

Gloucester's Trolleybus

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Gloucester never had a trolleybus system, but the Gloucester Railway Carriage and Wagon Company (GRCW) did build one trolleybus, but only one, in 1933. It was exhibited at the 1933 Commercial Motor Show.

What prompted the GRCW to build it? Their primary area of operation was the railway industry, but they had built many buses and coaches over the years and a selection of them can be seen in the magazine advertisement, dating from 1933. AEC, Guy, Karrier, Leyland, Ransomes, and Sunbeam had all been active in the trolleybus market for many years but in the early 1930s, the market for trolleybuses was looking very good indeed, so GRCW decided to join it.



The 9th February 1934 edition of Commercial Motor magazine contained an article entitled "British Trolleybuses for Modern Systems" and the introduction to that article, reproduced here, tells us the way the public transport industry was thinking about trams, trolleybuses, and motorbuses in 1934:

"Latest British models show remarkable advance in design, resulting in lower floor levels, convenient entrances, improved accessibility, increased seating capacity and enhanced appearance. It is exceedingly doubtful whether any new tramway track will be laid to replace that which is becoming worn out in a large number of English towns, where tramways were constructed early in the present century, and 1934 has all the appearances of being a trolleybus year."

When the track has to be attended to, the opportunity may well be taken to reconstruct the road surface and, as the overhead equipment may still have some useful life in it; the trolleybus is found to provide a means for making the most economical change to a more suitable

form of transport. It involves no radical change in output on the part of the central power station, and permits the utilization of a British fuel to be continued. Furthermore, the trolleybus enables the surfacing of the main roads of a town to be brought up to date and rendered less dangerous and inconvenient for all classes of traffic. It permits peak loads to be handled in units at least as big as the trams, which, in most cases, are old fashioned and of relatively small capacity.

It is economical in operating cost per mile, it handles its passengers at the kerbside and, with its rapid acceleration and deceleration, it has a high average speed over town routes; this means increased mileage and receipts per vehicle per annum.

Route extensions are more quickly and less expensively made than with tramways. The trolleybus is as mobile within its own route as is any other vehicle, and if a vehicle breaks down it can be overtaken. On hilly routes the power and braking are admirable, in residential areas the silence of the machine is appreciated and in all districts the smoothness of acceleration is a convenience to passengers and conductor.

Thus the trolleybus offers attractive advantages for industrial districts, whilst having features of economy in both installation and operation which make it interesting as a replacement system where peak-load conditions have, hitherto, been served by the high unit capacity of the tramcar.

It is always possible for motorbuses to be used in conjunction with trolleybuses, their inherent route flexibility supplying just the characteristic which is absent in the trolleybus, and so enabling new housing estates and occasional services to be cheaply catered for. This, in fact, appears as things are at present, to provide the ideal road-travel combination for urban areas in which the traffic is heavy on some of the routes.

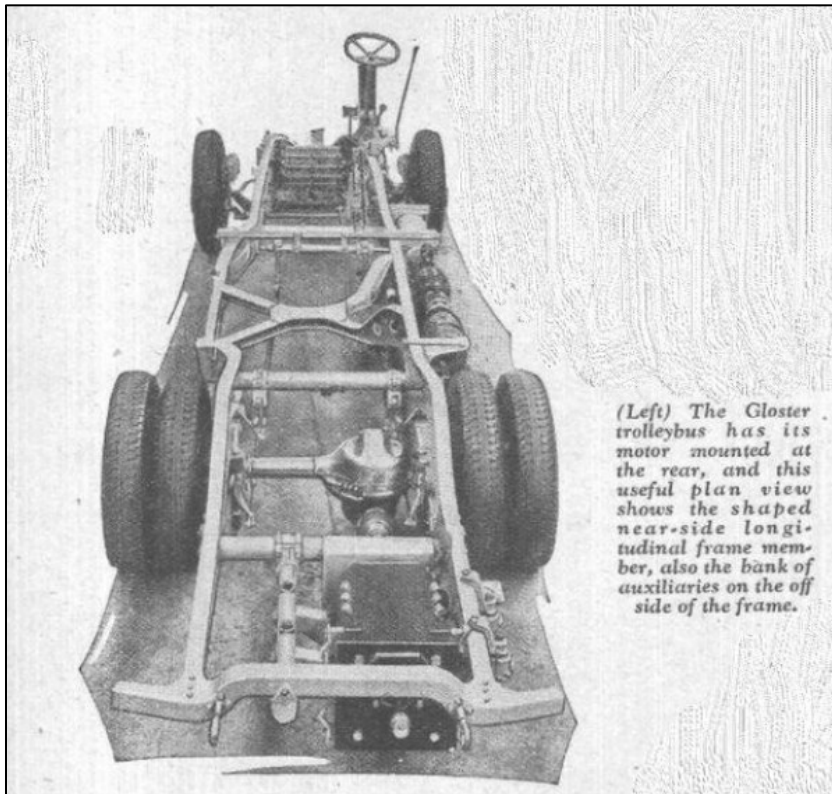
British trolley-buses have been much improved in the past year or two, particularly as to the disposition of the motor and in the arrangement of the loading platform and seating layout."

The article goes on to discuss the various trolleybus models offered by British manufacturers in early 1934 and says this about GRCW's offering:

GLOSTER

A newcomer to the market, yet of particular interest because of its low floor height and convenient central entrance, is the Gloster trolleybus made by the Gloucester Railway Carriage and Wagon Co., Ltd., Gloucester. Having been designed only last year, it embodies no old ideas whatever.

The motor is located behind the rear axle and offset from the longitudinal axis of the vehicle so that the differential case does not obstruct the gangway floor. The auxiliaries are conveniently located in a bank outside the main frame on the off side (between the axles), where they are completely insulated on Floatex mountings and are easily accessible. A special design of all-metal body has been produced which gives the doubledecker a fine appearance. Access to the contactor panel, situated at the extreme front, is obtained either through the inside cover or from the road, after removing a front panel. A low-voltage Simms motor dynamo set gives 24-volt lighting of constant brilliance.



(Left) The Gloster trolleybus has its motor mounted at the rear, and this useful plan view shows the shaped near-side longitudinal frame member, also the bank of auxiliaries on the off side of the frame.

The traction equipment is a product of Crompton Parkinson, Ltd., Chelmsford. The chassis is of particularly straightforward layout and combines simplicity of mechanism and layout with the provision of every modern feature desirable for satisfactory and economical operation."

Much of what has been described above can be seen in the photograph of the vehicle's chassis, taken from the Commercial Motor's article.

The other photographs are reproduced with permission from Gloucestershire Archives and are from their collection.

They are all covered by GRCW photograph number 4913 (Archive's document reference D4791/16/92). They were all taken at the GRCW's works by the company's photographer. "GLOUCESTER" is displayed on the destination blinds at both ends of the bus and the badge on the front of the vehicle says "GLOSTER".



The trolleybus was sold to the Corporation of Southend-on Sea in 1935, becoming their fleet number 122, registration JN 3822. Its double deck, central entrance body could seat 54 people.

An agreement for the supply of a "Gloster" Trolleybus between the Gloucester Railway Carriage and Wagon Company Ltd and the Corporation of Southend-on Sea is held by Gloucestershire Archives

(document number D4791/27/21). From it we learn that the bus was sold to the Corporation of Southend-on Sea for £950, 95% of which was due by 15th February 1935 and the balance of 5% no later than 20th June 1935. The agreement contains a clause stating a competent mechanic must be provided for a period not exceeding seven days to ensure the satisfactory condition of the trolleybus.

In a letter dated 25th October 1934, the price of £950 was agreed and we learn from this that the trolley base supports had been redesigned and that an oil leak in the exhauster had been fixed. The price included delivery and a new propeller shaft. The contents of the letter suggest the bus was already in service at Southend-on Sea before the sale was agreed. The registration number JN 3822 was issued by the County Borough Council of Southend-on Sea in 1934, supporting the theory it was in service at Southend-on Sea before the purchase date of 15th February 1935.

Trolleybus services finished in Southend-on Sea in October 1954 but the Gloster bus was withdrawn a few years earlier in 1950, having covered more than 400,000 miles in service, and was scrapped.