



The 4mm wagon and van kit

The Prototype

Designed in the Adams era, these 10 ton wagons were built at Stoke and by a number of outside builders in substantial numbers prior to and immediately after the Great War. The D14 may be considered a larger version of earlier wagons such as the D12 by some 6" in width and 11" in length. The model is based on Stoke drawing number 1911 of 1 March 1913.

Fitted with independent either side brake gear and oil axle boxes from new, these open wagons were typical of the forward thinking prevalent on the North Staffordshire. Wagons of this type are known to have been in service in 1946 and very probably several years thereafter. They were used to carry all manner of general merchandise such as barrels, pottery in crates etc.

On some vehicles modifications were made including the fitting of a door banger on the solebar and the addition of new longer rubbing plates on the upper plank of the side sheeting to match. It is thought that some wagons were modified prior to Grouping.

References

Due to a fire at Derby very little information is known about North Staffordshire Wagons. However, the modeller is referred to the following publication:

North Staffordshire Wagons, G F Chadwick, pp50-53

Interested in the Knotty?

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Acknowledgements

51L thanks David Jolley and members of the North Staffordshire Railway Study Group for their assistance in preparing this model.

North Staffordshire Railway London Midland & Scottish Railway British Railways

Diagram 14 10 ton goods wagon



from 1913 to 1950s For OO, EM, P4 and S4

Features: white metal kit, white metal buffers with steel heads, etched W-irons and brake levers
Required to complete: 12mm split spoke wheels, bearings, paint, couplings and transfers

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. Take particular care with the corner strapping, as the fine detail is easily lost. We recommend wet 1200 grit emery (silicon carbide) paper for cleaning up castings. Assembly is best carried out using low melt solder or an epoxy resin such as Araldite. Glues like UHU, Multibond or Thixofix may also be used. To give the best results a combination of several techniques will be needed.

The 51L W-irons should be assembled following the enclosed instructions, using the straight bridle bar. Modellers may wish to choose a rigid chassis, in which case both W-irons need to be assembled in the non-rocking mode. We recommend the use of waisted bearings, which should be soldered into place. Broach

out the W-iron bearing holes to accept your chosen bearings, then fit the wheel sets.

Prior to assembly proper it is desirable to undertake some preparation work. Fit the horse hooks on to the solebars, these being situated above the left hand axle as indicated with 'pip marks'. Bore out with a 0.4mm drill bit and bend up the hooks from the supplied 0.31mm wire. Ensure no wire protrudes on the inner face of the solebar. Check the buffer holes in the ends will accept the buffers; if not broach out the holes to suit.

Fit the ends to the sides and, ensuring all is level and square, fix. It will be found that the side corner plates are too long, so trim them after assembly. Once the body is assembled, attach the floor in place to hold the wagon rigid. Now fix the buffers; the bolt heads should be either side of the 12 and 6 o'clock positions. If desired, remove the steel head and fit sprung buffer heads.

The solebars fit on the ledge adjacent to the curb rail. The solebar length may need adjusting; if so remove material from both ends or as required so that the solebar centre lines up with the wagon centre. Fix the solebars in place (we suggest soldering on the lower surface of the solebar adjacent to the headstock, and epoxy resin elsewhere). The wagon corner plates should be rounded with fine wet abrasive paper.

Place both W-irons on the floor using the crown plate coach bolts for positioning. Check the rail to buffer centre height and add packing to the W-irons as required, to achieve 14 mm. Up to 0.070" [1.75mm] packing may be required on **both** ends. Ensure the packing will not be in the way of the brake shoe slide bar. Glue the W-irons in place. (It may be helpful to draw axle and wagon centre lines for guidance.) If the wagon is gently pushed along a flat surface it should run in a straight line. If not one or both of the W-irons are out of line and should be adjusted.

Attach the axle boxes. If one W-iron is to be in the rocking mode, ensure there is sufficient clearance between the top of the axle box and spring to give some movement. We suggest that the space between the axle box top and spring is filled using the microstrip supplied. (This is because the springs fitted to this wagon are a 'heavy' duty type.)

Bore out the brake shaft holes in the brake shoe castings and the vees with a 0.5 mm drill. Take great care to avoid damaging these delicate parts. Fit the brake gear to the slide bar on the interior of the solebar. Attach the interior vee in the slot between the solebar and brake shoe casting. Attach the outside vee in place using the brake shoe assembly for alignment. Following the enclosed instruction sheet, prepare the brake levers and lever guides and fix them in place. The levers should be approximately 2mm to the left of the right hand spring carrier. A length of 0.5mm wire is supplied to complete the two short brake cross shafts. Attach the brake safety loops, in line with the door hinges.

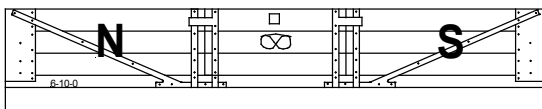
On the top plank attach a square rubbing plate (1mm square from microstrip) where the open side door makes contact with the brake lever pivot point. (This plate prevented damage to the door when open.) On some vehicles a metal door banger was fitted on the solebar. If so, the rubbing plate would extend across the top plank and just on to the second. The bangers may be prepared from scrap brass or microstrip.

Finishing

Clean and degrease your model 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** rather than waterslide or 'Methfix' transfers.

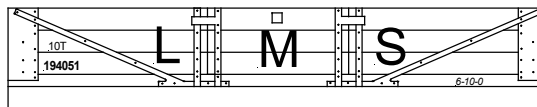
Livery

North Staffordshire Railway (1913-1923)



Bodywork: purplish red oxide (Precision Paints P980 pr Revell matt 37 are the closest we are aware of but an Indian red could be used such as P6 or the Caledonian Railway wagon colour P436).
Solebars, headstocks: black.
Insignia: 14" letters, white, HMRS sheet 17. The "knot" was not used latterly.

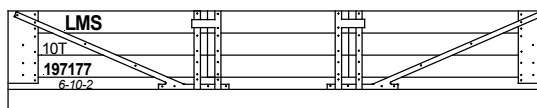
London Midland & Scottish Railway (1923-37)



Bodywork, solebars and ironwork: light grey (Precision Paint P38).

Insignia: white, HMRS sheet 6 or Modelmaster 4701.

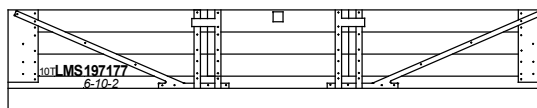
London Midland & Scottish Railway (1937-c1943)



Bodywork, solebars and ironwork: bauxite (Precision Paint P39)

Insignia: white, HMRS sheet 6 or Modelmaster 4701.

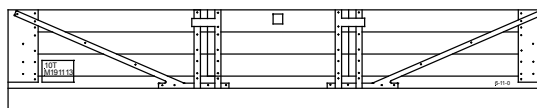
London Midland & Scottish Railway (c1943-1948)



Bodywork, solebars and ironwork: bauxite (Precision Paint P39)

Insignia: white, HMRS sheet 6 or Modelmaster 4701.

British Railways (1948 on)



Bodywork, solebars and ironwork: light grey (Precision P126) or bare timber overall

Insignia: white on a black patch, HMRS sheet 25 or Modelmaster 4619

Numbers

Known numbers include:

NSR - 4051, 01113; LMS – 193309, 196681, 197177.

The LMS added 190000 to the NSR number and BR prefixed the LMS number with an M

51L

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

GWR and constituents:

Cambrian Railway

LMS and constituents:

North Staffordshire Railway, Glasgow & South Western Railway, Highland Railway, Lancashire & Yorkshire Railway, Midland Railway.

LNER and constituents:

North British Railway, North Eastern Railway

51L models are available through Wizard Models/51L

The most recent version of these assembly instructions will be available on the 51L web site: www.51l.co.uk.

For further help or information please email:

andrew@modelsignals.com

Wizard Models

Wizard models stocks a wide range of components and other necessities for the modeller in OO, EM and 18.83mm.

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