IMPRESSIONS OF CURRENT MODELS

The 50 c.c. Two-stroke HERCULES "GREY WOLF"

A New, All-British Mo-ped with an Interesting Specification and a Capable Performance

CRYING "Wolf," in the proverbial sense, is no part of the policy of the Hercules concern. Their tactics are very different. They make sure first that the "Wolf" is, in fact, in existence; they satisfy themselves that the species is a good one and then boldly produce the creature for all to see—a "Grey Wolf"—which, as is now known to the majority who visited Earls Court or who read *Motor Cycling's* Show numbers, takes the form of a 50 c.c. J.A.P.-powered mo-ped with many new and likeable specification features.

Giving substance to the venture, the manufacturers point out that, although their pedal bicycles have become known simply by the company's first name, the full title of Hercules, spread out in big letters on the red brick façade in Rocky Lane, Aston, is the Hercules Cycle and Motor Co., Ltd. Perhaps some long-in-tooth vintagent will be able to recall when Hercules previously made a motorcycle. But it doesn't really matter.

What is important is that they have made one for 1956: it is not a fly-by-night effort, but represents the long, consistent work of a motorcycle designer, Mr. G. H. Jones. After a long period of experiment, Hercules, in conjunction with Mr. Jones and the J.A.P. people, decided on an over-square 42-mm. by 35.5-mm. two-stroke power unit for the "Grey Wolf," the engine being suspended at the bottom bracket of a built-up stressed frame, with the crankshaft in line with the frame, transmitting torque by means of a short drive-shaft and two-speed-gear mechanism to a spiral-bevel final-drive assembly and sprocket and chain.

Engine Details

The artist's cut-away sketch illustrates in general detail this excellent layout. A four-port induction and exhaust system is employed and the port areas are disposed to give good pulling power at low and medium speeds, as well as at the useful maximum cruising speed of some 30-35 m.p.h. The catalogue claims this advantage and, certainly, it was justified by experience gained during runs on the "Grey Wolf" last week.

Cast-iron is used for the cylinder barrel: the detachable head with a semi-spherical combustion chamber is of light-alloy material and the "Lo-ex" alloy piston drives a high-tensile connecting rod, a stamping hardened and ground to accept 2.5-mm. rollers forming the big-end bearing. Supported at the front and rear by caged ball journal bearings, with oil seals, the crankshaft has a forward extension carrying the rotor unit of a Miller generator. It is dogged at the rear to key with the drive shaft.

Seen in assembled form as a complete unit, the engine, drive-shaft and gearbox assemblies are separate; the engine can, in fact, be taken away by the removal of three bolts, leaving the transmission parts in situ—an obvious advantage from the point of view of maintenance and serviceability.

The gearbox is conventional with main-shaft pinions meshed with layshaft wheels, selection being controlled by a dogged member sliding on the mainshaft splines and operated by a cable control from the handlebars. The two available ratios are 13.8 and 22.7 : 1, and engagement of these gears is by means of a left-hand twist grip in conjunction with the clutch, the lever of which is built into the handlebar twist-grip assembly in Continental fashion. Because it operates at engine speed, the clutch component is of comparatively small diameter, incorporating two friction plates held in contact by a single three-coil spring. The general arrangement of this and the gear-unit assembly is shown in the sketch.

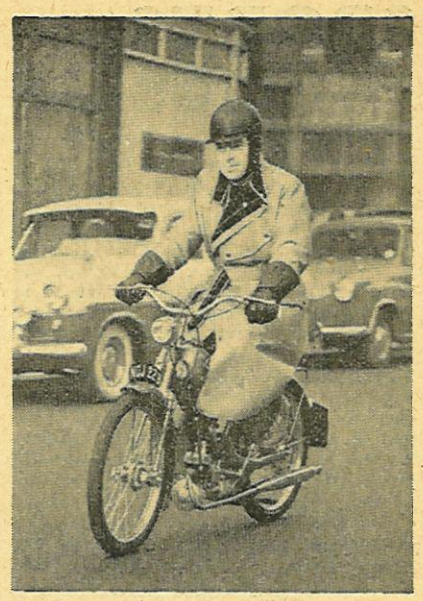
Carburation

Carburation is by one of the new Amal 360/4 instruments with rich-mixture starting chamber described in *Motor Cycling* on October 27, and a throttle-control cable is led up to a separate twist grip on the right handlebar.

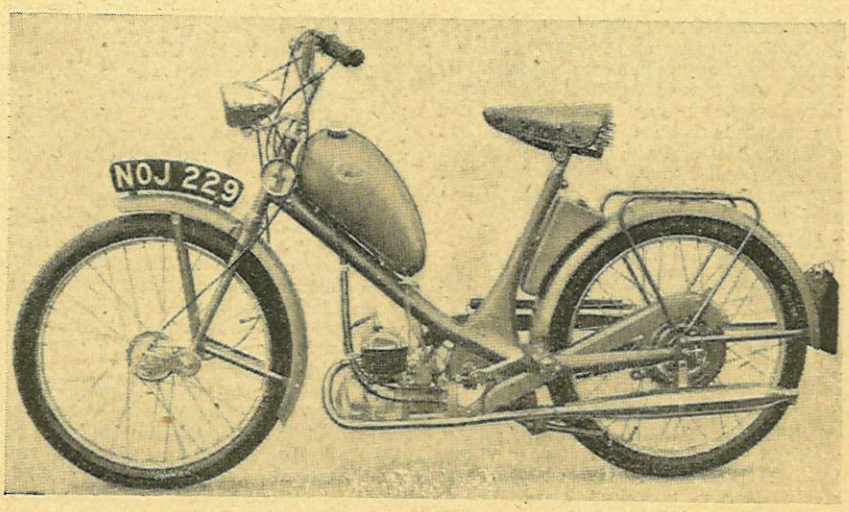
The complete unit is bolted into engine plates, which are slotted to permit draw-bolt adjustment of the final-drive chain in relation to the pedal transmission on the opposite side.

Started by gentle pedalling with the lower gear engaged, the "Grey Wolf" fired in the first few yards of travel, and it was found that this ratio was adequate for speeds up to about 15 m.p.h. Graduated at 5 m.p.h. stages, the VDO speedometer, recessed in the Miller lamp and illuminated at night, did not record precise speeds; the needle, moreover, had a wide arc of swing, like that of a car, at each variation of speed. The speedometer, however, is an extra and, certainly, appears to be well worth the additional cost to riders interested in mileage covered and their rate of progress.

Normally, the higher ratio was selected at 15 m.p.h. and retained up to maximum. The output of power was smooth and only with the little engine running in neutral at tick-over speeds could there be felt a slight transverse vibration caused by the torque reaction of the in-line power unit. The balance of the conventional two-stroke bob-weights, therefore, appeared to be well apportioned.



Braking and suspension of the "Grey Wolf" make for comfortable in-town handling.



Generous dimensions of the very efficient silencer are seen in this nearside view.