

**Midland Railway
LMS, LNER & Scottish Joint Stock**

54' clerestory corridor carriages

Introduction

The parts supplied allow the model to be built with either of two roof heights, two varieties of corridor side panelling or gas or electric lighting. Transfers are supplied for Midland Railway 54' clerestory roof corridor coaches for either the MR or the MGSWR (Midland & Glasgow & South Western Joint Stock), M&NB (Midland & North British Joint Stock) or pre 1933 LMS. Suitable HMRS transfers for the LNER or post 1933 LMS are available (we suggest HMRS) separately from Wizard Models or other specialist suppliers.

The main variations which can be are as follows:-

- A: High roof, use the ends on the underframe sheet discard those on the body sheet. Use the corridor side outer layer, part (26) on the main body sheet.
- B: Low roof. Use the ends and corridor side outer layer on the main body sheet.
- C: Low roof, no ventilators over corridor side droplights. Use the ends on the main body sheet and the separate corridor side outer layer.

These versions are referred to as types A, B and C.

There are four clerestory carriages in our range these are:

Diagram 469: 7 compartment corridor composite carriage.

Diagram 473: 7 compartment corridor third carriage.

Diagram 559: 6 compartment corridor composite brake.

Diagram 561: 3 compartment corridor third brake.

The most recent version of this instruction sheet may be found as a PDF on our website see www.51l.co.uk

Prototype information

The coaches represented by these kits were built around 1905-7. Introduced from 1905 by Bain these 54' round-panelled clerestory carriages were used by the Midland for its own services and for its Scottish Joint stock activities. MR and M&GSW vehicles became LMS property in 1923. The M&NB joint stock remained in being until 1928, when the coaches were shared between the LMS and LNER. Those carriages which became part of the LNER fleet in 1928 and were repainted in LNER colours. These clerestory carriages lasted until the early fifties.

There were a large number of variations among what was a fairly small number of carriages. Some four different types have been recognised giving two height variations and differences in position of the louvre vents. The carriages were originally gas lit but had been converted to electric by Grouping. Gas lamps were removed and torpedo vents centred over compartments. The gas cylinders were replaced by battery boxes. Several of the carriages sent to France in ambulance trains did not return.

Numbering and lettering

There is unfortunately virtually no information available as to which coaches had gas lighting and which electric, though many of those originally gas lit were probably later converted. So far as is known, none of the vehicles converted for ambulance service in 1917 returned to passenger service after the war. Apart from one or two accident victims, most of the others were withdrawn over the period about 1936-53.

Type	Dia	Lot	Qty	Type	Original No	1913/14	1923 LMS	1932/3 LMS
Third	D473	587	4	A	MGSW 233-6	MGSW 366-9	4000-4003	3174/7
		592	20	A	MR 15, 54, 56,67,78,90,92,104	Unchanged	Unchanged	3154/61
					MR23,26,42,45,58,66, ,74/5,77,79,81, 105,	Converted to ambulance train 1917	n/a	n/a
		601	4	A or B	MGSW 209,226, 244/5	MGSW 342, 359 377/8	3976, 3993 4011/2	3172/3 3178/9
		618	14	C	MR575,578,605,607, 615,634,648/9	Unchanged	Unchanged	3190/8
			MR561,573, 577, 632, 639	Converted to ambulance train 1917	n/a	n/a		
		644	6	C	M&NB 125/130	M&NB 125/130 Until 1928	became LNER 3894/5, 38949,3904, 3906 in 1928	
Brake Third	D561	588	7	A	MGSW 237/243	MGSW 371/6 237 scrapped	4005-10	6438-43
		593**	30	A	MR115,117,122/3,13 3,137,153, 156, 166, 181, 193, 224, 227, 238, 277, 326, 330, 435	Unchanged	Unchanged	6420/37
					MR113,135,148,155, 170,211,215,231,237 ,257,272	Converted to ambulance train 1917	N/a	N/a
		628	12	C	M&NB 113/124	M&NB 113/124 Until 1928	4117,4123,4128 in 1928 LNER, 3907, 3913, 3916, 3917, post 1928	6457/73
Comp Brake	D469	600	10	A	MGSW 242, 260/7	MGSW 259, 257/284	3942,3960/7,	4843/51
					M&NB 101	M&NB 11	4034 in 1928	4852
		626	15	C	M&NB 144/150	M&NB 54-60	4077/83, 4093/5 in 1928	4853/62
					M&NB 160/7	M&NB 70/77	LNER 32535/8 in 1928	
Comp.	D559	586	2	A	M&GSW 258/259	MGSW 275/6	3958/9	7283/4
		594	10	A	MR3301, remaining 9 unknown, ambulance	Unchanged	Unchanged	7282

		617	23	Prob B	train 1917 Not known one ambulance 1917			none
		627	6	C	M&NB 151/3 M&NB 168/70	M&NB 61/63 M&NB 168/170	LNER 32539/40 After 1928 LMS4086, 4101/3, a	LNER 32539/40 7285/8

Additional information corridor composite D469

None of the vehicles built for the Midland Railway were of the precise type represented by our kit. If a little licence is acceptable, the following batch (which should be built as instructed for version C) differ only in having slightly shallower eaves panels with door vents of three elements instead of four:

Lot 616 of 1907, 40 built, MR/1st LMS nos. 3816/36/47/50/65/67/69, 2872—4/6/80/3/5/6/
2891/4/5/8/2901/3/5/8/2910—3/6/s/9/2920/2/
2nd LMS nos.4863—4902. 2925—8/3290/3345/3355/80

Livery

MR period, Body sides and ends crimson lake; moulding black; edges of mouldings on sides only lined gold (no lines against window bolection moulding. or extreme outer edges); end moulding unlined. Window bolection moulding and door droplight frames may at least at first have been varnished mahogany rather than crimson lake. Solebars, headstocks and buffer bodies unlined red/brown until 1912, then black. Wheel centres possibly Indian red when new. All other fittings below the solebars black, except that dynamos when new appear 'to have been a lighter colour, probably aluminium grey. Roof and roof fittings light grey, though some sources suggest that the lower roof below the rainstrip may have been varnished black when new, after a short period in service the entire roof would in any case have become dirty dark grey. M&GSW and M&NB vehicles differed from Midland only in lettering. Lettering styles are shown in the diagrams, but company lettering positions, are not precisely known in all cases and pre-August 1906 schemes are probable only, as no photos of these vehicles at this period are known.

LMS period livery, 1923-33 (approx) was the same as for the MR post 1912 except that end moulding were not supposed to be painted black. LMS company lettering was of course used in conjunction with serif pattern instead of block numbers. M&NB vehicles 1923-28 used company letters in LMS style with the serif numbers.

References

Historical Carriage Drawings Volume 2, LMS and Constituents, D Jenkinson, P100-103
Midland Railway Carriages Volume 1, R E Lacy and G Dow, P433
Midland Railway Carriages Volume 2, R E Lacy and G Dow
Midland Carriages, An illustrated Review, D Jenkinson and R Essery P88-96

Construction notes

Before you start have a good look at the frets and the drawings page so that you can easily recognise the parts and their final locations, time spent doing this at the start will make the construction so much easier.

Carriage body assembly

1. Parts 1 & 2 inner sides, form the tumbleholme with the aid of the half etched lines and fold under the lower lip.
2. Fit at right angles to each side parts 3, the inner headstocks, ensure all is square.
3. Fit bogie support plates, parts 4 in place, refer to drawings page and fold down friction plates on parts 4.
4. Fold up parts 5 and captivate the 6 BA bolts, then secure parts into the slots of parts 4.
5. Referring to the drawings page fit parts 6W and 6D.
6. Raise the rivets on ends parts 7 & 9 or 7A & 9A, then you can fit the carriage ends between the inner sides once you have folded the flaps inwards 90 degrees. Take care to ensure the buffer holes are aligned with parts 3.
7. On the carriage inner sides fold up all the hinges, form the tumbleholme on the outer panelled sides parts 25 and 26, you are given a choice of corridor sides 26C.
8. If your kit is a brake carriage fit the cast guards ducats in places referring to the drawings page.
9. For the fitting of all the underframe details of brake linkage, battery boxes, gas tanks, dynamo and brake cylinders please refer to the drawings page.
10. For the fittings on the carriage ends, please again refer to the drawings page.

Corridor connection assembly

1. Bend parts 40 to suit the inside shape of the inner end frame parts 39.
2. Bend down the treadplate of parts 39 and secure parts 40 to them, with the fixing tabs projecting on the opposite side from the treadplate.
3. Bend the "scissors" on the outer frame, parts 41 and fix the "scissors" to the outer thin part of parts 40.
4. Trim the black paper to fit within, after final finishing.
5. End boards are provided, parts 42 for the Midland and parts 43 for the LMS.

Couplings assembly.

1. These are assembled as shown on the drawings page.
2. Each coupling is retained by threading thin wire through the coupling to the folded down brackets on parts 3.

Bogie assembly

1. Raise rivets on the bogie frame headstocks, parts 44.
2. Add the brake block detail, parts 46 to each brake block of parts 44, then bend to shape ensuring all bend lines are inside the bends.
3. Fit the four linkage hangers parts 45 in the slots of parts 44.
4. Fit brass bearings (not supplied) in the four white metal sides and fit them to the brass bogie frame, not forgetting to fit the wheels of your choice at the same time.
5. Fit the short brake block connecting bars, parts 47 between the brake blocks, these are on inner aspects of each bogie.
6. Fit the long brake block connecting bars, parts 48 between the remaining brake blocks.
7. If bogie steps are required for your model, (removed in the mid 1920's), bend the toe boards on the upper layers, parts 50 and fix on the lower layers parts 49.
8. Fit to each bogie side frame.

Roof assembly

A profiled wooden roof in two parts is supplied. Firstly, if your carriage is to have a fully lined clerestory we recommend that you paint parts 35 and 36 before you assemble the roof.

1. Cut the roof sections to size, they are designed to fit within the ends.
2. Using the drafting film cover the roof sections by cutting three strips, one for each of the roofs lower profiles and a third for the clerestory roof. Each strip should overhang each end by 1mm. Do not have any of the drafting film folded underneath any overhang other than at the ends can be trimmed with a blade. A contact type glue works the best.
3. When dry you can assemble the roof.
4. Mark out the positions of the roof details using the drawings in the instructions.
5. Drill holes to match the positions which will accommodate the sprue on the castings and glue in place.

The interior

The interior is designed to “hang” from the roof.

1. Fit the compartment divisions in place on the floor.
2. Fit the coloured corridor side to the floor and divisions.
3. Cut and fit the seats in the compartments.
4. Cut a rectangle of plasticard to match the dimensions shown on the drawings page, 216.5mm x 34mm and fix this to the wooden roof and to the top faces of the compartment divisions and the coloured corridor side. This will attach the interior to the roof and in so doing maintain the roof in position on the carriage and give a rebate to help stiffen the sides.

Livery and painting

The model may be assembled, painted and lined in the conventional way, but in our experience only a handful of top class model painters are capable of achieving a high standard like this. We therefore strongly recommend the painting procedure described, which should enable any reasonably careful modeller to produce a highly satisfactory finish.

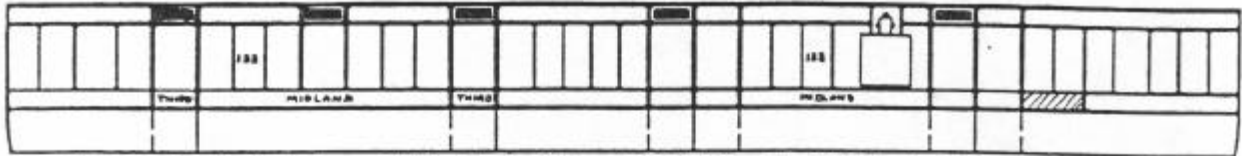
The suggested method of painting and lining the sides is as follows:

Spray first with etch primer, then with brown primer, then crimson lake finish. Simple card masks can be used for the different colours of solebars etc. When thoroughly dry scrape the raised moulding. (except window bolections and door joint moulding. below the waist until clean and bright. Be very careful not to touch the scraped surface with the fingers. The black centres of the moulding should be drawn in using a technical pen (Rotring, Staedtler etc) of about 0.5mm wide filled with non etching plastic film *ink*, which is fairly quickdrying. Leave a gold edging of bright brass showing on each side of the moulding, except that the black is taken right to the outer edges of the side and against the window bolections. The rounded corners are drawn in freehand. Any mistakes are readily scraped away and redrawn. Please note that the beading at the bottom edge of the side represents the packing between body and underframe there was no head on. the body side itself. Before starting painting the lower edge should therefore be made bright and clean and covered with a tape mask trimmed with a knife and rule to approx 2mm from the lower edge of the side, **so** that when the black edging is drawn in the gold line **is** within the bottom panel. A coat of clear lacquer will protect the finished side against handling — the ink **is** not waterproof.

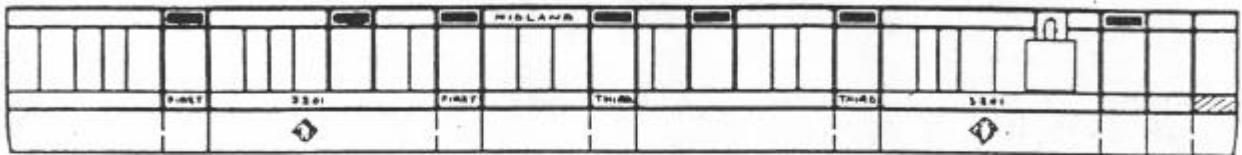
'PRESSFIX' lettering transfers are provided. With a scalpel or sharp knife cut round each item through the tissue top layer but **not through the thick backing paper**. Peel the tissue away from the backing, put face down in position and press gently. If the position seems incorrect, remove and replace. When satisfied, press firmly, soak the tissue with water and peel off when it has released (about 30 seconds). Wash away surplus gum and blot, dry. Varnishing of transfers is not essential, though obviously it provides additional protection against handling etc. Some oil based varnishes can cause 'gold' transfers to tarnish rapidly. Cellulose lacquer can be applied with great care from an airbrush provided that the first coating is applied from far enough away to produce a matt finish. When this is hard dry additional light coats can be applied from progressively closer distances until the desired gloss is produced. This information is given in good faith, but we cannot accept any responsibility for the results as the conditions of use are outside our control. We therefore suggest trials on scrap material before working on the model itself.

LMS period livery, 1923—33 (approx) was the same as for the MR post 1912 except that end moulding were not supposed to be painted black. LMS company lettering was of course used in conjunction with serif pattern instead of block numbers. M&NB vehicles 1923—28 used company letters in LMS style with the serif numbers.

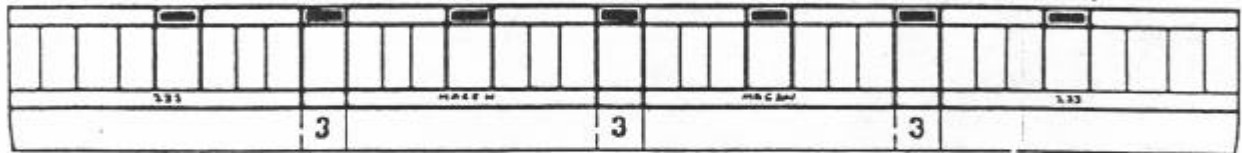
The following diagrams show typical styles for the various companies and periods. We must emphasise that in most cases specific photos are not available; so that although these can be taken to indicate normal practice, exact positions may not necessarily be correct in all cases. It was normal for company letters or vehicle numbers to be placed halfway along the length of the panel in which they appeared, but there may have been exceptions. Note the grey panels on the brake end vehicles. Corridor sides are shown. The compartment sides were similar, with class designations on all passenger doors.



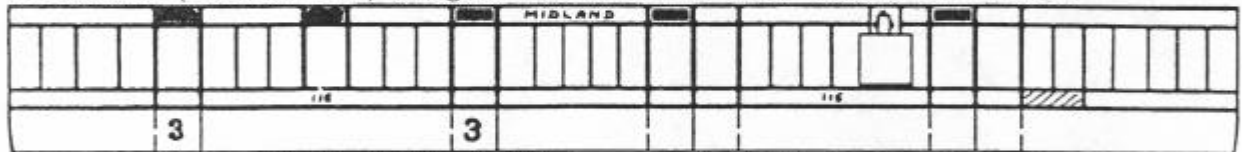
Probable style before Mar. 1906. Shaded block MIDLAND. Small block numerals, directly above MIDLAND if panelling permits. Crest below MIDLAND on brake compo only.



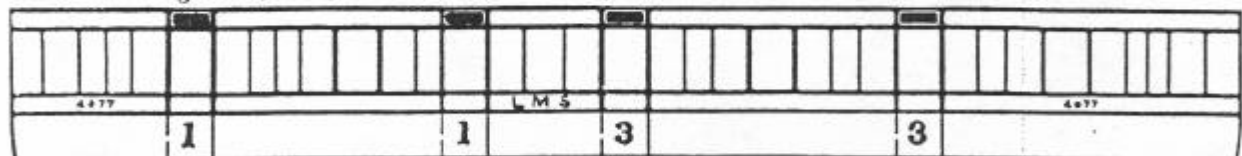
Probable style Mar.-Aug. 1906. Small block numerals. Crests on brake compo only.



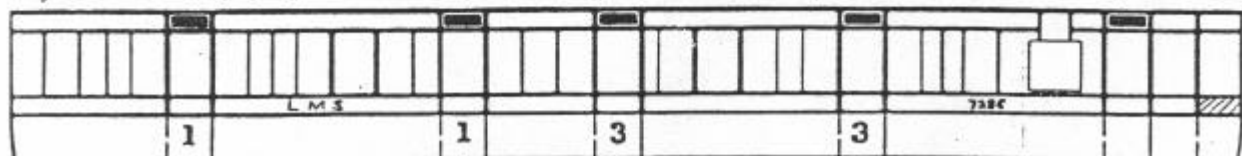
Joint stock (M&GSW or M&NB) insignia 1906-23. Small block letters and numerals



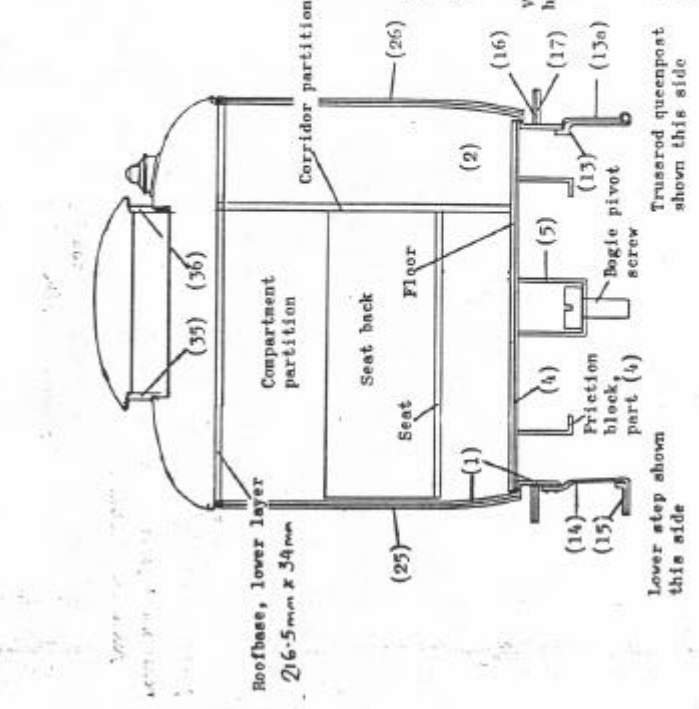
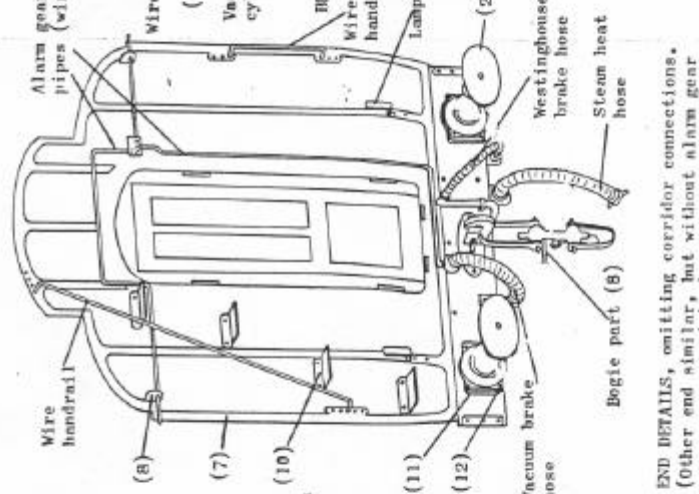
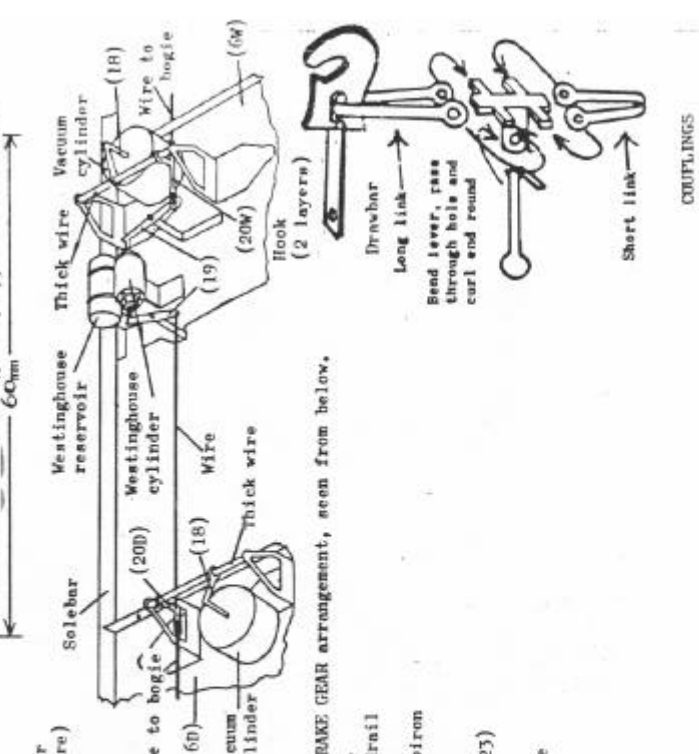
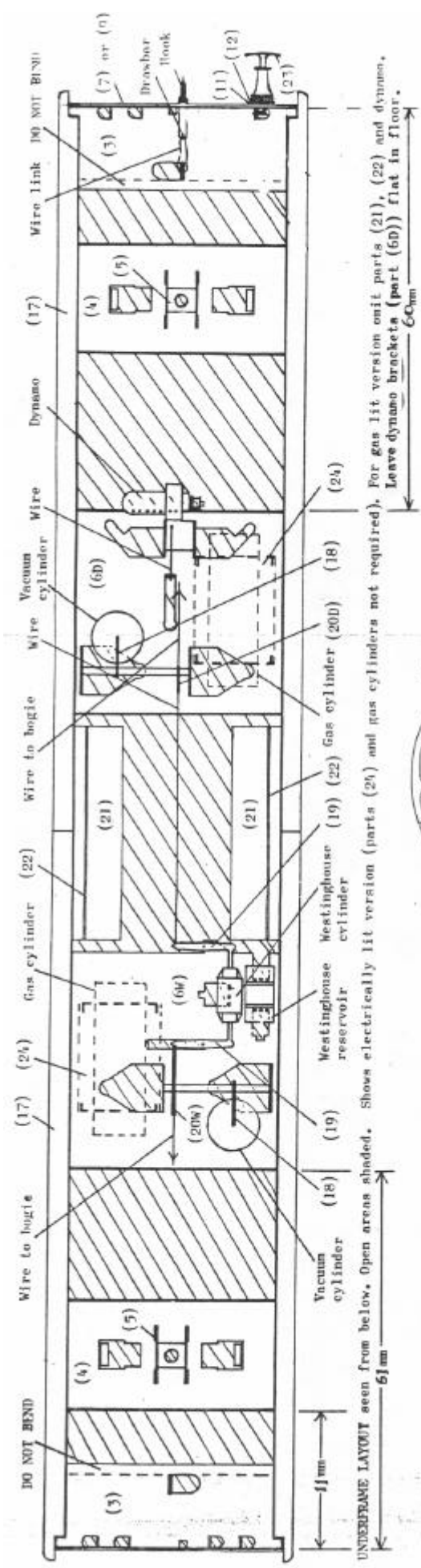
Midland insignia 1906-23. MIDLAND in black panel. Small block numerals.



Style for LMS 1923-33 or M&NB 1923-28. Large serif letters, small serif numerals.



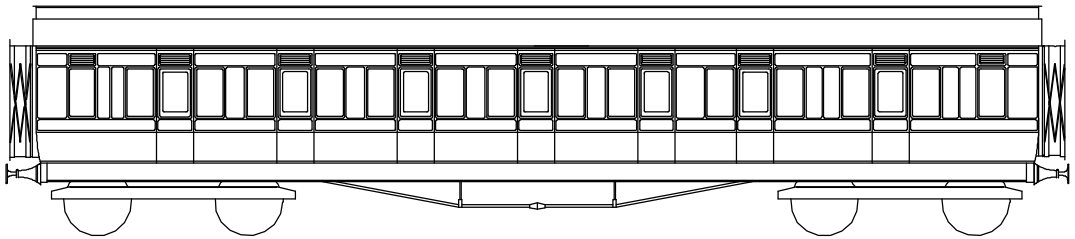
LMS style after final renumbering. Plain gold block numerals when fully lined. Yellow insignia (not in kit) if repainted in simple livery. LNER markings (not in kit) positioned similarly, with GUARD in waist of single guard's door of brake third.



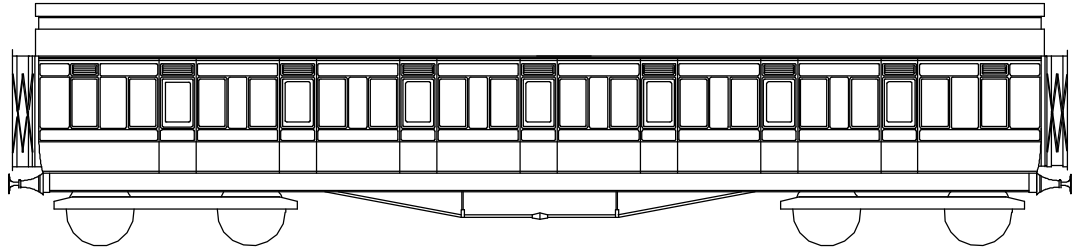
COUPLINGS

END DETAILS, omitting corridor connections. (Other end similar, but without alarm gear pipes or parts (8).)

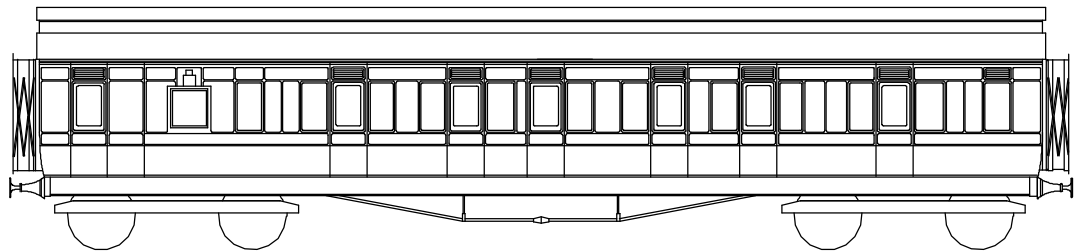
Trussed queenpost shown this side
Lower step shown this side



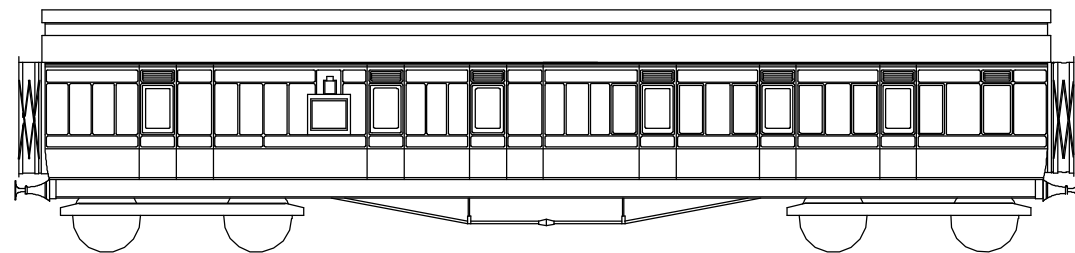
Dgm 469:7 compartment composite



Dgm 473: 7 compartment corridor third



Dgm 559: 6 compartment corridor composite brake



Dgm 561: 3 compartment corridor brake third.

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