U n d e r g r o u n D

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## THE MODELLERS' CORNER

Joe Brook Smith

### London Transport Colours

With the kind assistance of the Executive, official colour specimens were submitted to the manufacturers of Humbrol Enamels. They have now made the following recommendations for obtaining the correct shades from their present range.

Railway Red - B.O.Red 19 (Should be a fraction darker, i.e. halfway to Crimson 20.)

Loco Maroon - L.M.S.Maroon 108. This is a match without any alterations.

Compartment Stock Brown - B.R.Red Bauxite 110 (Slightly darker with a touch of G.W.R.Chocolate 102.)

Lincoln Green (Country Buses also Coaches) - Mid Brunswick Green 3 (Slightly lighter with a touch of white.)

The Service Stock Grey was not included in the enquiry, as this colour appears to match L.M.S.Wagon Grey 107.

The colours 3, 19 and 20 are from the Plastic Enamel range and give a gloss finish. To obtain a semi-matt finish, as the Railway Enamels, add a little Humbrol Matting Agent or Flat Finish Varnish. All Humbrol Enamels are intermixable. Colour Charts and Leaflets are available free from dealers.

A useful tip when matching shades from any sort of Colour Chart is to make a mask of white paper to cover the surrounding colours, which otherwise can give a false effect to the one being compared. Another point to bear in mind is that small areas of colour appear darker than large areas of the same colour; therefore, err on the lighter side when painting models.

# DISPOSAL OF CENTRAL LINE STOCK BY GEORGE COHEN SONS AND COMPANY LIMITED AT HEREFORD

J.A.S.Milne

The tube cars were collected at West Ruislip Depot in consignments each of seven cars. A 13-ton match truck was then coupled to each end, and these in turn to a brake van.

On the evening prior to despatch, the seven cars were taken by British Railways to the Goods Yard at Southall, and early the next morning a freight locomotive completed the train - forming the 6.45 a.m. Southall - Hereford (Rothewas Junction) service. The route was via Oxford and Worcester, and the journey time about eight hours. The speed of these trains was restricted to 25 m.p.h. to avoid overheating of the tube car axles. There were nineteen consignments, totalling 133 cars in all.

The cars were individually dismantled, first being fired to remove the unwanted upholstery, seating and woodwork, and the metal skeleton then left of each car was finally disposed of with oxy-acetylene cutters.

The fleet numbers of the cars in each consignment, and the respective dates of despatch from Southall are as follows:-

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 25- 8-1960 | 3520 | 3479 | 3465 | 5078 | 5266 | 5008 | 5032 |
| 12-10-1960 | 3446 | 3515 | 3545 | 7301 | 7306 | 7308 | 7348 |
| 18-10-1960 | 3410 | 3423 | 3593 | 3473 | 3624 | 5324 | 5298 |
| 8-12-1960 | 5132 | 5106 | 5000 | 5094 | 5036 | 5064 | 5146 |
| 16-12-1960 | 7327 | 7324 | 7392 | 7302 | 7356 | 7342 | 5274 |
| 29-12-1960 | 3497 | 3565 | 3471 | 3455 | 3450 | 3606 | 5314 |
| 13- 1-1961 | 3574 | 3535 | 5193 | 5020 | 3487 | 3495 | 5195 |
| 26- 1-1961 | 3649 | 3542 | 3522 | 3454 | 5308 | 5292 | 7345 |
| 10- 2-1961 | 3480 | 3608 | 3485 | 3527 | 5250 | 5306 | 5191 |
| 21- 2-1961 | 3588 | 3618 | 3591 | 3615 | 3511 | 5258 | 5282 |
| 13- 3-1961 | 5203 | 5288 | 5300 | 3462 | 3488 | 3287 | 3521 |
| 16- 3-1961 | 3486 | 5284 | 5326 | 5153 | 3472 | 3475 | 3464 |
| 25- 3-1961 | 3539 | 5320 | 5278 | 5256 | 3482 | 3483 | 3490 |
| 27- 3-1961 | 7396 | 5280 | 7383 | 5330 | 5260 | 5322 | 5332 |
| 18- 5-1961 | 3529 | 3530 | 3528 | 3526 | 3637 | 3585 | 3737 |
| 24- 5-1961 | 3296 | 3603 | 3543 | 3571 | 3552 | 3645 | 3629 |
| 18- 7-1961 | 3566 | 3533 | 3541 | 3570 | 3590 | 3621 | 3610 |
| 31- 8-1961 | 3557 | 3609 | 3611 | 3619 | 3665 | 3667 | 3680 |
| 29- 9-1961 | 3560 | 3562 | 3586 | 3597 | 3604 | 3647 | 3673 |

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# THE COACHING STOCK OF THE METROPOLITAN RAILWAY

## The Earliest Stock

K.R.Benest

The Metropolitan's first vehicles were ordered hastily when the Great Western Railway intimated, in July 1863, their intention to cease working the line after 10th August. Probably little more was done in the way of design than to re-dimension copies of G.W.R. broad-gauge drawings to suit the standard gauge, and bundle them off to the Ashbury Carriage and Iron Company. At any rate 34 were delivered by 1st October 1863, interim services being maintained by stock loaned by the Great Northern Railway and the London and North Western Railway.

These carriages, 39'6""x 8'3" over mouldings, were severely rectangular, the only curve in the entire body being that of the roof itself. The body length was standard for all classes and the compartmental arrangement was based on the linear equivalence of three firsts to four inferior class compartments. Thus there were three basic body patterns:- 6 x 1st, 8 x 2nd or 3rd, and a composite - 2.2.1.1.1.2.2 (more rarely 3.3.1.1.1.3.3).

For their day they were spacious - 7'1" high inside at the centre - and well lit, with two gas lamps to each compartment. Coal gas at low pressure was carried in weighted rubber bellows in a box on the roof, which thereby took on a clerestory appearance. First class accommodation, with seats well upholstered in blue carriage cloth and braid, fixed individual armrests allowing four persons a side, curtained windows and a carpeted floor, was luxurious. Second class, on the other hand, excelled the bare varnished planks and partitions of the thirds only in the provision of thin squab covered with green American cloth, and a matching shoulder pad.

Externally, all carriages, which were teak framed and panelled, were plain varnished, save that the sides above the waists were painted white. This latter feature, after the first four or five years, was retained for first class compartments only, conferring a most peculiar appearance on composite vehicles. The words "Metropolitan Railway" appeared usually in two lines in the centre of the deep waist panel, but on composites the wording was arranged symmetrically about the centre doorway. Vehicle numbers

appeared at each end on the line of the first partition. Each door bore the designation "FIRST CLASS" etc in two lines. All characters were applied in gold leaf and blocked, probably in blue.

Perhaps the most interesting feature of these vehicles was the arrangement of the under carriage. Firstly the frame was 6" shorter than the body, the angle-iron forming the head-stocks having the flange turned outwards to support the body frame. The arrangement facilitated a degree of close coupling, using ordinary buffers and screw shackles. The wheels, 3'6" in diameter, with iron tyres and double spokes, were disposed on centres 5'9" - 16'6" - 5'9". There were no bogie trucks, but the axleboxes were a "sloppy" fit in the hornplates, and were connected in pairs on each side by lengths of strap-iron. The laminated springs were loosely shackled to small scroll irons, and allowed these vehicles, under the aegis of Vulcan, to negotiate the tight curves of the Inner Circle for forty-odd years without mishap.

At first, Newall's hand brakes were provided, operating through wooden brake blocks upon the four inner wheels of the guards' vehicles only. An end compartment in some third, and all second class carriages, had two narrow lights fitted in the end bulkhead, and one passenger seat replaced by a screw brake wheel. The braking power of the train thus totalled that of the under guard in the leading coach, the head guard in the rear, and the driver, all three sources being completely independent in action. Guards compartments, when not in use as such, had the brake wheel secured by a chain and were available to the public. For many years, aggregate seating returns made no concession to the presence of the brake wheel, and showed all lower class carriages as providing 80 seats. It was perhaps considered that, fundamentally, the variation in discomfort occasioned by assuming the throne was a matter of degree only!

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## PROGRAMME MACHINE REGULATING ROOM

Members who have visited this room at Leicester Square may like to know that accounts of the present installation, and of the earlier 43 lever frame at Camden Town, have been published in the following journals:-

Railway Magazine September 1952, April 1956, March 1958
Engineering 27th December 1957
Engineer 13th December 1957

Please note that this is not intended to be a complete list.

## NEW LONDON TRANSPORT BRAKE VANS

Two brake vans of unusual type and appearance are now being used by London Transport in conjunction with its specially-built train for handling 300-ft long welded rails.

The long-welded rail train was designed to carry three tiers of rails instead of the more usual single tier and in consequence the load had to be carried nearer the decks of the wagons. This meant that the buffer beam carrying the Railway Clearing House type of buffing and drawgear had to be omitted and only the tube-type Ward coupler and central buffer could be provided, instead of both systems.

The tube-type drawgear is satisfactory when the train is operated with a battery locomotive at each end, but when the train is used for rail carrying and off-loading only, for which battery power is not necessary, it is often more convenient, on open lines, to use a single steam locomotive. In these circumstances, the braking power of the steam locomotive must be supplemented when running between depot and site by a brake van placed at each end of the train. As the tube-type drawgear cannot be fitted to existing brake vans, it was at first necessary to use a match wagon between each brake van and the long-welded rail train. The use of these wagons was inconvenient and it was, therefore, decided to construct two special brake vans.

The new vans are based on two London Transport 10-ton flat wagons purchased for tube working in 1936. These had already been converted for use as brake vans in 1949, when they ran with the experimental 400 h.p.(one-hour rating) tube-dimension diesel-electric locomotive DEL 120, which had been built in 1941 and was then working ballast trains. They were fitted at that time with a steel and glass "sentry box" for the guard, and with Westinghouse and hand brakes. When, after trials, it was decided that DEL 120 was not a success, the brake vans were put to use as stores wagons, retaining their characteristic sentry boxes. They were not heavy enough for use as brake vans with steam-hauled ballast trains.

When the vans were converted for their present use the tare weight was increased to 18t 6cwt by building rectangular sheet steel boxes at each end of the vehicles and loading the boxes with scrap rail. A new full-width cab, built on top of one of the boxes, replaced the sentry-box. The cab has cut-away sections on each side to give space for the hinged side-buffers to be housed when they are swung out of the way to

allow the Ward coupler to be used. The handbrake rigging was modified to give the required increase in braking force and the Westinghouse equipment, which is not used on steam-hauled ballast trains, was removed. The main and train line pipes and hose couplings have been retained for convenience of through connection in case the vans are marshalled into an electrically-hauled train at any time.

The cab is fitted with a small coal stove and lockers along the inner bulkhead, the lockers forming seats for the crew. The bay in the outer wall, between the buffer positions, contains a locker seat used for coal, and also the brake hand-wheel. Detachable side boards are fitted to the flat sections of the vehicles, giving a useful space in which conductor rail insulators, packing, and other material to a maximum weight of two tons can be carried.

The work of conversion was carried out by the Chief Mechanical Engineer's Department of the LTE at Acton Works.

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## MORE ABOUT WEST RUISLIP DEPOT AND STATION

John Echlin

The main buildings of the Depot were built just before the 1939-45 war, and were used during that war by BSA for making A.-A. guns. The buildings are 941ft long and 241ft wide.

Shortly after the war, the Central Line was extended from North Acton to Greenford (1947) and reached West Ruislip in November 1948. The line was to have been continued to Denham but the project has since been abandoned. It would have entailed much engineering and constructional work, and I doubt whether it would have been economic in the long run.

At the same time as the rails were being pushed north-west the car depot was being prepared to receive the increased number of trains needed to work the new extensions.

Recent depot movements have been as follows:-

1962

| | | |
|---|---|---|
| Feb | 12 | A60 6076-5076-5077-6077 entered service |
| " | 20 | 6-car tube 2310-1310-1315-9735-2314-1314 arrived. |
| " | 22 | 8-car A60 arrived. |
| " | 28 | 8-car tube arrived. |
| Mar | 13 | A60 6084-5084-5085-6085-6086-5086-5087-6087 ready for service. |

About twenty old tube cars have been removed from the depot so far this year.

FURTHER NOTES ON SERVICE STOCK by 2743

BW Additions - BW 36, 138 and 216 noted in 1953.
BW 255/6 have central drop-doors in fixed 3-plank sides in place of the standard 3-plank full length drop-sides.
SL etc - Add SL 964 noted 1953; PH 941 noted 1/1961 as AW 941.
TW 730 - is a long-wheelbase 4-wheel wagon.
Brake vans - B553-60 were omitted in error from previous list. B562/3/4/6/7 have short body with 2 verandas, no duckets, their weights average 11t 7c. B565/72/3/5 (and B569, scrapped at Neasden 1961) have similar body, weights probably same. B555/7/8/9 have 2 verandas and offset duckets. B554 is of longer wheelbase, but without verandas. B561 is "C.M.E.Dept" (Branding now removed by weathering!) BV577 was stand-in for van undergoing overhaul on 24/12/1957 - as B577 it was at Ealing on 13/10/1958 with SC637-40. Six new brake vans were at Lillie Bridge on 6/2/1962, including B580/1/2/3/5. B580/?/?/5 were at Neasden on 24/2/1962. These appear to be of BR standard design, and are finished in pale grey with red ends, with BR stone and brown interiors. Details are written on black panels, except numbers on ends are painted direct on the red finish.
SC 630 - was a goods van of vaguely Midland appearance.
SC 632 was a Met Rly passenger van with louvred sides, suggesting that it was a milk van originally.
Neasden Breakdown Train in 1953 was - C604 (Built Cowans, Sheldon, 1924) and Jib carrier; 700 - rigid 8-wheel van; 701 and 702 - 4-wheel vans; 703 - Bogie van; 704 - low-ended Flat 4-wheel wagon.
Cranes - C607 built by Ransomes and Rapier.
We hope to publish shortly an up-to-date list of LT Service Stock.

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THE TIMETABLE

Saturday 14th April Waterloo & City Line. Members who have already applied assemble by 2.30 p.m. at Stationmaster's Office, Waterloo. Refusals only will be advised. No Visitors.
Easter Week 24th-28th April Model Railway Exhibition, Central Hall, Westminster. We are exhibiting; if you can help to man our exhibit, please send name, and days and times you are available, to J.Brook Smith, 34 Barnehurst Road, Barnehurst, Kent.
Saturday 19th May Brill Branch. Open to all; meet 10.15 a.m. at Marylebone; no notification unless Party Rate ticket wanted - fare 16/- Marylebone, 13/- Harrow, children half fare - in which case send open P.O. 8/- or 6/6d with s.a.e. to Secretary by 4th May.

## NEWS FLASHES

NF 9 Metropolitan electric locos nos 2,7,16 and 18 left Neasden Depot on 8th March 1962, and are now at Mitre Shed (London Midland Region) Electric Car Sheds, probably for use in experimental work with a.c. traction motors at Rugby.

NF10 New train indicators have been installed at all stations on the eastern section of the District Line from Bromley to Upminster, except at Elm Park Hornchurch and Upminster Bridge; and at Barking where new indicators were installed last year during the rebuilding of the station.

NF11 Circle Line trains on the outer rail will be running from Gloucester Road to High Street Kensington via Earls Court between 8am and 8pm on Sundays March 11,18 and 25, and April 1,8,15 and 29. The diversion is due to work on the West London Air Terminal, near Gloucester Road.

NF12 Control trailers 75090 and 75346 have been purchased by the War Department for use on the Shoeburyness Military Tramway. Now painted dark green, they are in service, with a match truck (with Ward coupler) attached to the non-driving end. They are popular, as they are low enough for the drivers of steam locomotives to see over them when propelling.

NF13 ESL 118A (T Stock 2758) and ESL 118B (T Stock 2749) have been in regular use north of Rickmansworth on the Met Line clearing ice from conductor rails.

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