The

Joybike

LOW PRICED, ALL BRITISH SCOOTERETTE AND MOPED

SPECIFICATION

All British 49c.c. Trojan Industrial Engine mounted inverted behind the seat tube.
Belt Primary Drive and chain final.
Expanding pulley on primary drive giving three speeds to engine.
Amal carburettor with large Wipac petrol filter.
Wipac magneto with lighting coils.
¾-gallon petrol tank.
Powerful brake operating on Primary Drive pulley.
23 x 2 Dunlop tyres and rims.
Expanding front hub brake.
Patent telescopic front forks with three point bearings giving freedom from side play.
Pressed steel rear carrier with spring parcel grip.
Lycett rubber saddle.
Miller lamps.
Sturdy tubular open type frame is employed, which is extremely rigid.

In its Scooterette form the Joybike is supplied completely enclosed and with legshields, also engine shields joined by centre air ducting. Cold air is taken in from the legshields and passes through the ducting to cool the engine.

In its Moped form the Joybike is supplied with rear engine cover on the near side only.

Both the Scooterette and Moped are available with either single gear to the engine or three speed, and also a Sturmey Archer three-speed hub is available to give three gears to the pedals. The engine does not drive through the three-speed hub which is, in fact, under less strain than on a normal cycle. The three pedalling gears are a big advantage in general use, the low gear for a superbly easy start and the high gear if pedal assistance is necessary. In addition the three-speed hub contains the best form of freewheel completely enclosed and lubricated inside the hub shell.

The Joybike is started by pedalling off to about four miles per hour, the engine is then engaged by means of a lever on the left handlebar which springs back to its original position when released, pulling the same lever again a further twice engages the other engine gears Pressure on a thumb release catch disengages the drive once more from either gear.

Braking is better than on any other two-wheeler. The reason being that the rear brake operates on the vee of the primary drive pulley which is travelling at five times the speed of the rear wheel. There is little tendency of the rear wheel to skid, braking is unbelievedly smooth and positive, yet the lever pressure is extremely light. Again, braking is assisted by a simple arrangement of the transmission which immediately and smoothly puts the engine into low gear on applying the rear brake, not a single extra part is used to accomplish this.

The Trojan 49c.c. engine is the simplest unit possible, only three moving parts, there is little to go wrong. This engine has been on the market for industrial purposes for ten years, it is well made by the Trojan Commercial Vehicle Manufacturers.

The use of the Wipac petrol filter in the petrol supply line obviates the need for cleaning the carburettor, which can be virtually ignored.

Access to the engine is obtainable by removal of the rear engine shields, no spanners are needed, one simple catch holds each side in place against spring tension, thus ensuring freedom from drumming.

Great attention has been paid to easy servicing, decarbonising is only necessary every 5,000 miles as long as the exhaust port is cleaned out every 1,000 miles, a job taking ten minutes at the most. The complete engine can be removed in five minutes, the rear wheel in one minute, there being no brake on the rear wheel to complicate matters. Cables have a nipple one end and a clamp bolt the other, only standard bicycle brake inner wires are necessary as replacements. All Bowden casings are fitted with oilers as also is the steering head.

Independent adjustment of the two chains is available by moving the rear wheel backwards to adjust the pedalling chain and the countershaft forward to adjust the engine chain.

The bulk of the parts used are standard bicycle fittings and as they are not smothered with mud from a tyre drive motor they will give very good service, when replacements are necessary they are readily available and very cheap. Engine parts, being British made, are about one-third of the price of Continental manufacture.

Patents have been applied for to cover the design of the Joybike, which is the result of two and a half years' experimenting by a retailer. These experiments were started when the clip-on motor was popular, it was then realised that although these units met a ready demand they left much to be desired as regards a long life, yet on the other hand the engine with built-in gearbox was too complicated to ever become really popular here owing to the elaborate design, which meant high labour charges when repairs became necessary.

For the present the Joybike is only being made in small quantities and is only obtainable from H. V. Powell Cycles Ltd. It is later hoped to be able to arrange for a larger scale production. Such is our confidence in our product that local customers not wishing to service their machines themselves will be able to have this done for them, including any new parts to the engine, for the sum of one shilling per week for the first twelve months. The only thing the user is expected to do is to change or clean a sparking plug.

The Joybike cannot be started off by means of the clutch; it can, however, stop with the engine running, pedalling a few yards and then the drive re-engaged. This system has been deliberately adopted to avoid engine and transmission wear, there being far more strain on all parts when starting from stationary than for normal running. There is four times the expectation of life to the parts when using this system than when a clutch restart is used.

A large size silencer is used and provision is made for easy cleaning of the baffles when necessary.

Petrol consumption varies between 150 and 200 m.p.g. Even this figure can be exceeded by those people who like to do some pedalling, which on the Joybike, with its three-speed hub, is never any effort.

The engine is higher geared than most, which gives a smoother and pleasanter ride; this higher gear is made practical by the fact that three engine gears are available instead of the normal two.

On the subject of servicing our main instruction is: "Leave it alone". All that is required is the sparking plug and magneto points cleaned every 1,000 miles; for the rest, the use of the oil-can on the various cables, chains, etc., is all that is necessary.
Both chains are protected from most of the mud and water thrown up by the wheels on both their top and bottom runs.

Summing up, we find that we have : An all-British engine in the simplest possible form. An expanding pulley for gearing (two parts only and a spring). A countershaft with pulley and final drive sprocket running on two bicycle cones (replacements when needed ninepence each). A belt, a chain and the rest are standard bicycle parts.

"Remember, what isn't there can't go wrong!"

H. V. POWELL, (Cycles) LTD.

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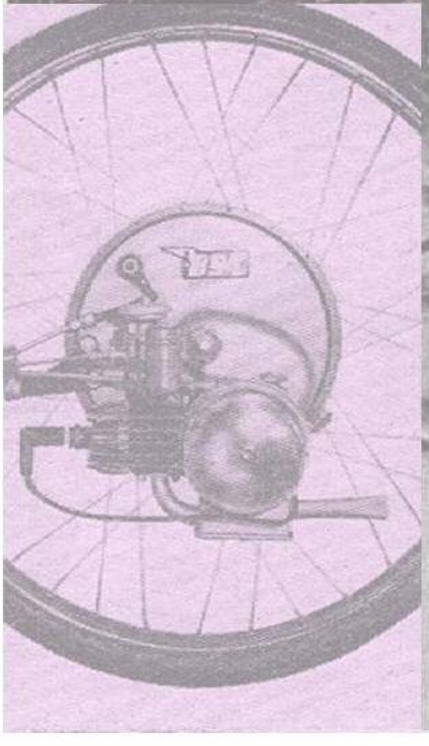

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