

REPORT OF SOCIETY MEETING

“THE METROPOLITAN ELECTRIC LOMOTIVES”

**A report of the presentation given to the Society by Charles Horsey
at the Gallery at Alan Baxter, Cowcross Street, London, E.C.1
on Tuesday 3 September 2024**

The talk has come about because there is continuing interest in the Metropolitan Railway and the 20 electric locomotives it put into service just over a century ago. Charles explained that much of the material comes from historical sources and experts' detailed knowledge, as well as new research in recent years. The presentation will aim to summarise the key points in the story.

Out of the 20 locomotives in question, two remain with us still, both on TfL's "payroll" but serving in different ways. Loco 5 is preserved in the London Transport Museum while loco 12 is not preserved and remains an operational asset, quite possibly a unique achievement for a standard gauge 'main line' loco in Britain and maybe the wider world. The accumulated service for all 20 locomotives is over 870 years and still increasing.

There's an early spoiler: all-in-all, the locomotives were designed and built specifically for passenger service with defined performance over well-understood territory, and their lives in service were largely uneventful. Even so, their performance and long lives created a substantial reputation and from the outset their distinctive and characterful style became a valued brand image for the railway. The locos' fame continues to be celebrated by numbers of models, in ready-to-run, kit and hand-made forms.

EARLY BEGINNINGS

The locomotives' story has roots in the early 1900s with the Metropolitan's well-established pattern of steam-hauled services. These comprised the core routes now known as the Hammersmith & City and Circle lines and on the 'Extension', reaching out to Harrow.

There were two other service elements: the longer distance services to Aylesbury and as far as Verney Junction and the Great Western Railway's trains, steam-hauled through to the city via Paddington Bishop's Road, terminating at Liverpool Street or Aldgate.

In this era, the Met's transition to electric traction began with multiple unit trains for its core services. Longer-distance steam services and the GWR trains were to be electric loco-hauled within the Met's electrified area. Loco design was influenced partly by space constraints at Baker Street at the time and the very specific role requirements resulted in a relatively short vehicle closer in principle to a multiple unit car than to a heavy-rail loco.

The first batch of ten locos were in the 'Camelback' or 'Steeple-Cab' form and the second ten in the 'Box Cab' form. Each batch had different traction equipment and both types were re-engineered 1911-1913, the box-cab locos receiving new bogies and traction equipment.

LOCOMOTIVE RECONSTRUCTION

By the end of the First World War (1918) the Met. was struggling with asset shortcomings, maintenance and rising service demands. The leadership proposal was to replace or cascade existing equipment with new and refurbished stock as well as upgrading lines, depots and power supply. With railways nationalised at the time, government investment support was not forthcoming, yet the Met. found financial means to proceed and a loco reconstruction contract was signed with Metropolitan-Vickers in September 1919 including supply of new traction packages for better performance. Vickers at Barrow took on the loco design, reconstruction and assembly, using their Gun Mounting Department. The project was intended to run for around 23 months at a cost of around £213k (1919 values). Two different reconstruction designs were needed to transform the two original loco types into a single new design, though the differences are detectable. After the delayed reconstruction of the first box-cab loco the contract was revised in 1921 to fix the price per loco and completion date for fifteen new locomotives. The already-committed reconstructions of four camel-back locomotives were completed. The project actually took 43 months, cost £312k and all locomotives had entered service by Spring 1923. Several traction and electrical issues affected early reliability and some of the painting was of poor quality and needed rework.

IN TRAFFIC

The locomotives reached retirement and redeployment nearly 40 years later, after serving faithfully with few out-of-the-ordinary events. The year 1925, however, was noteworthy. The locos were built with electrification to Rickmansworth in mind and this began early in the year. By late Spring, loco 15 was on display in the British Empire Exhibition. In June, loco 4 was involved in an operational incident at Baker Street that resulted in a flank collision and major damage to a passing train. To conclude 1925, the Watford branch opened and there is circumstantial photograph evidence that loco 12 hauled the train for the Directors' pre-opening inspection on 23 October.

In 1927 it was decided to name the locos after people linked to London and Metropolitan Railway territory. Plates were made of bronze and cost £5/3/0d each with an additional £3/10/0d for fitting.

London Transport took over from 1933 and the locomotives continued their service with new lettering and labelling but records show that the underlying Metropolitan livery barely changed.

The two trips per day to Vine Street Goods depot ceased in 1936 and Great Northern & City Railway (GNCR) stock transfers, to and from Neasden Depot, ended in 1939. Loco workings to Chiltern Court siding commenced in the late-1920s and remained until August 1961. Loco 10 was based at East Ham from 1938 to cover for unreliable District electric locos on the Southend commuter trains although very probably not used. The loco remained with the District for stores trains until 1941.

Had the Second World War not intervened, electrification on the Met. would have been extended, making the locomotives redundant. In advance, the locos were offered to the Southern Railway (SR) and the London & North Eastern Railway (LNER). Both declined.

During the War, locomotives were progressively re-liveried in a light grey style, similar to other LT engineering stock of the time and nameplates were removed. Also around this time, Loco 9 was moved to Ealing Common for shunting and stores train workings. Loco 19 was damaged in a service accident in 1945 and, in the subsequent decade, locos 15, 17 and 20 all received collision damage in depots. All four were scrapped.

By the early 1950s, there was a plan for overhaul of the locomotives and to replace unreliable and maintenance-intensive components. This also provided an opportunity to paint the locomotives maroon, with simplified lining and new aluminium alloy name plates.

Eventually, electrification extended and initially allowed the locos to reach Chesham in 1960, but Aylesbury trains still changed locos at Rickmansworth. All loco-hauled services ceased on 9 September 1961, with Loco 18 working a Special and Loco 16 leading the last timetabled service.

DEPOT ACTIVITIES, TESTING AND HERITAGE

Eight locos were scrapped in 1962. Four others (2, 7, 16, 18) were transferred to BR but their test role didn't happen and they were scrapped in 1966. Four locos remained in LU's Service Stock fleet for shunting:

- Loco 1 – Neasden Depot, scrapped 1971.
- Loco 3 – Ruislip Depot, scrapped 1965.
- Loco 5 – Acton Works, to the London Transport Museum 1973.
- Loco 12 (Sarah Siddons) – Ealing Common Depot. From the 1970s, it was a development vehicle for brake block evaluation and various trials including leaf clearing and new brake controls. The loco was used occasionally to recover broken-down engineering trains.

Several of the locos had hauled enthusiast tours and special runs in the 1950s and 60s. Thanks to proactive LT staff, locos 5 and 12 were used for brake van tours in 1972 and these set the scene for loco 12 to attend many events, depot open days and haul excursions, both on LU rails and, after provision for 750V dc traction supply, on BR Southern Region.

The Q&A session included discussion about problems encountered on heritage runs, door arrangements, whether Loco 5 could ever run again in heritage service, and whether the locos were updated in numerical order during the 1920s. On that final point, Charles confirmed that the entire loco series did not emerge in number sequence. The first reconstruction to emerge was 17 (former Box Cab) followed by locos 6, 10, 3 and, much later, 7 (all former Camel-back). Reconstructed locos reused key structural parts from the same numbered original, with only one exception. New locos, still reusing smaller recovered parts, continued to take over the number of an original loco chosen for withdrawal, thus replacing originals one-by-one.

The meeting then thanked Charles in the usual manner.

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