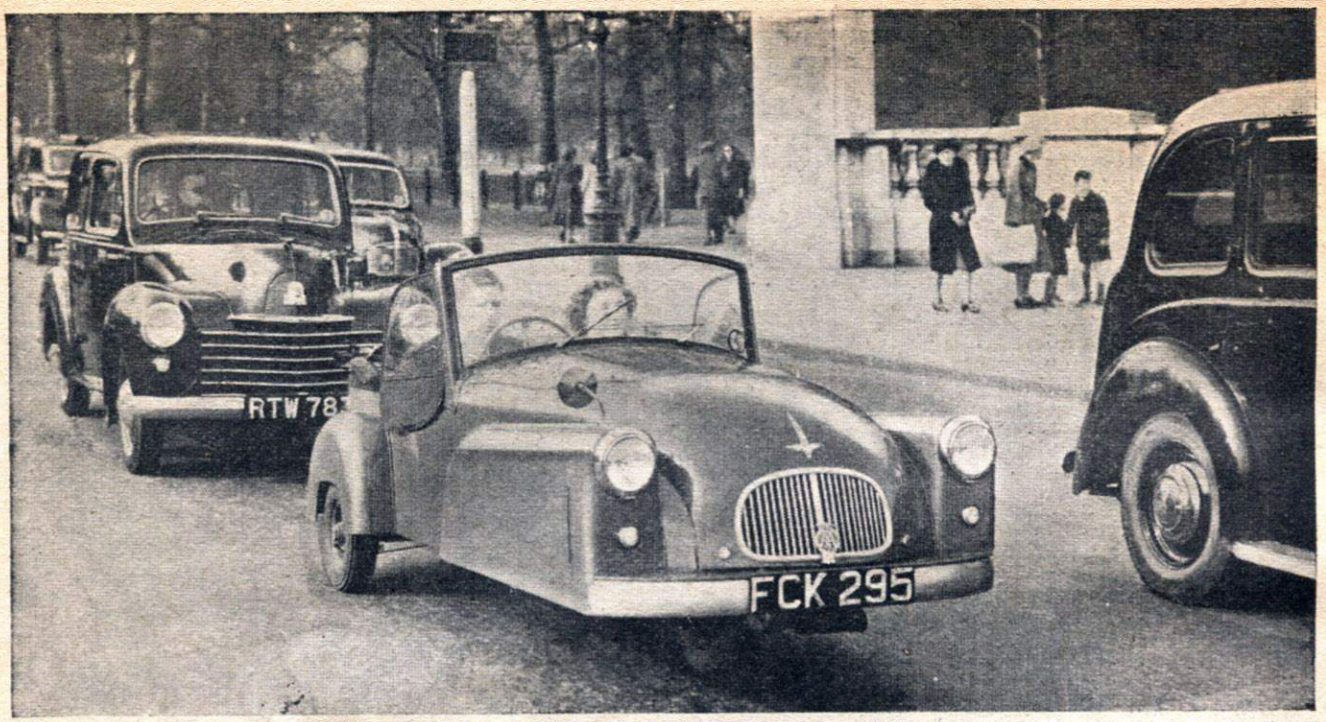


The Bond Minicar is no longer unusual on British roads. Here it is seen in a London park traffic stream

Road Impressions of New Models

Mark C Bond Minicar

An Economical 197 c.c. Three-wheeler with Lively Performance and Car Convenience

WITH the arrival of peace in 1945, the traditional three-wheeler of pre-war days appeared to have died. The sporting or semi-sporting vehicles of the type, which had enjoyed only limited popularity in the between-the-wars period, were dropped from their manufacturers' programmes. In 1948 the Bond Minicar—the first post-war three-wheeler—was introduced. Its attractive features included economy in running, convenience in use, exceptional manœuvrability and small overall dimensions. High performance was placed well down the list of essential requirements. By now the Minicar has ceased to be unusual on British roads. Nevertheless, wherever the model submitted for test was parked, it rarely failed to attract interested—if somewhat amused—comment from lay public as well as from motorists and motor cyclists.

Economical running has certainly been achieved. In the four weeks during which the Bond was under test it was used as a home-to-office hack, for going to the cinema, shopping on Saturdays in busy Kingston, for running "up to the ironmongers at the end of the road." The home-to-office run embraced 16 miles each way. The journey lay through bottle-neck streets and involved driving in some of the worst of London's traffic. Since the driver was generally in a hurry, the acceleration performance was always used to the full.

These facts notwithstanding, overall fuel consumption worked out at nearly 70 m.p.g. The fuel consumption figure for steady 30 m.p.h. cruising on the open road was 86 m.p.g. and that for 40 m.p.h. cruising, 72 m.p.g. There was no appreciable difference in fuel consumption whether one person was in the car or two—or, indeed, whether three were squeezed into the single, bench-type seat. This last achievement involved not too much discomfort for the driver and no difficulty in steering or changing gear.

Control layout of the Bond follows orthodox car practice. That is to say, clutch, brake and throttle pedals are situated in line, in that order, from left to right. To the left of the clutch is a fourth pedal which operates the decompressor chamber in the cylinder head. The gear lever protrudes through the facia and is bent at 90 degrees for left-hand operation. The steering wheel is almost vertical. In the instrument panel are situated the ignition switch, choke control, speedometer, dash-light switch, headlamp dipswitch and, in the test model, two extras: an ammeter and a trafficator switch. Protruding from the floor for left-hand operation is a starting handle and, to the right of the steering wheel, there is a pistol-grip, parking-brake lever. The floor is carpeted.

Easy starting from cold demanded generous flooding of the carburettor. It was dependent also upon accurate adjustment of the mixture control needle which, on the Bond, is cable operated from the choke knob in the dash. In delivery tune, the mixture setting was decidedly weak, with the result that starting was difficult, and reliable idling impossible to achieve. Moreover, since the choke knob is spring-loaded, it automatically returns to its normal-use position, and the needle setting cannot be varied by the driver while he is in the car. Once the trouble was diagnosed, however, it was the work of a few minutes only to reset the needle to provide the proper mixture strength. This done, cold starting was generally accomplished after, say, half-a-dozen easy pulls on the starting lever. The degree of muscular effort required was not great, since engine compression was negligible when the decompressor chamber was in use.

Once the engine was warm, it would idle slowly and reliably, although, of course, it was firing irregularly. In view of the fact that no hand throttle is fitted, the carburettor setting has to be such that the engine will not stall when the right foot is away from the throttle. Hence there is always some degree of transmission snatch when the engine is on the overrun. The practice adopted to overcome this was to free the clutch comparatively early when slowing down or coming to a stop.

Acceleration from rest was decidedly brisk and more than sufficient to cope with modern traffic speeds. The Bond would stay with many 10 h.p. saloons with ease and, indeed, be faster off the mark if spirited driving tactics were employed. Second gear could be engaged almost as soon as the car was on the move. Top gear could be snicked home at 20 m.p.h. if only moderate acceleration was required; when peak performance was

being sought, upward gear changes were generally made at 10 and 30 m.p.h.

Gear-changing required no special skill or knack. From neutral, the lever is moved up into bottom gear and down to second and top gears. The gear change was much heavier than some might desire, and bottom gear was not always easy to engage from neutral.

Clutch operation when the test vehicle was stationary was unduly fierce. Smooth starting away demanded gentle clutch engagement and a small throttle opening. Once the vehicle was on the move, even slightly, this characteristic disappeared and care in clutch operation during gear-changing was unnecessary.

Happiest maximum cruising speed on the open road with two people on board was 40 m.p.h. At this speed the engine gave little indication of fuss, and main road hills in southern England could be surmounted with ease. Box Hill, which is almost 1½ miles long, and has an average gradient of 1 in 25 and a maximum gradient of 1 in 8, could be effortlessly climbed in second and top gears, and restarting on the steepest gradient was easily accomplished. Two successive climbs of Box Hill, after some 30 miles of near-full-bore driving, were undertaken without the slightest sign of protest from the engine. Highest maximum speed achieved was 49 m.p.h. On several occasions as much as five or six miles were covered on full throttle, again without indication of distress from the engine. At full-throttle speeds, however, mechanical and exhaust noises reached an uncomfortable pitch and there was, in addition, some drumming from the light-alloy body. These noises were increased when the car was driven with the hood raised.

ENGINE: Villiers 197 c.c. (59 x 72 mm) two-stroke, with gear box in unit. Flat-crown, die-cast, aluminium-alloy piston. Detachable light-alloy cylinder head with hemispherical combustion chamber.

CARBURETTOR: Villiers Middleweight with pedal throttle control and hand-operated mixture control for cold starting.

TRANSMISSION: Villiers three-speed gear box, with dashboard-mounted hand control. Gear ratios: Top, 4.9 to 1. Second, 6.9 to 1. Bottom, 13.1 to 1.

IGNITION AND LIGHTING: Flywheel magneto with lighting coils; Westinghouse rectifier and 6-volt, 13-ampere-hour accumulator. Separate head and side lamps.

FUEL CAPACITY: 2½ gallons.

WEIGHT: 460 lb with no fuel and fully equipped.

ROAD TAX: £5 a year: £1 7s 6d a quarter.

PETROIL CONSUMPTION: At 30 m.p.h., 86 m.p.g. At 40 m.p.h., 72 m.p.g.

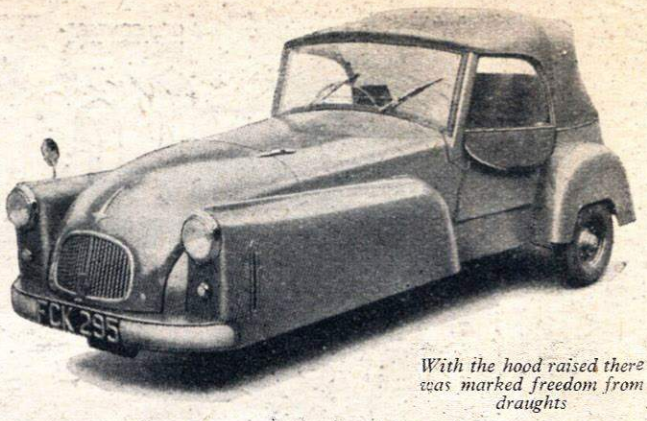
PRICE: £224.; with purchase tax (in Britain only), £349 18s 10d.

MANUFACTURERS: Sharp's Commercials, Ltd., Ribbleton Lane, Preston, Lancs.

Suspension on the Bond is by hydraulically controlled pivoted-arm for the front wheel and by bonded-rubber controlled pivoted-arms for the rear wheels. Wheel movement was approximately 3in at the rear and, partly as a result of this, the standard of road-holding of the little car is of a very high order. Corners may be taken in safety in a manner that would cause many a normal car to roll disconcertingly. Though the Bond is so light that one of the rear wheels could easily be lifted clear of the road, neither of them gave any indication that they would ever lift during cornering. The tendency to skidding appeared to be lower than with many orthodox cars. The combination of small-diameter wheels and three tracks results in the vehicle suffering the effects of road irregularities to a greater extent than two- or four-wheelers; the standard of insulation from road shocks was thus only moderate.

On the latest Minicars, brakes are fitted to all three wheels. The brakes in themselves were powerful and adequate for all normal touring purposes. When they were applied in crash-stop fashion, however, the wheels tended to lock and the car, because of its light weight, skidded for the whole of the stopping distance.

In towns and cities, such as for shopping excursions or theatre visits, the small dimensions and 90-degree steering lock provided the Bond with a degree of manœuvrability in excess of that possessed by almost any other wheeled vehicle, the common bicycle excepted. Parked close between other vehicles, it could be brought out in one movement, merely by locking the wheel hard over. No reverse gear is fitted and none is required. If the vehicle has to be reversed, it can be moved by a single person with no more effort than that required to move a 350 c.c. solo motor cycle (less, indeed, for the Bond has natural stability). First impressions were that the steering was over-heavy, but in the later stages of the test, when the driver had become more accustomed to the Minicar, this heaviness was not considered objectionable.

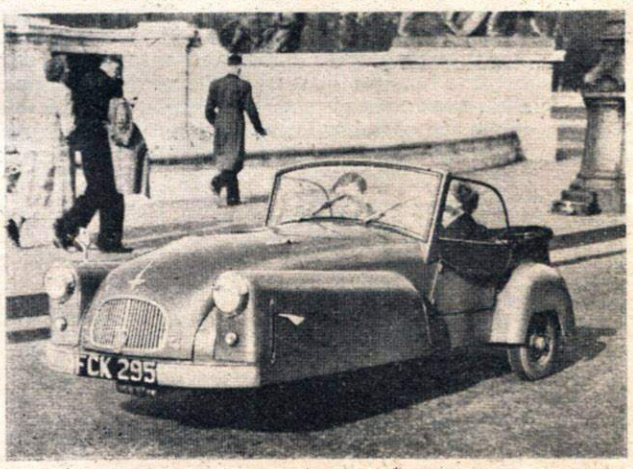


With the hood raised there was marked freedom from draughts

Ample Luggage Room

Windscreen and sidescreen protection was all that was required on dry days, even during cold weather. Some draught was felt on the back of the driver's and passenger's heads but it was not sufficient, for example, to make the wearing of a hat necessary. The hood could be raised in less than a minute. When the hood was in use, the interior of the car was as snug as that of a normal sports car. Luggage space behind the seats was covered by the hood when it was raised. The room provided was more than ample for luggage for two people for a week's holiday.

An outstanding feature of the Minicar was the intensity of the driving beam from the twin Lucas headlamps mounted in the front of the "wings." Of the modern double-dipping type, they provided more than enough light for a vehicle of the Bond's speed performance. The generator did not balance the discharge rate but no trouble was experienced during the month the car was in use—a month in which it was frequently parked for long periods with the side lights on and two, two-hour night runs in open country were undertaken. Finish of the car submitted for test was a pleasant shade of grey.



The road test model was finished in an attractive grey. The wing-mounted trafficators are available at extra charge

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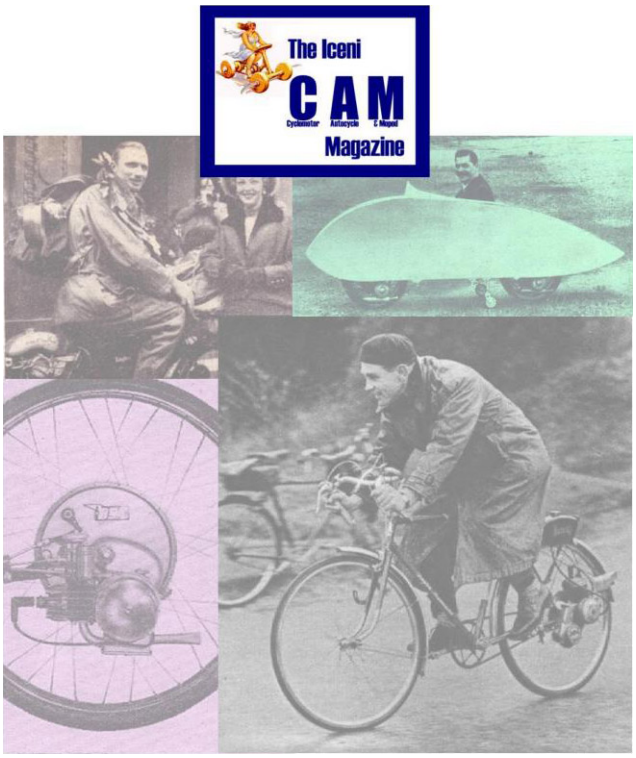

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