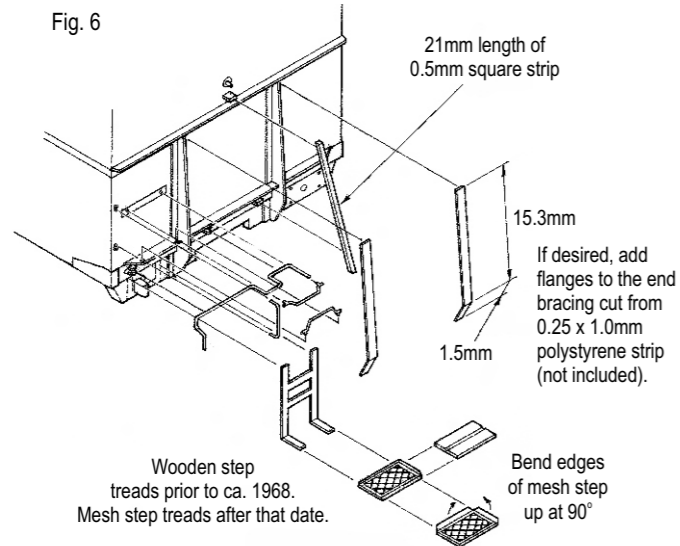


End details

Assemble two shunters' steps from parts 8 and 9 or 10. Wagons were fitted with steps with wooden step treads (10) when the buffers were first removed around 1957. The step treads made from expanded metal mesh date from about 1968. If building this version, bend the edges of the etched step (9) up at 90° before attaching the step tread to the frame with solder or ACC. Attach the shunters' steps to the ends with ACC, as shown on figure 6.

Brass etchings (1) are supplied for the horizontal handrails, which fit in holes moulded in the ends and into the holes drilled in the bracing earlier. Use part (2) for the vertical handrail. To attach the handrails, apply a small amount of ACC on the end of a pin to each hole and apply the handrails with fine tweezers.

Add a melt water drain to each end, using the 0.5mm square plastic strip supplied.



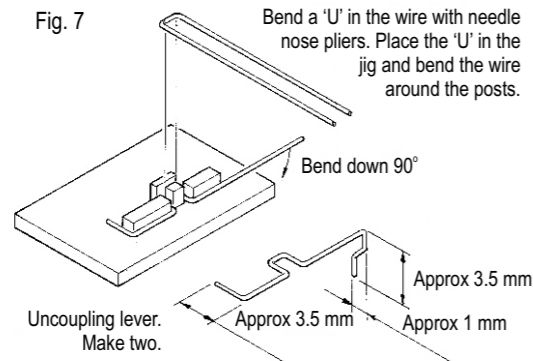
Uncoupling levers

Form two uncoupling levers to shape from the 0.3mm wire, as shown on figure 7.

Install the uncoupling levers on the ends of the wagon, secured in the moulded brackets with ACC or little cubes of 0.015" polystyrene (not included).

Couplers

The kit is designed to use Kadee No5 or No58 couplers (not included). Assemble the couplers in their draught gear boxes and clip the ears off each side. Attach the couplers to the floor with cement and/or #2 x 1/4" pan head screws (not included).



Handbrake detail

Bend the feet of the brake rigging etch (6) at 90°. Secure the feet to floor with ACC, located by the small ridges moulded between the centre sills as a guide. Thread the length of 0.7mm wire through the vee hanger on the handbrake side, through the etched supports and the crank in the centre of the brake rigging. For wagons 1 to about 159 this shaft finishes flush with the second support, but for wagons 160 to 191 it should extend across the wagon, to end flush with the outer face of the vee hanger on the second side sill.

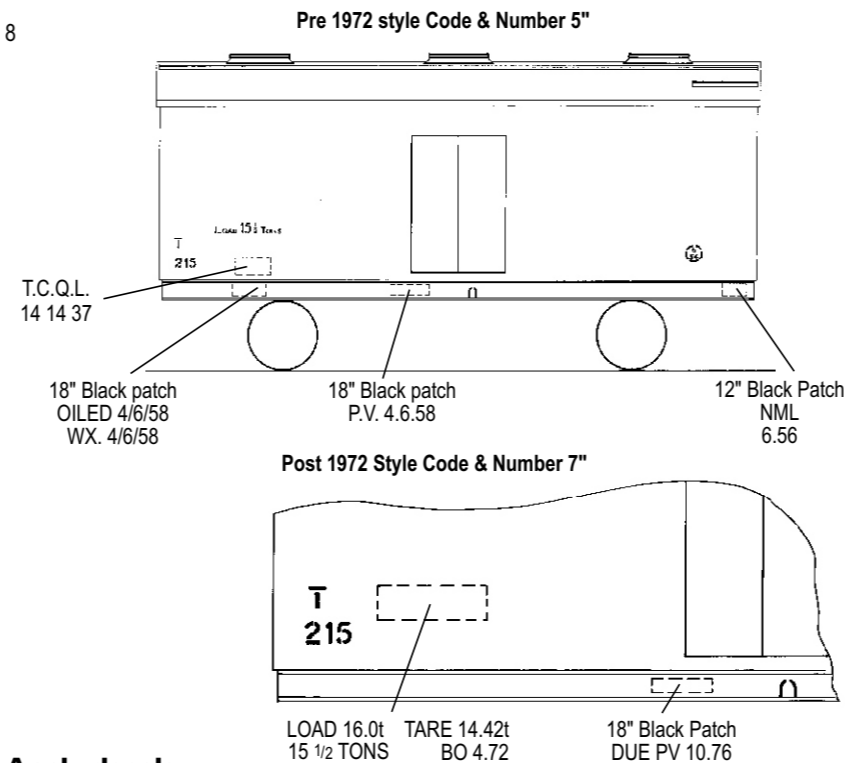
Form the handbrake ratchet (3) to shape, as shown on figure 1. Secure the ratchet to the underframe with ACC, locating the bracket at the top between the two raised dots moulded on the floor and positioning the end of the brace in the recess moulded in the back of the side sill.

Bend a loop in the end of the brake lever (7), with the half etched lines inside the bends. Form shallow bends at the half etched marks on the lever, to form a shape as shown on figure 1. Thread the lever through the ratchet and position it over the 0.7mm cross shaft, along with two washers (5). Secure the parts with ACC or low melt solder and trim the wire flush with the face of the outer washer.

Painting and Decals

The wagon should be painted overall VR wagon red with a brown roof and white lettering. We recommend Steam Era Models Wagon Red spraying enamel for the body and undreframe with Humbrol 29 Matt Dark Earth for the roof. Paint a scale 9" white square on the bottom corner of each end on the hand brake side, as well as the bottom R/H corner of the hand brake side. Decals are provided for both metric and imperial load/tare and codes. Refer to figure 8 for the placement of lettering.

Fig. 8



To Apply decals

1. Trim the decals close to lettering to remove excess film.
2. Immerse in water for 10 to 15 seconds, then set aside on the model until the decal straightens out.
3. Slide the decal into position. If it is necessary to adjust the 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 e.g. 'Solvaset' to assist the decals to snuggle down over raised detail such as rivets.
6. Apply a flat finish such as Humbrol Mattcote or Estapol Matt to hide the decal film and provide a uniform appearance.

Note: Decals adhere best to a gloss surface.



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

VICTORIAN RAILWAYS 10'6" WHEELBASE T VAN

Prototype Notes

The 'T' van was designed for the carriage of perishable goods requiring refrigeration in summer, although other classes of goods could be carried in certain conditions. The wagon was cooled with ice and heavily insulated to remain cold for several days.

The model is based upon the 10 ton capacity van with 10' 6" wheelbase first introduced in 1894. Further vans of broadly similar design were constructed in the years up to 1904 until there were 191 vans, numbered 1-191. The capacity of these vans was increased to 12Tons in 1908 and further increased to 12½ tons when the buffers were removed in the mid to late 1950s. Various changes were made to the vans over the years, including auto' coupled underframes, end reinforcement, Bohn door fasteners and standardised door hinges. The kit represents a wagon operating from the mid 1950s until withdrawal in the late 1970s to early 1980s. A more detailed history of these vans can be found in the April 1995 Australian Model Railway Magazine.



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

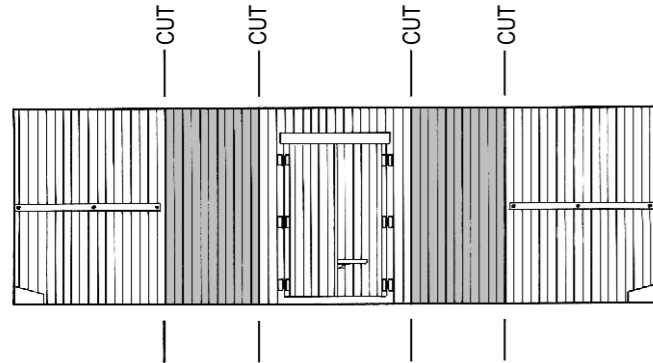
Assembly

This is a 'Kitbash' kit and requires the sides and roof to be cut and joined to create parts of the correct length. It is recommended that this kit be assembled with a liquid solvent cement, such as Testor's or Microscale Microweld. Some parts have hooks moulded on the back to assist with removal from the mould. These should be removed carefully with small side cutters or a sharp knife. A number of details are provided in etched brass, which should be attached to the model with ACC (superglue). 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.

Body

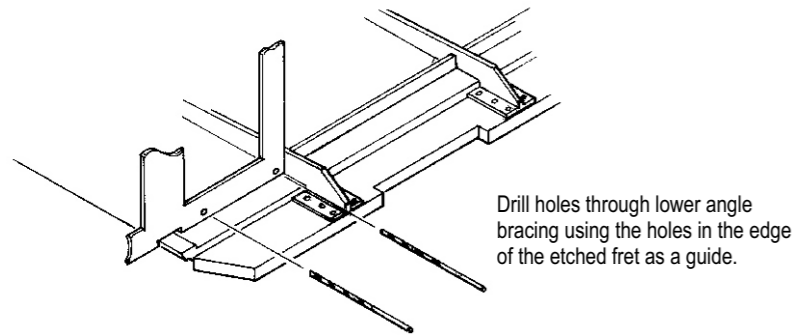
To create the shorter sides for this wagon remove the excess boards marked in Fig. 1 by making a number of light cuts along the lines indicated with a hobby knife or scalpel, then 'snapping' the sides. Dress the cuts square with a large file or a sanding board and check that the groove between the boards at each joint is consistent with the rest of the side. Cement the parts together and, if desired, reinforce the joint by cementing a scrap of polystyrene to the back of the side, leaving adequate clearance for the floor.

Fig. 1



Two holes need to be drilled in the angle bracing above the headstocks on each end for a handrail. Holes have been etched in the perimeter of the etched brass fret to act as a template. Position the fret as shown on figure 2 and use a #80 or 0.35mm drill in a pin vice to drill holes through the etching and plastic moulding.

Fig. 2



Check the fit of the sides and ends. Note that the corner joints are mitred and there are short pins moulded on the backs of the parts to help with positioning. Assemble one side and one end with cement and set aside. Repeat for the other side and end. When these two sub-assemblies have some strength, assemble them together to make an open box, ensuring that all the corners are at 90°.

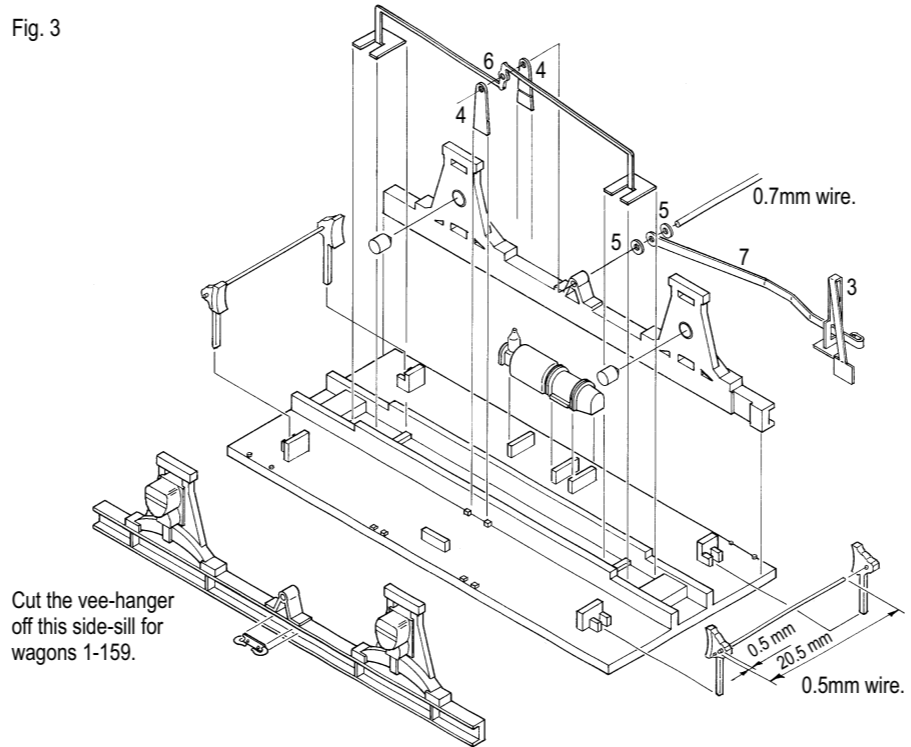
Check the fit of the floor moulding in the body. It will be necessary to trim about 0.35mm from each edge of the floor to ensure a neat fit. It will also be necessary to enlarge the opening in the headstocks, so that the top of the opening is flush with the ribs on the floor that support the coupler. The floor for the 10' 6" underframe is also slightly thinner than the floor of the 15' 0" wheelbase underframe, so cement a small scrap of 0.13mm polystyrene sheet (not included) onto the top surface of each corner, so that the body will sit at the correct height.

Underframe

Remove the draft, a shallow angle of about 3°, 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.

Identify the side sill to be used on the handbrake side; it has a shallow recess on the back at one end. Drill a 0.7mm hole through the centre of the boss of the vee hanger on the bottom of this side sill. Remove the vee hanger completely from the second side sill for wagons numbered up to about 159. T vans from at least 160 to 191 retain the vee hanger on the non-handbrake side. Drill a 0.7mm hole through the centre of the boss if the vee hanger is to be retained. Press a delrin bearing into the hole in the back of each axle box.

Fig. 3



Cut the vee-hanger off this side-sill for wagons 1-159.

The floor includes three ribs moulded towards the centre near one edge. Cement the side sills to the floor, with the handbrake side sill against these ribs and the ends flush with the ends of the floor. Cement the plain side sill on the opposite side, with the wheelsets sandwiched between. Cement the brake cylinder to the supports and cement a rope hitch centrally to the web of each side sill.

Cut two pieces of 0.5mm wire, each 20.5mm long and smooth the cut ends. Press each end into the holes moulded in a pair of brake shoes, so that the wire projects from the face of each brake shoe by 0.5mm. Locate each assembly in the lugs moulded on the lower face of the floor and secure with cement.

Attach the two central brake supports (4) to the centre sills with ACC. Small ribs are moulded on the surface of the floor to aid with positioning, but also make sure that the holes in these brackets are in line with the hole in the vee hanger on the side sill.

The brake rigging etch (6) and the hand brake detail parts (3 & 7) are quite fragile, so it is best to leave these parts off until after the body is assembled and added to the underframe.

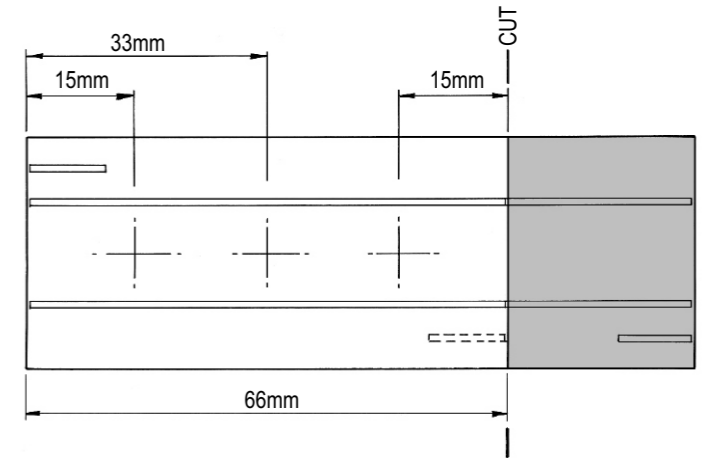
Body assembly

Lower the body onto the underframe so that the pins moulded in the back surfaces of the sides rest on the top surface of the floor. Secure with a brush of cement around the inside.

Roof

The simplest approach for the roof is to carefully remove the ice hatch seats from the roof moulding and shorten the roof to 66mm as per figure 4. To ensure a good fit with the sides and ends the shortened end of the roof will require a rebate filed into the underneath surface at the centre.

Fig. 4



Alternatively, make cuts in the roof to remove a 12mm wide section from the roof between the first hatch seat and the second and then a similar size section between the second hatch seat and the third. Smooth the cut edges and cement the sections together. Check the fit of the roof on the body and trim the ends if necessary, so that each end of the roof overhangs the body by about 0.5mm.

Attach some sheet lead or a sinker to the top surface of the floor with ACC then cement the roof on top of the body.

Roof details

Battens have been moulded integrally with the roof, but separate battens are also supplied, which allow for a gap between the surface of the roof and the main part of each batten. To use the separate battens it is necessary to first carefully shave off the integral battens from the roof and smooth the surface with fine emery paper. Cement the roof battens to the roof, exactly where the moulded battens used to be. If necessary use the second roof supplied as a guide for positioning.

Install an ice hatch on each base, as shown on figure 5. If you have removed the hatch bases, as described for the simple approach, just cement a hatch at each position shown on figure 4.

Fig. 5

