

FREIGHT ON THE UNDERGROUND

by Eric Stuart

(I have tried to simplify this article by mentioning the constituent railway company at the time of an event, but later activities usually involved the subsequent appropriate member of the 'Big Four' and later region of British Railways.)

For those readers whose memory of the Underground system – 'the Combine' – does not go back more than 40 years or so, thoughts of freight trains on London Underground may seem as strange as the 'Routemaster' on the Moon¹ I mentioned in the title of a previous article. Engineers' trains, yes, but real, old-fashioned 'goods trains', with their clanking buffers, seem far removed from the modern Underground.

True, freight on the 'tube' lines was not an issue originally, although it became so later, as you will see, but it was certainly part of the operation on much of the sub-surface network. In earlier days, fruit, vegetables and other perishable commodities, horses, their carriages, cattle and other livestock could be conveyed. Some, if small enough, were carried in the brake vans of passenger trains. Milk traffic was common, either in churns or, later, tank wagons. Quite late in this history, oil traffic was dealt with in rail tankers at Chalfont & Latimer. Coal was especially important. Parcels and newspapers were also conveyed by many lines at different times¹.

AREAS OF OPERATION

Briefly, freight and other non-passenger service of varying kinds was provided at some time or other on the following sections of line:

Metropolitan/Circle/Hammersmith & City (H&C)/East London (ELL):

- Throughout the Met north of West Hampstead.
- To/from Vine Street (near Farringdon (Street)) and Baker Street (Chiltern Court²).
- Paddington Suburban – Smithfield (also near Farringdon).
- Via the City Widened Lines (CWL) for transiting trains and local depots.
- Via the East London Line for transiting trains and Whitechapel.
- Between Westbourne Park and Hammersmith.

District/Piccadilly (D&P):

- Between Turnham Green and West Kensington/High Street Kensington.
- Rayners Lane – South Harrow Gas Works.
- East of Bow Road.

Central:

- Leyton to Ongar and the Fairlop/Hainault Loop.
- Acton/Shepherd's Bush area.

Northern:

- East Finchley to Mill Hill East and High Barnet³.

You will notice that virtually all the services to or via any 'tube' lines were 'inherited' in that they only became part of the line when the tube line in question took over a section of line previously owned by another operator. When the Central and Northern lines were extended over London & North Eastern Railway (LNER) lines in the 1940s and 1950s, freight traffic – especially coal – was still important and had to be provided for. Exceptionally, the western extension of the Central Line was parallel with the Great Western Railway (GWR) line and the freight traffic was retained on that. Separate tracks were provided between North Acton and White City, so the previous milk and goods traffic in that area on part of the Ealing & Shepherds Bush line was segregated from the Underground service.

¹ Small items of mail and parcels were carried on the Central London Railway for a time. And when I worked on the Central Line in the late-1970s, the Central Line Appendix to the Rule Book still included instructions to Guards for conveying newspapers to kiosks on some of the station platforms, although that was probably also an inherited item from the main line railway days. However, the Traffic Circular for 18 May 1975 stated that carriage of newspapers on the Metropolitan and Central lines had ceased. It must be remembered that, prior to the building of motorways, the fastest and most comprehensive parcels network in Britain was usually rail. Air freight was still a minor mode.

² Chiltern Court is a block of superior apartments over Baker Street station.

³ The Finsbury Park to Alexandra Palace branch would have been included if the original plans had been completed.

METROPOLITAN ET AL

The Metropolitan always considered itself a 'main line' railway and so it was natural that goods/freight traffic would be part of its portfolio of services. This would involve heavier items like coal and building materials (especially during the era when suburban areas were being developed). Milk was carried daily. As it extended out into the country, the Met. ran a comprehensive service of freight trains, both to exchange traffic with other companies and serve their own yards. It is estimated that nearly a third of the Met's revenue came from freight, which may seem surprising for a railway popularly considered as an urban passenger line and helps to explain the Metropolitan's view of itself.

When I first joined the Underground, I worked with a man who was probably the last employee of the Metropolitan Railway still in Underground employment. He had been taken on as a temporary employee at Great Missenden for a couple of summer seasons in the 1930s, loading strawberries on Met. trains, before he was offered full time employment.

The Metropolitan took over traffic from other railway companies at Verney Junction (London & North Western Railway) and Quanton Road (Great Central), whilst some was exchanged through West Hampstead/Finchley Road yard with the Midland Railway and its successors.

In the open sections to the north, there were 12 Metropolitan goods trains in 1920 and about 15 in the 1930s, running at various times of the day and night, both local runs and transferring traffic to and from points such as Verney Junction. Contemporary photographs show the locomotives hauling these trains as carrying a disc or target board with its number on it. One train was booked to work over 20 hours of the day – hopefully with changes of crew from time to time!

After the Second World War, the Met. was operating nearly 30 'trips' a day, although by the 1960s, the number was much reduced, even if the coverage was similar. However, the line to Verney Junction had finally closed to freight toward the end of 1947 and West Hampstead was no longer used for transfers, so the change-over points were Quanton Road or Neasden BR and possibly Brent. Diesel locomotives worked the decreasing number of trains before the end, whilst a DMU worked the morning newspaper van to Chesham (returning to Marylebone as a passenger train).

A specific flow of traffic was of coal to South Harrow Gas Works. Coal was received through the yard at Finchley Road and was taken to the Gas Works via a reversal at Rayners Lane. Although the main traffic was coal, other items were brought in or out by rail at various times. Normally, there were two return trips a day, one mid-morning and another early evening. The traffic was dealt with in a comprehensive article on pages 508 to 521 of *Underground News* for October 2013, with subsequent correspondence.



Opposite: (Lower) An Uxbridge Line freight, believed to be between Ruislip and Ickenham, headed by ER class N5/2 69315.



Photo: C.R.L. Coles

The Watford and Uxbridge lines had their freight trains and Stanmore was served for a short while until the end of March 1936. Uxbridge yard closed on 1 May 1939. Ruislip still had a reasonable traffic in coal in 1962 but the yard closed two years later, along with the others on the Uxbridge line. What became class 27 in the BR fleet took over some of the Uxbridge line freights towards the end, seen approaching Hillingdon.

Photo: LURS Collection

The remaining Met. yards were all closed within a few years, the last being Harrow-on-the-Hill in April 1967.



Above: A view of the South Harrow Gas Works train at Rayners Lane Junction in early LPTB days as suggested by the new-looking concrete signal post on the right, provided in connection with the 1935 resignalling. At this time, trains for the Gas Works reversed in the westbound platform and were 'pushed' up the eastbound Piccadilly Line. These trains originated from Harrow yard. The loco is F Class 0-6-2T No.91, which later became L50 with London Transport.

Photo: Brian Hardy Collection

Overleaf: (Top) The former 'Joint' line was the last to operate freight trains on the Underground, beating the Central Line by a year with Harrow yard surviving until 3 April 1967. For the last few years these trains were diesel-hauled such as with this Class 25 Bo-Bo. No.33 siding on the right was abolished with effect from 13 June 1971.

Photo: LURS Collection



The Metropolitan G 0-6-4T and K 2-6-4T classes were primarily freight classes. When they became available for heavier trains, they allowed such as the earlier F 0-6-2Ts to be used on the more local 'pick-up' and distribution services. However, in 1937, the LNER took the larger locos over and with them the freight work, with the smaller LT classes left with LT to be used on Engineers' trains. Later, they transferred the larger ex-Met. locos away and used other classes for much of the LT freight work. The Met. freight trains that remained to the end were often diesel-worked. For example, Class 25 Derby/Sulzer Bo-Bos were used on the 'Met Main' and Cricklewood Depot supplied what became Class 27 Bo-Bo Birmingham/Sulzer locos in the D54xx series for the last few years of the Uxbridge line freight. By that time, South Harrow and Uxbridge were no longer served⁴.

⁴ Uxbridge goods yard had closed in 1939 and South Harrow Gas Works had done so in April 1954.

South of Finchley Road, there were trains to Vine Street and Chiltern Court. The Chiltern Court train



consisted of a few wagons with coal inward and removal of refuse on the outbound trip. The siding joined platform 1 at Baker Street about halfway along it⁵. Access to it was by a ground frame in platform 1 released by Annetts Key, which was normally kept in Baker Street signal cabin. The train ran from Neasden on Mondays to Fridays about mid-day on an 'as required' basis. The Chiltern Court train finally succumbed on 3 August 1961 and this is the last run (Left), seen passing through Finchley Road southbound.

Photo: LT Museum

Vine Street Depot was rather cramped, consisting of two sidings, each holding about seven wagons. The Vine Street traffic was mixed – it was served by a number of trains each day. The depot existed from 1909 until the mid-1930s, closing on 1 July 1936.

The services south of Finchley Road, to the Chiltern Court siding and to Vine Street, were electric locomotive hauled.



⁵ The siding's buffer stop near the inner end of platform 1 was visible until very recently.

This photograph (*Above*) shows the Vine Street freight, date unknown, but probably no later than 1920. The loco is either shunting the wagons into the two depot sidings or collecting them. The brake van is ready at the west end of the train for a trip back to Willesden Green. The train reversed in Farringdon (Street) on arrival and departure. The locomotive (number unclear) is one of the original ten Westinghouse 'Camelback' locos delivered by 1906, mainly to haul the Met. passenger trains into the country on the first stage of their journey. Loco changes took place at Wembley Park initially, at Harrow from 19 July 1908 and Rickmansworth from 5 January 1925.

Photo: LURS Collection

The GWR ran freight trains – mainly carcasses of meat, some in insulated containers – via Paddington and the north side of the Inner Circle to and from their sizeable depot under Smithfield Market, crossing between the Circle and the Widened lines just west of Farringdon station. These ran at various times during the day, but mainly at night or at least off-peak, and I recall at seeing one Saturday afternoon eastbound working a few times. The Smithfield depot closed with effect from 1 August 1962.



One of the trains for Smithfield is seen (*Left*) crossing from the outer rail/eastbound to the Up City Widened Lines just west of Farringdon and before the area was resignalled in late-1956. Note the track on the rising gradient to the left of the signal, which was the headshunt for Farringdon main line goods yard, which closed on 16 January 1956. The area was resignalled and the code letter was changed from 'D' to 'OH' from 16 December 1956.

Photo: Courtesy Clive Foxell Collection

The former goods yard headshunt became the banking engine spur from 13 July 1958 and replaced the one east of the station which trailed in on the Up Snow Hill line.

In 1905, it was reported that the Met. would supply electric locomotives for the freight trains east of Bishops Road, but this never happened. Probably from about 1933 and certainly post-WW2, a small series of the numerous 57xx 0-6-0 Pannier Tanks, numbered 9700-10, were normally used: these were fitted with condensing equipment⁶. In about 1960, these trains were taken over by what became Class 08 0-6-0 diesel shunters, which has maximum speed of 15 or 20mph.

The GWR also ran freight trains between their depots and Hammersmith (H&C). The train left Paddington at 01.45 on Mondays, Wednesdays and Fridays only, arriving at Hammersmith yard at 02.05. Departure from Hammersmith was booked at 03.20. At one time they reversed at Latimer Road, using the link to the West London Line to serve Kensington Olympia, returning by the West London Line, but after 1 July 1952 this routing was changed to use the H&C throughout in both directions.

As previously mentioned, the GWR and Central London Railway had a joint section of line between Acton and White City. From 1920 until the parallel lines for the WLR were opened on 19 June 1938, freight and especially milk traffic had operated intermingled with tube trains.

The northern companies, such as the Great Northern and the Midland, ran trains through from their lines to and from the Southern systems over what are now more or less the present Thameslink lines. There were also services to depots in the Farringdon area. Traffic could be intensive. For example, a survey of southbound freight trains on the City Widened Lines in a 24-hour period in the autumn of 1949 showed no less than 39 trains passing in one direction. And this would be in addition to the passenger trains to and from Moorgate from the Midland and the Great Northern suburban lines in the morning and evening peak hours.

Freight trains on the CWL were mostly hauled by modest-sized tank locomotives, such as 0-6-0T 'Jinties' from the Midland line, with J52 0-6-0STs⁷, J50 0-6-0Ts, N1 and N2 0-6-2Ts that worked on

⁶ These were easily distinguishable from the many other Pannier Tanks, because, as well as the exterior condensing pipes, the rear sections of the tanks were taken down to the running plate, to contain the condensing equipment. See further below on condensing.

⁷ The aging J52s, which could condense, were largely replaced by the non-condensing J50s from about 1952 – despite the "ENGINES MUST CONDENSE" signs along the line!

trains to/from such north London yards as Hornsey, Ferme Park and Brent. Most of these trains – especially latterly – ran to places such as Walworth Road coal sidings and Hither Green yard on the Southern Region. Freight traffic mostly died out at the same time as wide-spread dieselisation of British Railways, although the steam banker provided at Farringdon to assist trains up the steep gradient to Blackfriars was replaced by a Class 08 diesel shunter in the 1950s.

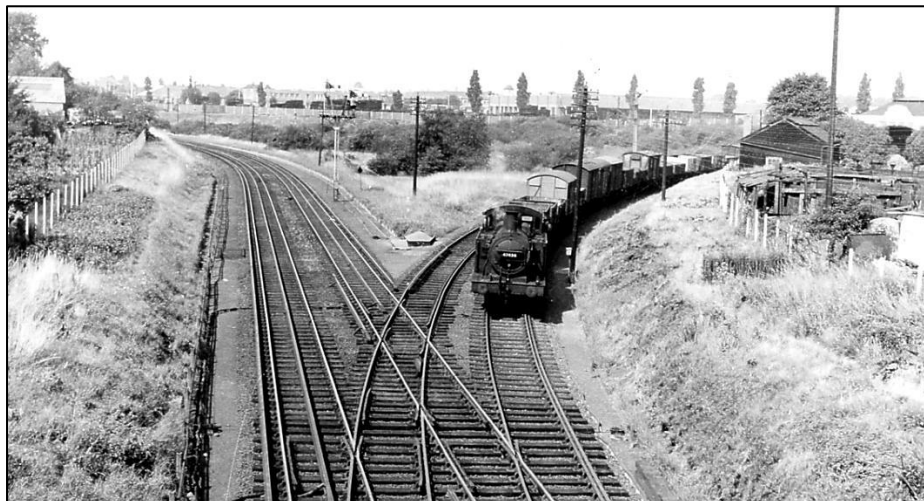
Similarly, the East London was a transit link between the Great Eastern and the southern lines, although a hoist (lift) was also available for conveying wagons between the ELL near Shoreditch station (until 1955) and Bishopsgate Goods Depot. Limiting factors to operation included the gradients in and out of the Thames Tunnel and the need for trains to reverse in Liverpool Street main line station.

ELL freight trains were usually headed by small J69 0-6-0T locos ('Buckjumpers'⁸), sometimes in pairs because of the gradients. Latterly, Class 15 and 16 Bo-Bo diesel locos were used, but this was of short duration, as freight did not survive for long after their introduction, as the last ELL freight ran in 1966. The CWL and ELL freight seems to have operated over 24 hours, although for obvious reasons of congestion it seems peak hours were generally avoided.

Parcels were still conveyed on the Met. by A Stock in 1962⁹. Newspapers continued to be carried until 18 May 1975 (q.v.).

DISTRICT AND PICCADILLY

Since District and Piccadilly trains at different times ran over what were originally Metropolitan tracks 'north' of South Harrow, they must be mentioned in respect of the freight on the Uxbridge line and to the Gas Works at South Harrow (see above).



Another stream of traffic was that of coal from Brent yard to and from the depots at High Street Kensington¹⁰ and West Kensington, the latter also dealing with general merchandise, operating over the D&P between Turnham Green and the Kensington area. Latterly, the trains to and from Kensington were almost invariably powered by the LMS 'Jinties', although other similar locos could occasionally be used.

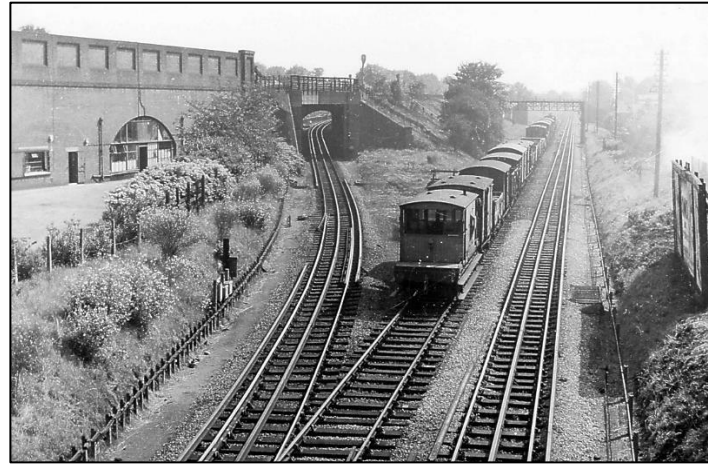
I once saw an Ivatt 2-6-0 tender locomotive on a coal train at High Street – I don't know how much of a rarity that was, but I suspect it was unusual. In the photo (*Above*) an inbound freight from Brent approaches Acton Lane Junction and is about to join the eastbound District Line from Gunnersbury.

Photo: John Gillham

⁸ The occasional main line passenger trains via the ELL usually had two of these locos, double heading.

⁹ When I first joined the Underground and worked on the Met., I was told that the reason that the rear car of A Stock had door cut-outs for both pairs of rear doors was so that the car could be isolated with the guard for the secure conveyance of parcels (presumably only off-peak).

¹⁰ Although access to the goods yard was from High Street Kensington platform 4, the goods depot was in fact officially known as Kensington High Street.



Above: (Left) At Acton Lane Junction again, a train of 'empties' turns right and heads for Bollo Lane Junction, where it will join the DC line from Richmond.

Above: (Right) Looking in the opposite direction from Acton Lane Junction, an eastbound (Up) freight for one of the two Kensington yards is on its way to pass under and join the Piccadilly Line west of Turnham Green and then the eastbound District Line between there and Stamford Brook. Freight trains were prohibited to use the eastbound District Line to the left because of the steeper gradient.



Above: A westbound train of 'empties' pass West Kensington on its return journey to Brent LMR. At that time the far west end of the eastbound platform was a narrow catwalk and rear doors at this section on eight-car District trains had to be isolated.

Photo: John Gillham (Above) and LURS Collection (Above Left and Right)

When the District extended to Barking and, later, Upminster, they shared their tracks with passenger and freight trains of the London Tilbury and Southend Railway and its successors, even after the section east of Bow Road had been four-tracked. Total segregation of the District services from the main line services, including freight, was only achieved in 1959-60 with the Barking Flyover and associated works – also the abolition of the Campbell Road (Bow) junctions with the old North London Railway, and removal of connections at Upminster. As a minimum, trains to/from the NLR would use the District for at least a few feet whilst crossing over to the 'main' lines¹¹.

Some fish in less than full wagon loads was conveyed for many years from Billingsgate Fish Market through Mansion House station by District Line passenger trains. For obvious reasons, this traffic was hardly pleasant on the nose and there were many complaints of wet effluent about the station.

NORTHERN

A link from the LNER to the Northern Line 'Northern Heights' extension was made at East Finchley. Freight service was operated to Mill Hill Gas Works and Edgware (Great Northern (GN)), the latter also hosting a parcels service, with a general freight service to stations from Finchley Central to High Barnet. Details of the service and timings in 1959 showed a number of services to Mill Hill Gas Works, to freight depots on the Edgware (GN) branch and the High Barnet line. These did run in daytime, although the busiest peak times were avoided. The plant at Mill Hill East finished gas production in November 1961 – the service to Mill Hill East goods yard and to the High Barnet line ceased from 1 October 1962. Freight to the Northern Heights finished altogether in 1964 when coal traffic to the depot at Mill Hill (The Hale) closed (29 February), with service to Edgware (GN), the last depot, closing on 4 May that year. The remaining goods yards were then decommissioned.

Traction: Photographs show N2 condensing 0-6-2Ts in the freights, but I have seen a picture of a B1 4-6-0 on an excursion at High Barnet, so possibly a wide range of locos was used. Again, in the late-

¹¹ I've seen a photograph of a Class 20 and train making such a move about 1957.

1950s, when Hornsey received numerous Bo-Bo diesels, such as Class 15, they took over for the last few years – partially from 28 November 1960 and then totally after 6 March the following year.



Above: N2/2 0-6-2T 69498 shunts a wagon and brake van at Finchley Central, platform 2, on 23 May 1952. Note the large pipes of the condensing apparatus on the locomotive. It used to be possible to return direct 'south' from middle platform 2 but this facility was lost when the area was resignalled on 15 October 1967 (the signalling related to the goods yard was decommissioned on 26 June 1964). It appears that the loco is pushing north, not pulling in – the young lad on the platform is looking north and the crew don't seem to be looking back along the platform. The bridge arch above the cab of the loco is where the additional southbound track would have been

Photo: A.J. Morse, courtesy Stephenson Locomotive Society



Above: One of the class 15 Bo-Bo diesel locos trundles north through East Finchley middle platform 2 in the closing days of freight trains on the Northern Line.

Photo: LURS Collection

CENTRAL

Likewise, the Central was extended over the LNER from Loughton Branch Junction, just south of Leyton, to Ongar and around the loop from Woodford to Newbury Park, where a link through back to the main line continued to exist for many years.

The junction with the Fairlop Loop near Ilford was triangular. The new Ilford Car Sheds for the Shenfield electric service were extended for the extra trains for the Southend and Chelmsford electrification, resulting in the final severance of the junction with the main line. The Fairlop Loop freight trains had come from that junction, serving stations as far as Grange Hill. Effective 29 October 1956, that was no longer possible, so the freight trains for the Loop came from the Leyton connection and served yards round as far as Newbury Park. The freight trains operated mainly during the night, to reduce interference with the Central Line passenger trains. They were actually forbidden as follows:

Monday to Friday: 06.00 – 10.00 and 15.00 – 19.15

Saturdays: 06.00 – 10.00 and 12.00 – 15.30

What those living in the 'des res' suburbs of Chigwell and Buckhurst Hill, the thought of the noise of shunting when they were trying to sleep can be imagined! However, a local report says that, in the 1950s, a loco did come from Epping in the early afternoon to shunt the yard at Loughton, which was the site of the original station, before the line was extended toward Ongar. Initially, here was also a midday gap in the Ongar service for the freight to the end of the line, but that ceased after a few years. A special working, a couple of Sundays a year, consisted of concrete beams leaving a local factory.

The impact of a non-passenger train on a 'metro'-type service can be judged by the following. For a time, it seems that a parcels train ran during the day, causing a Central Line Loughton branch train, that would have clashed with its path, to reverse at Liverpool Street and cool its heels in the sidings there for 37 minutes instead of running through, leaving a gap in the service.

The Central Line goods yards gradually closed, the official final closing date for what remained (Eagle Lane, Woodford, Loughton, Debden, Theydon Bois, Epping, Blake Hall and Ongar) being 18 April 1966. Quite when the actual last freight ran may well have been prior to that date?

Locomotive power was mainly J15 0-6-0 tender locomotives – the ‘go-almost-anywhere’ loco of the Great Eastern lines. Coincidentally, when dieselisation came, it was in the form of Class 15 and 16 Bo-Bo diesels – but again for only a shortish period.

In both steam and early diesel days, excursion traffic to seaside locations, generally on summer Sundays, also operated at the east end of the Central Line.

SPECIFIC ASPECTS OF FREIGHT TRAIN OPERATION

It will be appreciated that operation of trundling freight trains, mostly without continuous brakes, was the antithesis of a Metro/Rapid Transit type railway. Thus special signalling and other arrangements were needed. The braking distance for these trains was much greater than the normal electro-pneumatic or Westinghouse braked trains used on the Underground, which were quicker-acting. The GWR freights via the Inner Circle were required to have between 33 and 50% of the vehicles with vacuum brakes connected to the locomotive. If anything, this proportion may have been increased to 100% over the years, to judge from photographs.

With the introduction of the G and K class locos, the Metropolitan could operate trains of up to 40 wagons on its main line to the north, reducing the number of trains needed. However, on other lines, the length of trains was sometimes limited, because of gradients, siding length or simply for ease of operation on the Underground for various reasons. For example, GWR freight trains were limited to 20/25 wagons¹² plus brake, the Harrow Gas Works trains to 17, the Kensington freights to 15 vehicles, trains on the CWL seem to have been limited to 25 vehicles; and, on the East London, to 15 or possibly 20. It is likely maximum lengths and/or tonnages were stipulated on other routes.

On the Central Line, in times of reduced visibility (e.g. fog or falling snow) the driver of a train following a freight train had to be advised that the train in front did not have an electric tail lamp (oil lamps were the order of the day on freight trains). This rule may have applied elsewhere.

In some locations, Electric Train Detectors were provided to prevent non-Underground trains straying where they should not, such as down a tube tunnel!

One ploy used on sections of the Underground with standard Underground two-aspect signalling (or other signals requiring short braking distances) was the provision of Distant signals. In normal mainline signalling practice (also installed on some Underground sections in earlier days), signals at a block post between sections, which often included a station, consisted of one or more ‘Home’ signals at the approach and one or more ‘Starting’ signals at the entry of the section in advance. A driver had to be prepared to halt at any of these, which is, of course, why they are generically termed ‘stop’ signals. To allow trains to pass at speed, a ‘Distant’ signal would normally be provided about half a mile or so before any of the stop signals. If all the stop signals were clear, the distant signal would normally be also.

On many of the Underground sections of line where freight trains operated, Distant signals were added. These consisted of a yellow-fronted circular disc, similar to but somewhat larger than a disc shunt signal, with a black bar with a fish tail on the left end. It rotated 45 degrees to imitate a lower quadrant distant signal, to indicate that a specified number of stop signals in advance were clear. If in the horizontal position, the drivers of freight trains had to reduce speed, prepared to stop at any of the stop signals to which the Distant referred. The signal plate was inscribed with the name of the location e.g. ‘CROXLEY’. In some cases, where desirable, suitably inscribed ‘INNER’¹³, ‘INTERMEDIATE’ and ‘OUTER’ Distant signals were provided to give the required braking distance, which was always the determining factor¹⁴. In some cases, such as the approach to a terminus, the distant signal was ‘fixed’, in that it could not show a clear aspect¹⁵.

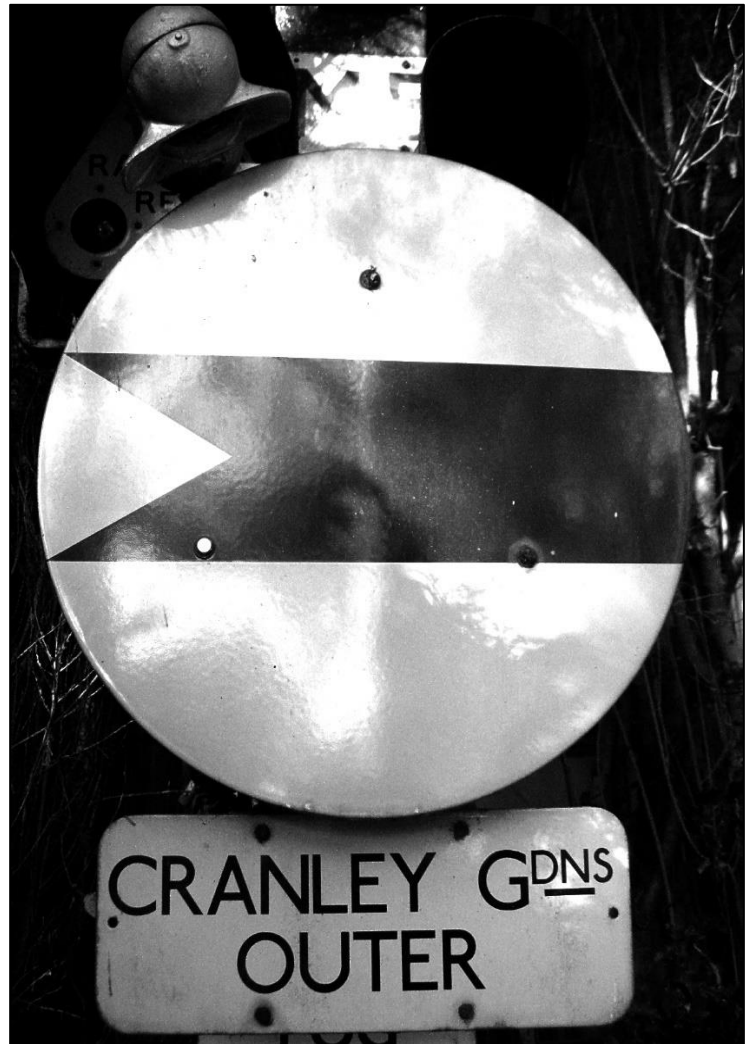
There were no Distant signals on the Inner Circle, City Widened Lines, East London Line or the District and Piccadilly, so I can only assume the Running Repeaters were considered to give sufficient braking distance.

¹² Reports on the maximum length for Smithfield trains vary. A reason given was that they should not occupy more than two track circuits on the Met. at once, but I am not clear on this. (Perhaps a knowledgeable member can comment).

¹³ I seem to recall that the word ‘DISTANT’ was also shown on some plates, after the location. (Again, I’d be interested in knowledgeable members’ comments on this.)

¹⁴ Passenger train drivers found these useful in thick fog, as they gave further assurance or the state of signals ahead, before sighting the Fog Repeaters.

¹⁵ At Chesham, a colour light ‘fixed Distant’ existed, showing only a yellow aspect: it had no disc but a plate like a Fog Repeater, coloured yellow, with the word ‘DISTANT’ on it. It was sited where the earlier semaphore distant had been.



VARIATIONS IN DISTANT SIGNALS

Top: (Left and Right) Two Distant signals on the southbound 'local' Metropolitan Line, in the 'on' and 'off' positions respectively, showing just the location and the word 'Distant'.

Above: (Left) The Distant signal under the southbound local starter at Northwood also includes 'outer'. The 'inner' Distant was under the Northwood Hills southbound inner home signal.

All photos: Len Griffiths

Right: Rescued from the Northern Line, this one omits the word 'Distant' and was located under the Park Junction northbound junction home signal NH2.

Photo: David Hibbert

Locomotives operating over most sections of the Underground were required to be fitted with tripcocks to be activated if passing a signal at danger with a raised train stop¹⁶. Tripcock gauges were provided at the loco sheds providing the locomotives, to check if they were correctly aligned. LT would be very upset if a loco failed a tripcock test whilst on their lines, although anecdotal evidence (which can now be revealed!) is that blind eyes were turned to the occasional tripcock tester failure out on LT lines, when expedient, especially in later years. After all, getting the freight train off the Underground was probably in LT's interest – and there was already a crew of two on the loco to check signals!

On the section between Paddington and King's Cross, where the trains ran through almost continual tunnels, also on the City Widened Lines, steam locomotives were fitted with condensing equipment¹⁷. This was a primitive way of reducing emitted smoke and steam by diverting the locomotive exhaust

¹⁶ This did not apply on the 'main' lines of the Metropolitan north of Harrow or other sections where multi-aspect signals were provided.

¹⁷ But there were exceptions.

into the water tanks of the locomotives to cool it and (hopefully) convert as much as possible back into water. However, this might reduce the power of the locomotive, so drivers could be tempted to avoid condensing if it might cause the train to stall; in any case, a lot of smoke and steam still tended to be emitted when locos were condensing. Along the Marylebone and Euston Roads, some of the ventilation shafts, built for the early, all-steam days of the Met., still existed, so unaware pedestrians could be surprised from time to time by mysterious plumes of smoke arising from the vents when a steam goods train passed beneath. This possibly caused some 'Marilyn Monroe poster moments' to unwary ladies! Some locomotives used on the Kensington freight trains had condensing gear, but it was not considered necessary on the short sub-surface sections to and from Kensington, so non-condensing locos were regularly used. Condensing was not a feature of the ELL, desirable as it would surely have been.

Back in the 1950s and 1960s, the District, Piccadilly and Metropolitan lines still used headcodes on passenger trains and also did so on freight trains. These consisted of discs or lamps, usually, but not always, white, displayed on the front of the train. Although there was a national system of headcodes on the railways of Britain, there were exceptions to the standard displays and such were used on the District, ELL, Inner Circle and Widened Line freight trains. The pattern of lamps or discs confirmed to staff on those lines, especially signalmen, the destination and sometimes origin of the train. For example, a loco with three lamps on the left side, middle and right hand side of the buffer beam indicated a train between Hornsey and Hither Green via the CWL, whilst freight trains on the District between Brent and West Kensington displayed a lamp over the coupler and one over the right buffer (looking from the front). (This system can also help students identify trains when referring to photographs many years later!). On other parts of the Underground, freight trains used the standard, national headcodes.

Of course, any incident involving a freight train could disrupt the frequent Underground passenger service¹⁸. This was minimised where practical by timing the freight traffic to avoid the busiest times (some examples have been given above), although the Harrow Gas Works trains seem to have caused the Underground a fair degree of angst over the years!

One possibility was stalling on gradients, so, in some cases, special instructions were issued to ensure that a freight train had a clear road to the top of a gradient before commencing the climb. An example of this was westbound from Hammersmith to Ravenscourt Park. A stalled train would be very inconvenient, the more so as the normal main line expedient of calling up the following train to push a stalled or defective train was usually frustrated by the following train being an Underground one with incompatible buffing and couplings¹⁹.

Normally, the accidental uncoupling of part of a train (a 'breakaway'), leaving the rear section behind, would not be dangerous, as it would be protected by the signalling arrangements. But this could be compromised on a rising gradient. For example, when a breakaway occurred on the East London Line in 1921, the smoke in the tunnel seems to have confused the guard and he failed to prevent the rear portion of the train from running back down a gradient until it was too late to avoid it hitting the following passenger train. On rising gradients at some locations, sprung 'trap' or 'catch' points were provided. These were single or double point blades, normally in the 'open' position. As a train passed over in the correct direction, the points were pushed closed against the springs and re-opened as the wheels passed. But, if any part of a train ran backwards, the vehicles were diverted clear of the running line to stop on the ground or in a pile of sand/gravel, hopefully before it did worse damage²⁰. As an example, in May 1933, two sets of catch points were installed on the westbound District west of Hammersmith, one 200ft west of Hammersmith platform and second on the gradient east of Leamore Street bridge. This obviated the need for the Hammersmith signalman maintaining starting signal WD41 at danger until a westbound goods or ballast train had cleared the top of the bank. For GWR freights, the Underground stipulated double coupling: this seems to have been required on the ELL and may have been elsewhere. In some cases, goods trains were required not to exceed 20-25 mph and this was probably at least a general rule of thumb, with reductions in specific locations, although the 5mph

¹⁸ It is stated that LT would sometimes refuse to accept a delayed freight train.

¹⁹ A similar problem arose on the Metropolitan north of Harrow-on-the-Hill, where main line passenger as well as freight trains and Underground trains usually alternated.

²⁰ If a wrong direction move was authorised over a section of track with such sprung points, they needed to be secured in the closed position to enable a train to pass safely.

restriction of Kensington trains climbing westbound to Ravenscourt Park was probably ignored to get a run up the bank!

THE PRESENT – THE WAY IT ALL WENT

Some 50 years have now passed since the last freight train ran on Underground lines. Although much of the evidence has gone, there is still quite a lot to see if one looks. Of course, most of the goods yards have become car parks (do they make more money in that form?) or some are now supermarkets or blocks of flats. The flyunder at Turnham Green is still there, devoid of track and with less headroom, but clearly visible, for example. The original line to Ilford from the Hainault Loop is largely allotments now. A signal/cable gantry or bridge still with soot can be a give-away.



Left: Another exception to the ‘turn it into a car park’ rule is at High Street Kensington, where much of the former goods yard area has had a hotel built upon it. This photo shows the ramp up to the goods yard and the train at the higher level.

Below: The alignment and brick wall of the ramp can clearly be seen, beyond which is the Copthorne Tara hotel. Platform 3 (right of centre) was extended to accommodate the walk-round between platforms 3 and 4, which opened on 22 March 1993.



FURTHER INFORMATION:

In researching this article, I have found discrepancies of dates of things like closures. I suspect some of this can be down to differences between ‘last train ran’ and ‘official closure’ dates. Any eye-witness or other confirmation/contradiction would be welcome.

Over the eastern Central Line and Northern Heights section of the Northern Line, through excursions operated from such places as High Barnet and Loughton, using the facilities enabling freight trains to run to and from the main line. The nocturnal main line passenger trains to/from the Epping line were featured a year or so back in *Underground News*.

The District freight trains to and from Kensington have been well covered in the February 2016 issue of *Backtrack* with follow-up correspondence in the April 2016 issue – also in *Railway Bylines* in May and October 2003. Good maps are provided in the first and third of the above magazines.

Une grande merci to Brian Hardy, who gave good coverage of Underground freight timetables in the 1959-60 period in *Underground News* for March 2011.