



**The 4mm wagon and van kit**

## 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?

Hon Membership Secretary  
Mr. David Moore  
6 Pennine Way  
Biddulph  
Staffordshire ST8 7EJ

[www.nsrsg.org.uk](http://www.nsrsg.org.uk)

## North Staffordshire Railway London Midland & Scottish Railway British Railways

### Diagram 9 Covered Goods Wagon



from 1911 to 1950s  
For OO, EM, P4 & S4

**Features:** Whitemetal body and solebars, whitemetal 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) wheels; bearings, paint, 3-link couplings, transfers

## Assembly

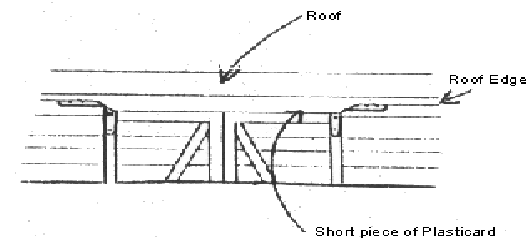
Please read these instructions before starting to build your model. Examine all the parts and familiarise yourself with their assembly. Remove any moulding flash and ensure all parts fit correctly. Take particular care with the corner strapping, as the fine detail is easily lost. We recommend wet fine 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. OO 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.

Check the roof for fit, see sketch. The roof should be in line with the coach bolts on the wagon side and should extend beyond the ends by approximately 0.6mm each side. Cut the plasticard roof to size. Cut it to fit in between sides and ends, fix to the roof interior. Glue the roof in place. Over the door position a short length of plasticard strip should be placed - see sketch.



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.

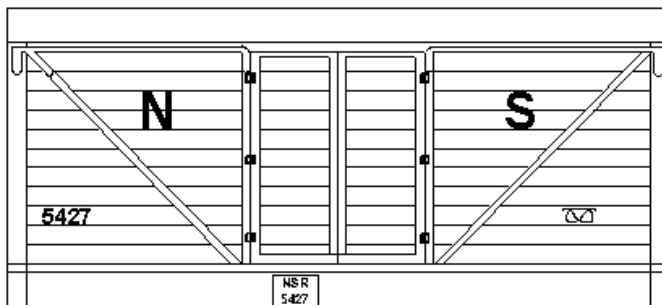
Prepare brake levers, lever guides and V's from fret following enclosed instructions. Bore out brake shaft hole in the brake shoe assembly with a 0.4 mm drill. Take great care to avoid damaging these delicate parts. Fit brake gear to the slide bar on the interior of the solebar ensuring the brake shaft 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)

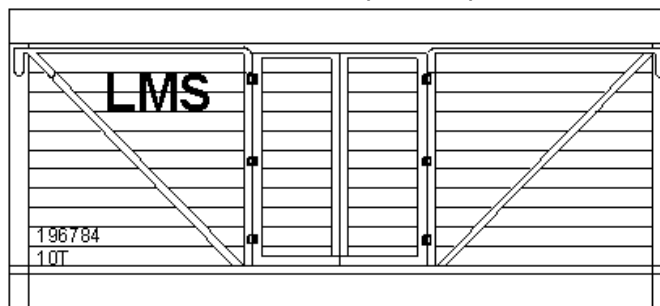


Bodywork: purplish red oxide (Precision Paints P980 or Revell Matt 37 are the closest we are aware of but an Indian red could be used such as P6).

Solebars, headstocks: black.

Insignia: 14" letters - white decals available from HMRS sheet 17, Dragon Models sheet 4019. The "knot" was not used latterly.

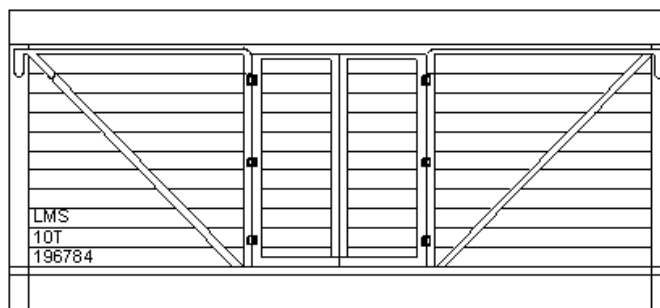
#### London Midland & Scottish (1923-37)



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

Insignia: white, HMRS sheet 6 or Modelmaster 4701.

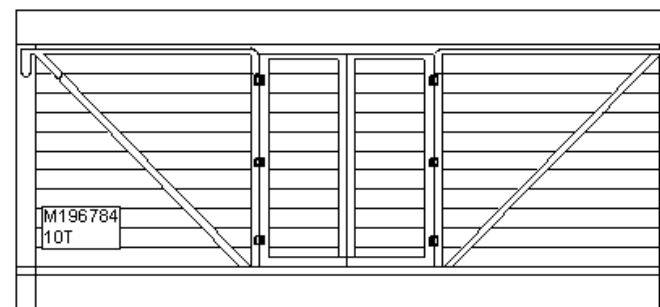
#### London Midland & Scottish (1937-1948)



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

Insignia: white, HMRS sheet 6 or Modelmaster 4701.

#### British Railways (1948 on)



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 5427, 5489; LMS 196734.

### Acknowledgements

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

### 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 kits and parts are available through Wizard Models.

The most recent version of these assembly instructions will be available on the 51L web site: [www.51l.co.uk](http://www.51l.co.uk).

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 OO, EM and 18.83mm.

Wizard Models

PO Box 70

Barton upon Humber

DN18 5XY

Tel / Fax: 01652 635885

Email: [andrew@modelsignals.com](mailto:andrew@modelsignals.com)

[www.wizardmodels.co.uk](http://www.wizardmodels.co.uk)

Version: 4.09

August 2009

© **Wizard Models 2009**