



The 4mm wagon and van kit

NSRD009

North Staffordshire Railway
London Midland & Scottish Railway
British Railways

Diagram 9 Covered Goods Wagon



from 1911 to 1950s

For 00, EM, P4 & S4

Features: Whitmetal body and solebars, whitmetal buffers with steel heads, etched w-irons and brake levers

Required to complete: split spoke (NSR), 8 spoke (NSR and LMS) or 10 spoke (LMS) 12mm wheels; bearings, paint, 3-link couplings, transfers

The Prototype

The North Staffordshire Railway ordered 50 of these high capacity goods vans from the Metropolitan R C & Wagon Co in November 1911, with delivery to be within 16 weeks.

Fitted with either side brake gear and oil axle boxes from new they were a state of the art design typical of the North Staffordshire at its zenith. Vans of this type are known to have been in service in 1937 and very probably saw national ownership.

Inevitably, these wagons may have been altered during their life. A weakness, common to many outside framed vans, was wet rot of the framing. Alterations were made to ensure water ran off the bodywork and did not collect. Photographic evidence suggests the use of LMS axle boxes, RCH pattern brake shoes and hangers and disc wheels on at least one example in 1937, possibly the result of repairs rather than a deliberate planned refurbishment. Minor alterations to the door catches and roof were also made.

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, pp61-64

Interested in the Knotty?

North Staffordshire Railway Study Group

www.nsrsg.org.uk

Assembly

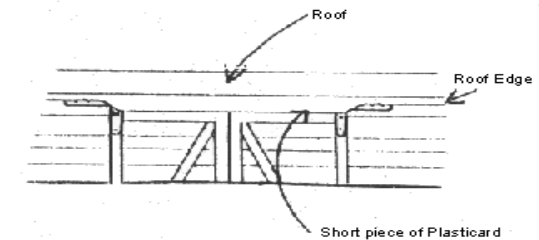
Please read these instructions before starting to build your model. Examine all the parts and familiarise yourself with their assembly. Remove any moulding flash and ensure all parts fit correctly. Take particular care with the corner strapping, as the fine detail is easily lost. We recommend wet fine emery paper (1200 grit). 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. For small parts use Superglue. To give the best results a combination of several techniques will be needed.

The 51L W-irons should be assembled following the enclosed instructions. Use the straight bridle bar. 00 and EM 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. Fit wheel sets using either split spoke (NSR), 8 spoke or possibly 10 spoke wagon (LMS) wheels depending on period. Fit the ends to the sides and, ensuring all is level and square, fix. The buffers should now be attached in place.

The bolts should be either side of the 12 and 6 o'clock positions.

Prepare solebars for fitting, using the locating pegs to position solebars on the ledge. Bore out the locating peg holes to 1mm as required. As supplied the solebar includes a cast inner V - this may be removed if required and replaced with an etched component. Cut the 0.020" plasticard floor to shape so that it fits between the solebars and glue onto the ledge. Attach the solebars. A second floor from 0.030" plasticard should be positioned between the ledges and attached using superglue to the floor. Shim brass could also be used for the floor. Prepare and fit horse hooks from the supplied 0.3mm wire. Pop marks for these are situated on the left hand side of the sole bar next to the W-iron.

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 it if required. The roof should be in line with the coach bolts on the wagon side as shown below and should extend beyond the ends by approximately 0.6mm each side. Fix the roof in place. Once set, cover with a sticky label or solvent weld paper on top, trimming the edges to fit. Over the door position a short length of plasticard strip should be placed:



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 W-irons, if required, to achieve 14 mm. (0.060" packing may be required on both ends.) 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 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.

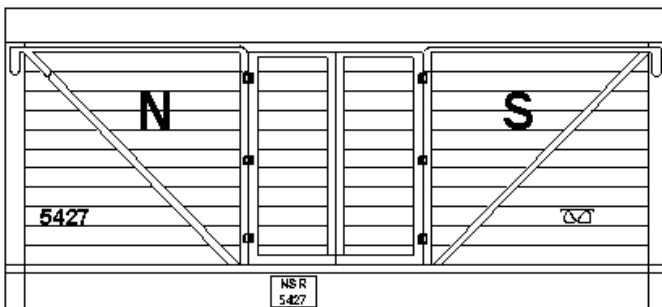
Prepare brake levers, lever guides and V's from the fret following the enclosed instructions. Bore out brake shaft hole in the brake shoe assembly with a 0.4 mm drill. Take great care to avoid damaging these delicate parts. Fit brake gear to the slide bar on the interior of the solebar ensuring the brake shaft hole is in line with the V hole. Attach a second V on the exterior of the solebar using the first V and brake gear casting for alignment. Attach brake safety loops from the etched fret supplied in line with the door hinges. Finally, attach the brake levers. The lever guide should be 2mm to the left of the right hand spring carrier. Attach push rod safety loop, see the fret and should be to the side of the brake shoe. Repeat for the second side.

Finishing

Clean and degrease your model, using water prior to painting. For whitmetal 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.

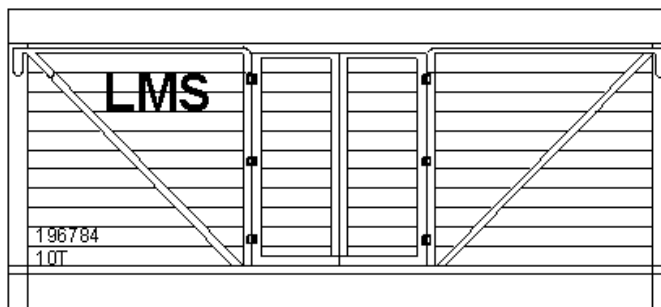
Livery

North Staffordshire Railway (1911-1923)



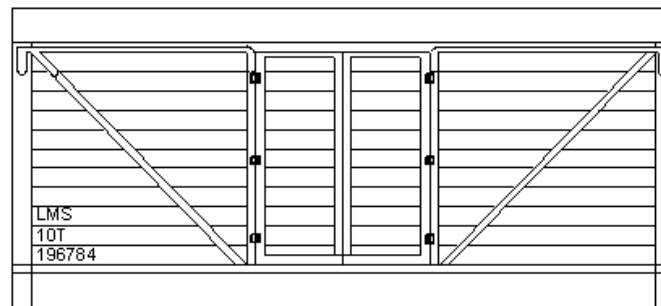
Bodywork: purplish red oxide (Precision Paints P980 or Revell Matt 37 are the closest we are aware of but an Indian red could be used such as P6). Solebars, headstocks: black. Insignia: 14" letters - white decals available from HMRS sheet 17, Dragon Models sheet 4019. The "knot" was not used latterly.

London Midland & Scottish Railway (1923-37)



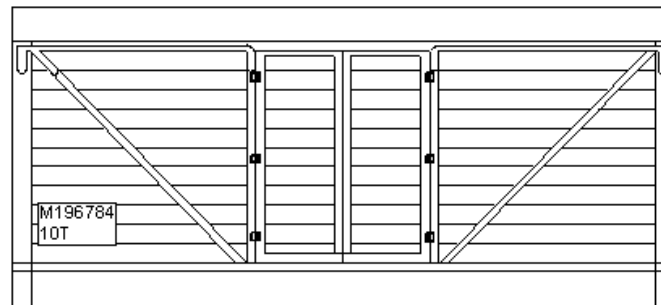
Bodywork, solebars and ironwork: light grey (Precision Paint P38). Insignia: white, HMRS sheet 6, Old Time Workshop sheet 4701.

London Midland & Scottish Railway (1937-1948)



Bodywork, solebars and ironwork: bauxite (Precision Paint P39). Insignia: white, HMRS sheet 6, Old Time Workshop sheet 4701.

British Railways (1948 on)



Light grey (Precision P126) or bare timber overall
Insignia: white on a black patch, HMRS sheet 25, Modelmaster sheet 4619

Numbers: known numbers include NSR 5427, 5489; LMS 196734.

Acknowledgements

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

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

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: Caledonian Railway, Glasgow & South Western Railway, Highland Railway, Lancashire & Yorkshire Railway, North Staffordshire Railway
LNER and constituents: Great Central Railway, Hull & Barnsley Railway, North British Railway, North Eastern Railway

Wizard Models

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

Wizard Models Limited
PO Box 70
Barton upon Humber
DN18 5XY
Tel: 01652 635885

Email: info@wizardmodels.ltd
Shop: www.wizardmodels.ltd

Version: 6.01

Issued: February 2026

© Wizard Models Limited 2026