



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

VICTORIAN RAILWAYS B VAN

Prototype Notes

The design of the Victorian Railways B van combined elements of the BP bogie van with the underframe from a 22' I/IA open wagon. Newport Workshops completed a sample, B1, in December 1957, with series production of wagons 2-380 taking place at Bendigo North Workshops from September 1958 to June 1961. From this period until the 1980s the B box vans were a familiar inclusion in most VR goods trains. Most were retired in the period from 1978 through to 1980 and were sold for scrap, although the bodies of many live on as sheds on farms or light industries. A small number were transferred to departmental stock as HD vans.



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

This kit represents a series production van; the prototype B1 differed in that the ends were plain and did not feature the pressed ribs common to the rest of the fleet.

Assembly

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.

Underframe

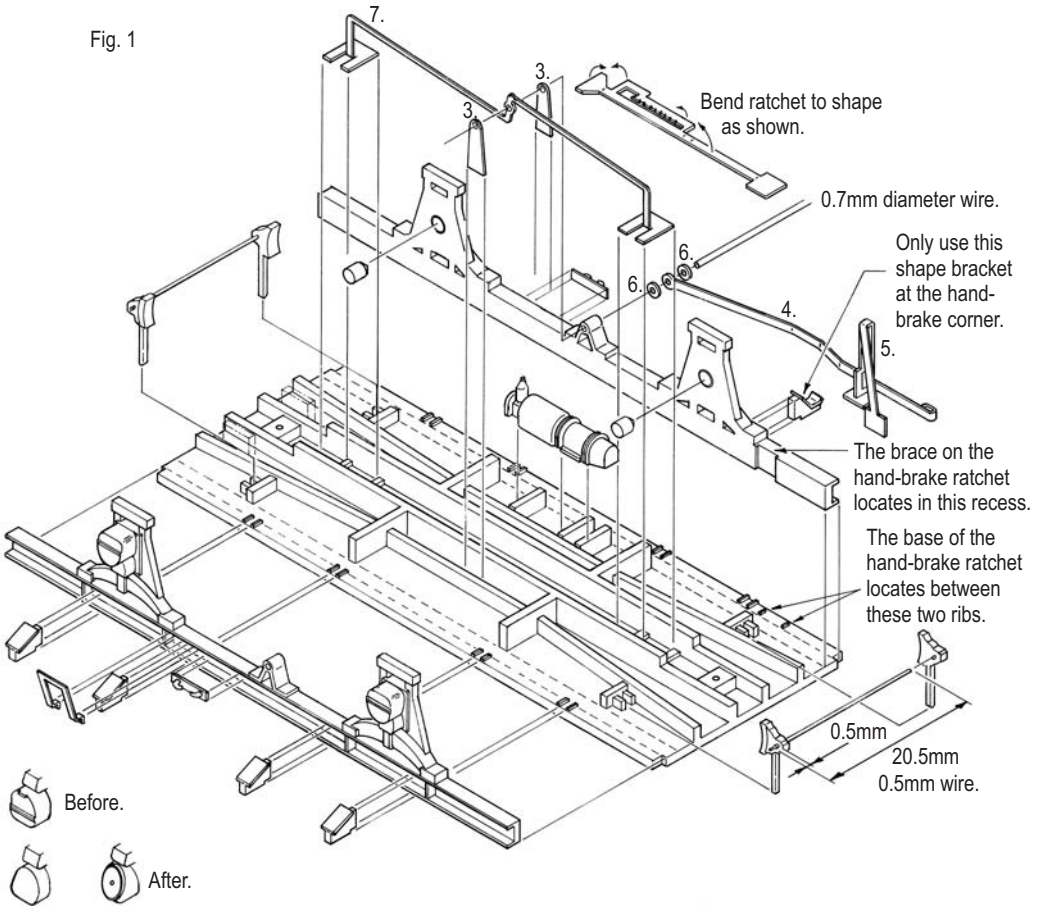
Remove the draft, a shallow angle of about 3° , from the top edge of each side sill. Glue a piece of 180grit aluminium oxide sandpaper to a flat surface, such as a piece of chipboard, and rub the top edge of each side sill over it. Use a second piece of wood with the edges planed at 90° as a guide. This work will ensure that the side sills are installed at 90° to the floor. Drill a 0.7mm hole through the centre of the boss of the vee hanger on the bottom of each side sill and press a delrin bearing into the hole in the back of each axle box.

For the arrangement of parts refer to figure 1.

Identify the side sill to be used on the handbrake side; it has a shallow recess on the back at one end.

The floor includes three ribs moulded towards the centre near one edge. Cement the handbrake side sill to the floor, located against these ribs and with 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, with the reservoir located beside the side sill.

Fig. 1



If desired the axle boxes can be changed to circular lids. Carefully file the front of each axle box and add the separately moulded circular lids.

Add four body brackets to each side, located up against the side sills and in between the shallow ridges moulded to the floor. Because the floor is also used in the I/A kit, there are extra ribs moulded on the floor, so make sure the body brackets are located in the correct positions, so that they will align with the pillars on the body. Also make sure that a specially shaped bracket is installed at the position adjacent to the place where the handbrake ratchet will locate, to provide clearance for the handbrake lever.

Six brake shoes have been moulded, but only four are required. 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.

Cement a rope hitch to the web of each side sill, located centrally between the vee hanger and the adjacent body bracket, but furthest from the handbrake end.

Secure the two central brake supports (3) to the underframe 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 holes in the vee hangers on the side sills.

Cut a small notch about 0.5mm wide in each corner of the floor, as shown on figure 1. These notches provide clearance for the body to be lowered over the floor at final assembly stage.

Two steps are provided, but only one is needed, installed on the non-handbrake side, as shown on figure 1.

The brake rigging etch (7) and the hand brake detail parts (4 & 5) are quite fragile, so it is best to leave these parts off until after the body is assembled and added to the underframe.

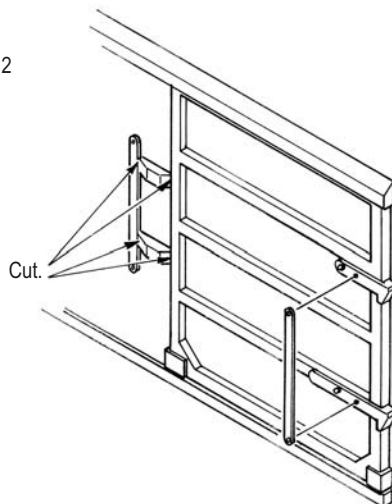
Body

Cement a side to an end to form an L shaped subassembly, then repeat with the second side and end. After allowing a few minutes for the joints to gain some strength, cement these two subassemblies together to form an open box. Stretch a couple of elastic bands around the body to ensure that the joints are pulled up tight.

Temporarily place the roof on top of the body to ensure that the assembly is square and true.

Trim the latch bar from the moulding gates on the left side of the door and cement it to the door latch, as shown on figure 2. Cement a door to each side, aligning the door tracks with the tracks and brackets moulded on the sides.

Fig. 2

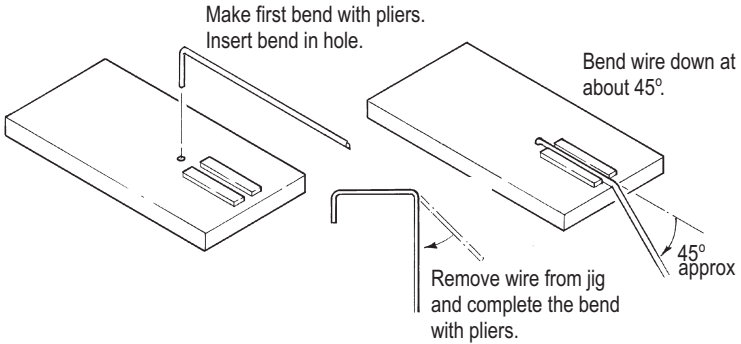


Lower the body onto the underframe so that the step moulded in the back surface of each end rests on the top surface of the floor. Secure with a brush of cement around the inside. Also apply some cement between the end of each body bracket and the back of each side pillar.

End details

Holes have been moulded in the ends to accept formed wire handrails. A jig is provided to assist with bending these to shape from the 0.25mm wire provided.

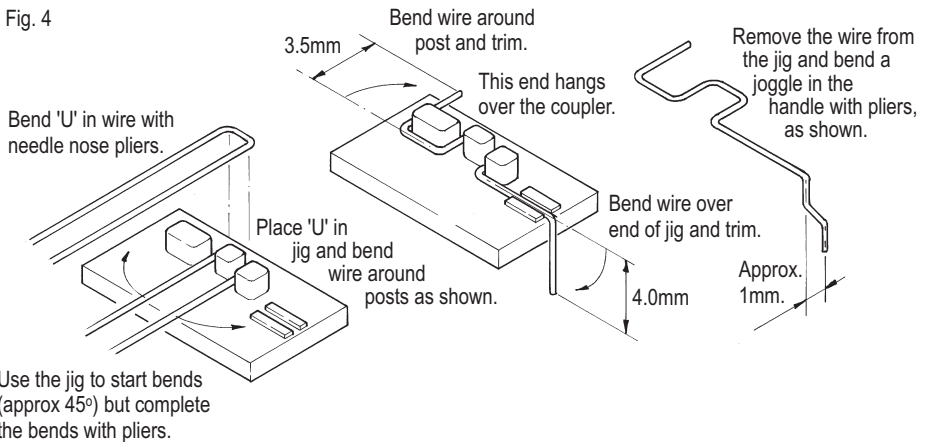
Fig. 3



Push the handrails into the holes moulded in the ends and secure from inside with ACC. Allow approximately 0.75mm clearance between each handrail and the end.

Form two uncoupling levers from the 0.3mm brass wire supplied.

Fig. 4



Secure the uncoupling levers with little cubes of 0.015" polystyrene (not included) to the brackets moulded on the ends.

Assemble two shunter's steps from parts 8 and 9 or 10. Wagons were fitted 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 mesh steps (9) up at 90° before attaching the step tread to the frame with solder or ACC. Attach the shunter's steps to the ends with ACC, as shown on figure 5.

Fig. 5

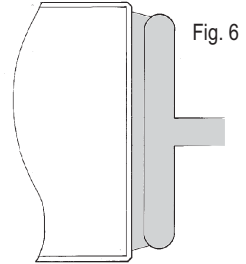
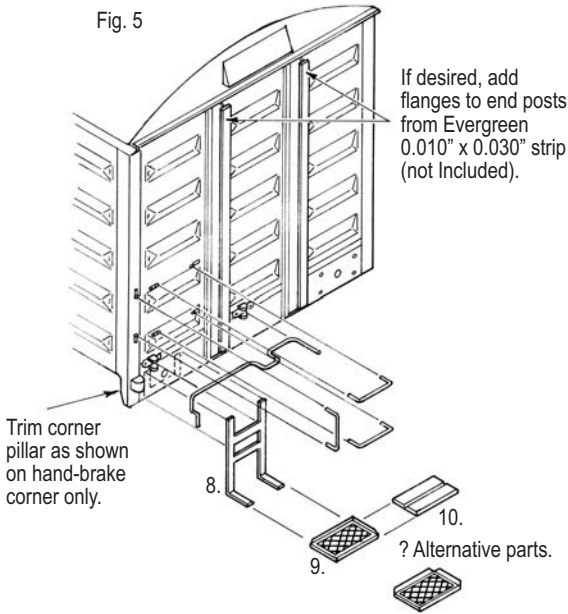


Fig. 6
In order to achieve a thin edge the roof has a continuous gate across one end. Carefully remove gate and runner shown shaded on Fig. 6.

Cement the roof on top of the body.

Handbrake details

Refer again to figure 1 and bend the feet of the brake rigging etch (7) 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, across the wagon, to end flush with the outer face of the vee hanger on the second side sill.

Form the handbrake ratchet (5) to shape and secure the ratchet to the underframe with ACC, locating the bracket at the top between the two raised ridges 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 (4), 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 (6). Secure the parts with ACC or low melt solder and trim the wire flush with the face of the outer washer.

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), using the dimple moulded between the centre sills at each end of the floor as a guide for drilling suitable holes.

Painting and Decals

The wagon should be painted overall VR wagon red with white lettering. We recommend Steam Era Models Wagon Red spraying enamel.

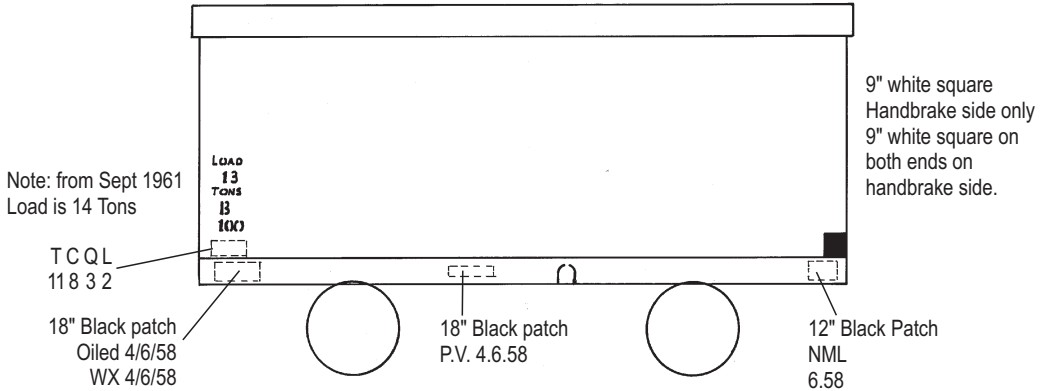
Paint a scale 9" white square on the bottom corner of each end on the hand brake side, as well as the bottom R/H corner of the hand brake side.

Decals are provided for both metric and imperial load/tare and codes. Refer to figure 7 for the placement of lettering.

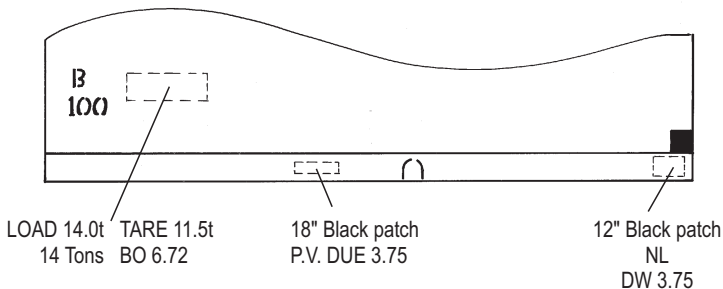
HD vans converted from B vans were numbered HD81, 91, 110, 143, 148, 149, 179, 183, 189, 195, 202, 206, 226, 227, 231 and 253.

Fig. 7

1958 - 1972 Style Code & Number 5"



Post 1972 Style Code & Number 7"



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.