

THE AGE OF THE TRAIN

By John Hawkins

It occurred to me that whilst LU trains are still expected to provide up to 50 years of service, modern timetables require that they travel much further than was ever the case in the past.

Outside of peak periods there was a very sparse service on most branches in my youth, and Saturday and Sunday services were few and far between. These days some off-peak services exceed the peak services of the past and run throughout most of the traffic day.

My thanks to the LT Museum staff for their assistance in locating the 1968 LT Annual Report. I recall that railway rolling stock was then expected to last a 30 to 45 year life, depending upon whether it was of surface or tube stock gauge and on the generation of train design.

The current TfL annual accounts still give rail rolling stock a 30 to 50 year life. The 1968 Annual Report is for the calendar year, which included the delivery of some of the 1967 Tube Stock and the opening of the first stage of the Victoria Line on 1 September. A summary of six years of statistics shows that the number of railway cars had declined annually since at least 1963 when it was 4,317, and was still down on that figure after allowing for 1967 Tube Stock arrivals. Over that time total car miles run on LT lines had also continually declined to 195,467,000 (despite the opening of the first stage of the Victoria Line) from 209,000,000 in 1963 (both including empty running).

In 1968 train miles operated were 30,032,000 over the year, including those over non-LT lines. There were 4,230 railway cars excluding 10 awaiting disposal at year end, but 4,013 cars a year earlier excluding 18 awaiting disposal. This gives an average of 4,121 cars over the year. At an average of almost seven cars per train this is 591 trains, so an average 50,823 miles operated per train. (Car miles run on LT lines was 195,467,000, whilst train miles run was 28,025,000 which gives an average of almost seven cars per train). There was a higher holding of spare rolling stock back then due to greater maintenance requirements including periodic overhauls at Acton Works.

The TfL Annual Report for 2013-14 shows 76,200,000 kilometres operated in the year to 31 March 2014, or 47,348,485 miles in old measure which is up 58% on the 30,032,000 miles of 1968. The LU website reports there are 4,134 cars which is around 612 trains at the current average of almost 7 cars per train (from 2014 timetables summary), similar to the 1968 average. So in 2013-14 each LU train covered 77,367 miles on average, up 52% on the 1968 average per train.

It is surprising that despite the opening of new lines and increased schedules over recent years, the rolling stock fleet remains at a similar size to 1968, when there were 4,230 cars or 606 trains.

There are now 96 less cars forming six additional trains in total, mainly resulting from the adoption of fewer longer cars to make shorter trains on many lines from 1973 to 2000. With a similar number of cars and trains as back in 1968, current trains are running 52% further than earlier fleets. So withdrawal after some 50 years could see them having covered the equivalent of 76 years work for the older fleets, many of which were withdrawn at around only half that age.

This is a reflection of modern technology and manufacturing standards which has greatly reduced maintenance requirements whilst achieving exceptional improved performance.