



Prototype notes

Southern Railway 2-car Wimbledon-West Croydon (2 Wim) electric multiple units

This small fleet of 2-car units, provided in 1930 for the newly electrified Wimbledon to West Croydon route, exemplified the Southern's thrifty approach to its suburban electrification projects.

The cars themselves dated back to 1908-9 when they were built by the Metropolitan Amalgamated Railway Carriage and Wagon Co. as Trailer Firsts, comprising part of an order for the London Brighton and South Coast Railway (LBSCR)'s pioneering South London Line a.c. overhead electrification project.

The original eight South London Line a.c. units were formed of two Driving Motor Brake Thirds flanking a Trailer First. The cars had 9ft wide bodies instead of the LBSCR standard 8ft and, at 60ft, were also longer than the LBSCR's existing fleets. They were also more elaborately furnished than either the LBSCR's contemporary steam stock or their later electric stock and had internal side-aisles linking the seating bays, intended to encourage passengers to board promptly through the nearest door and seek empty seats after entering - an idea that the Southern was to revive after World War 2 with centre aisles in most of its post-war suburban stock.

As built, the eight Trailer First centre cars had 56 seats in nine semi-open bays, 4 smoking and 5 non-smoking with a full-height partition and a door between the two zones and with the side-aisle transposed at the 5th bay. Although the LBSCR's South London Line electrification successfully generated new traffic, the proportion of First Class accommodation originally provided was soon found to be too great so in 1910-11 these 3-car sets were disbanded and the Trailer Firsts were converted to locomotive hauled coaches for mainline use, with the central seating bay converted to lavatories.

When the Southern Railway was formed in 1923 it recognised the need to upgrade the rather mixed bag of mainline passenger stock it had inherited from its constituent companies. By 1930 the small fleet of eight former South London First Class cars had been superseded by new Maunsell stock on main line services. The redundant cars went through a further extensive conversion to form four 2-car d.c. electric multiple units for operating the newly-electrified branch line from Wimbledon to West Croydon.

Four of the eight cars were converted to Driving Motor Brake Composites (DMBC) to SR Diagram 696. Three of their original nine seating bays were replaced by an SR-standard 'front end' with a driving cab, guard's van area and space for the then-standard



Metropolitan-Vickers control gear at the rear of the cab. The lavatories were removed from the central bay which, together with the seating bay nearest to the guard's van, was designated first class. The other four seating bays were re-upholstered to third class standards with the existing full-height partition and door dividing the two areas.

The other four cars became Driving Trailer Brake Thirds (DTBT) to SR Diagram 794, with two of the original nine seating bays replaced by a driving cab and guard's compartment. Whilst the cab end was of the standard SR design, the motorman's cab and the guards van area resembled those of the original South London Line a.c. units, apparently re-using surplus components from some of the former a.c. Driving Motor Brake Thirds which were simultaneously being converted to d.c. equivalents for continued use on the South London Line.

The cars retained their original 60ft slotted plate-girder underframes but the original pressed-steel bogies were replaced at the outer end of the DMBC by a new standard Central Section motor bogie with MV339 motors and at the outer end of the DTBT by a standard 8ft 9 inch wheelbase bogie with pickup shoes. Sources vary as to whether the bogies at the inner ends of these units were the standard SR type or whether the original ex-LBSCR plate-frame bogies were retained. (*The Eastleigh Model Rail kit includes two SR standard bogies.*)

Unlike the Southern Railway's large fleet of 3-car suburban d.c. electric units, these two car units were not close-coupled, retaining their original side buffers and screw couplings at the inner ends. (*The intermediate side buffers have not been included on the model in order to allow the units to negotiate Radius 2 curves whilst maintaining a realistic gap between cars.*)

As with the 2 SL units, the 2 Wim. fleet was limited by the 9ft 6in overall width of its cars to the Wimbledon-West Croydon route, the South London line and associated routes to depots.

Their lives were uneventful; they usually operated singly, two units shuttling up and down the single track line, passing each other at Mitcham Junction. Occasionally a 2 Wim unit would be deployed on the South London Line, a more frequent occurrence after 2 SL unit 1807 was destroyed during the war and 1802 was withdrawn in 1951.

The units were originally painted olive green with lining, changing to unlined pre-war malachite during general overhauls in 1939 when they were also fitted with guard's periscopes. The two first class compartments were re-designated third class in 1941 when first class was suspended on London suburban services though in all probability the first class seating trim remained in place for the remainder of the units' lives.



The units had one last intermediate overhaul in 1948 when they were given a “Selhurst varnish” - a single coat of SR post-war malachite - and the British Transport Commission’s ‘lion on unicycle’ device on their motor coaches.

The units were withdrawn in 1954, replaced by new BR-designed 2-EPB units of the 57xx series.

| Original unit no. | Post 1934 unit no. | DMBC | DTBT |
|-------------------|--------------------|------|------|
| 1909 | 1809 | 9818 | 9951 |
| 1910 | 1810 | 9819 | 9952 |
| 1911 | 1811 | 9820 | 9953 |
| 1912 | 1812 | 9821 | 9954 |

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