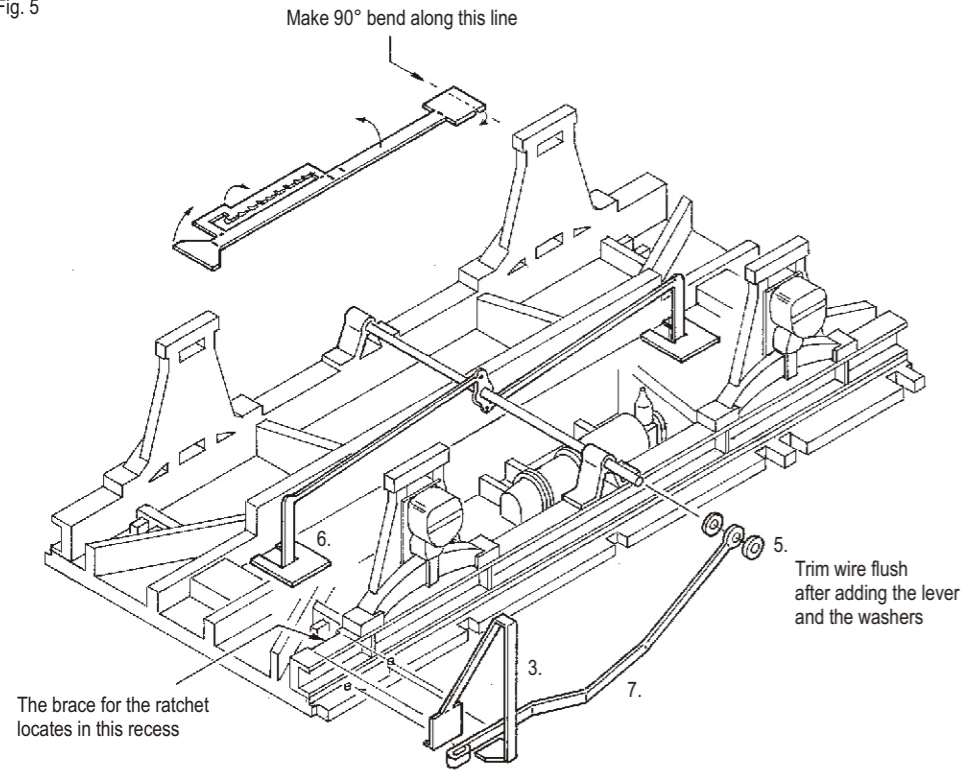


Underframe equipment

Bend the feet on the etched brake rigging (6) at 90° and attach this part to the floor between the centre sills, orientated as shown on figure 5. There are raised ridges moulded on the floor to aid with positioning.

Fig. 5



Thread the length of 0.7mm diameter wire through the vee hanger on the handbrake side, through the crank in the middle of the etched brake rigging and into the second vee hanger, so that the wire projects from the outer face of this second hanger by about 0.3mm. For wagons to be numbered 1-318 or 720-779 the wire should only project by about 0.3mm from the support glued to the centre sill.

Form the handbrake ratchet (3) to shape and attach it to the underframe with superglue, so that the brace locates in the recess moulded on the back of the side sill.

Form a loop on the end of the handbrake lever (7) with the half etched lines on the inside of each bend. Now bend a shallow kink in each of the other half etched lines, so that the lever is as drawn on figure 5. Thread the lever through the opening in the ratchet frame, place a washer (5) over the end of the 0.7mm wire, then the lever followed by another washer and secure with superglue. Trim the wire flush with the outer washer when the superglue is hard.

The kit is designed to use either Kadee #5 couplers or #58 couplers. The draft-gear box may be cemented directly to the floor, after first removing the side lugs.

Painting and Decals

If the wagon is to be run empty the roof can be cemented in place now and the model painted afterwards. If you wish to install a load of HO scale cattle it will be best to paint, decal and finish the model with matt varnish, then install the load and glue the roof on last.

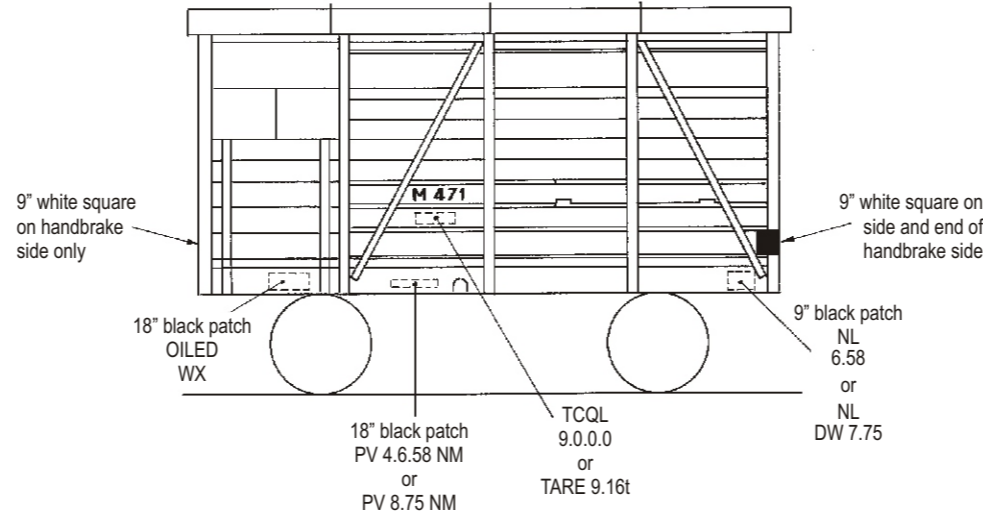
The colour scheme is all over wagon red with a black patch on the side for the wagon code and number. Refer to figure 6 for placement of lettering.

The following wagons from the series 1-318 are known to have been built to the design represented by this kit: 28, 43, 58, 73, 79, 86, 106, 107, 113, 119, 140, 147, 156, 164, 175, 185, 196, 214, 239, 240, 241, 261, 274 and 309.

Decals are provided to cover the period 1957-1972 and post 1972. Use 5" lettering for code and number in the earlier period and 7" lettering for post 1972.

For the small stencil lettering, the earlier period is listed first on the diagram. Refer to the photo for the location of the large black patch on the side.

Fig. 6



To Apply Decals

1. Trim the decals close to lettering to remove excess film.
2. Immerse in water for ten to fifteen seconds and then set aside on a tissue until the decal straightens out.
3. Slide the decal into position. If it is necessary to adjust the final position, use a small brush that has been dipped in water.
4. Use a damp cloth to soak up excess water.
5. Use a decal setting agent such as Solvaset to assist the decals to snuggle down over rivets and other raised details.
6. A flat finish, such as Testor's Dulcote, applied to the entire model will give a uniform flat finish and hide the decal film.



C/- P.O. Rhyll, Victoria, 3923.

VICTORIAN RAILWAYS 'M' WAGON

Prototype Notes

The first example of the 10' 6" wheelbase, steel framed cattle truck represented by this kit was constructed at Newport workshops in 1897 and numbered M419. It wasn't until 1909 that any further examples of this design were constructed, with M420-M519 being built at Newport workshops that year. Further examples rolled out of Newport workshops in several batches over the following years, until the fleet reached M 719 in 1922. Another sixty wagons were constructed in 1936, numbered 720-779, although the design was altered slightly in that the brake cross-shaft only extended to the centre sills. At about the same time fifty wagons from the series 1-318, which dated from the 1870s and 1880s, were 'rebuilt' generally to this same design. New construction ceased until 1952, when another hundred wagons were built to a revised design, which featured welded construction and separate hand-brake rigging located between the wheels on one side of the wagon. Another eighty-one of the older wagons, originally numbered 1-318, were 'rebuilt' in the early 1950s with welded steel framing, the rest having been scrapped by 1942. M319-418 were also rebuilt in the early 1950s with similar, welded, steel framed bodies, but these wagons were longer and had 11'0" wheelbase underframes. The M wagons were progressively withdrawn and scrapped over the years with most going by the late 1970s.



The model illustrated has been fitted with couplers (not included).

Assembly

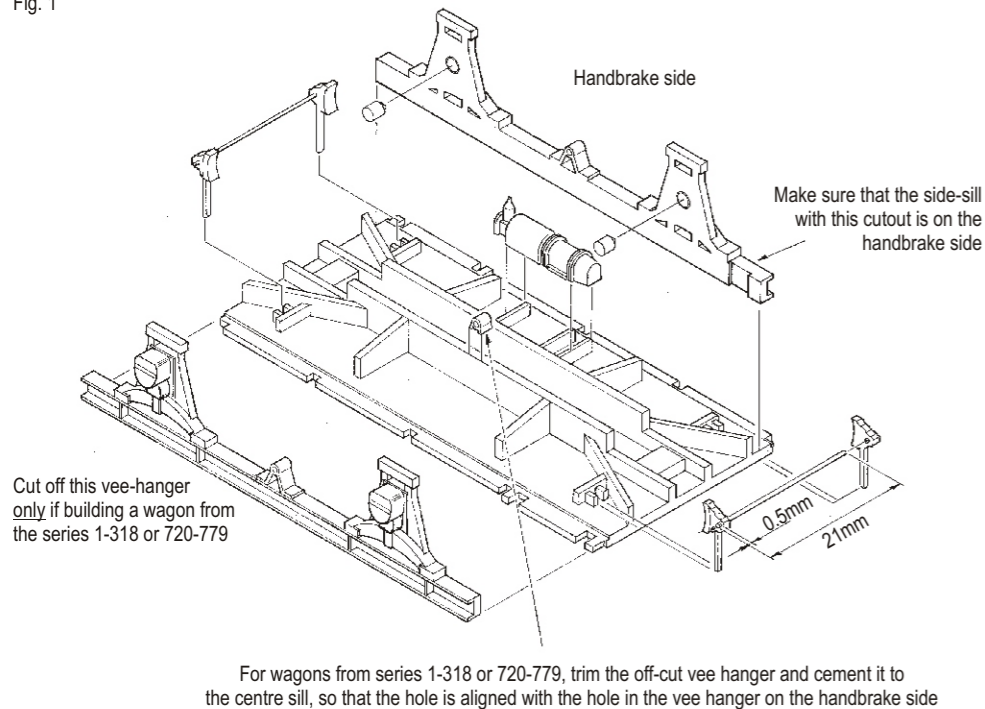
It is recommended that this kit be assembled with a liquid solvent such as Testor's or MEK. Carefully remove parts from the runner system using a sharp knife or sidecutters and do not twist parts off. Trim the 'hooks' moulded on the back of some parts with a small pair of side cutters. Some parts are made from etched brass. Half etched lines are provided where parts are to be folded to shape. As a general rule, where 90° bends are to be made, the half etched line goes to the inside of the fold.

Etched brass parts should be attached to the plastic body with ACC i.e. superglue.

Underframe

For best results the draft, a shallow angle of about 3°, should be removed from the top edge of each side sill. Glue a piece of 180grit aluminium oxide sandpaper to a flat surface such as a piece of chipboard and rub the top edge of each side sill over it. Use a second piece of wood with the edges planed at 90° as a guide. This work will ensure that the side sills are installed at 90° to the floor.

Fig. 1



Drill a 0.7mm or #70 hole through the centre of the boss on each vee hanger, located centrally below each side sill. Press a delrin bearing into the hole in the back of each axlebox and identify the side sill for the handbrake side of the model, which has a small recess moulded in the back of the side sill towards one end. Glue this side sill to the handbrake side of the floor, ensuring that the ends are flush with the end of the floor. Offer up one of the side mouldings to the floor, locating the pillars in the notches in the edge of the floor and also check that the side pillars line up with the detail moulded on the side sill.

If you are building a model of a wagon to be numbered 1-318 or 720-779, cut the vee hanger from the remaining side sill and smooth the bottom surface of the side sill. Save the boss from the vee hanger and trim it to size before cementing it to the centre sill, as shown on figure 1.

Cement the remaining side sill to the floor with the wheelsets sandwiched between and check for correct location, as per the handbrake side.

Cement the brake cylinder to the raised ribs moulded to the floor on the handbrake side, so that it is located hard up against the back of the side sill.

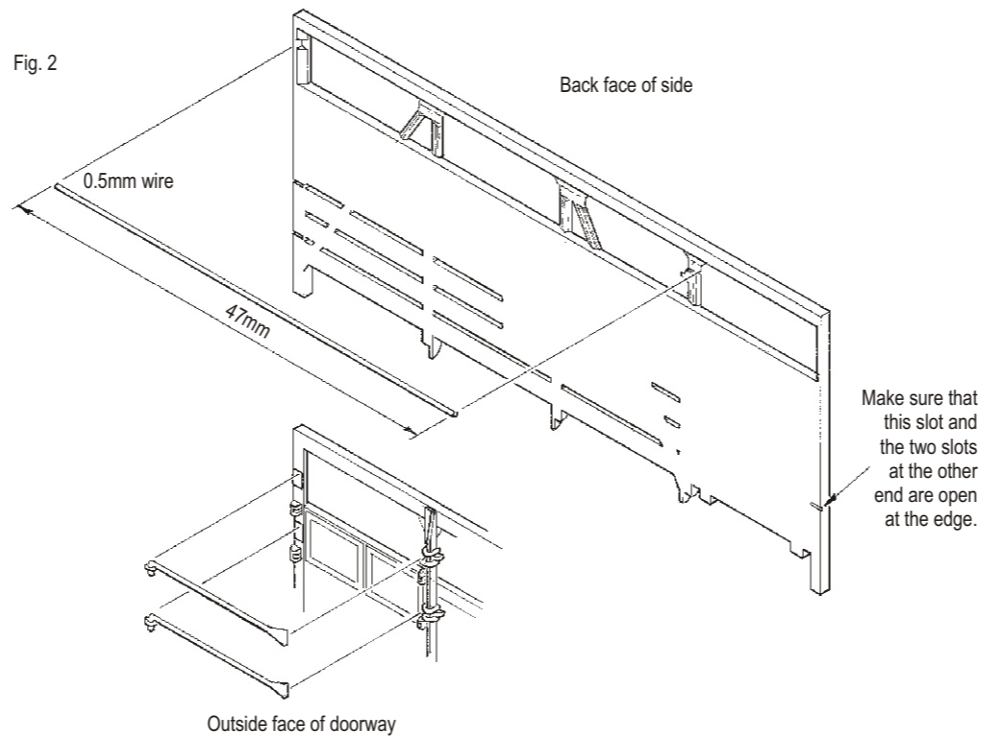
Cut two pieces of 0.5mm wire, each 21.0mm long. Smooth the cut ends and press each end into the holes moulded in a pair of brake shoe mouldings, so that the wire projects from the outer face of each shoe by 0.5mm. Locate each assembly in the lugs moulded in the lower face of the floor and secure with cement.

Detailing the sides

Cut a piece of 0.5mm diameter wire 47mm long and attach it to the back of the side pillars towards the top of the side with super glue. There is a shallow notch in the back of each pillar to aid in locating this wire.

Use a sharp knife or a small triangular needle file to ensure that the shallow grooves moulded in the back of the sides extend all the way to the outer edge, as shown on figure 2. These grooves will form holes for locating etched brass handrails on the ends.

Fig. 2



Cement two locking bars across the top of the doorway, as shown on figure 2. Repeat for the second side.

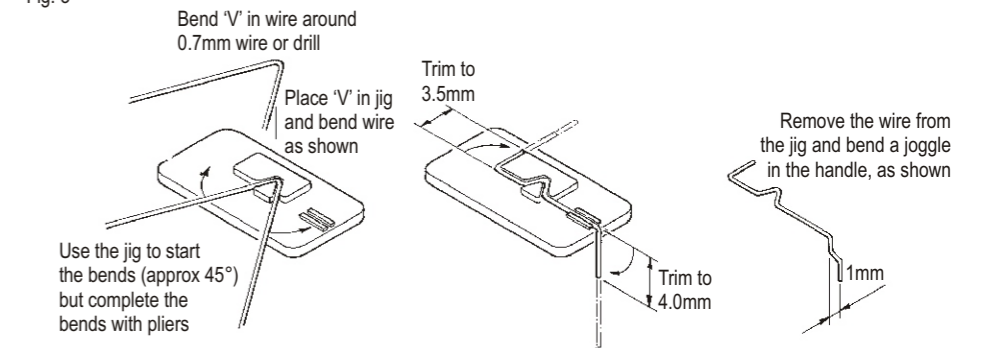
Body assembly

Cement one end to a side, to form an L shaped sub-assembly. Repeat with the second side and end. After allowing some time for the cement to harden assemble these two sub-assemblies together to form an open box. Again, after allowing sufficient time for the joints to harden, lower the body over the underframe so that the pillars locate in the notches along the edge of the floor. The loading ramp, which forms the bottom of the doorway at the left hand end of the side, should rest directly on the floor, but there should be a gap about 0.3mm wide between the rest of the side and the top surface of the floor.

Detailing the ends

Cut the length of 0.3mm diameter wire into two pieces each about 30mm long. Form a bend in each piece by wrapping it around the piece of 0.7mm diameter wire that's also supplied. Now use the moulded plastic jig to form two uncoupling levers to shape, as shown on figure 3.

Fig. 3



Install the uncoupling levers in the brackets moulded on the ends of the wagon and retain them with super glue or a little cube of polystyrene cemented between the tabs of each bracket.

To attach the handrails, apply a small amount of ACC on the end of a pin to each hole moulded on the ends and apply the handrails with fine tweezers. The vertical handrails (1) locate in the notches in the inner edge of the corner pillar. One end of the small horizontal handrail (4) locates in a hole moulded in the diagonal brace, with the other end located in a notch moulded in the inner edge of the adjacent corner pillar.

Fig. 4

