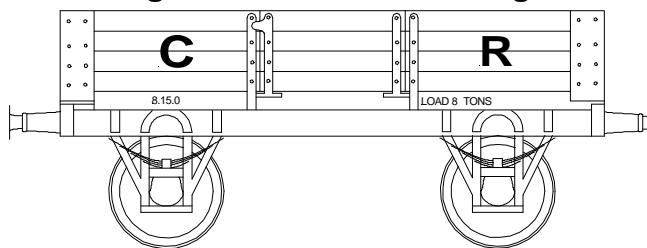


**Caledonian Railway
London Midland and Scottish Railway**

Diagram 24 Centre door wagon



**Period: from 1900 –1950's
For OO, EM and 18.83mm**

Required to complete:

- split spoke wagon 12mm wheels
- paint, couplings and transfers

Assembly

Please read these instructions before starting to build your model. This model is supplied with a choice of brake gear to give a single shoe, or Morton cam brake. If the single shoe brake is chosen the brake lever pivot is part of the axleguard assembly. 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) may be useful to clean up flash marks.

Assembly is best carried out using low melt solder or an epoxy resin such as Araldite. Glues such as 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 run before starting assembly.

The axleboxes for this vehicle are handed. The left hand axlebox, ie that adjacent to the brake shoe, includes the lever pivot point. It is necessary to ensure that this axlebox is fitted at the left hand end of the wagon **if** the single shoe brake is fitted. It will be appreciated that not all wagons had brakes on both sides of the wagon and in consequence you are supplied with three normal axleguards and two with a pivot point.

Check the fit of the wheel bearings in the axle boxes and drill out with a 2mm drill as necessary. Fit the axle guards to one side aligning the w-irons with the crown plate detail on the solebar. Check the fit of the wheel bearings in the axle boxes and drill out with a 2mm drill as necessary. Fix both ends to one side ensuring that all is square. Attach the second side, again ensuring all is both level and square. Attach the axleguards to the sole bar on one side using the locating pins for guidance. The axle should be supported by the pin point bearings and should turn freely. Bore out the axleboxes or pack as required. Fix the axle guards on the opposite side when satisfied one axle at a time. Ensure the wagon is level and square using a flat surface such as a glass sheet, if not a gentle tweak will ensure that all four wheels are in contact with the surface. Fit the buffers, the single rib is on the outside of the wagon. (Note: the self contained buffer supplied may be swoped for the standard Caledonian three bolt type, please send to 51L with a SAE for reply.)

Fit the V's in place on the inside of the solebar. If the **single shoe** brake gear is to be fitted break off the v's. Fit the single shoe brake to the slide bar in line with the wheel to one or both sides followed by the brake lever. The lever fulcrum end should be fitted to hole in the right side of the axleguard using a sort section of 0.5mm wire. Attach a 0.3mm length inside the axleguard fulcrum hole and place brake lever on top. Attach lever in place.

If **Morton cam** brake gear has been chosen fit the brake shoes in position at one side using the V's for alignment. Ensure the push rods operate in the anti clockwise direction. Attach the cross shaft, 0.7mm wire, between the V's followed by the brake levers. The cam lever should be adjacent to the brake gear and the plain lever on the opposite side. Form, from the flattened wire supplied, brake shoe push rod safety loops. These were usually U shaped and are placed over the push rods adjacent to the brake shoe.

Cut the plasticard floor to size and attach in place. From the metal strip provided prepare two door stops and secure on the solebar beneath the rubbing plate. After painting fit three link couplings of your choice.

The Prototype

The Diagram 24 was first produced around the turn of the century. It was originally rated for 8 tons with the single shoe pattern brake, initially one side but latter both sides. Uprating from 8 to 10 tons occurred at some stage, and from 1916 new build included the provision of either side Morton cam brakes and self contained buffers.

Whilst numbers are not known it is thought that several hundred would have been produced. Wagons of this type had a working life of 30-40 years and it is likely that some examples survived up to the 30's or early 40's. These wagons were seen nationwide carrying all manner of merchandise goods.

This kit includes components to make either the single shoe or either side Morton cam brake gear. To obtain earlier pattern buffers from 51L return the self contained along with a SAE to 51L and allow 7 days for delivery

References:

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

Interested in the Caledonian Railway?

Contact the Caledonian Railway Association.
The Membership Secretary
Mr F Landery
45 Sycamore Drive
Hamilton
ML3 7HF

Acknowledgements

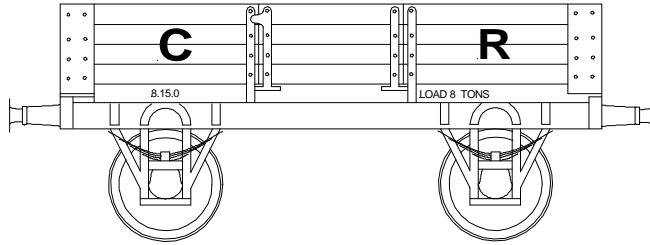
51L would like to thank Ronald Cockburn and members of the Caledonian Railway Association for their help and assistance in preparing this model.

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 for example.

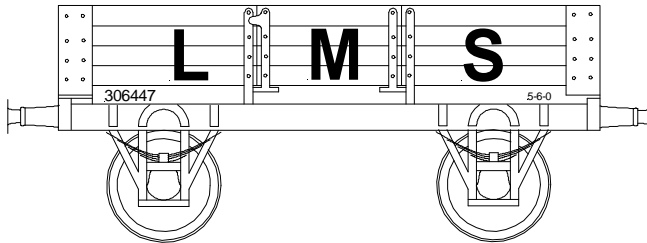
Livery

Caledonian Railway c1900-1923

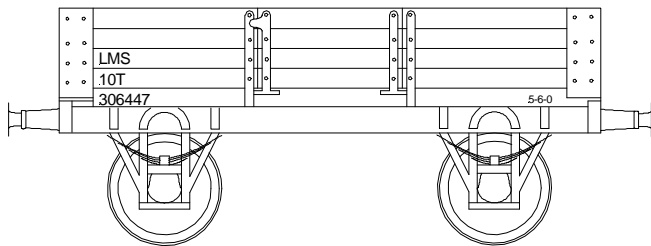


Bodywork, solebars and buffer housing
Red oxide, Precision Paint P436
Underframe/brake lever, solebar iron work black
Letters and numbers white
HMRS sheet 20, Caledonian Railway Association sheet.
This is available from the address above.

London Midland and Scottish Railway 1923-1937



Bodywork and solebars grey Precision Paint P38



Iron work below solebars black, Precision P975
Lettering white MRS sheet 6, Modelmaster 4701

London Midland and Scottish Railway from 1937-demise

Body bauxite Precision Paint P39
Iron work beneath solebars black Precision Paint P975
Lettering white HMRS sheet 6, Modelmaster sheet 4701

It will be appreciated that many wagons would not have been repainted by the LMS and would remain in a weathered pre-group livery or by that time weathered timber!

Sample Numbers

Information on Caledonian Wagons is limited but the following numbers are known to have existed 4391, 6447, 7471, 36543 and 70217.

The LMS renumbered Caledonian wagons by the addition of 300000 to their original number giving numbers in the range 300001 to 352999.

51L

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

GWR and constituents:-
Cambrian Railway, Great Western Railway

LMS and Constituents:-
Glasgow & South Western Railway, Highland Railway, Lancashire & Yorkshire Railway, Midland Railway, Scottish Joint Stock, North Staffordshire Railway, Caledonian Railway, Furness Railway.

LNER and constituents:-
North British Railway, North Eastern Railway

51L models are available through Wizard Model 51L at selected exhibitions and by mail order.

The current version of these assembly instructions will be available on the 51L website: www.51l.co.uk. For further help or information please email: info@51l.co.uk

Wizard Models

Wizard Models stocks a wide range of components, paints, transfers and other necessities for the 4mm modeller in OO, EM and P4. Our online shop may be found at:

www.wizardmodels.co.uk

A full price list, for 50p + SAE can be obtained from: -
Wizard Models.
PO Box 225, Macclesfield, Cheshire. SK10 4GB
Tel / Fax: 01625-585312
Email: sales@wizardmodels.co.uk

Or as a downloadable PDF from:
www.51l.co.uk
www.wizardmodels.co.uk

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