

THE JOURNAL OF
THE LONDON UNDERGROUND RAILWAY SOCIETY

Issue No 94

Volume 8 No 10

October 1969

THE EDITOR REGRETS

Acting as spare-time Editor to a Journal such as Underground is a rewarding but hazardous task. One never knows what is likely to crop up next - to threaten the coming month's issue, to detract from the quality and therefore the value of the magazine and so on. The present incumbent little realised what he was taking on when the Society was formed and he glibly said he would take the Editorship as there appeared to be no-one else available at the time.

Although generally a satisfying occupation, there are some snags; one of the principal ones with this particular journal is the limitation on size, which is particularly frustrating when it is realised that the restriction is a financial one and not in any way caused by lack of good material. This is the reason why some papers never appear, why some Letters to the Editor are printed well after their authors have forgotten they ever wrote them, and some News Flashes are growing whiskers and are anything but flashy when they reach our pages.

Then of course, there are the odd printing and transcription errors - but this month the Editor has a new regret; it has never happened before, but last month an article was printed with a whole section omitted! This was entirely an editorial mistake, no-one else being involved in any way. To the authors - John Prigmore and Eddie Shaw - full apologies are extended, and the 'missing part' follows immediately after this note; and to readers, who must have wondered, we also say "sorry".

TUBE STOCK HANDINGS AND REVERSALS B.J.Prigmore & E.Shaw

The following section was omitted when the article under the above title was published in the September issue. Will readers please note that the following should be inserted after the words "... in February 1935" and before the heading 'THE LAST FLING: 1957' on page 137.

THE SECOND ROUND: 1938-9: 1948-51

In June 1938, under the 1935-40 New Works Programme, a major reallocation of stock was commenced. The Northern Line was to lose its standard stock with the arrival of 1938 stock. Unusually, the Northern Line had equal numbers of 'A' and 'D' motors (168 of each) and (approximately) of control trailers (70 and 75 respectively: 1935 figures being quoted) since only half of its seven car trains had the four car portion at the north end; the other half had it at the south. (Trains were split, for four car off-peak working, at Morden or Golders Green, and Edgware respectively).

The ex-Northern stock was to go to equip the Central with three-motor six-car trains (replacing the original three-rail stock), to equip the Northern City with standard tube stock (two-motor six-car trains), to provide 'D' middle motors to lengthen Bakerloo two-motor sixes to sevens by the addition of middle motors (and to provide trailers in place of redundant control trailers); and, finally, to provide a reserve of stock for the Central extensions.

The war, of course, delayed and altered some of the above plans, but, by 1938-9 it was necessary to provide extra 'D' motors to suit the unbalanced situation arising from the fact that on the Bakerloo, Piccadilly and Central, the seven car trains all had their four car portions at the west, or 'A' end.

A total of 26 motors should have been turned for this - 12 for the Central, six for the Bakerloo, and eight for the Piccadilly. In the event, five for the Piccadilly were not done, and a total of 21 were turned 'A' to 'D' and renumbered, to follow the then fairly new 1934 motor cars, as 3723-73, odds only with five omissions. The appended table gives details: it will

it will be seen that all 26 victims and their new numbers had been chosen, even though only 21 were done.

In 1948-51 this conversion programme was completed - but not with the original five candidates. In fact, 3044 was chosen because late in 1949 it needed drastic overhaul after collision damage, and so the reversal was conveniently added to the job!

The obvious question, "why did not these reversals, even if not of the original candidates, take the pre-empted new numbers?" is answered no good authority by "it was simpler, to ensure no mistakes, to issue instructions that the turned cars should be numbered consecutively beginning with the first completely free number: the past was dead, and a new situation was regarded as having arisen".

DISTRICT ELECTRIC ROLLING STOCK

P.R.Connor

1

On Sunday 24th August last a special trip was made by a train composed of eight cars of District Line 'Q' Stock to celebrate the centenary of the District Railway, and the forthcoming withdrawal of most of the 'Q' Stock from service on the Underground. The delivery of the new 'C69' Stock to the Hammersmith & City and Circle Lines early next year will displace the 'CO' Stock at present in use, which will be transferred to the District to replace the 'Q' Stock. All the older cars of this type will be withdrawn, whilst the remaining 'Q38' cars will work the East London Line. This will mean the end of the clerestory roofed cars long familiar to the Underground traveller, and the end of a long line of rolling stock whose design dates back to the original electric cars which first ran on the District in 1903.

In point of fact, the first electric train to run on the District Railway did so in 1900, between Earls Court and High Street Kensington, but this was an experiment conducted jointly with the Metropolitan Railway to test the feasibility of electric traction on the Underground, and therefore does not come within the

scope of this article. Shortly after this experiment the District was taken over by an American finance syndicate who resolved to electrify the line on the 550 volt DC system. A start was made in 1903 by so equipping the Ealing and South Harrow Railway (which had been built, but not opened, some four years earlier) in order that it could be used as a testing ground for the main scheme. Two seven-car prototype trains were ordered from the Brush Electrical Engineering Co., of Loughborough, the first cars arriving in March 1903, while the remainder were delivered in time for the public opening in June. Their design was based on that of the Boston Elevated Railway and their outward appearance bore witness to their American origins.

The cars were constructed largely of teak and mahogany, strengthened with steel, whilst the underframes were of steel sections with a wood filling to support the car floor. The bodysides were straight and teak panelled and had almost square plate glass windows, above which were toplights whose upper edges were severely arched. The clerestory of the roof sloped down at the car ends over the gated entrance platforms, which were replaced at one end of the motor cars by a driver's cab. There were two types of motor car: the end motor and the middle motor. The end motors had a luggage compartment, which gave access to the cab and was immediately behind it, and which had a sliding door with glazed upper panels. The middle motors were without the luggage compartment, which allowed for a total of 48 seats, twelve more than the end motors. The cab of these cars had a single sliding door on each side which was used for entraining passengers when it was not occupied by the driver. Trailer cars, with seats for 52, were generally similar to the motors but had entrance platforms at both ends. All cars had a pair of double sliding doors in the centre which were reserved as an exit. Main dimensions for the cars were as follows:- length 50 ft $3\frac{1}{2}$ inches, height 12ft 4ins, width 8ft 7ins. A motor car weighed about 30 tons, whilst a trailer tipped the scales at a little over 18 tons.

The electrical equipment was supplied by British Westinghouse and British Thomson-Houston, each firm being responsible for one train. A motor car, of which there were three per train, had two motors fitted to the leading bogie. The motors on the BW train were type 83M, rated at 100 h.p., with a gear ratio of 20/56, and were controlled by the automatic electro-pneumatic 'turret' system subsequently supplied to the Metropolitan Railway for much of their rolling stock. It proved to be unfortunate for the Metropolitan that they did not follow the District example of prototype trains, for they had much trouble with the Westinghouse equipment in the years immediately following electrification, and found it necessary to replace the shoe-gear and turret controllers. Evidently the District realised the drawbacks of the BW system in good time, for they ordered no further equipment from them, and later re-equipped their train with B T-H gear.

British Thomson-Houston, who subsequently supplied the District with all its traction equipment, fitted their prototype trains with 125 h.p. GE 66 motors and non-automatic electro-magnetic control gear. The master controller had nine notches and, as there was no accelerating relay, the driver had to acquire a certain amount of skill to move the controller handle through these notches in a way which would obtain the maximum acceleration without opening the circuit breaker. The 'deadman's handle' was fitted whereby the driver had to keep a button on the controller depressed against spring pressure.

There is some doubt as to the braking system fitted to these trains. The Underground Electric Railways Co's Board minutes refer to a payment made to R.W.Blackwell & Co for equipping one of the Ealing & South Harrow trains with the Christensen Air Brake. No more information has come to light on the subject, but it is reasonably certain that the other train, and subsequently both trains, were fitted with the Westinghouse Quick-Acting pneumatic brake.

In addition to the car bodies, Brush were responsible

for the bogies, which were cast steel and had swing bolsters. Their centres were set at 34 feet on each car; the motor bogies having 3ft diameter wheels and a wheelbase of 6 feet, whilst the trailer bogies had 2ft 6in wheels and a five foot wheelbase.

The interiors of the cars were finished in mahogany and had white painted ceilings. Electric lamps were hung from the lower part of the roof and were fed directly from the line. Most of the seating was longitudinal and upholstered in rattan. A proportion of the seating was first class and was no doubt furnished in a manner suitable to its status. Cars were numbered 1-4 end motors, 201-2 middle motors and 301-8 trailers. It appears that they were originally turned out in yellow livery but this does not seem to have lasted long, and they subsequently appeared in the vermilion of later District stock.

With electrification, the Ealing and South Harrow line was equipped with the Westinghouse electro-pneumatic signalling system which included the use of trainstops. Tripcocks were therefore fitted to the 1903 stock, and were of the 'plug' type fitted to all the early underground stock until superseded by an early form of the 'ejecta' type some years later.

The 'A' Stock, as it became known, ran on the E & S H from its opening in June 1903, and was also used for training motormen for the forthcoming main line electrification. They worked the Hounslow and South Acton services in conjunction with later stock from 1905 onwards, but they were rarely, if ever, seen any further east. Some of the motor cars were fitted with the more powerful GE69 motor during the latter part of 1903, and were the subject of a series of night-time tests by Underground engineers. The trains in their original form proved to be somewhat underpowered and all the motor cars were eventually equipped with the new motors, which they retained for the rest of their lives. They underwent other modifications in later years, but as they were always included with the production cars of 1905 in the company's records, they will be thus dealt with in future articles.

to be continued

LETTERS TO THE EDITOR

28th August 1969

Dear Sir,

ESCALATORS THEN AND NOW

I have often had correspondence with you on rolling stock matters, but I did not think that I would have to write to you officially about my new responsibility.

Your leading article in the August issue requires some serious comments, as it contains misleading statements. The new escalators are not fitted with steel treads, they are aluminium alloy and this type of tread, although recently adopted by London Transport, has been in general use by all escalator manufacturers throughout the world for at least 25 years.

There have been complaints about the dazzle and shimmering effect of the very brightly illuminated escalators on the Victoria Line, but there have been no such complaints emanating for instance at Trafalgar Square, where aluminium treads are installed with the original lighting.

The question of discomfort to the eyes and the shimmering effect are of course personal responses, there should not be any difficulty, however, in this respect on "up" escalators. The bright appearance of the aluminium steps may induce a feeling of slipperiness, but in fact controlled tests which have been conducted, show that these steps are not more slippery than the wooden cleated steps. The statistics of falls on escalators do not substantiate the statement that there are more falls on new escalators compared with the old, in fact the number of accidents on our escalators generally has dropped compared with last year, even though more escalators are in use with the opening of the Victoria Line. I appreciate that this statement is cold comfort to the person who falls on the aluminium treading and receives lacerations; however, this is only one aspect of the accident situation, as we have had no comb accidents whatsoever with the new escalators which is one of the causes of serious injury with old

type escalators, when falls occur.

As you so rightly say the safety of our system is of paramount importance and because some accidents have occurred in which passengers have received lacerations by falling on aluminium treaded escalators, we are continuing to examine the possibility of using alternative materials, but which will retain the advantages already obtained from aluminium treads. Such a material has not yet been found, but the search continues.

Yours faithfully,

J.G.Bruce

Griffith House,
280 Marylebone Road,
London, N.W.1.

Mechanical Engineer
(Lifts & Escalators)
London Transport

25th June 1969

Dear Sir,

I have read with interest the comments in recent issues of "Underground" regarding the "future" of the Northern City Branch.

As I live but a few hundred yards from Highbury Station, the continued deterioration of this line's service is a matter of concern to me. When the link between Finsbury Park and Drayton Park was finally severed, considerable opposition was aroused locally.

I am sure that the recent Victoria Line travel survey carried out by London Transport will reveal that there are a great many people who change to the Victoria at Finsbury Park (after negotiating the antiquated spiral staircase from the Main Line platforms), only to change again at Highbury to reach the City. With the empty trains arriving from Drayton Park to be filled to capacity during the morning rush hour by passengers crossing from the Victoria Line, it certainly seems that it was unwise, to say the least, to have curtailed the line at Drayton Park...

Meanwhile, the girders of the unfinished Underground/LNER station at Finsbury Park, one of the greatest eyesores

in this Borough, remain a rusting reminder of the public money and resources thrown away thirty years ago on the Northern Line extensions...

It is surely the OBVIOUS solution to pick up the threads of this scheme and extend the Northern City through the ramps at Drayton Park to the surface platforms of Finsbury Park - and beyond through the wasted new station at Highgate to join the main Northern Line at East Finchley.

Apart from erasing, at least in part, the greatest blot on the history of London's Underground (no doubt at far greater cost than would have been the case, even in 1954), this would give an alternative service from the Barnet/Mill Hill East line to the City, thus relieving pressure on the existing line via Euston. It would provide a further interchange to the Victoria Line, as well as obviating a double change from Finsbury Park to the City, and finally give the Northern City Line a decent service once more. Additionally, pressure on the British Rail service from the Great Northern section to Moorgate (Met.) and Broad Street may be eased.

It goes without saying that the efforts wasted on the unfinished Northern Line extensions are a disgrace. I refuse ever to believe the official reason, particularly where the Finsbury Park-East Finchley/Alexandra Palace sections were concerned, for the abandonment - that there was insufficient demand...

Let us hope that when the G.L.C. assumes control of London Transport we shall see the conductor rails that were lifted in 1954 being refitted between Finsbury Park and Highgate! The Council are, after all, continually striving to reduce traffic congestion by spending £-millions on road construction, while here in Central London is a perfectly good rail connection that has lain waste for the past fifteen years, and another that is in danger of being killed in the same way - reduction in service leading to reduction in traffic, thus giving the perfect excuse for closure...

Yours sincerely,

116 Canonbury Avenue,
Islington, London, N.1.

James H. Blake

8th August 1969

Sir,

"Piccadillo" to Kings Cross

With reference to the suggestion by Mr. H.Lourdes-Cresswell for a future through Piccadilly Line service between Waterloo and North London, the fact is that the present track layout at Holborn makes such a service impossible. The 1901 decision to form the GN&Strand and the Brompton and Piccadilly railways into a single continuous railway by means of a new deep-level double-tracked connection between Piccadilly Circus and Holborn, left the Holborn-Strand (now Aldwych) section of the former as a secluded branch-line which, to this day, has but a single connection with the main route tracks. The nature of this connection though, makes it impossible for it to be used to operate a through service of trains between Aldwych or Waterloo and stations on the main route beyond Holborn, as it is the southbound track of the branch-line which joins with the northbound track of the main route. Before joining, these two tracks pass on opposite sides of an island platform at Holborn. The northbound track of the branch-line comes to a dead-end at Holborn with a platform that is only 250 ft. in length - shortened to prevent its protrusion into the platform section of the northbound main track; and the westbound main track burrows beneath both of the branch-line tracks and this shorter platform. It should also be noted that the present Holborn-Aldwych service operates between its southbound platform at Holborn and the northbound platform at Aldwych, its single train changing tracks by means of a single facing crossover, a short distance south of Holborn station. So, if through-running were to be put into operation, some major alterations to the track and platforms at Holborn would first have to be made. It seems though that the increased service that will result from the branch-line extension to Waterloo will make some changes at Holborn inevitable.

In addition to these track and platform anomalies at Holborn, there is the further drawback that its nearest crossover is about 0.31 mile away, a few feet

east of Covent Garden platforms. Further to this, the reversal of a train at a platform requires an absolute minimum of $2\frac{1}{2}$ min waiting time for its crew to change ends and prepare the train for its return journey: unless the stepping back of crews is arranged, when this waiting time is reduced to 1 min. But as the latter method increases the cost of providing the service, it is unlikely to be used. With the crews normally changing ends at Holborn, the use of the Covent Garden crossover would entail an interval of about 5 min. between the arrivals at Holborn of a terminating train and the next one that follows it - thus making impossible the $3-3\frac{1}{2}$ min. non-peak and the regular 2 min. peak intervals.

The only method that would have a chance of accommodating these service frequencies would be the provision of a new centre-bay reversal siding north of the Holborn platforms, although there might still be some difficulty in working the peak-hour service owing to the time that would be taken in emptying the fully-loaded trains.

The real question though is whether a through branch/main-route service needing the reversal of some trains at Holborn and compelling their passengers to change there would offer any advantages in operation or to passengers that would outweigh the present mode of operation; and whether there is any indication that the numbers of passengers to be carried on the branch-line to and from north of Holborn will exceed the numbers passing through Holborn in each direction, on the main-route trains. There does not appear to be any indication that they will.

Yours faithfully,

16 Pendrell Road,
Brockley, London, S.E.4. ,

F.F.Brown

8-8-69

Dear Mr. Davis,

Ref Mr. Connor's letter on p.123, there was most certainly a GREENFORD plate on the Central Line to cover its terminal point there when the Western extension only reached Greenford. This lasted several years until the "shorts" were extended to Northolt after a reversing siding was installed. The original

planned service involved regular reversing of trains at Greenford and this continued well into West Ruislip days. I would also suggest that a plate for DENHAM was available but regret I cannot find documentary evidence to support my memory!

L.W.Norris

20 St Margaret's Avenue,
Cheam, Surrey.

8 September 1969

Sir,

Regional History of Railways, Vol 3
Greater London. H.P.White

With reference to the note on page 124 of the Journal for August 1969.

Additional items which need to be corrected or amplified have recently been verified.

- Page 41. Waterloo: line 15 from foot of page:
1866 to read 1860.
line 5 from foot:
1879 to read 16 Dec 1878.
line 3 from foot:
September to read 19 Nov 1885.
- P.133 line 23 to read: '27 August (Putney Bridge, from
Kensington High Street on
23 July 1905). To deal with the...
- P.147 Map Opening to Broad Street to read 1865.
- P.171 line 4 from foot: Shoreditch. Date of Act is
27 July 1846.
- P.196 Beckton: Service for workmen began 17 March 1873;
for ordinary passengers 18 March 1874.

167 Cornwall Road,
Ruislip, Middlesex.

H.V.Borley

LONDON'S TERMINI

ALAN A. JACKSON

ERRATA

The following is as shown on an errata sheet just out from the
Author - dated August 1969

page 70, line 21: should read:-

'depot at Cricklewood. Although there were engine sidings and a'

page 92, last line: for 'the 1890s' read '1912'

page 105, lines 21-22 should read:-

'grandeur when part of the train shed was removed to reduce maintenance costs. What is'

page 194, line 13: delete 'Hendon'

page 213, para 3, line 2: for 'L & SCR' read 'L&SR'

page 358, last para, line 2: insert full stop after 'Company'

BOOK REVIEWS

John Ashdown, Michael Bussell & Paul Carter; A survey of Industrial Monuments of Greater London; Thames Basin Archaeological Observers' Group, London, 1969; 64pp 8 x 6½ including sketch map and some line drawings, lithoed from typewritten original; price 8-6d. Obtainable from the Society.

This is, in effect, the first publication of the Greater London Industrial Archaeology Society, which has recently been formed and of which TLURS is a member. The book is a checklist of surviving industrial monuments in Greater London, with brief details of each and giving map references and a key to type of monument. In their Introduction the compilers state that they make no claims that every item of significance is included, but despite their modesty it must be said that they have done a very good job indeed; future editions (which are bound to come) may be better, but this one will do very well for a beginning. A large number of railway and other transport items are listed, and to those interested in the industrial archaeology of Greater London this book will prove of immense value.

A.G.Brown; Channel Tunnel Bibliography; 42 pp fcp, duplicated in limp cardcover; The Channel Tunnel Association; London, 1969; 5-Od. Obtainable from the Society.

Another reference of work of considerable value, with very close connections with the study of Underground Railways. An excellent bibliography with map as frontispiece; compiler A.G.Brown is to be congratulated.

CLASSIFIED ADVERTISEMENT

FOR SALE: TLURS Journals October 1963 to November 1966 + 1959 ABC of LT trains + 1927 Paper on Enlargement of City & South London Tunnels. Offers to Parry, 15 Parkthorne Close, North Harrow, Middlesex.

SOCIETY NOTICES

SUBSCRIPTIONS 1970 Members are reminded that the Annual Subscription to the Society for 1970 has been increased; the new rates are

Members	£1	10s	0d
Associate			
Members		17s	6d

Payment is due on the 1st January, and members who pay by Bankers Order are reminded that they should amend the Order to their Bank before the date due.

HISTORICAL RELICS COLLECTION The Curator, Chris Gooch, has expressed his willingness to show the Society Collection, or any part thereof, to any member interested, provided he is notified in advance in writing. The address to write is C.H.Gooch, Fairmead, Northway, Pinner, Middlesex.

THOMSON COLLECTION Similarly, the Curator of this Collection, Norman Welch is willing to show to interested members, but naturally he will also require advance notice. Write to N.M.Welch, 53 Bramley Road, London, N.14.

NEW AIRPORT EXPRESS BUS SERVICE BY LONDON TRANSPORT

Having failed to secure permission to build the proposed Heathrow extension to the Piccadilly Line, LT are doing the next best thing. With effect from August 1969 a new bus service has been inaugurated between Hounslow West Underground station and Heathrow Airport Central. Numbered A1, this express service has a flat fare of 1/- with no half fares and with automatic gate fare collection. Normal service interval on weekdays is 10 minutes and the journey takes 12 minutes.

NEWS FLASHES

- NF 851 A new film "The Private Life of Sherlock Holmes" is now being shot. Scenes have been filmed on the Keighley & Worth Valley Line, and during July in Scotland. Nairn station was renamed Inverness for the occasion and 3 of the KWVR Metropolitan coaches have been used having been altered to Victorian condition.
- NF 852 Cannon Street station reconstruction will take about three years. The new roof will be of steel and concrete, and above there will be seven shops and a walkway for the public on the main line station forecourt.
- NF 853 The Society Visit to Johnson Riddle & Co. Ltd received a mention and a photograph in the Advertisers Weekly of the 9th May last.
- NF 854 Stratford station has recently been exhibiting a notice by the Booking Office reading "Please state your destination" in two languages - English and Chinese. This is because of the large Chinese population in the area of the station.
- NF 855 The Evening News has published a lengthy news feature on the dazzle danger and other hazards of the new type escalators. This appeared on 9-9-1969 and interviews with the public clearly indicated that the fears as to their safety are held by people outside the Society. (See letter from J.G.Bruce in this issue).
- NF 856 When the new fare scale came into operation on the 7-9-1969, a small number of booking clerks refused to operate the new scale and some booking offices were closed. The refusal was due to a delay in settling a pay claim, but work was back to normal on the 8th.
- NF 857 There has been press criticism recently of the subsurface concourse at Oxford Circus which bears out the comments in Underground when it was opened. LT state that they are considering alterations to the Layout.

THE TIMETABLE

18.00 Thursday 2nd October Library Evening at 62 Devonshire Road, Ealing, London, W.5.

15.00 Saturday 4th October Transport Bring and Buy Sale at 138 Piccadilly, London, W.1. This sale is intended for the sale of all transport material, not only railway items.

Members are invited to bring along their surplus books, tickets, photographs, relics, magazines - anything in the transport line they want to sell. It will be possible to sell for own account, with a commission to the Society or (preferably of course!) to donate the whole of the proceeds to the Society funds. The success of this sale will depend on the members own co-operation, so please help to make it a success.

19.00 for 19.15 Friday 10th October at Hammersmith Town Hall.

PRESIDENT'S ADDRESS FOR 1969. The President, C.R.L.Coles, a distinguished Railway Photographer is giving a Paper, illustrated with many of his own slides, entitled "Those Good Old Steam Days". The October meeting, always addressed by the President, is a highlight of the Society year, and this paper is surely going to maintain the standard. Do come along to hear - and see - the talk and illustrations.

Saturday 11th October Visit to White City Depot, LT. Names to S.E.Jones, 113 Wandle Road, Morden, Surrey, accompanied by a stamped addressed envelope, as soon as possible please. Restricted visit - full members only.

10.00-17.30 Sunday 19th October at the Museum of British Transport, High Road, Clapham, London, S.W.4. The Society will have a Stand at the Open Day, which will give a focal point for members to meet their friends and to buy the latest publications. The Museum is putting on all the usual attractions so an enjoyable day is foreseeable as is usual on these occasions. Stewards are required for the Museum (but the Society Stand is fully manned). Names to P.R.Davis, 62 Billet Lane, Hornchurch, Essex, RM11 1XA as soon as possible please.

18.00 Thursday 6th November Library Evening at 62 Devonshire Road, Ealing, London, W.5.

Lithoed by The Celtic Bureau, 93/94 Chancery Lane, London, W.C.2.
and Published by TLURS, 62 Billet Lane, Hornchurch, Essex, RM11 1XA.
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