

THE CENTRAL LONDON ELECTRIC TRAIN ROUND-UP

by Piers Connor

INTRODUCTION

Since I finished the series of articles on the Central London Electric Train in the September 2013 issue, it occurred to me that, since I was not able to include all the photos and illustrations that were available, I might offer a few extra photos and add a few corrections in a special “round up” article – so here it is.

CURRENT RAIL

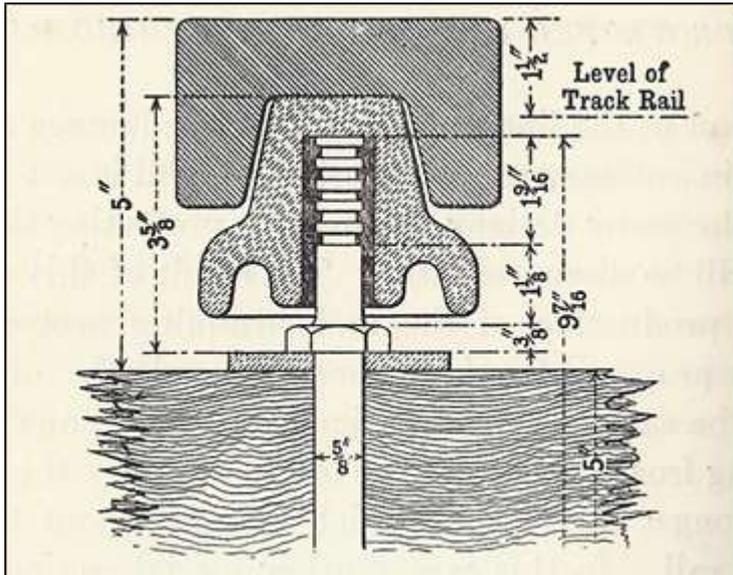


Figure 1: First, a corrected drawing of the Central London traction current rail. Somewhere in the file transfer process, the editing of the original scan went awry and the illustration in part 1 of this series (in *Underground News* No.611, November 2012) became distorted, so here is a revised version, showing the details of the dimensions, as I originally intended. Rather usefully, the height of the Central London's current rail, set at 1½ inches above the running rail level, was adopted as the height of their negative rail by the three London Electric tube lines (the Bakerloo, Hampstead and Piccadilly lines) when they were built between 1905 and 1907. This meant that, when the Central London was converted to the standard Underground 4-rail system in 1940, its current rail became the negative rail.

LOCOMOTIVES



There were several photos of the CLR electric locomotives in their original condition in my articles but I did not include one of the remaining locomotives used for shunting. So here it is. This is the last surviving example, No.12, standing on the loop track next to the car shed in Wood Lane depot. The date is probably late-1920s. In the background, the halls built for the 1908 Franco-British exhibition can be seen. The present Westfield shopping centre was built on this site.

The locomotive was one of three that was modified in 1901 by having geared motors and an American designed equalizer bar bogie installed. The cab sides were originally open but they were

later enclosed, as seen here, a modification probably much appreciated by the shunting crews during the winter. This machine survived into the Second World War but it was scrapped in a fit of zeal to assist the war effort, despite attempts to get it preserved.

TRAILER CARS



This photo shows a set of brand new trailer cars inside the shed at Wood Lane depot. Note the lack of car numbers. The car nearest the camera has SMOKING labels attached to the car sides where the car numbers were later displayed. The smoking signs then had to be moved to the saloon windows. This and other photos suggest that the smoking cars were located at the ends of each 7-car train.

The Central London's board minutes record that one of their new cars was tested on the line between York and Northallerton. Since the car in question was one of those built by Ashbury's, who were based at Openshaw, near Manchester, it seems strange that it was hauled over the Pennines to the North Eastern Railway's main line. However, they would have got it up to a good speed over this road as it is straight most of the way.

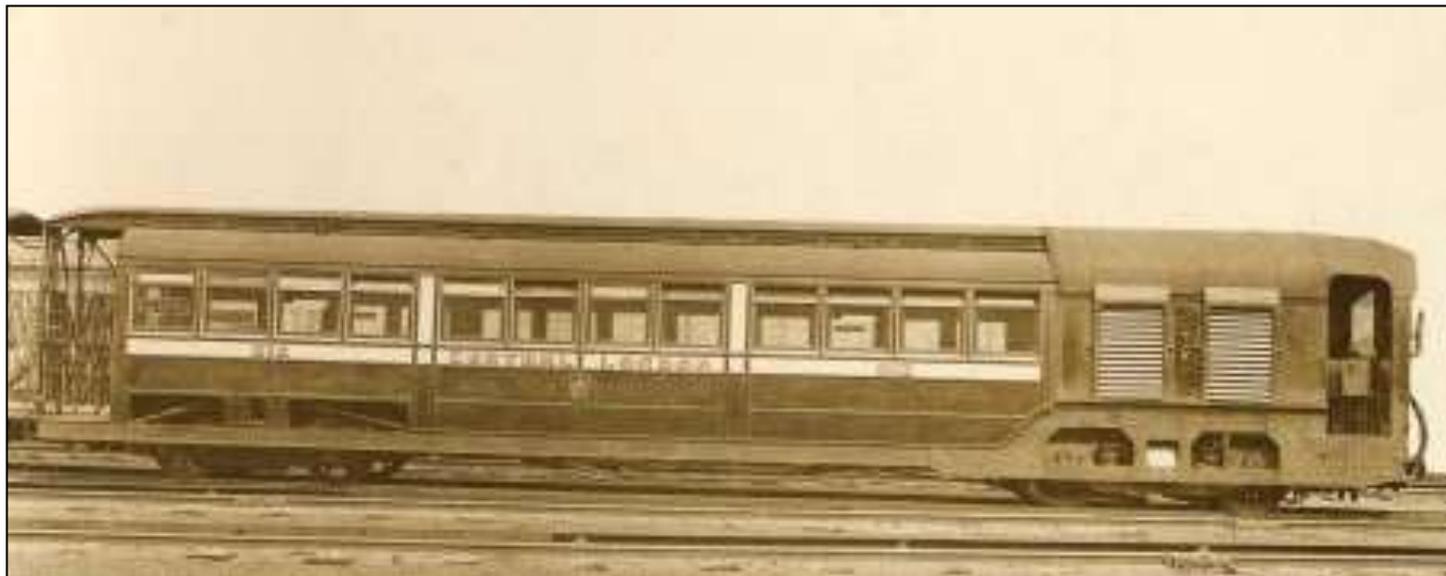
The Central London bought 168 trailer cars, giving them 24 trains. Although it was widely reported that the line operated a train every 2½ minutes, it was initially impossible from a practical point of view. This was because it was taking too long to do a round trip. This confused me when I wrote about it in my first article of this series and an error crept into my description so I can correct my description here.

To work out many trains you need to operate a service, you add the time to travel from one terminus to the other to the time of the return trip and then add the turnround time at each terminal. You then divide the sum by the service interval. So, to get a 2½ minute service with 24 trains, the round trip time must be no more than 60 minutes. However, the Central London's recorded round trip time was a fraction under 62½ minutes in the early days, so they could only have operated 23 trains per hour (tph) or one every 2.6 minutes.

However, they did eventually get to 24 tph by driving down the running times. Within a few months they got down to a 25-minute run time each way, giving them 5 minutes at each terminal for loco changes and shunting. This was more than adequate. By 1902, they'd got down to a 23-minute trip time and could run the 2½ minute service with 22 trains. With a 24 train service, there was no

margin for maintenance or failures. So, although the energy consumption was higher with the faster schedule, it allowed trains to remain in maintenance during peak hours.

MOTOR CARS



The Central London was converted to multiple unit traction between March and June 1903. A total of 64 new motor cars were purchased and put into service at each end of a set of 5 trailer cars. This is car No.212 standing in Wood Lane depot. It isn't clear exactly where because the background has been blanked out. This photo shows the leading end cab and switch compartment (Photo from LT Museum).

This photo was taken when the motor cars had been in service for some time, as can be seen from the fact that the brake pipe hose is visible on the front end. These were not fitted originally. They weren't needed as the front of the motor cars never coupled to anything. They eventually appeared, probably as result of a train needing a push out and it was realised that the two trains involved would work better with all the brakes working.

The leading end is painted in the same "purple brown" colour as the lower body panels. Not all cars were painted like this. Some were finished in cream on the side panels to the louvred doors. I suspect this might have been a late change to make the lettering between the louvres more visible. On this car, the car number was 212 but the switch compartment carried the number 7B, indicating this car was normally located at the Wood Lane end of the train.

WOOD LANE DEPOT

The LT Museum collection has this photo (*overleaf*) of the inside of the car repair shop at Wood Lane. It is interesting in that it shows a number of motor cars undergoing maintenance. The first thing to notice is that the cars are arranged in pairs, undoubtedly the pairs used together in the trains because a pair would have done the same mileage. The cars have been lifted at the driving end and the motor bogies removed. The trailing bogies seem to have been left alone. Quite where the motor bogies are isn't clear. They are not visible in this photo so they must have been removed to another workshop.

What isn't clear either is how the cars were lifted. There is no evidence of an overhead crane so I imagine they had a mobile system, probably a small bridge crane that they moved from place to place as required. Once the car body was lifted and the bogie rolled out, the body was lowered on to a trestle erected underneath as shown.

Note the seating materials piled in the foreground and the workbenches for the upholsterers on the right. My impression from photos and odd references is that the rattan seating didn't wear well and it caused problems with damage to clothing when the weave became split. Some cars were given leather seating.



Another interesting feature of this workshop is that it shows the overhead line mountings suspended from the roof trusses but not all the roads have them. The wire was run under a protective shroud but it is missing from the road where the motor cars have been lifted. The overhead line was provided in the depot to allow two of the locomotives that were specially equipped with trolley poles to collect power where current rails were not provided, i.e. inside the shops and most of the yard. None of the trains had trolley poles. They wouldn't have fitted in the tunnels. The road where the cars are lifted is not provided with an overhead line because the car lifting tackle would have interfered with the wire and its protective cover. It is interesting to speculate as to how the cars got inside the shed and even more important, how they got out again. We can choose from one of the following;

- An electric tug – err, no, the CLR didn't have any at this time. These were used in factories from at least as early as the 1920s but railways tended to use shunting locos instead.
- Capstan and rope – no evidence they did it this way.
- Push the cars from outside the shed with a locomotive and let them roll in – possible but how do you get them out? Poke a long train into the shed with the loco outside and couple up to the car? Possible and makes train make-up simpler.
- Use a steam locomotive – probable, the Central London had two of them.

A SIMPLE PUZZLE

So, here is a simple puzzle. You are the depot foreman at the CLR depot. You have a 7-car train whose motor cars are due to go into the workshops for motor bogie overhaul. You don't need the trailers and you haven't got room for them in the shop anyway. You have to separate the two cars from the train, which is stabled on one of the shed roads. Remember these are single ended roads. How do you get the two motor cars into the workshop? You will need a plan of the depot so you could refer to the article in my series "The Central London Electric Train – Part 7 – Wood Lane", *Underground News*, May 2013. You can assume you have steam and electric locos to work with and the date is pre-1908 when Wood Lane station was opened. If you want a more difficult challenge, try to do the same thing after 1908, when the shunting neck was lost and you had current rails in the yard but not in the workshops. You also had the Wood Lane shed with fans at both ends. Answers to me at piers.connor@gmail.com and, with the editor's permission, I will print the best answers. *Certainly!* – Ed.