses customary cycle practice—that is, the front brake is mounted on the left-hand side of the handlebars. Before one had become familiar with this reversal, application of the front brake in mistake for the rear one in an emergency stop could be disconcerting, especially as both full-width brakes produce a very rapid retardation. The telescopic front forks worked well in all circumstances to produce excellent steering and roadholding.

Mixed town and country running bore out the manufacturer's claim of a petrol consumption of 140 m.p.g.

## BRIEF SPECIFICATION

Engine: 49 c.c. single-cylinder two-stroke; bore 40 mm. by stroke 39 mm.; light-alloy cylinder and cylinder head; compression ratio, 7.2:1; Peugeot carburettor; claimed b.h.p., 1.77 at 5,500 r.p.m.

Transmission: Automatic centrifugal metallic powder clutch; primary trapezoidal belt; relay on crank axle; secondary drive by chain; overall ratio, 13.55:1.

Frame: Open welded steel-tube design.

Wheels: Steel rims, carrying Michelin tyres; 23 in. by 2 in front and rear; hubs incorporate 4-in. brakes front and rear.

Lubrication: Petrol; test carried out with 1:20 proportion.

Electrical Equipment: Flywheel magneto, incorporating direct lighting; headlamp, tail lamp.

Suspension: Telescopic front forks.

Tank: Welded steel of 1-gallon capacity.

Dimensions: Wheelbase, 44½ in.; unladen seat height, 33 in.; weight 77 lb.; overall length, 69 in.; width 30 in.

Finish: Polychromatic red with headlamp and tank panels in grey.

General Equipment: Saddle bag containing plug spanner; tyre pump; rear carrier.

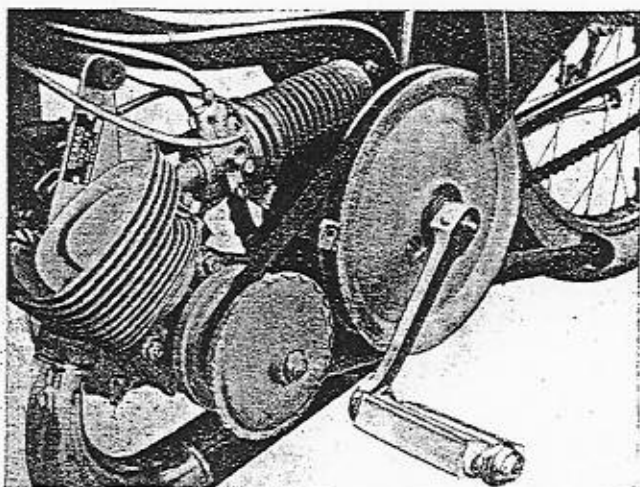
Price: £67 (inc. P.T.).

Annual Tax: 17s. 6d.

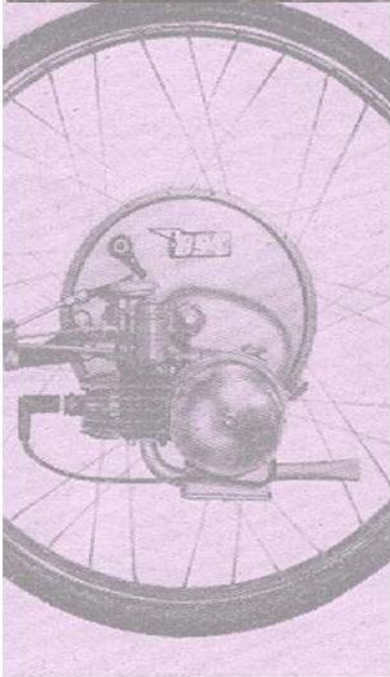
Makers: Cycles Peugeot S.A., 42 Avenue de la Grand Armée, Paris, 17.

Concessionaires: Scooter Concessionaires (Sales and Service), Ltd., 7 Hanover Court Yard, Hanover Street, London, W.1.

*Simplicity as typified by the automatic clutch mechanism which is all enclosed in the engine shaft "disc." Very smooth transmission is accomplished by the endless primary belt drive.*



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