

## ROAD TEST REPORT

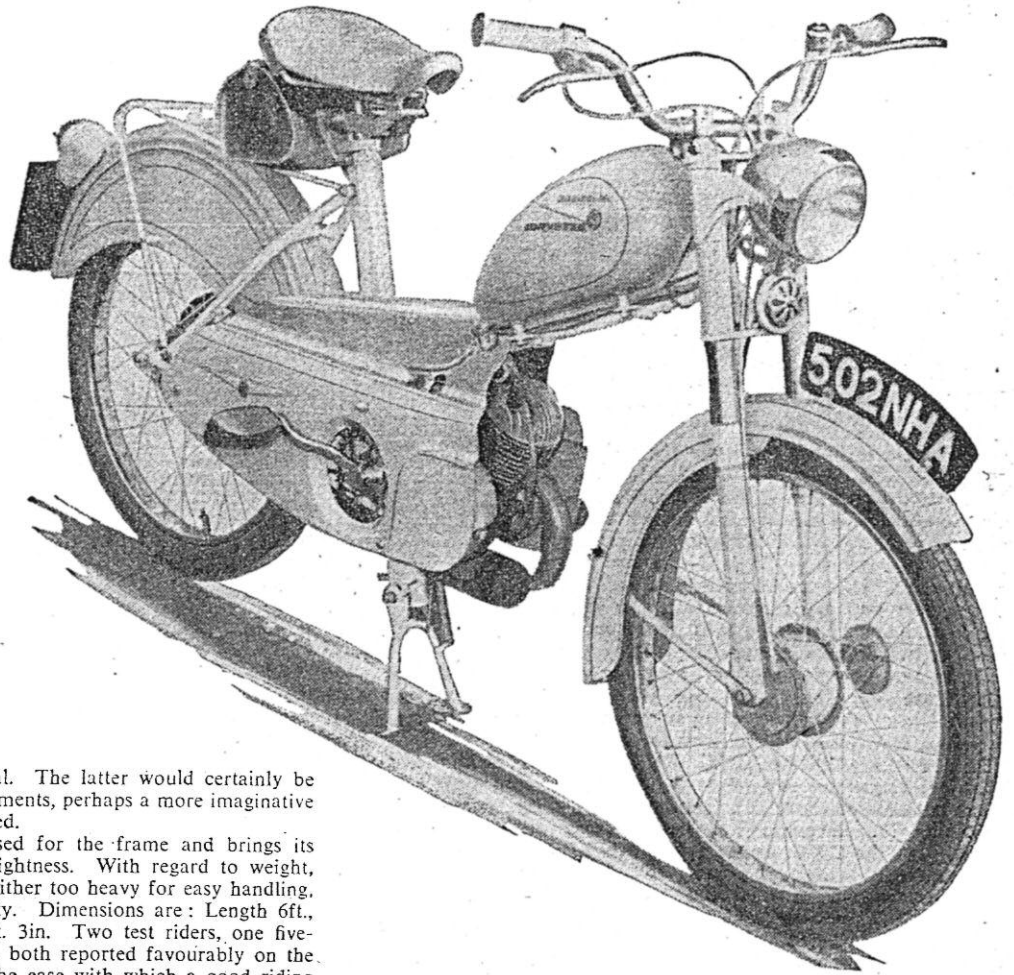
# Hercules Corvette

**W**ILLIAM the Conqueror in his most ambitious moment could hardly have imagined a more successful Anglo-French get-together than that which has resulted in the Hercules Corvette. For this automatic moped, introduced in March, 1960, combines to the utmost advantage solid British workmanship with the technical experience of a French engineering concern which has been foremost in pioneering the automatic clutch for mopeds. The particular unit chosen, the Lavalette, has been well proved. Fast, reliable and simple to service, it has never failed to impress me.

At four shillings under £59, the Corvette is, I suppose, placed in the utilitarian rather than the luxury class. It is not surprising, therefore, that its strong points lie in its performance and functional features more than its aesthetic appeal. The latter would certainly be enhanced by one or two small improvements, perhaps a more imaginative colour scheme than the blue-grey used.

Tubular steel of oval section is used for the frame and brings its especial advantages of neatness and lightness. With regard to weight, at just under 100lbs, the Corvette is neither too heavy for easy handling, nor too light to affect its road stability. Dimensions are: Length 6ft., wheelbase 3ft. 9in., average height 3ft. 3in. Two test riders, one five-and-a-half feet tall, the other six feet, both reported favourably on the convenient size of the machine, and the ease with which a good riding position could be found. Approximately four inches height adjustment is possible for the seat, and the handlebars can also be adjusted for position. Front suspension is in the form of telescopic forks, and these were fully satisfactory, being neither too soft nor too hard. Lack of springing at the rear was barely noticeable due to the efficiency of the seat. This is the large area "pan" type which comprises basically two sheets of rubber stretched over the two parallel formers of the seat; the elasticity of the sheets provided almost complete immunity to shocks. In addition, the seat is mounted on the frame by means of a cast-lever system which incorporates a stout shock-absorbing spring.

Rider protection has been dealt with at some length. A deeply valanced rear mudguard reaching down almost to the wheel hub precludes any danger of coats or skirts becoming entangled in the wheel, as well as providing absolute protection against road dirt and spray. I regarded the engine cover with mixed feelings: there is no doubt that



it does an excellent job in keeping engine dirt and oil from the rider, but there is also the time involved in removing and replacing the cover to be considered.

With the performance of the Corvette, both in motive and stopping power, I can find no fault. Smooth rapid acceleration builds up to a top speed of 35 m.p.h., braking is smooth and effective and road holding as good as any moped I have ridden. The stability of the machine is such that hardly any effort from the driver is necessary, whatever the road. Apart from the initial few yards of pedalling to start the engine (this can also be done while it is on its stand) it was not necessary to assist the engine again manually except on the very steepest portion of the test hill. A lighter person (my weight: 190lbs.) would not need to pedal at all. Starting on an incline also called for some pedalling.

Those who have not yet tried an automatic moped have a treat in store. It's simplicity itself. There are only three controls, on the handlebars, the front and rear brakes just as on a bicycle, and the throttle twist grip control. Having started the engine by pedalling a few yards, or with the machine on its stand, there is nothing more for the rider to do other than control the speed by means of the twist grip. On stopping, say at traffic lights, the engine slows down and automatically disengages the clutch. It ticks over quietly until the throttle is opened again. As its speed increases the centrifugally operated clutch is automatically brought into action again. Until the cut-out button is used, the engine will not stop, even in the event of sudden braking. If need be, the machine can be converted into a bicycle simply by loosening a nut.

From the maintenance point of view, there are no problems with this engine, or with the machine as a whole for that matter. The engine can be removed from the frame in no more than three or four minutes; the carburettor, a Gurtner D.12, is simple in design and easily dismantled and cleaned; likewise the silencer, which dismantles completely for decarbonizing. All cables are provided with adjusters, in the case of the brake cables for both fine and coarse adjustment.

There are also many minor points which I liked. For instance, the centre stand was thoroughly reliable even on soft ground; the luggage rack was ideally suited to pannier bags. I also liked the all-rubber one-piece pedals. Lights and horn, fed by the 18 watt output from the flywheel magneto, were both above average.

## Specification

**Engine:** Lavalette two-stroke, air-cooled, 40 m.m. bore X 39.6 m.m. stroke = 49.6 c.c.; c.r. 6.1:1.

**Carburettor:** Gurtner D.12 with automatic choke.

**Clutch:** Fully automatic.

**Frame:** Steel tubing, single tube spine. Telescopic front suspension, rigid rear.

**Tank:** Capacity 10 pints, spring-fitted filler cap.

**Lighting:** Flywheel mag-dyno, supplying 6v. 18w. to 15 watt headlamp and 3 watt tail lamp.

**Wheels and Brakes:** Chromium-plated rims and full width 3 1/2 in. dia. hubs with 23 x 2 tyres; brakes internally expanding, both hand-operated.

**Equipment:** Foot operated tyre inflator, luggage rack, tool kit and carrier, speedometer, centre stand.

**Makers:** The Hercules Cycle and Motor Co. Ltd., Britannia Works, Handsworth, Birmingham, 21.

**Price:** £58 16s. 0d.

## Performance

**Maximum Speed:**  
Flying 1/10th mile, 36 m.p.h.  
Standing 1/10th mile, 17 m.p.h.

**Acceleration:**  
0-10 m.p.h., 3 sec.  
0-20 m.p.h., 7 sec.  
0-30 m.p.h., 20 sec.

**Economy:**  
At 20 m.p.h., 151 m.p.g.  
At 30 m.p.h., 119 m.p.g.

**Hill Climbing:**  
Time for hill: 2 min. 7 sec.  
Pedal assistance from 0.4 miles.  
Test hill 0.5 miles long; max. grad. 1 in 10; average grad. 1 in 16.

Braking:	Front	Rear	Both
At 20 m.p.h.	17ft.	27 1/2 ft.	12ft.
At 30 m.p.h.	50ft.	60ft.	32ft.

**Pedalling:**  
Maximum pedalling speed, 10 m.p.h.  
Comfortable pedalling speed, 6 m.p.h.

**Tester's Weight:** 190lb.