



The detailed wagon and van kit

## The Prototype

Mineral wagon development on the N E R was based on the principle of bottom doors to facilitate self-emptying, the inside of the wagon being hopped. A standard pattern evolved on the Central Division (the geographic area covered by the former Stockton and Darlington Railway) featuring end brake levers, which were made necessary by restricted clearances at pits etc.

Classified as Diagram P5 these wagons were built over a period of 40 years, with changes only to the running gear. Between 1889 and 1901 some 14,262 were built. For the most part they were rated at 11 tons.

This kit represents the prototype as built from 1889, with 5 planks and type 2a grease axleboxes. It was more or less the final design and was in production until 1901. A version with modified brake gear designated P17 was in produced from 1907 until 1922. In 1911 there were almost 11,000 P5s but by 1923 the numbers had been reduced to 8,000. Many would have survived into the late 1930's/early 1940's. Some, which past in to private ownership lasted even longer. Whilst primarily used for coal they were also seen carrying sandstone, other minerals and slag.

An essential vehicle for the modeller of the central Division on the North Eastern Railway.

## References

North Eastern Record Volume 2 P86

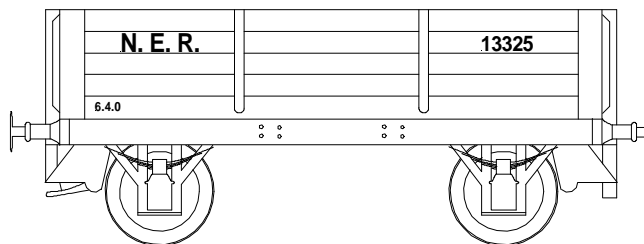
## Interested in the North Eastern Railway?

Contact the North Eastern Railway Association.

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## North Eastern Railway London and North Eastern Railway



**Diagram P5 11 ton Hopper wagon  
from 1889 to c1930**

### For OO, EM and 18.83mm

#### Requires to complete:

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

## Assembly

**Please read these instructions before starting to build your kit.** Examine all the parts and familiarise yourself with their assembly. Remove any moulding flash and ensure all parts fit correctly. Check the fit of the wheel bearings and bore out the axleguards/axleboxes if required with a 2mm diameter drill. Drill out the handrail holes (0.4mm) in the ends at the pot marks. In the blocks situated on the rear of the solebars, drill out 0.7mm holes for the hopper release handles (monkeys tails).

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. A combination of several methods will give best results. For etched parts we recommend the use of solder.

Fit the ends to one side, ensuring all is level and square. Having ensured the axles are held securely but not tightly

in place by the bearings glue the bearings in place using a Superglue. Fit the other side with the wheels in position and again check all is square using a flat surface such as a glass sheet. If required gently tweak the wagon to bring all four wheels into contact with the glass surface. From the top fit the hopper floor into the body. Cut the planked plasticard to form the hopper ends and side ramps, with the planking parallel to the sides glue into place. With a fine piercing saw, cut a small slot in the top of each end to locate the brake ratchet lug. Fit the buffers to the ends with the step upper most.

Detach the etched brass parts from the fret and clean off any tags. Join vertical links in pairs, ensure ends are open to form forks, twisting assembly through 90°. Attach brake ratchets to ends, locating in previously formed slot. Fit a lever and crank to each end. The handle end should crank in enough to locate on the ratchet and pass under the LH grab handle. Pass wire 'pin' through upperfork in vertical link and handle end. Attach this assembly to the post with a pivot pin. Take the step plates and bend up, checking the fit of the brake assembly rod in these and size as required. Fit these plates behind the solebars, abutting to the rear of the buffer beam. Locate brake shafts between these plates with operating links fitting between the vertical link.

Form end grab rails from 0.5mm wire and fix in place. Lastly form "monkeys tails" from thick wire and fix in place.

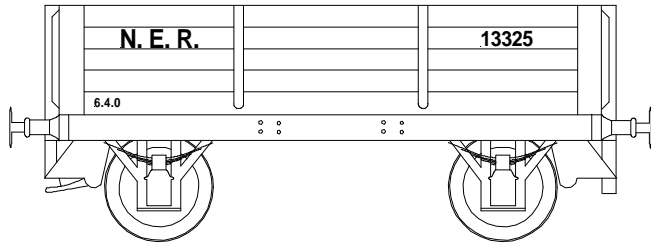
## Finishing

Clean and degrease the model using solvent, such as white spirit, prior to painting. For whitmetal parts use an etching primer, such as Precision Paints PS1. The model should then 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 the "Pow Sides" type dry lettering** rather than the waterslide or 'M9ethfix' transfers.

## Livery

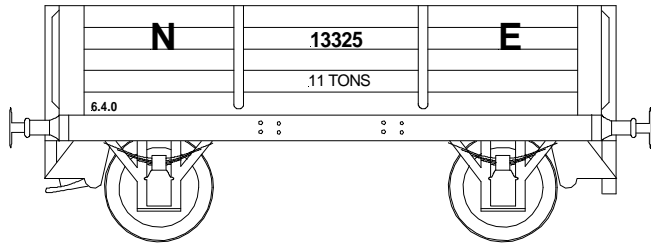
Letter your wagon to suit your period. Suitable lettering is available from HMRS, Modelmaster and Pow sides; paint from Precision Paint for both the NER and LNER.

### North Eastern Railway 1889-1903



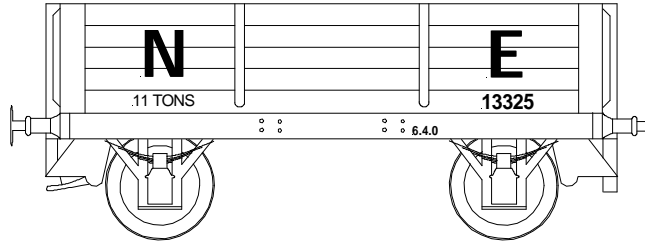
Bodywork, and solebars   NER grey  
Precision Paint P530  
Underframe/brake lever   black  
Letters and numbers       white shaded black  
Pow Sides sheet E264

### North Eastern Railway 1903-1911



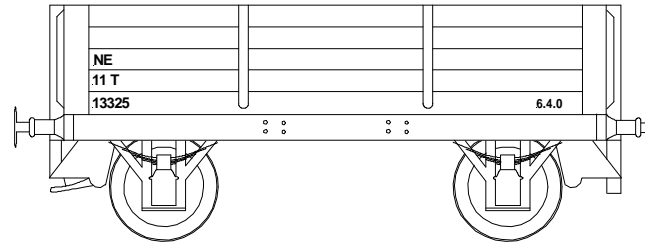
Bodywork, and solebars   NER grey  
Precision Paint P530  
Underframe/brake lever   black  
Letters and numbers       white  
Pow Sides sheet E266, Fox FRH 4325

### North Eastern Railway 1911-1923



bodywork, and solebars   NER grey Precision Paint P530  
Underframe/brake lever   Black  
Letters and numbers       White Pow Sides sheet E266, Fox FRH 4325

### London and North Eastern Railway 1923-withdrawal



Bodywork, and solebars   grey Precision Paint P66  
Underframe/brake lever   black  
Letters and numbers       white HMRS sheet 12,  
Modelmaster Sheet 4702

### Sample numbers

Running numbers are known to include:  
167, 663, 13287, 13325, 40210, 49821, 49823, 54009,  
54400, 54671, 64012, 64022, 95526-95645

## 51L

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

GWR and constituents:-  
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LMS and Constituents:-  
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Scottish Joint Stock, North Staffordshire Railway,  
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North British Railway, North Eastern Railway

51L models are available through Wizard Model 51L at selected exhibitions and mail order.  
The current version of these assembly instructions will be available on the 51L website: [www.51l.co.uk](http://www.51l.co.uk). For further help or information please emails: [peter@51l.co.uk](mailto:peter@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 18.83mm. 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: [peter@51l.co.uk](mailto:peter@51l.co.uk)  
[www.wizardmodels.co.uk](http://www.wizardmodels.co.uk)

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