



The detailed wagon and van kit

The Prototype

Twin bolster wagons were used to carry out all manner of long loads including bulk timbers, rails, fabricated steel work and boilers. They ran permanently coupled in pairs and had consecutive numbers.

Some 400 pairs of D4 twin wagons were built between 1897 and 1898. All would have been built with the number 2a grease axle box and probably the two shoe one side with right hand lever brakes on the right hand wagon of the pair.

The D4 had the standard timber bolsters when built which would have been replaced from 1909 with the new steel pattern. It is considered unlikely that the bolsters would have been replaced with the swivelling pattern.

Some wagons may have been fitted later with oil axleboxes during repairs. This kit includes components to produce a variety of types: a choice of bolsters and axleboxes.

References:

British Goods Wagons from 1887 to the present day, R Essery, D Rowland & W Steel
The North Eastern Record Volume 2, P 86

Interested in the North Eastern Railway?

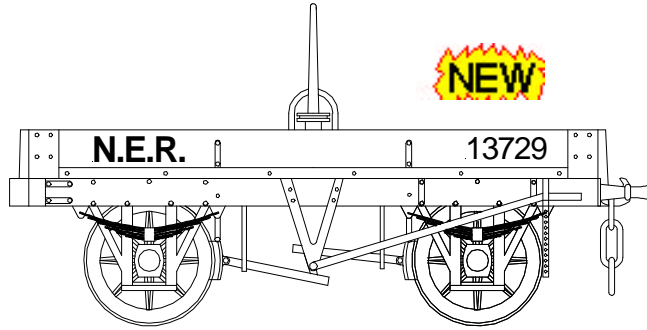
Contact the North Eastern Railway Association.
The Membership Secretary
c/o 8 Prunus Avenue
Willerby
Hull. HU10 6BH

Acknowledgements

51L would like to thank the following for the help and assistance in preparing this model:-
Claire and David Williamson.

North Eastern Railway London and North Eastern Railway British Rail

Diagram D4 Twin bolster wagon Period: from c 1897-c1930's



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 model. Remove any moulding flash and ensure all parts fit correctly. We suggest wet fine emery paper (1200 grit) may be useful 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.

Examine all the parts and familiarise yourself with their assembly. Fit one side to the floor plate followed by one end, ensure all is square. Attach the side followed by the second side using one end to check alignment. Fit the first end and ensure all is square. Attach second end and ensure square. Assemble the w-irons following the enclosed instructions.

Fit the buffers in place with two of the bolt heads at the outside of the wagon. Ensure the w-irons are etch primed and painted black prior to attaching to the floor plate. In OO modellers will choose to assemble the w-irons in the non rocking mode. In EM or P4 it may be useful to allow the w-irons to rock. (The wagon has a 7' 6" wheel base). Use the sole bar detail to assist position the w-irons. With w-irons in place check the buffer centre to rail top height, this should be 14mm. Pack the w-

irons as required to achieve 14mm. It is suggested that about 0.030" is required. Fix w-irons in place and check they are parallel and square. Gently push the wagon along a flat surface, it should follow a straight line. If not one or more w-iron is out of line and requires adjusting.

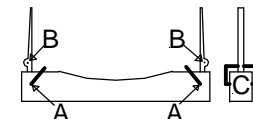
Attach the axlebox castings to the w-irons. The bearing hole will need opening up using a 2mm drill. We suggest that the top of the spring hanger is slightly filed away if a rocking w-iron is required at one end. Alternatively open out the bearing hole in the axle box to allow for bearing movement and attach the spring to the solebar.

Bore 1mm hole in the rubbing plate to accept 0.9mm wire coupling between the two wagons. The wagons are best attached permanently after painting.

Attach the brake shoe assembly to the slide bar on the inside of one solebar, ensure this side is to be the right hand side of the complete wagon pair. Attach a V to the inside of this solebar so that the V and push rod lever holes line up for the brake cross rod. The cast V will require filing to fit. Attach an etched V to the outside of the solebar again use holes on the brake gear assembly to check height and alignment. The V needs bolt marks forming by pressing the etched holes on rear surface with a sharp point. Bolt detail on the solebar will need to be removed and the top of the V will require trimming to fit on the solebar. It may be found helpful to use a length of 0.5mm wire to support these components when attaching them in place. Cut from the 0.5mm wire supplied a short cross rod (about 5mm) ensuring it is long enough to protrude beyond the outside V by around 1mm.

Bore a hole at the end of the right handed brake levers to 0.5mm and attach in place.

Using bolster of choice bore holes (0.5mm) for the shackles, **A** and the etched bolster post, **B**. Shackles may also be formed the 0.5mm wire supplied these should be a U shape as viewed in **C**. Fit bolster in place at the centre of the wagon using epoxy resin or other adhesive. Attach etched bolster pins in place.



Repeat for the second wagon.

Finishing

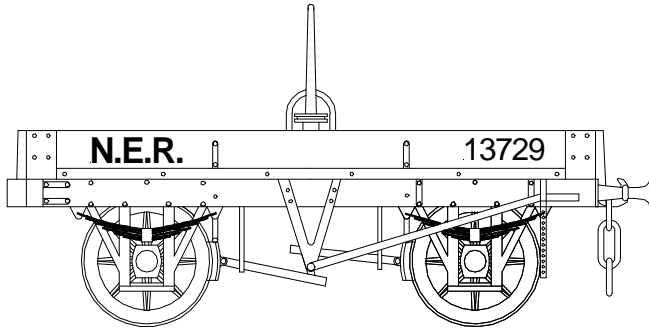
Clean and degrease the model, using white spirit before painting. For whitmetal parts use and etching primer, such as Precision Paints PS1. After painting clean the model using a tissue soaked in white spirit. **This is especially important if you are intending to use dry lettering** such as that available from Pow Sides rather than waterslide or 'Methfix' transfers. After painting and lettering fit three link couplings.

Using the 0.9mm diameter wire cut a length 20mm long, bend one end at right angles 5mm from the end. Thread the straight end through the rubbing plate holes in both wagons. When the wagons are close coupled bend the protruding straight wire at right angles.

Livery

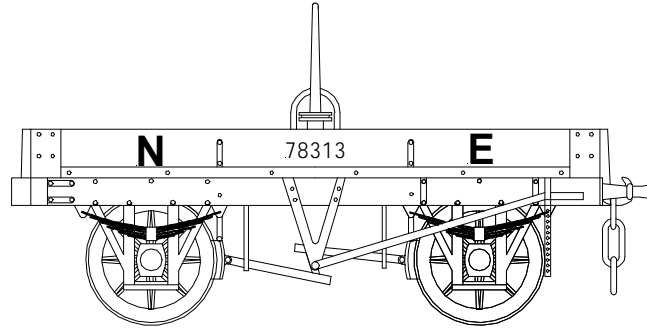
Letter your wagon to suit your period. Suitable lettering is available from Fox Transfers, HMRS, Modelmaster and Pow Sides and Paint from Precision Paint for the NER and LNER periods.

North Eastern Railway To-1911



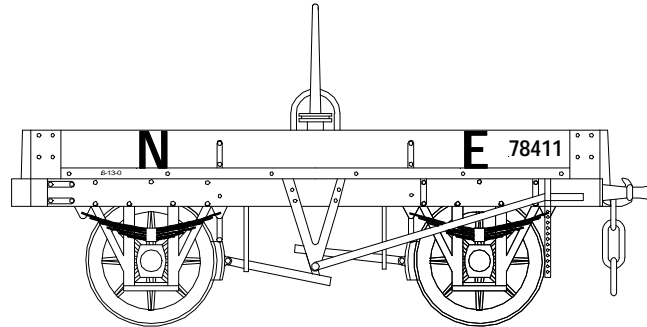
Bodywork, and solebars NER grey Precision Paint P530
Underframe/brake lever Black
Letters and numbers white, unshaded from 1903
Pow Sides sheet E262, Fox FRH 4325

North Eastern Railway 1911-1923



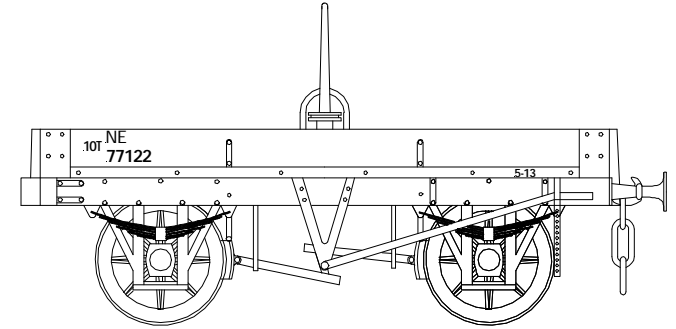
Bodywork, and solebars NER grey Precision Paint P530
Underframe/brake lever Black
Letters and numbers White Pow Sides sheet E262,
Fox FRH 4325

London and North Eastern Railway 1923-36



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

London and North Eastern Railway 1937-demise



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

Sample Numbers

1892: 13729, 13730
1893: 78313-78412
1893/4: 79613-79662
1897/8: 86500-86899

D4 twin wagons were numbered consecutively.

51L

51L models are available through Wizard Models 51L. For the most up to date version of these assembly instructions or information on 51L models contact the 51L website:

www.51l.co.uk

Lists of items stocked by Wizard can be obtained by sending 50p and a SAE to:

Wizard Models.

PO Box 225, Macclesfield, Cheshire. SK10 4GB

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Version: 1
Issued: April 2002