The 4mm wagon and van kit

LYRD036

Lancashire & Yorkshire Railway
London Midland & Scottish Railway
British Railways

Diagram 36 Twin Timber Wagon

From 1882 to c1955
For 00, EM, P4 and S4

Features: white metal kit, white metal buffers with steel heads, etched w-irons, brake levers and bolster pins
Required to complete:
Solid or split eight spoke 12mm wagon wheels, bearings, paint, three link couplings, transfers.

The Prototype
The permanently coupled twin timber wagon was developed in 1882 to combine the features of the double bolster and single wagon. Some 40 wagons (20 pairs) were initially constructed with an additional 408 wagons (204 pairs) added in the 1890s. Forty more pairs were ordered in 1915 and delivered by 1917 with a further 10 ordered in 1919 and delivered in 1921 or later. There were 227 pairs in service in December 1920. The twin wagon was used for a wide variety of traffic including timber and steel sections.

The kit depicts the 1900s version with strengthening to the underframe and sheeting but with the B3 oil axle boxes fitted from 1917 (the later B4 oil axleboxes are available as product code LYRC005). Grease axleboxes are included to represent earlier versions.

Over the years there were few external changes except to the rubbing knuckles which were full width with cross bracing on earlier wagons but 2'8" long on later wagons, and the side sheeting which was strengthened. When the side sheeting change occurred is not known but was most probably with the 1915 drawing. Axle boxes on earlier wagons were Attocks grease pattern but wagons ordered in 1917 and 1919 were B3 oil. It is likely that the 1921 wagons would have been built with B4 axleboxes. In any case it is probable that a change to B4 was made during routine maintenance.

References
British Goods Wagons from 1887 to the Present Day; Essery, Rowland & Steel
Lancashire and Yorkshire Wagons Vol 1; Noel Coates, pp121-133

Acknowledgements
51L thanks Noel Coates for his assistance in preparing this model.

Interested in the Lanky?

The Lancashire and Yorkshire Railway Society
http://www.lyrs.org.uk

Assembly
Please read these instructions before starting to build your model. Examine all parts and familiarise yourself with their assembly. **The sides, solebars and ends are handed;** a drawing is included for your convenience.

Remove any moulding flash and ensure all parts fit correctly. We suggest wet fine silicon carbide paper (1200 grit) to clean up flash marks. Assembly is best carried out using low melt solder or an epoxy resin such as Araldite. For small parts use superglue. To obtain the best results a combination of several techniques will be needed.

Using the supplied 0.31mm wire, prepare and fit horse hooks. Two horse hooks per side (one on each wagon) were present. Pop marks may be found on the solebars at the crown plates adjacent to the right hand end of the right hand wagon and the left hand end of the left hand wagon. Drill out the pop-marked 0.5mm holes in the rubbing plates (inner ends) for the safety chains. Broach out the holes in the outer ends to accept the buffers.

Attach a rubbing plate to a floor plate, at the end with the attachment pin cast into the underside. Add an outer end followed by a left- and right-hand side. Add a left-and right-hand solebar, ensuring there is sufficient clearance between the solebars for the W-irons to rock freely. If not, thin the solebars as required. (Alternatively fit the W-irons first, then the solebars.) Attach the buffers to the outer ends ensuring the apex of the base points to the outside of the wagon.

The etched 51L W-irons should be assembled following the enclosed instructions, using the curved bridle bar. 00 and perhaps EM modellers may wish to choose a rigid chassis, in which case both W-irons need to be assembled in the non-rocking mode. It may be advantageous to paint the w-irons at this stage. Fit the wheelsets - we suggest waisted bearings. Place both W-irons on a wagon floor using the crown plate coach bolts for positioning. (It may be helpful to draw axle centre lines for guidance.) Check the rail to buffer centre height adding packing (around 0.010 to 0.020") to the W-irons as required, to achieve a height of 14 mm. Glue the W-irons in place so that the wheelbase is 6' (24mm). If the wagon is gently pushed along a flat surface it should run in a straight line. If not, one or both W-irons are out of line and should be adjusted. Finally, add your choice of axleboxes.

Next comes the brake gear – this is fitted to the right-hand end of each side of the wagon pair. Bore out the cross-shaft hole in the brake shoe assemblies and fit to the interior of the solebar, ensuring the brake shoes are in line with the wheels. Prepare the etched brake levers, lever guides and vees following the enclosed instructions. Attach the interior vee to the floor ensuring it is 7mm from the inside of the solebar. It will need packing (around 0.020"); use the brake shoe cross-shaft hole for height guidance. Form the cross-shaft from 0.5mm wire. Attach the exterior vee to the solebar, using the cross-shaft to line it up with the brake shoes and interior vee. Attach the brake lever guide and lever, with the guide being 5mm from the buffer beam. Form the brake safety loops and fit them adjacent to the brake shoes - one per push rod.

Ensure the bolster sits smoothly in its floor pivot. Bore out the pop-marked holes for the etched bolster pins and fix them in place. Add the cast shackles to each end of the bolster.

After painting and lettering the two wagons should be attached together. Fit the safety chains between the wagons. These are five links in length and should be attached to each wagon using a loop of the supplied fine copper wire. It may be best to blacken the loops prior to fitting. Use a length of 0.7mm wire to couple the wagons together. This should be formed into a ring at each end, and placed over the pivot bars on the wagon undersides. It should be held in place permanently on one wagon with the supplied washer.

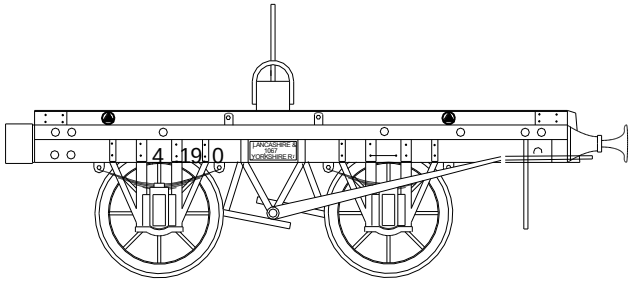
Finishing
Clean and degrease the model, using water and meths prior to painting. For whitemetal parts use an etching primer, such as Precision Paints PS1. Paint the model in the livery of your choice. After painting clean the model using a tissue soaked in

white spirit. This is especially important if you are using dry lettering rather than waterslide or ‘Methfix’ transfers.

Livery

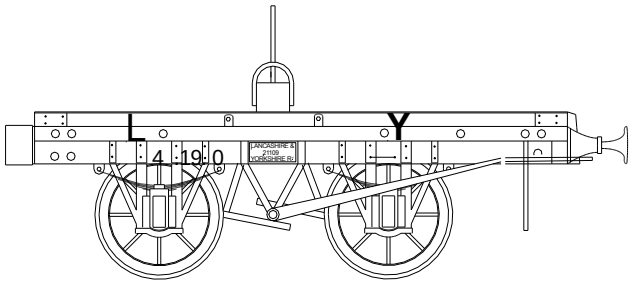
The following information is intended for guidance; when positioning transfers please consult the references for detailed information.

Lancashire & Yorkshire Railway (1882-1903)



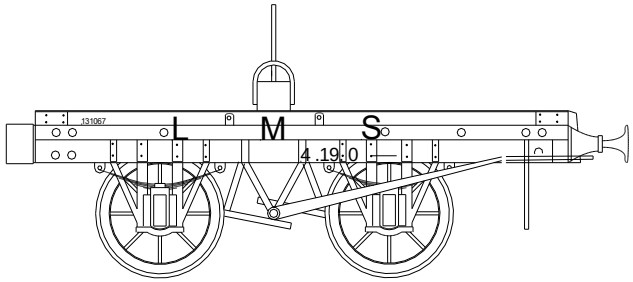
Bodywork, solebars, headstocks: grey, Precision Paint P557
Ironwork below solebar: black
Insignia: white, HMRS sheet 17

Lancashire & Yorkshire Railway (1903-1923)



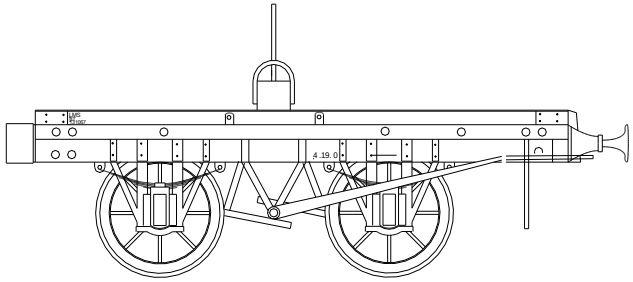
Bodywork, solebars, headstocks: grey, Precision Paint P557
Ironwork below solebar: black
Insignia: white, HMRS sheet 17

London Midland & Scottish Railway (1923-1937)



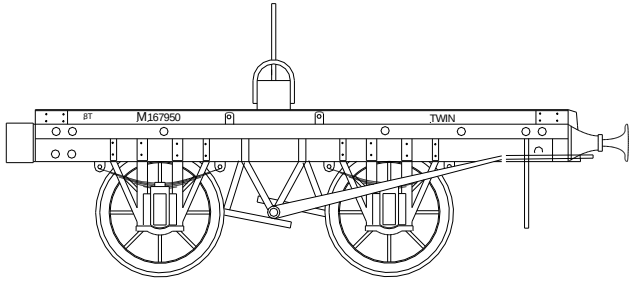
Bodywork: grey, Precision Paint P38
Iron work below solebars: black
Insignia: white, HMRS sheet 6, Old Time Workshop sheet 4701

London Midland & Scottish Railway (1937-1948)



Body, solebars and all ironwork: bauxite, Precision Paint P39
Ironwork below solebars: black
Insignia: white, HMRS sheet 6, Old Time Workshop sheet 4701

British Railways (1948-demise)



Light grey, or bare timber with lettering on a black patch:
Precision Paint P126
Insignia: white, HMRS sheet 25, Modelmaster sheet 4619

Many wagons were not repainted immediately or if at all by the LMS or BR and would have remained in a well-weathered version of their previous livery or even bare weathered timber.

Sample numbers

Little information is available but is known to have included pairs 22093/4, 21107/8 and 37949/50 (BR M167949/50). In the LMS period LYR wagons were renumbered by the addition of 130,000. BR renumbered ex-LMS wagons by prefixing the original with M. Each wagon of a pair was numbered consecutively under all three owners.

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

51L

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Wizard Models

Wizard Models stocks a wide range of components and other necessities for the modeller in 00, EM and P4.

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