CARING FOR THE HERCULES CORVETTE

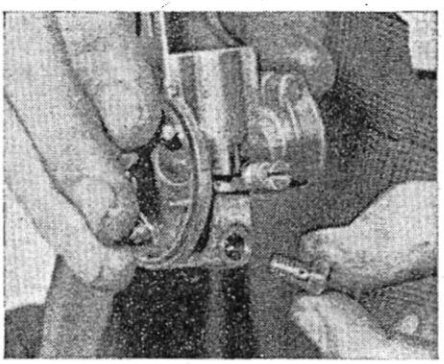
Everyday servicing of this French-powered British automatic moped

So simple is the design of the Hercules Corvette moped that even the least technically-minded owner should have no difficulty in keeping his machine in good running order. It is also an easy machine to keep clean, due in part to the large efficient engine covers. Cleanliness is important, for dirt and grease will quickly penetrate into working parts and do actual damage. For washing down, use one of the proprietary degreasing agents applied with a brush, and then wash off with water If you use a high-pressure hose to wash the moped down, be careful not to get water into the hubs, or carburetter etc. Dry off carefully, and apply a good wax polish to the body work. Metal polish should never be used for the chromium parts ; a soft cloth and a drop of light oil is all that is necessary. Grease on the tyres should be removed with detergent and water, but never petrol which is harmful to rubber. The same applies to electric cables, handlebar grips and rubber saddles.

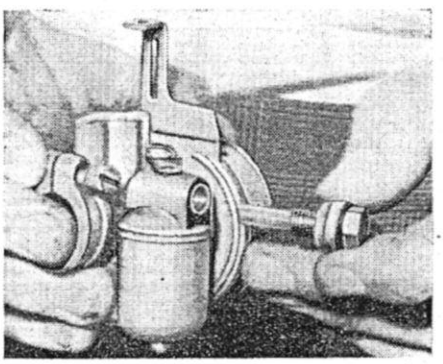
The engine covers have to be removed before any work on the engine can be undertaken, and care should be taken to avoid damaging the securing nuts and screws which are soft metal. A Gurtner D.12 carburetter is used, and this is mounted conveniently at the side of the engine, facing outwards. It is one of the simplest of all carburetters, and can be dismantled in a matter of seconds. Three points of possible trouble are the filter situated in the banjo union at the top of the float chamber (to prevent any dirt from the tank entering the carburetter) the float chamber itself and the main jet. There is a sludge trap at the bottom of the float chamber where sediment accumulates and this must be cleaned out regularly. Use clean petrol. The main jet, easily recognizable, being of brass, is located beneath the slow-running adjustment screw. High-pressure air is the best method of clearing an obstruction, but a bristle will do just as well. In any case never use a pin which will damage the soft brass jet.

Regular plug cleaning and replacement (every 3/6 months) is particularly necessary with the Lavalette engine by which the Corvette is powered. For some reason it seems to suffer from whiskering more than usual. No one has found the real answer to plug whiskering, which is the building of metallic deposits between the electrodes which eventually short out the spark. Impure fuel and hot running are some of the reasons put forward, but the best remedy is to have the plug sand-blasted at least once a week, and to ensure that the point gap is correct. This should be 24 thou.

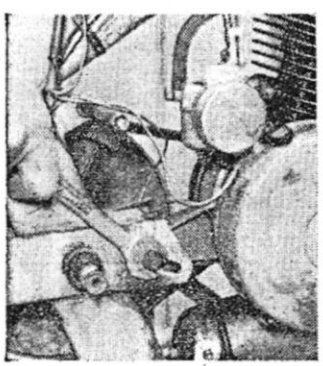
For thorough overhauls such as decarbonizing, the engine of the Corvette can be removed completely and quickly. It is secured at two points, from the down tube, and at the bottom bracket. To get at the lower bolt it is necessary to remove the offside chain wheel which is held on with a cotter pin. Knock out the latter with a wooden implement to avoid damage to the thread. The silencer is also secured by the bottom engine bolt and is freed at the same time. Next withdraw the throttle slide from the carburetter and finally disconnect the electrical leads from the mag/dyno. These simply clip onto the terminals. The engine is now suspended by the upper bolt, and when this is removed can be lifted out. When replacing the engine in the frame, work in the same sequence, in reverse. The Vee-belt should be slipped first over the clutch pulley then the upper bolt replaced, but not tightened. Fit the lower bolt, securing the silencer at the same time, and adjust the tension of the Vee-belt before finally tightening the engine bolts.

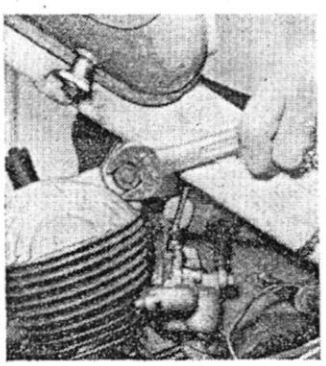


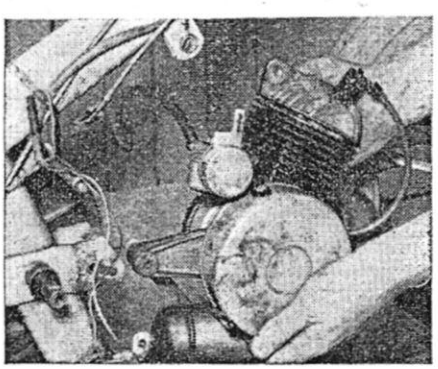
Frequent point of obstruction in the Gurtner carburetter is the main jet. Fuel starvation, which is indicated by erratic running, back firing, and loss of power, can usually be traced to this or two other points on the carburetter. If possible clear any obstruction with a high-pressure air jet or, lacking this, a bristle. Never use a pin.



The wire gauze filter situated in the banjo union at the top of the float chamber is one of two precautions to prevent sediment from reaching the carburetter from the fuel tank. The second filter is located in the fuel tap inside the tank itself. Both should be brushed and washed regularly with petrol, and immediately inspected in the case of trouble.







The three main stages in removing the engine: (top left) after removing the offside chain wheel, remove the lower engine bolt; (top right) loosen the upper engine bolt, but do not remove yet. Finally disconnect electric cables, fuel pipe and carburetter before removing upper bolt completely and lifting engine out of frame (lower left).

In an automatic moped, it is essential that the engine idling speed be exact; if it is too fast, the clutch will constantly be trying to engage and this will result in rapid wear. A clattering noise in the engine while at rest indicates that adjustment is necessary. Before adjusting, warm up the engine, and then slowly turn the adjusting screw out until the engine is running as slowly as possible without stalling.

The cylinder and crankcase (big and small end bearings) are all lubricated by the petroil fuel, and it is self-evident that the correct ratio of oil to petrol must be maintained. If 2-stroke self-mixing oil is used, the ratio is 16 : 1, and if engine oil grade S.A.E. is used, the ratio is 20 : 1. There must not be any deviation from these figures. If self-mixing oil is not used, fuel should be mixed in a separate container before being poured into the tank ; in any case, never put the oil into the tank before the petrol, as it will immediately sink to the bottom and even vigorous shaking will not prevent patches of neat oil which will clog up the fuel pipe and carburetter. The manufacturers recommend that premier grade petrol should not be used for the Corvette.

The main driving chain is adjusted by moving the rear wheel backwards or forwards by means of the adjusters at the fork ends. There should be approximately ¾in. vertical play half way along the length of the chain. As chains tend to have tight spots, it is advisable to move the chain round and test the play at different points. If the connecting link is removed remember to replace it so that the closed end of the spring link is facing in the direction in which the chain will travel. The second chain which is used when the moped is used as a bicycle is adjusted by means of a tensioner on the offside chain stay. It has a small cog wheel which moves up and down a slotted bracket, tightening or loosening the chain according to its position. It is secured with a lock nut, which must be tightened carefully after adjustment. As described, the V-belt tension is adjusted by moving the position of the engine.