



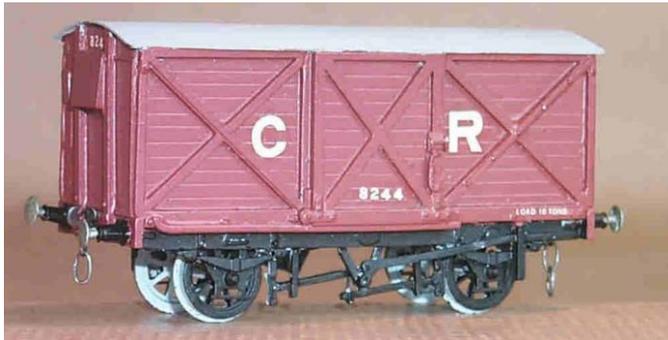
## The 4mm wagon and van kit

CRD067

### Caledonian Railway

London Midland & Scottish Railway  
British Railways

### Diagram 67 Covered Goods Wagon (outside framed)



1910 to 1950s  
For 00, EM, P4 and S4

**Features:** white metal components, white metal buffers with steel heads, plastic roof

**Required to complete:** split spoke 12mm wagon wheels, bearings, paint, three-link couplings, transfers

### The Prototype

First built around 1910, this version of diagram 67 with outside framing and no roof door would have formed a substantial part of the Caledonian Railway's van fleet at the 1923 Grouping. This van was quite long-lived and examples lasted until British Railways in the early 1950s. The design was perpetuated into a vacuum fitted version (not covered by the kit).

Whilst the number built is unknown it is thought to have been many hundreds. They were a common sight in goods yards in industrial Scotland and the northern counties of England, especially on the West Coast route.

At least three have been preserved.

### References:

"British Goods Wagons from 1887 to the present day" by Essery, Rowland & Steel

"Caledonian Railway Wagons and non-Passenger Coaching Stock" by Mike Williams, pp153-161

### Acknowledgements:

51L thanks members of the Caledonian Railway Association for their help in preparing this model.

### Interested in the Caledonian Railway?

**Caledonian Railway Association:**

<http://www.crassoc.org.uk>

### Assembly

Please read these instructions before starting to build your model. Examine all the parts and familiarise yourself with their assembly. Remove any moulding flash and ensure all parts fit correctly. We suggest wet fine emery paper (1200 grit) to clean up any flash marks.

Assembly is best carried out using low melt solder or an epoxy resin such as Araldite. Glues like UHU, Multibond or Thixofix can also be used. For small parts use superglue. To obtain the best results a combination of several techniques will be needed.

Carry out a dummy run prior to assembling the parts.

Check the fit of your chosen wheel bearings in the axleguards, drilling out if necessary. Just tack them in place for now, in case they need to be adjusted later. Fix two axleguards to one side, using the solebar details for alignment. The wheelbase should be 42mm (10'6"). Use a common end for any measurements. Now assemble the body: properly join an end to the side with the axleguards, and tack the other end to the other side. Bring the two halves together and tack them to each

other. Ensure all is level and square, and properly make the three remaining joints. Take one of the remaining axleguards and tack it to the body, trapping a wheelset in place. Ensure the wheels are firmly supported and run freely (adjust the bearings if needed – use 8BA washers as packing if they are too far apart), and that the axle is horizontal and perpendicular to the side. Do the same for the last axleguard and wheelset, ensuring that the axles are parallel to each other. When satisfied, properly fix the bearings and axleguards in place. Again, check that the wagon is level and square. If not a gentle tweak will ensure that all four wheels are in contact with a flat surface such as a glass sheet. Cut the 0.030" plasticard floor to size and fix in place.

Bore the cross shaft hole (0.9mm) in the brake gear casting and fit the brake shoe assembly in place. Cut a length of the 0.9mm brass wire to form the cross shaft and secure it in place between the vees (add the etched brass ones from the fret if not already cast in). Assemble the etched brake levers and guides according to the enclosed instructions. You will need to shorten the lever at the handle end – folding is preferred to give a more prototypical thickness. Fix the guides and levers in place, with the cam lever on the brake shoe side of the wagon. Fold up and attach the etched brake safety loops around the brake push rods, adjacent to the brake shoes. The exact position varied from wagon to wagon.

Fix the buffers in place with the rib facing the outside of the wagon. Bore out the holes in the doors to suit handles made from the 0.3mm brass wire. These should be shaped according to the drawing overleaf. Fix into place.

Lightly score along the embossed roof plank lines – this will cause it to form a gentle curve. Offer up the roof to the body and trim the edges if required. Fix the roof in place. Once set, cover with a sticky label or solvent weld paper on top, trimming the edges to fit.

### Finishing

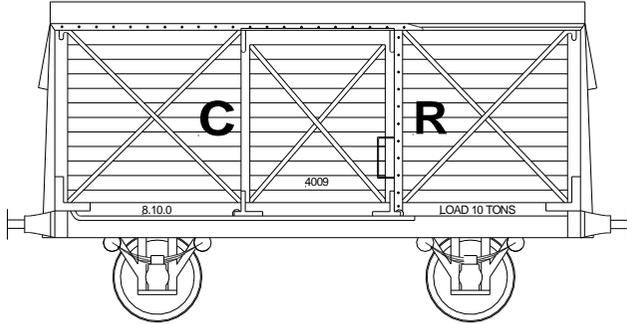
Clean and degrease the model, using white spirit prior to painting. For white metal parts use an etching primer, such as Precision Paints PS1. The model should be painted using the livery of your choice. After painting clean the model using a tissue soaked in white spirit.

**This is especially important if you are using dry**

lettering such as that available from the Caledonian Railway Association rather than waterslide or 'Methfix' transfers.

## Livery

### Caledonian Railway c1910-1923



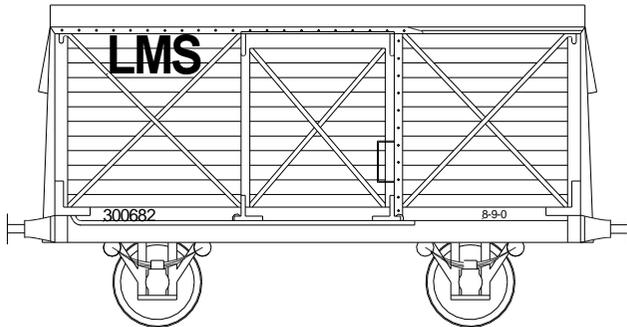
Bodywork, solebars and buffer housings: red oxide, Precision Paint P436

Underframe/brake levers, solebar ironwork: black

Roof: white, weathering to grey/black

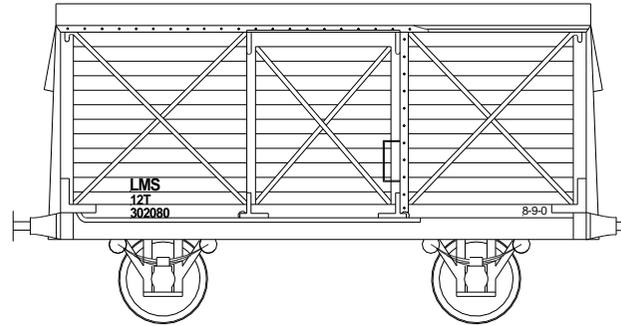
Insignia: white, HMRS sheet 20, Caledonian Railway Association sheet.

### London Midland & Scottish Railway 1923-1937



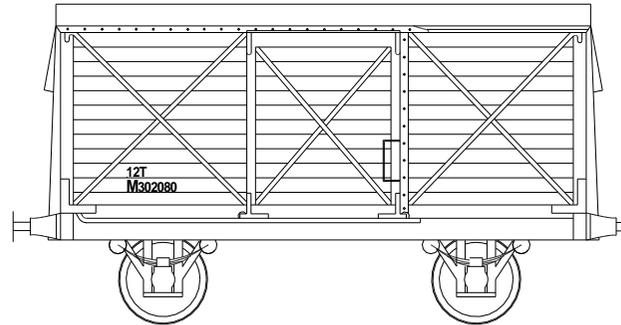
Bodywork and solebars: grey, Precision Paint P38  
Ironwork below solebars: black, Precision Paint P975  
Roof: white, weathering to grey/black  
Insignia: white, HMRS sheet 6, Old Time Workshop sheet 4701

### London Midland & Scottish Railway 1937-1948



Body: bauxite, Precision Paint P39  
Ironwork beneath solebars: black, Precision Paint P975  
Roof: white, weathering to grey/black  
Insignia: white, HMRS sheet 6, Old Time Workshop sheet 4701

### British Railways 1948-demise



Whole wagon: light grey, or bare timber with lettering on a black patch, Precision Paint P126  
Insignia: white, HMRS sheet 25, Modelmaster sheet 4619

It will be appreciated that many wagons would not have been repainted immediately by their new owners and would remain in a well-weathered version of their previous livery, or even weathered bare timber.

## Sample Numbers

These are known to have included: 682, 2080, 4009, 4543, 5350, 7455, 73611.

## 51L

51L has a wide range of locomotive, carriage and wagon kits for the following railway companies

GWR and constituents: Cambrian Railways  
LMS and Constituents: Glasgow & South Western Railway, Highland Railway, Lancashire & Yorkshire Railway, Midland Railway, North Staffordshire Railway, Caledonian Railway  
LNER and constituents: Great Central Railway, Hull & Barnsley Railway, North British Railway, North Eastern Railway

A more recent version of these assembly instructions may be available on the Wizard Models web site.

For further help or information please email: [andrew@modelsignals.com](mailto:andrew@modelsignals.com)

## Wizard Models

Wizard Models stocks a wide range of components and other necessities for the modeller in 00, EM and P4.

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