

**The Prototype**

The North Eastern Railway had a sizeable cattle wagon fleet; 3,222 were built between 1886 and 1924 including unfitted (the majority), piped and fitted versions. All were classed under Diagram K1. At Grouping, the LNER inherited a fleet of over 2,000 wagons but by 1940 this had fallen to just 728. BR took over 213 of these.

The NER started to produce fitted cattle wagons in 1905. Initially they were allocated to specific stations and were legended accordingly. Fitted cattle wagons were allowed at the front of passenger trains and frequently appear in formation photographs. In the 1930s the Westinghouse brake equipment was removed from many vehicles leaving just the vacuum brake.

This kit represents the fully fitted version, with both vacuum and Westinghouse brakes, Morton cam brake levers, and J-hanger suspension.

**References**

North Eastern Record Vol. 2 p85  
 LNER Wagons – an Illustrated Overview, P. Tatlow, p118  
 LNER Wagons Vol. 2, P. Tatlow pp160-2

**Interested in the North Eastern Railway?**

Contact the North Eastern Railway Association.  
 The Membership Secretary  
 c/o 8 Prunus Avenue  
 Willerby  
 East Yorkshire  
 HU10 6PH

**Acknowledgements**

51L thanks Michael Grocock, Bob Ellis and Clare and David Williamson for their help in preparing this kit.

**North Eastern Railway**  
 London & North Eastern Railway  
 British Railways

**Diagram K1 10T Cattle Wagon**  
**(Fitted, no. 2 oil axleboxes)**



**From 1910 to early 1950s**  
**For 00, EM or P4**

**Features:** Whitmetal body and detailing parts, plastic floor and roof

**Required to complete:** split spoke 12mm wagon wheels, bearings, paint, screw couplings, transfers

**Assembly**

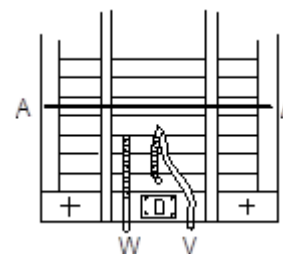
Assembly is best carried out using low melt solder or an epoxy resin such as Araldite. Glues like UHU, Multibond or Thixofix can also be used. For small parts use superglue. To obtain the best results a combination of several techniques will be needed.

Cut the supplied 0.7mm wire to form the “window” bars and fix them into the cast notches.

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, using the solebar detail to

ensure the axle spacing is the correct 38mm (9/6"). Now assemble the body: properly join one end to the side with the axleguards, and tack the other 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. Fit the clasp brake gear in place behind each wheel ensuring the wheels continue to turn freely.

Fit the buffers to the ends, with the four boltheads oriented as a square rather than a diamond. Cut the plasticard floor to size and glue in place.



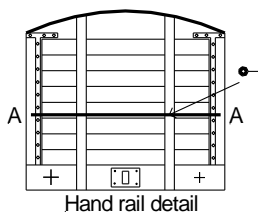
Add the etched vees to the inside of the solebars, using the cast detail on the outside for alignment. Attach the vacuum, Westinghouse and steam pipes; the steam pipe should be to the right of the right hand stanchion.

Cut the brake cross rod (0.9 mm) to length so that it fits between the vees, attaching it loosely in place. Attach the vacuum cylinder, Westinghouse cylinder and associated levers in place (see sketch), together with the Westinghouse reservoir. Fit your choice of long or short brake levers; the Morton cam lever goes on the same side as the vacuum cylinder (fill the solebar notch if fitting the short levers).

Use 0.5mm wire to form brake shoe cross shafts and push/pull rods. The central push/pull rods may also be prepared from 0.5mm wire. (Note: the central lever equalising links are not supplied.) See the enclosed sketch for details. Add brake safety loops by folding up

the enclosed etches and fixing in place around the cross shafts, adjacent to each brake shoe.

The end handrail holes at the side/end join and in the end stanchions should be drilled with a 0.45mm drill 14.5mm from the bottom of the buffer beam, as shown in the sketch below. Add the handrails from the supplied 0.45mm wire. Use the fine copper wire to form a loop around the handrail, thread it into the hole in the end stanchion and solder or glue it to the interior surface. Paint the interior and add any detail (cattle, straw, lime wash) now.



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. Fix the roof in place. Once set, cover with a sticky label or solvent weld paper on top, trimming the edges to fit. Add rain strips if required.

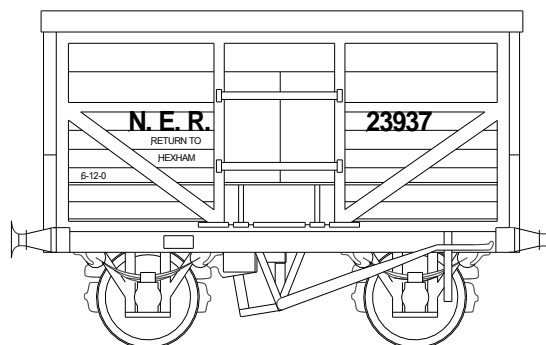
## Finishing

Clean and de-grease your wagon prior to painting. For whitmetal wagons the use of an etch primer, such as Precision Paints PS1, is necessary, followed by the wagon colour of your choice. Prior to lettering clean the wagon with a white spirit soaked tissue to remove any surface dust. This is particularly important if dry lettering is to be used. Finally protect paint and lettering using matt or satin varnish.

## Livery

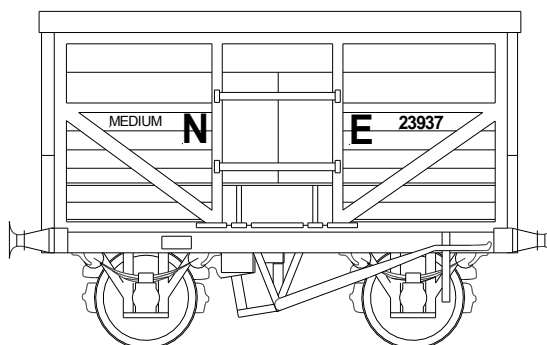
Letter your wagon to suit your period. Suitable lettering is available from HMRS, Modelmaster and Powsides; paint from Precision Paints for the NER and LNER periods.

## North Eastern Railway 1905-1911



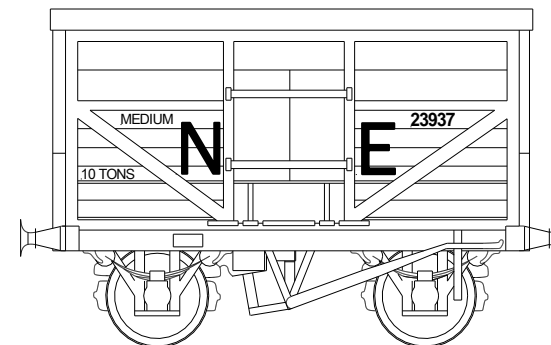
Bodywork, solebars, buffer housings: crimson lake, Precision Paint P529  
Underframe, brake levers: black  
Insignia: gold

## North Eastern Railway 1911 to 1923



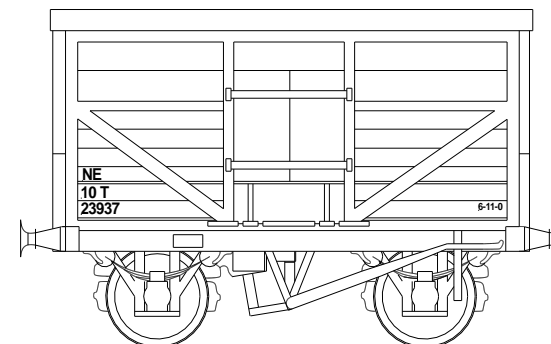
Bodywork, solebars: Indian red, Precision Paint P6  
Underframe, brake levers, buffers: black  
Insignia: white, Powsides sheet E263, Fox FRH 4325

## London & North Eastern Railway 1923 to 1937



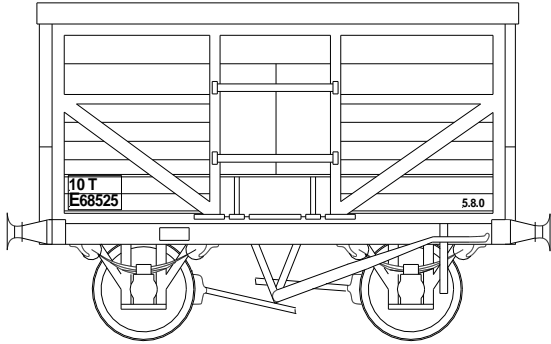
Bodywork, solebars: red oxide, Precision Paint P67  
Underframe, brake levers, buffers: black  
Insignia: white, Powsides sheet 4702, HMRS sheet 12

## London & North Eastern Railway 1937 to 1948



Bodywork, solebars: red oxide, Precision Paint P67  
Underframe, brake levers, buffers: black  
Insignia: white, Powsides sheet 4702, HMRS sheet 12

## British Railways 1948 to demise



Bodywork, solebars: unpainted wood or grey, Precision Paint 126

Underframe, brake levers: black

Insignia: white on a black patch, HMRS sheet 25, Modelmaster sheet 4606

Many wagons would not have been repainted by the LNER or BR and would remain in a weathered Group or even pre-Group livery or weathered timber.

### Sample numbers

Are believed to include (brackets give build date and allocation):

6474 (1906 Newcastle)  
8294 (1914 Darlington)  
9729 (1906 Darlington)  
10887 (1905 York)  
12103 (1910 Malton)  
13136 (1910 Stockton)  
14846 (1907 Tweedmouth)  
18315(1906 Carlisle)  
18498 (1914 York)  
19217 (1905 Starbeck)  
23937(1905 Hexham)  
60532 (1908 Kirkby Stephen)  
71898 (1908 Newcastle)  
72850 (1914 Starbeck)

A more recent version of these assembly instructions may be available on the Wizard Models website. For further help or information please email:

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

## 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: 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

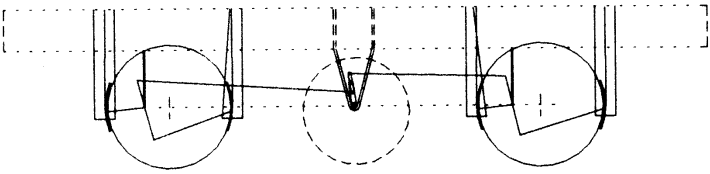
Email: [andrew@modelsignals.com](mailto:andrew@modelsignals.com)

Shop: [www.wizardmodels.ltd](http://www.wizardmodels.ltd)

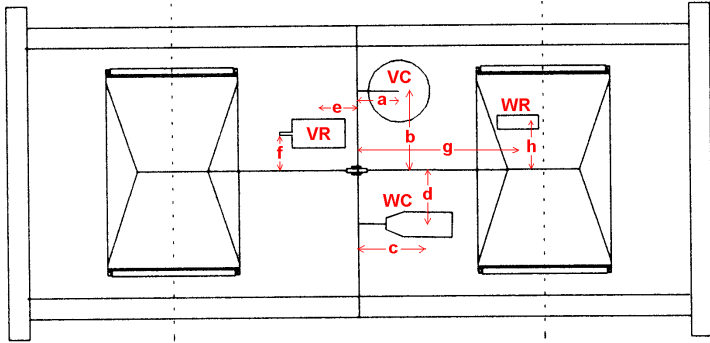
Version: 5.06

Issued: April 2020

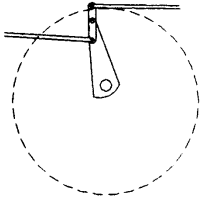
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Side view



Plan view  
(seen from below)



Detail of levers on  
wagon centre line

$a = 3.7\text{mm}$     $b = 7.5\text{mm}$     $c = 8.3\text{mm}$     $d = 5.5\text{mm}$     $e = 5.8\text{mm}$     $f = 5.3\text{mm}$   
 $g = 16.4\text{mm}$     $h = 6.0\text{mm}$