



The 4mm wagon and van kit

NBRD097

North British Railway
London & North Eastern Railway
British Railways

Diagram 97 (SSA 26B) 16T Mineral Wagon with grease axleboxes



Period: 1905 to 1950s
For 00, EM, P4 and S4

Features: whitmetal wagon kit, buffers with steel heads
Required to complete: split spoke wagon 12mm wheels, bearings, paint, transfers, three-link couplings

The Prototype

This diagram was a 1905 development of the earlier 12T wagons to various diagrams. The body size was increased to 16'3" long by 8' wide by 8 planks tall, enabling a 16T capacity. Builders included the NBR's Cowlairs Works and R Y Pickering. Both steel and wooden solebars were used, and the latter form is the one represented by the kit. All were fitted with grease axleboxes when built, but many were later fitted with the early NBR style of oil axleboxes, and this modification is the subject of a separate kit (NBRD097A).

Rather than tolerate private owner wagons on its rails, the NBR dedicated a large number of wagons to specific

collieries' traffic, by a process known as thirling. Such wagons carried both NBR and colliery insignia, and could be used on other traffic when coal shipments were light. These arrangements continued in LNER days.

Nearly 6,000 wagons with wooden underframes were built, and around 5,200 were still active at the start of the Second World War. BR inherited 2,829 wagons, but the split between grease and oil axleboxes is not known, although it is likely to be heavily weighted to the latter. It is unlikely that any survived the 1950s.

Whilst their main area of activity would have been the industrial areas of Scotland and the Border counties of Northern England, their use further south has been documented.

References

LNER Wagons – an Illustrated Overview, P Tatlow p54

LNER Wagons Vol 3, P Tatlow pp26-30

Wagons on the LNER North British No1; J Hooper p47

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North British Railway Study Group
www.nbrstudygroup.co.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 (remember to remove the casting feed in the centre of the brake shoes) and ensure all parts fit correctly. We suggest wet fine emery paper (1200 grit) to clean up flash marks. Carry out a dummy run before assembly. 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.

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, butting them up against the vee block which should ensure the axle spacing is the correct 36mm (9'). Now assemble the body: properly join the fixed end to the side with the axleguards, and tack the door 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.

Fix a brake shoe casting to the solebar and vee, with the detail showing to the outside. Some trimming of the shoes to clear the wheels is required, and OO modellers will need to pack out the casting to set the shoes in line with the wheel treads. Add the external vee (there is a slot in the solebar for this, but it is likely to be covered by flash) followed by the brake lever. Repeat for the brake gear on the other side of the wagon.

Fit the buffers so that the bolt heads are at the 3, 6, 9 and 12 o'clock positions. Cut the embossed plastic floor to shape and fix in place (in spite of having either side brake gear, these wagons were not fitted with bottom doors). Cut the door hinge loops from their sprue and fit them over the end door, in line with the vertical bars on the door. When built, wagons were fitted with a sloped handrail as shown on the sketch overleaf. This was towards the right-hand end of both sides, and should be made from the supplied 0.3mm brass wire. They appear to have been removed in early LNER days.

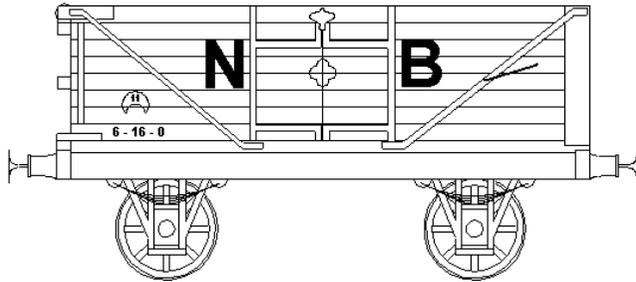
After painting and lettering fit three-link couplings.

Finishing

Clean and degrease the model, using white spirit before painting. Masking off the wheels, spray the wagon overall with a suitable 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 Powsides rather than waterslide or 'Methfix' transfers.

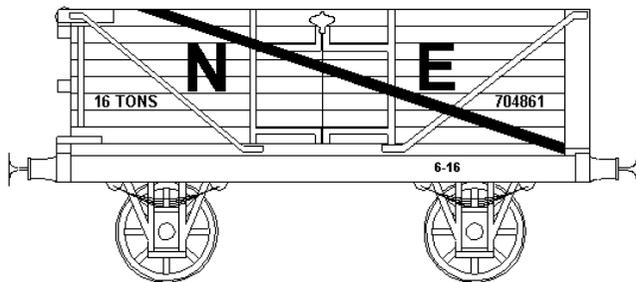
Livery

North British Railway 1905-1923



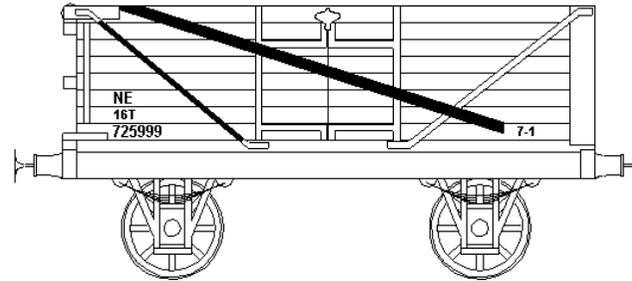
Bodywork, solebars: grey, Precision Paint P679
Buffers, drawgear, running gear: black
Insignia: white, HMRS sheet 20

London & North Eastern Railway 1923-1937



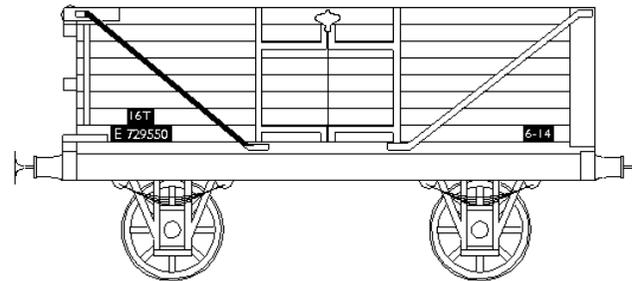
Bodywork, solebars: LNER grey, Precision Paint P66
Underframe, brake levers: black or as bodywork
Insignia: white, HMRS sheet 12, Old Time Workshop sheet 4702

London & North Eastern Railway 1937-1948



Bodywork, solebars: LNER grey, Precision Paint P66
Underframe, brake levers: black or as bodywork
Insignia: white, HMRS sheet 12, Old Time Workshop sheet 4702 (alternative end door stripe patterns shown)

British Railways 1948-demise



Light grey, Precision Paint P126; or bare timber with insignia on black patches
Insignia: white, HMRS sheet 25, Modelmaster sheet 4619

It will be appreciated that many wagons would not have been repainted by the LNER or BR and would remain in a weathered version of their previous livery or even just weathered timber.

Sample Numbers (all built 1919 except where shown)
4861, 13001, 14420, 15042 (1912), 25999, 26181, 27805 (1909), 29321, 29550, 30478, 33727 (1908), 46162.

The LNER added 700,000 to the NBR numbers. BR prefixed the LNER number with E.

Acknowledgements

51L thanks members of the North British Railway Study Group for their help in preparing this model.

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

A later version of these assembly instructions may be available on the Wizard Models website. 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 00, EM and P4.

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

Email: andrew@modelsignals.com
Shop: www.wizardmodels.ltd

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