

# LSWR 1520 LIVERY SPECIFICATION

Document completed 23 Nov. 09; rev. 1 Dec. 09



## Description

The following is largely distilled from the HMRS Livery Register No. 3; LSWR and Southern. Detail drawings are also from that source. It is both a document of record and instructions for the painters and signwriter.

Painted diagrams are modified from a British Railway Modelling supplement

Colour photographs of NRM carriage by Ian M. White (also on web at: [http://early\\_lbscr.t35.com/lswr1520/lswr1520.htm](http://early_lbscr.t35.com/lswr1520/lswr1520.htm))

Black and white photos and GA from G.R. Weddell, LSWR Carriages vols 1-2 (except for carriage cleaner photo, NRM). Prints were kindly made available by Gordon Weddell and Mike King.

Annotations in red are for record purposes only and do not represent instructions to the painter or signwriter.

## Paint Colours

### Roof fittings (vents etc.)

Black as already painted.

[NRM have done these white; HMRS Register indicates black was more common; Gordon Weddell supported black in earlier discussions]

### Roof canvas (including rain strip)

White as already painted.

### Wheels

Varnished wood and white painted tyres as already painted.

### Upper panels (excluding cantrail)

Salmon buff (B) over areas presently in yellow buff undercoat.

**Cantrail, lower panels, ends (inclusive of top rail), solebars, headstocks, interior fittings (hat-rack brackets and blind boxes)**

Brown (A) over areas presently in black undercoat.

[Colour of interior fittings is not recorded but coach brown was also used on building interiors so its use in the carriage appears likely.]

**Droplights (outer surface) and bolection mouldings**

Mahogany coloured paint (F) applied over an undercoat mixed from 60% yellow buff plus 40% red undercoat.

**Below solebar**

Black, as already painted.

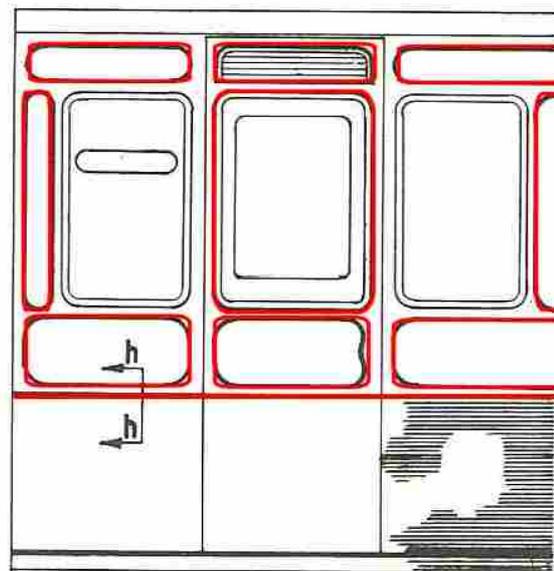
**Grab handles and other exterior fittings above the solebar**

Use appended sheet of NRM photos for reference.

[It is impossible to confirm all of these details but the NRM scheme appears to fit with evidence from contemporary photos]

**Lining**

There are two colours used; colour C (lining brown) is the same as colour A (brown) and will henceforth be called brown; colour D is a shade of red and henceforth called red.

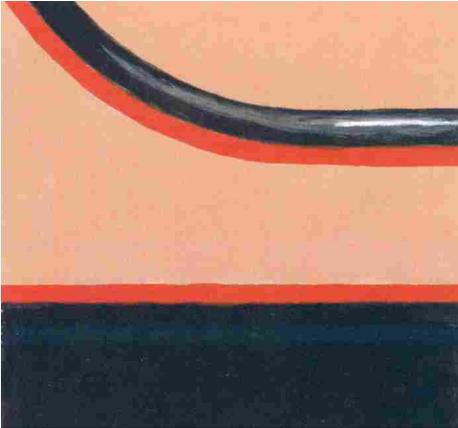


Brown paint is applied to the curved edges of all flat topped mouldings (i.e. not including bolections) from and including the lower waist moulding upwards; the red lines in the above diagram mark the approximate edges of these lines; see also above photograph.

A red line 1/8 inch wide [the NRM made this more like 1/4 inch] is applied to the upper surface of each flat topped moulding, abutting the brown, as in following cross section diagram [based on fig. 11h in HMRS register]. [NRM made the brown line narrower]



A red line is also applied along the lower edge of the bottom waist moulding (as per following close up diagram).



In the case of the sinuate edge of the moulding adjacent passenger door handles, the lining follows the moulding edge, as per above photo.

A red line should **NOT** be applied along the upper edge of the bottom rail moulding. **It was shown in the unmodified BRM coloured image but it is uncertain if this was always applied; NRM have not done this either; Tim Preston has noted that it would merely make distortions in the lower edge more obvious.**

NO lining on cantrail or ends.

## Set Number

“63” to be applied in white numerals in the following three positions, using the supplied style sheets:

1. 3 inches high on the left hand end of east sole bar, centred between 1<sup>st</sup> and 2<sup>nd</sup> footboard hanger (21.5 inches from left end), and vertically centred between footboard and top of solebar (centred within the 9 inch high space); see example photo of set 401.
2. 3 inches high on the left hand end of the west sole bar 21.5 inches from left end (not centred between the footboard hangers as these are further apart than those described above).



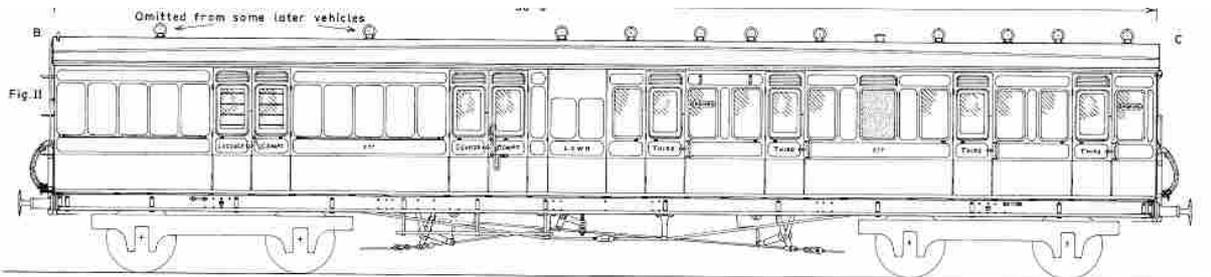
3. 8 inches high on brake end, centred between highest and middle steps (higher than in example photo of set 85).

[The position varied between being very low and very high within the space between these footsteps. The available space is just under 24 inches high so 8 inch high letters can be balanced as “thirds”. Numbers based partly on a loco plate (563) and partly on the set number 166 (that was inadequate for direct copy).]



## Carriage Side Lettering

### General Arrangement of waist panel lettering



Words/numbers used in above general arrangement drawing, from left to right along waist panels:

Double doors nearest end; Left door: **LUGGAGE**;

Double doors nearest end; Right door: **COMP<sup>1</sup>**

Long panel between double doors; centred: **1520**

Double doors nearest ductet; Left door: **GUARD<sup>s</sup>**;

Double doors nearest ductet ; Right door: **COMP<sup>1</sup>**

Ductet; centred: **LSWR**

Passenger door: **THIRD**

Passenger door: **THIRD**

Below toilet window; centred: **1520**

Passenger door: **THIRD**

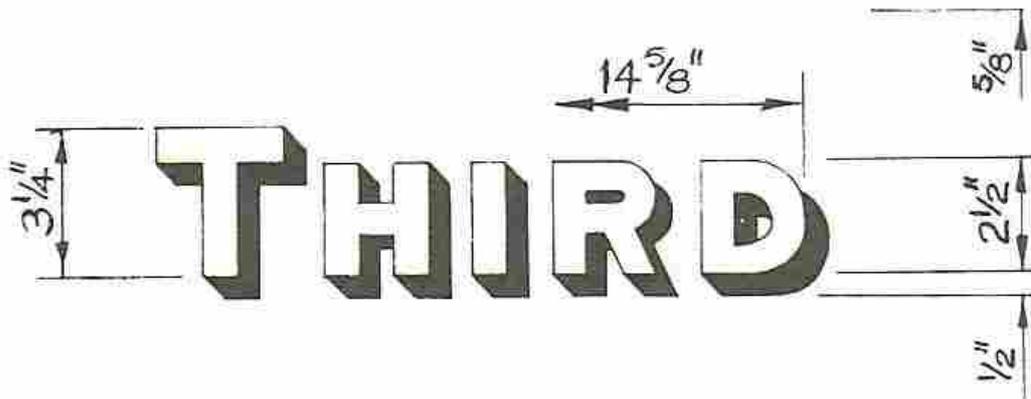
Passenger door: **THIRD**

All required carriage outside words and numbers are provided as full sized outlines (generated using TurboCAD).

## Carriage Side Lettering – Doors

This lettering includes an enlarged capital.

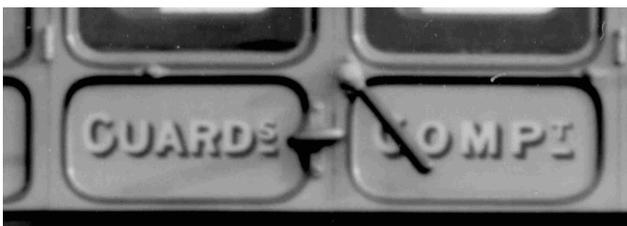
Small lettering 2.5 inches high over the gilt part; large 3.25 inches; 0.5 inch black shading (right and bottom); black line to left and top of unspecified narrow width (width at sign writer's discretion); font style as per drawn diagrams and photographs. Height centred on half height of the gilt part of the 2.5 inch high letters [that last detail from lettering at NRM].



**LUGGAGE**

The words GUARD<sup>s</sup> and COMP<sup>t</sup> need to be in the same gilt and black blocked style as THIRD and LUGGAGE but with the last letter small and set high, over a dash.

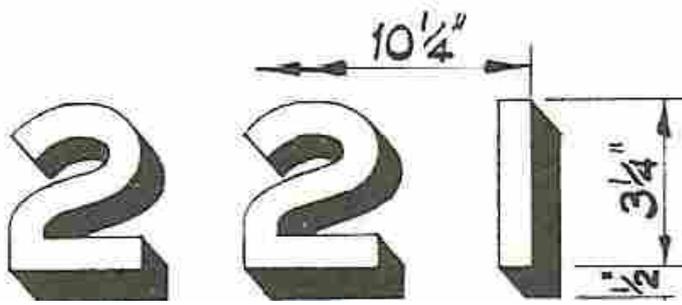
The following are greatly magnified sections from contemporary photos.



Carriage Side Lettering – Between doors

All this lettering of uniform height.

Lettering 3.25 inches high over the gilt part; 0.5 inch black shading (right and bottom); black line to left and top of unspecified narrow width (width at sign writer's discretion); font style as per drawn diagrams.



The No. 1520 follows this specification diagram.



LSWR lettering follows the above drawing (Livery Register) but it is spaced as per NRM carriage. The spacing used in the above GA (from Weddell v.2) looks crowded; that used by the livery register looks over-spaced. The NRM letter spacing matches that used on kitchen brake photographed in 1910.

## Interior Lettering

Passenger door interiors to show class designation as the word THIRD in gilt letters of a single size on the garnish rail to left of strap, 1.25 inches high, and blocked 0.25 inches below and right with black, using standard SR patterns (please copy from samples in paint shop and other carriages). The number 1520 and compartment letter (A at north end; D at south or brake end) on garnish rail to right of strap. The following photos shows an LSWR example (NRM) and 1520 (SR 2975) as it was pre-restoration (Bluebell Archives).



HMRS register only discusses THIRD interior door lettering with respect to doors that were fitted with tongue and groove boarding below the garnish rail (as plate 5.18b in Weddell). That style was used with the passenger doors lock being of the type fitted to the brake doors (loop handle on outside no internal catch). From 1910 (Weddell v.2, p.23) Kays locks with exterior T-handles were gradually fitted to passenger doors; that lock type has an internal catch. It is not know if this was an original feature of 1520 or something carried out later but it also required the doors to be fitted with flush panels. It is not known how such a panel would have been lettered by the LSWR and therefore the doors of 1520 are to be lettered in the SR manner, as used by LSWR for Second and First class doors.

Toilet door – not to be labelled in any way as the toilets are not installed and the doors will be locked.

## Destination Boards

These are to be made and lettered by volunteers

Size: 2'7" x 3.5" x 0.5" fitted to brackets just below cantrail (page 65 of HMRS register).

Red (use colour D) with white san serif lettering (Ocean liner trains used blue). Note that first letter should be slightly taller than other letters. Letter heights (estimated from Weddell plate 6.13h); first letter 3.2"; other letters 3.0". [NRM made all letters same height]



## Colours

Colours A – E as per HMRS livery register which gives Munsell codes.

Paint matching normally uses BS4800, RAL, NCS, NCS2 colour systems. BS4800 can't be calculated without purchase of appropriate charts.

Conversions used: [www.easyrgb.com](http://www.easyrgb.com)

See also: [www.december.com/html/spec/colorucl.html](http://www.december.com/html/spec/colorucl.html)

## Data

In the following the best matching codes are given with RGB values to back convert for comparison and indication of error level.

### **A: Brown**

Already defined and paint purchased

### **B: Salmon Buff (Terracotta)**

Already defined and paint purchased.

### **C: Lining Brown**

Munsell code – 2.5YR2/2 (RGB=64.75/44.79/39.46)



RGB=65/45/39

This is identical to one of the Munsell codes quoted for colour A, so it will be assumed to be the same and no new paint purchased. It will finish paler as it will be placed over salmon buff, rather than black undercoat.

### **D: Lining red**

Munsell code 7.5R4/11 can't be converted.

We have purchased a paint mixed to Pantone 1805 (back conversion is to Munsell 7.5R4/12)



RGB=173/38/36

### **E: Lemon yellow**

Not applicable to 2<sup>nd</sup>/3<sup>rd</sup> class carriages.

### **F: Mahogany**

Already defined and paint purchased