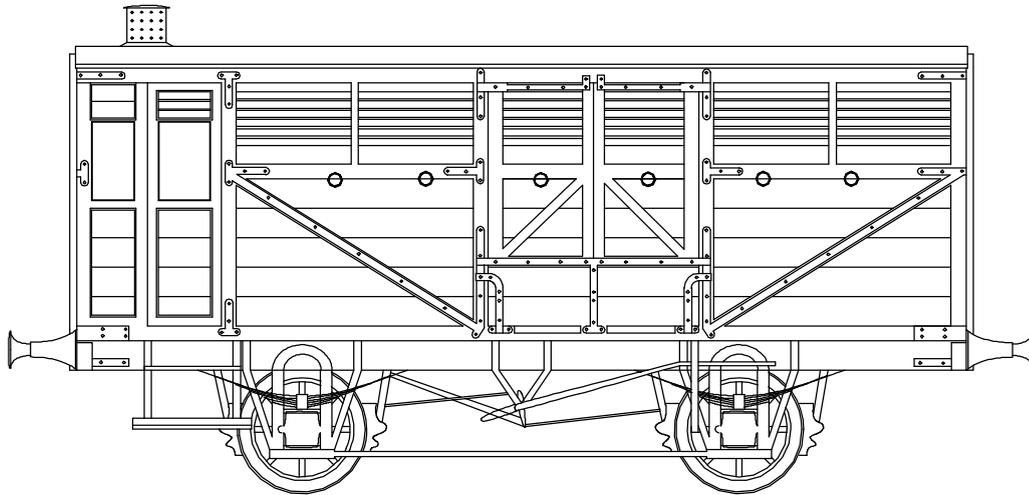


**London and North Western Railway
London Midland and Scottish
British Rail**

**Diagram 26 Prize cattle truck
c1900-1956**



Prototype information

The cattle box drawing enclosed with this model was first published in 'The Locomotive Magazine' on December 12th 1905. It is virtually an exact tracing from the LNWR works drawing. The drawing shows a gas lamp top, although all photographic evidence shows an oil lamp top. The axlebox tie rods are omitted from the drawing although they were fitted when built.

Sixteen cattle boxes were built at Earlestown Works for use in passenger trains during 1902. A further example was built in 1912 to replace a D23 accident victim. They were 22ft long over headstocks with 11' wheelbase and a tare weight of 8 tons 13cwt 3 quarters. Open fronted oil axleboxes and a wooden underframe, which was common practice at the time of manufacture, were original equipment. The tie rods were removed in the mid-1930s.

Our model is supplied with the horizontal vacuum brake cylinder as shown in the drawing and also the more conventional vertical type. As with many LNWR vehicles of the time two types of brake cylinder were used indiscriminately; but no records are available to say which vehicle had which type of cylinder. However we can say for certain that two of the examples that reached BR ownership had the vertical vacuum cylinders but it may be that these were fitted by the LMS.

The standard brake equipment for these vehicles was vacuum brake gear and Westinghouse through pipe. Early types had no alarm gear when built, but this was later fitted in about 1908. The handbrake gear as built was a single lever on one side with a drop arm pushing on one brake shoe only. This was later modified, some time after 1912 to comply with new regulations. The last vehicle was scrapped in December 1956.

Livery Details

The original livery shown in the official photograph shows a white roof but this soon became grey. Underframe black, body lake/quick brown with yellow lining around the framing. The earlier lettering was in the top plank, cattle box to the left and L.N.W.R.Y to the right. The later style of lettering showed the vehicle number in the place of LNWR with LNWR in large letters across the planked body sides.

Early LMS livery is uncertain but at this stage cattle boxes were numbered in the goods list. So they may have been painted grey. However LMS built prize cattle wagons of the period were painted in crimson lake with simplified lining. J P Richards believes that as late as the 1930's he saw one of these cattle boxes and it was in chocolate brown. After 1932, when they were re-numbered into the passenger list, they would be crimson lake bodies, unlined, with black underframes and fittings and a grey roof. LMS lettering was at the left hand side second plank up with the number beneath. Yellow carriage insignia were definitely used.

In the British Railways period the number was preceded by an M at the third plank up on the left hand side with CATTLE BOX beneath.

Numbers

LNWR

49476-7, 4960, 49616, 49618, 49626, 67397-402, 67403-6, 72329-34.

LMS

First LMS numbers:

Add 200,000 to the LNWR numbers.

Second LMS series:

The following survived to be renumbered in the 1932 re-numbering; 267397, 627400, 272329, 272332, 249477, 249626, 249476, 249607, 249616 and 249618. They were now numbered in the carriage series and became 43960-9 inclusive.

British Railways

Two vehicles survived to become M43966 and M43968 in the British Railways fleet.

References

LNWR Wagons Volume 1, LNWR Soc, Ed Chris Northedge, P141-143

The Locomotive Magazine December 1905

Historic Carriage Drawings Volume 3, non-passenger coaching stock, Peter Tatlow, P93

LNWR Liveries, HMRS, Talbot, Millard, Dow and Davies, Chapter 7.

Assembly

Assemble the parts in the following order, the numbers at the margin are those etched on the fret.

Underframe

- 1) Floor. Bend the solebars down. If fitting the original handbrake lever bend out the lever rest on one of the solebars and do not bend down the V-hangers. If fitting the later type of handbrake lever cut off the lever rest and the lever pivot (to the right of the left hand axleguard on the same side) and bend down the V-hangers.
- 2) Pivoted axleguards. Bend down the sides and the brake linkage hanger, which is on the side nearest to the centre of the vehicle. Fit between the brackets on the floor and pivot with a piece of wire about 20mm long, secure the wire to the floor at the inner end. Glue brass bearing cups into axleguard holes.
- 3 and 4, Solebar detail. If fitting the later handbrake remove the lever pivot from part 3. The hole in this fits over the lever rest if fitting the earlier handbrake.
- 5) Brake block detail. Glue in position by placing on a piece of card and pass a pin through the hole in the detail and in the brake hanger, then glue.
- 6 and 7, Brake hangers. Bend down the hangers and the safety loops. NOTE-the safety loops were not fitted when new so if building in its original condition they should be cut off. However the date of fitting safety loops is not recorded, but would have probably been fitted by the time of the First World War. Fit parts 6 to the fixed axleguards and parts 7 to the pivoted pair with locating tongues through the mating slots.
- 8) Brake linkage hanger.(fixed axleguard end). Bend over the flap and the small prong at the other end. Glue or solder the flap above the floor with hanger pointing vertically downward locating in the notch between the two axleguards.
- 9) Outer brake block connecting bars. Bend over the small prong at the end of the centre linkage and twist the link through 90 degrees. Fit between the brake blocks with the centre prong through the upper hole of the linkage hanger. secure with glue.

Glue the brake cylinder to its brackets under the floor so that the release pipes are along the waistline at each side. (see the drawing 'brake linkage and cylinder'). Glue the cast spring/axleboxes to the axleguards.

- 10) Pull rods. Bend over the small end prongs, which fit through the upper hole of the brake linkage hanger. The wider end is glued to the projection from the brake cylinder.
- 11) Original handbrake lever. Assemble and fit as shown in the diagram, with one stirrup, part 16.
- 12) Original handbrake drop arm. Instruction as 11

Note: If you are fitting the original handbrake, ignore parts 13-15.
If fitting later handbrake ignore parts 11 and 12 and instead fit;

- 13) Outer V-hangers. }
- 14) Push rods. }
- 15) Handbrake levers. } fit all parts as shown in drawing.
- 16) Stirrups. }
- 17) Horse hooks. Fit in the holes at the left-hand end of the solebars above the axleboxes.
- 18) Step supports. Bend the step hangers to 90 degrees where they meet the step.
- 19) Lower steps. Bend the toe stop to 90 degrees then thread and fit to parts 18 secure with glue.
- 20) Upper step (side with the door on the right).
- 21) Upper step (side with the door on the left).

Bend and thread onto parts 18, locate each assembly below it's door, secure the uprights to the solebar and the flaps of 20 and 21 secure behind the solebar.

- 22) Safety loops (long). These should be fitted only if you have fitted the later handbrake. Bend the fixing flaps and glue to the floor as shown in the drawing by using the small holes in the floor.
- 23) Safety loops(short). Instructions as for 22.
- 24) Axlebox tie rods. These were fitted when first built. Date of their removal is not clear but they were removed by the late 1930 s.

Body Assembly

The first side.

- 25) The first layer. Bend the end, top and bottom flaps back through 90 degrees, and then the bend the floor locating tabs down, then bend the partition and seat flaps in and the door hinges out. Ensure the top flap slopes up to match the end profile so this can help to support the roof that will be fitted later.
- 26) Second layer. }
- 27) Third layer. } Locate each layer over the hinges and glue in
- 28) Fourth layer. } place in turn.
- 29) Main strapping. } Locate in place as shown in the drawing. The parts
- 30) Small strappings. } shown projecting are subsequently bent around the ends.

The second side.

- 31) First layer. }
- 32) Second layer. }
- 33) Third layer. } As above
- 34) Fourth layer. }
- 35) Main strapping. }
- 36) Small strapping. }

The first end.

- 37) First end, drovers end.
- 38) End stanchions for part 37. Bend to form a channel section, turn in top and bottom flaps and secure in place using the locating tabs and slots.
- 39) Alarm gear 'ears'. Bend and fit in the slots at the top of part 37.

The second end.

- 40) Second end, cattle compartment end.
- 41) End stanchions for part 40. As instructions for parts 38.
- 42) Strappings for both ends. The line of four bolt heads to the top. Be careful when removing so as not to cut off the fourth/top bolt head.
- 43) Upper lamp irons. Bend and fit through the slot to the right of the slot for the drawbar, fill the slot to the left horizontally. 44. Buffer beam second layers. Bend down the lamp irons.
- 45) Buffer beam third layers. Fit to parts 44 ensuring the lamp iron passes into the notches. Then pass the lamp irons through the holes in the ends and glue in place behind the buffer beam section of the ends. Finally bend up all the lamp irons 3/4 mm. out from the end.

Assemble the sides to the floor. Drover's doors at the fixed axleguard end, it will not fit the other way around.

Fit the ends, lining up the buffer holes and keeping the sides vertical, secure with glue or solder. Now cut the plastic floor and partition and seat. The position of the partition is given by the flaps, secure with glue having laid the floor and secured that with glue. The seat is positioned on the flaps previously folded down from the sides.

- 46) Bottom corner plates. Glue half the length to the sides with the rivets at the bottom, wrap the remainder around the ends and secure.
- 47) Top corner strapping. Fit similarly as 46 but to the top rail of the sides.
- 48) Drover's door handles. Fit into the holes in the doors.
- 49) Grab handles alongside drover's doors. Fit into the holes.
- 50) Buffer bases. Fit these in place around the buffer holes, then following the instructions on the orange card fit the buffer bodies. Fit the sprung buffers after painting.

Fit the cast brake pipes the drover's end as shown in the drawing. Also at the drover's end fit the alarm gear rodding from fine wire as shown. The cast pipes at the other end are a mirror image but without alarm gear rodding.

The cattle box may now be painted in your chosen livery. Then fit the glazing to the drover's compartment.

Now the cut formed roof to size allowing up to 0.5mm overhang at the ends. Using the supplied plastic sheet template fit the roof fittings.

- 51 Lamp base. Glue in place in the pre-drawn circle.
- 52 Lamp body. Curve to a cylinder around a small diameter rod to match 51 and glue in place.
- 53 Lamp top. Glue in place on top of part 52.

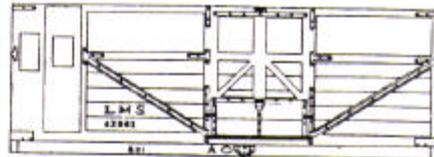
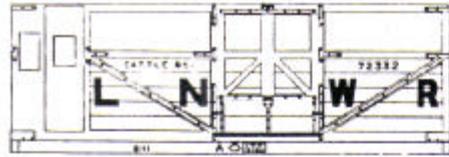
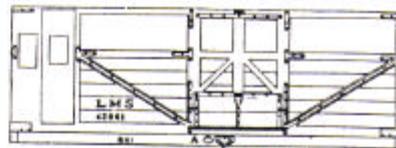
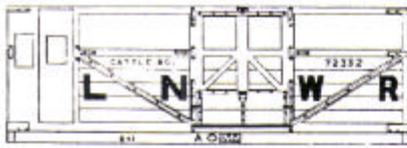
The roof in LNWR days was painted white and grey in LMS days, however this soon became dirty in service. Having painted the roof fit in place on the body.
Carefully ease the wheels in place ensuring that they clear the brake blocks.

- 54 Inner brake block connecting bars. These pass below the axle to the bottom prong on the brake linkage hangers. These bars should be secured to the brake blocks by passing the prongs through the holes of the brake blocks.

Finishing

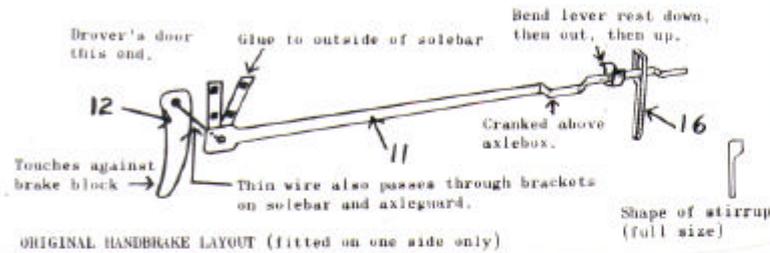
Fit screw link couplings.

The transfers included are of the Methfix type and should be fitted as follows. Cut around each item with a sharp knife and lift from the heavy backing paper. Lay face down in position and wet thoroughly with a mixture of three parts methylated spirit (ethyl alcohol) and one part water. Press down with fingertip. Allow to dry for ten minutes, wet the tissue thoroughly with water and peel away as it becomes loose. Allow a few hours to dry and harden then gently wash away surplus glue. The transfers should be protected with matt or satin varnish.

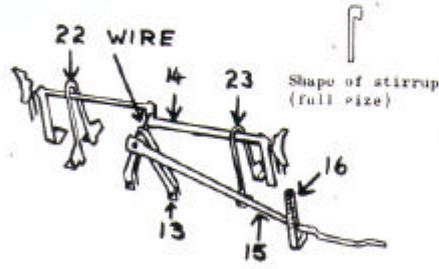


LAYER LNWR LETTERING (from about 1908).

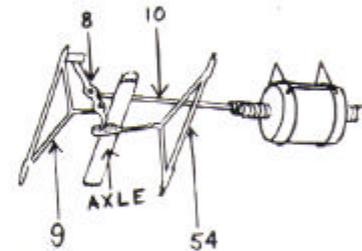
LMS LETTERING (1930's).



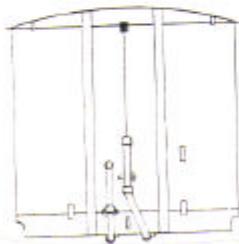
ORIGINAL HANDBRAKE LAYOUT (fitted on one side only)



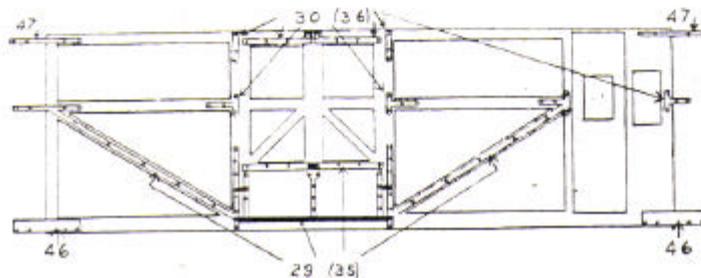
LATER HANDBRAKE LAYOUT (the other side is similar)



BRAKE LINKAGE AND CYLINDER (driver's door end. The other end is similar). Seen from below.



BRAKE PIPES AND ALARM GEAR (driver's door end).



SIDE STRAPPINGS, Part nos. for other side, where different, in brackets.

Wizard Models 51L
 PO Box 225, Macclesfield, Cheshire, SK10 4GB
 Tel and fax 01625 585312
www.51L.co.uk