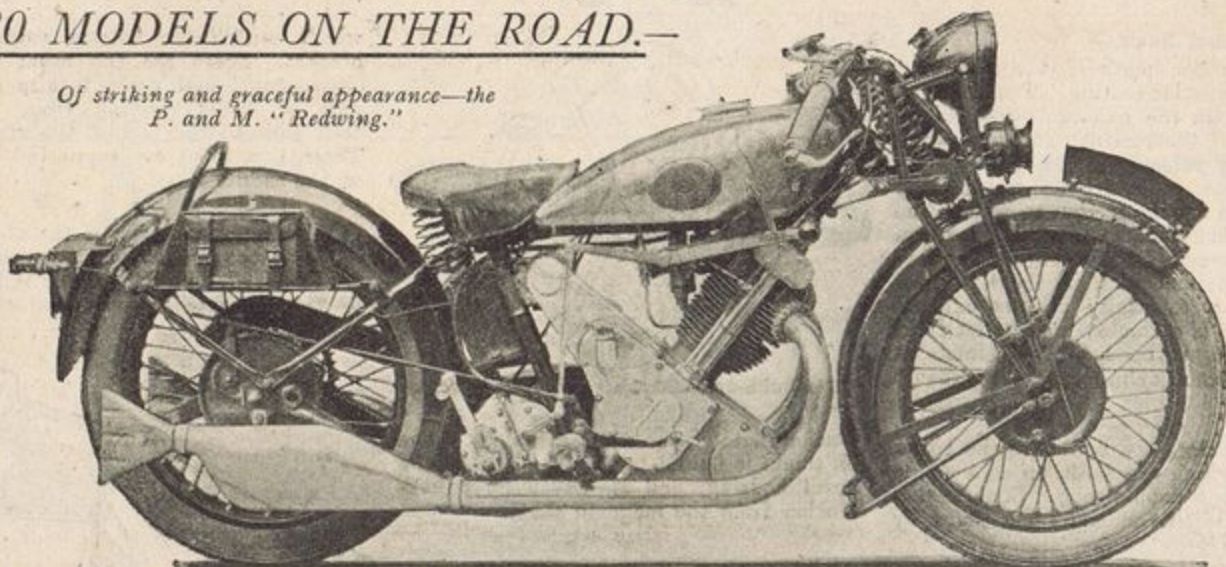


1930 MODELS ON THE ROAD.—

Of striking and graceful appearance—the P. and M. "Redwing."



*The 598 c.c.
P. and M.
"Redwing"
Panther.*

HOW does the average rider interpret the phrase "sports model" or "sports engine"? And what does he expect from such a machine? Surely the answer is: a high maximum speed coupled with rapid acceleration. In other words, if a rider purchases a sports machine, as distinct from a touring model, he expects to be able to leave the tourist behind just when and where he likes, to have power still in hand, and to have an engine which will withstand the sustained use of large throttle openings.

In many cases, however, the touring machine has a number of advantages over the contrasting type, and the rider of a sports mount, though he may attain his primary object of speed and acceleration, often thereby sacrifices many desirable qualities which are to be found on most touring machines.

Sports Shortcomings.

For example, the sports mount may be lacking in silence when the throttle is opened to any extent. Again, high efficiency is often obtained at the expense of flexibility. Thus it sometimes happens that the sports rider can only comfortably make full use of his machine's qualities on very open roads; his high-efficiency engine is a source of uneasiness of mind when he is

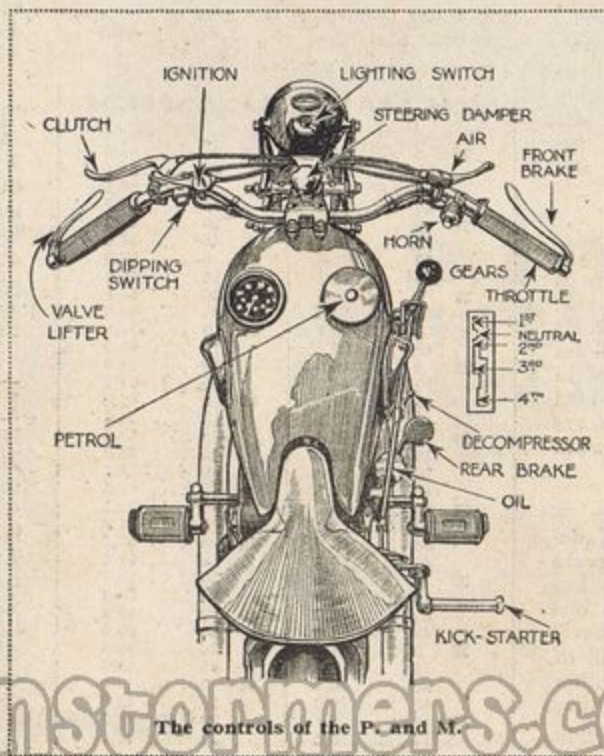
traversing towns and villages.

The 598 c.c. four-speed P. and M. Redwing is a sports machine. In the same breath it may be said that it is also a touring machine. No ordinary touring model, whether side-valve or o.h.v., could be quieter or more genuinely flexible. On the other hand, very, very few standard sports mounts could have better acceleration or a higher maximum speed.

Fine Flexibility.

The Redwing will do a smooth and easy twenty in top gear. Its acceleration from 30 to 40 m.p.h. (still in top gear) is as good as from 40 to 60; it is equally good from 60 to 75. In other words, the throttle can be opened steadily from 25-30 m.p.h. in top gear, and the engine will go right through its speed range in an almost incredibly short space of time. There is no thump or snatch about it, and no vibration; simply sheer, smooth pulling (very reminiscent of a 1,000 c.c. twin), which has to be experienced to be believed.

Maximum speed on the Redwing tested was found to be approximately 75 m.p.h. With favourable road and wind conditions, a little more speed was obtainable, but 75 constituted the useful, all-round maximum which could be attained without fuss under almost any conditions.



The controls of the P. and M.

1930 Models on the Road.—

One of the amazing things about the engine was that hills—quite steep hills—made very little difference to its maximum. During part of the test the rider tried the machine on a long main-road hill with a gradient varying from 1 in 10 to 1 in 13, and on this ascent it was found that the engine had a definite peaking point in third gear at exactly 60 m.p.h. This fact was duly registered about half-way up the climb. Then, as an experiment, a change was made into top gear; the rider's amazement can well be imagined when the machine accelerated to very nearly 70.

Truly, the latest Redwing engine delivers power in abundance; power, too, which is both smooth and quiet.

For an overhead-valve engine with moderately high compression, the exhaust was abnormally quiet. During another part of the test the speedometer needle passed the 70 mark more than once, and yet a colleague who was riding behind for much of the time said he could not hear the Redwing's exhaust at any speed.

Mechanically, the Redwing was silent except for a "tap-tap" from the timing chest; there were no whirrs, clatter, or other mechanical noises whatever.

Fuel and Oil.

Throughout the test the fuel used was a fifty-fifty mixture of Racing Shell and ordinary Shell petrol. The engine had a plate beneath the cylinder barrel, giving a compression ratio of 6.5 to 1. The oiling system functioned perfectly, and an inspection at the end of the test of over 800 miles showed that the rocker- and valve-gear had been receiving ample lubricant, and also that no tappet or other adjustments were necessary. Fuel consumption for the whole test—made mainly at fairly high speed—averaged approximately 77 m.p.g.

With so fine a top-gear performance available, the four-speed gear box was in the nature of a luxury, but it was a fine example of how excellent a motor cycle gear box can be. First, the box was absolutely silent on all its ratios. Some people look upon gear changing as a necessity; others regard it as a pleasure; in any case, it all depends upon the box. In this instance, in traffic at all events, the rider changed more often than was strictly necessary, just for the pleasure of meshing pinions without a sound. This could be done every time by double-declutching when changing up. When

changing down with the machine decelerating and the engine ticking over at a given speed, it was possible literally to glide through the ratios provided the right moment was chosen for each as speed decreased. It is a box which immediately earns the full appreciation of an enthusiast.

It has already been shown that the Redwing could attain high speeds in a very short space of time; its deceleration was equally good. There was not a trace of harshness anywhere in the braking system. Maximum braking efficiency on the rear wheel required just pleasantly firm pressure on the pedal. On the front wheel very fine degrees of retardation could be obtained; the lightest touch would bring the brake into action, and its efficiency would increase steadily as more pressure was exerted; yet maximum efficiency could be obtained with the use of only two fingers on the lever. Both brakes were absolutely silent in operation.

Generally speaking, the Redwing's steering was faultless, but, owing to the amount of weight on the front wheel, the machine was apt to become tail-light when

encountering bumps at speed. Thus, although the front wheel, if left to its own devices, would continue in a straight line, it was not always allowed to do so if some of the rider's weight was suddenly thrown on to one handlebar by a bump when, say, a change was being made from third to top gear. Accordingly, the steering damper was called into action, and after a few miles with this in use its existence was forgotten, for it was found that the machine did not have a tendency to wander at low speeds with the damper in action; indeed, it could be steered quite straight with one hand at 3 m.p.h., while at the other end of the speed range the Redwing could now be ridden with confidence and put right over on corners.

Ease of Cleaning.

A word may be said in conclusion about the ease with which the Redwing can be cleaned. The chromium plating on the tank and other bright parts speak for themselves, of course; the frame, chain guards, and wheels are easy to get at (incidentally, the front wheel stand can be brought into action in about three seconds without any weight-lifting feats), and for the rest—a little petrol and a brush. The engine does not sling oil. In less than half an hour the Redwing Panther can be converted from a travel-mud-stained motor cycle into a show model.

SPECIFICATION.

ENGINE: 87 × 100 mm. (598 c.c.) P. and M. four-stroke with overhead valves.

TRANSMISSION: By chain, $\frac{1}{2} \times 305$ in. and $\frac{3}{8} \times \frac{3}{8}$ in.

LUBRICATION: Sump.

GEAR BOX: P. and M. four-speed. Ratios: 4.3, 5.4, 7.8, and 11.5 to 1.

CARBURETTOR: Amal two-lever, with twist-grip control.

BRAKES: Internal expanding. 7 in. front, 8 in. rear.

TYRES: 26 × 3.25 in.

WEIGHT (in touring trim): 385 lb.

PRICE (with Miller dynamo lighting and Bosch electric horn): £77 7s.

MAKERS: Phelon and Moore Ltd., 77, Mortimer Street, London, W.1.

