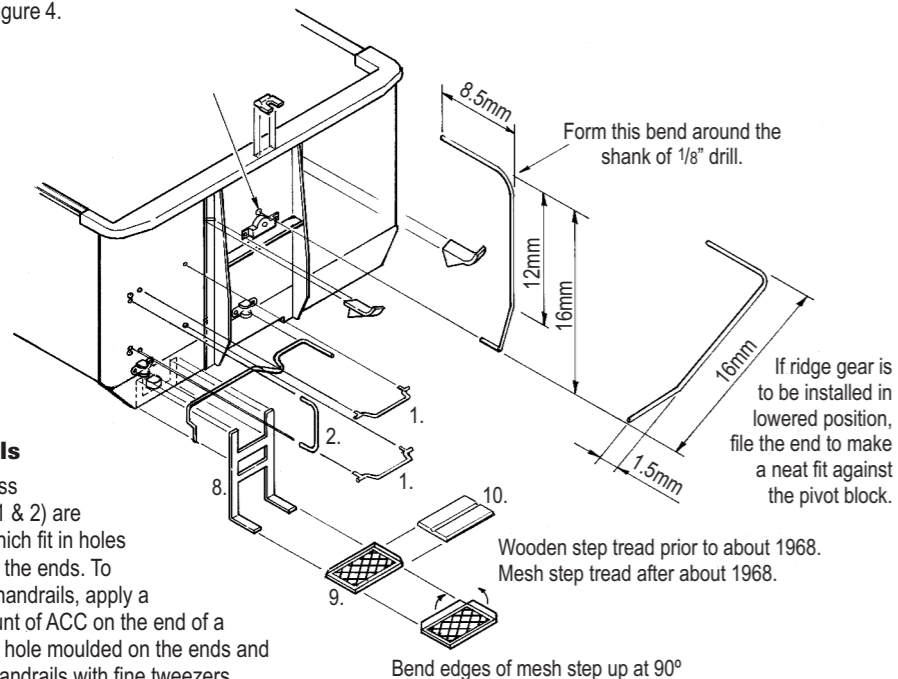


## Shunter's steps

Assemble two shunter's 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 mesh step (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 4.

Figure 4.



## Handrails

Etched brass handrails (1 & 2) are supplied which fit in holes moulded in the ends. 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.

## Ridge gear

Bend tarpaulin supports to shape from 0.7mm wire. If the support is to be installed in the upright position drill a 0.7mm diameter hole in each end, directly above the pivot moulded on the end and secure the support with ACC. If the support bar is to be installed in the lowered position, just form the bar into an 'L' shape and file the end so that the bar rests against the curved edge of the pivot block. Secure the bar to the end and to the coping on the top edge of the side with ACC. Cement the retaining brackets for the ridge gear centrally on the top coping at each end. Also cement a ridge gear support to each end stanchion, using the little mark incorporated in each stanchion to guide the location. Spares are provided of these parts in case one should disappear into orbit or the carpet.

## 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 marks inside the bends. Form shallow bends

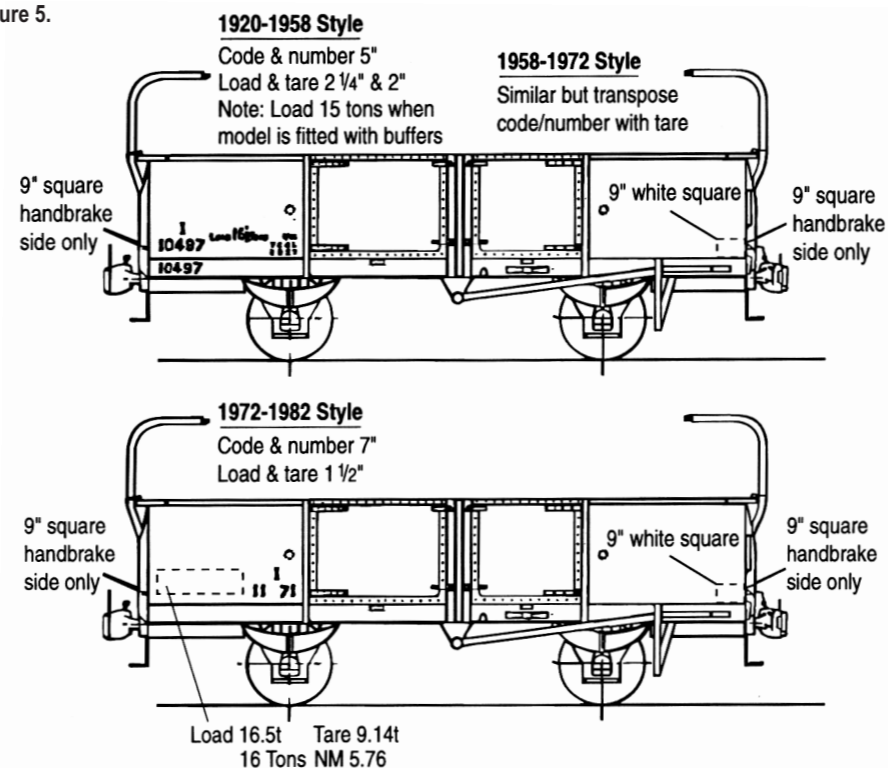
at the half etched marks on the lever, to form a shape as shown on figure 1. Thread the lever through the ratchet and position it over the 0.7mm cross shaft, along with two washers (6). Secure the parts with ACC or low melt solder and trim the wire flush with the face of the outer washer.

## Painting and decals

The I and IA wagons were painted all over wagon red throughout their lives, although the interior was always left unpainted. The wagons represented by this kit were numbered between 7671 and 15869, although not all numbers were used.

Decals are provided which cover various periods in the wagon's history. Refer to figure 5 for the placement of lettering. The decals will adhere best to a gloss paint finish.

Figure 5.



## 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 I/IA OPEN WAGON

### Prototype Notes

The first 'standard' 15 ton steel I wagon, No 7671, was issued to traffic on 19-10-1908, the forerunner of over eight thousand similar wagons, the last of which, No 15869, was issued on 23-8-1929. This total includes the derivative IY and G class wagons.

Designed as a general purpose open wagon, this numerous class was to be seen throughout the Victorian Railways system transporting all manner of goods from mallee roots to old tyres. With the arrival of the GY bulk wheat wagons in large numbers in the early 1950s, numbers of I wagons were released for conversion to specialised usage. Common amongst these were HD and HR departmental service stock, IC tippler wagons for briquette traffic, K flat wagons, KW car body transporter, KT and IT scantling wagons and numerous others. The B box vans utilised the under frames from I wagons, these being constructed in the late 1950s.

The IA code and dual load stencil was a concession to farmers, allowing them to ship produce in a 16 ton capacity wagon, but be charged at a lower rate if the load was only 11 ton or less. IA numbers were scattered randomly throughout the I wagon number range.

With the introduction of large numbers of bogie vehicles in the 1960s wholesale withdrawal of I wagons was implemented, so that by 1982 none remained in revenue service. The pattern I, No 7671, was struck off register on 18-12-1974 and scrapped on 15-6-1976.



Model illustrated has been fitted with couplers (not included).

### Assembly

It is recommended that this kit be assembled with a liquid solvent such as Tamiya Limonene, 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, but where the brass is to be bent double at 180°, the half etched line goes to the outside.

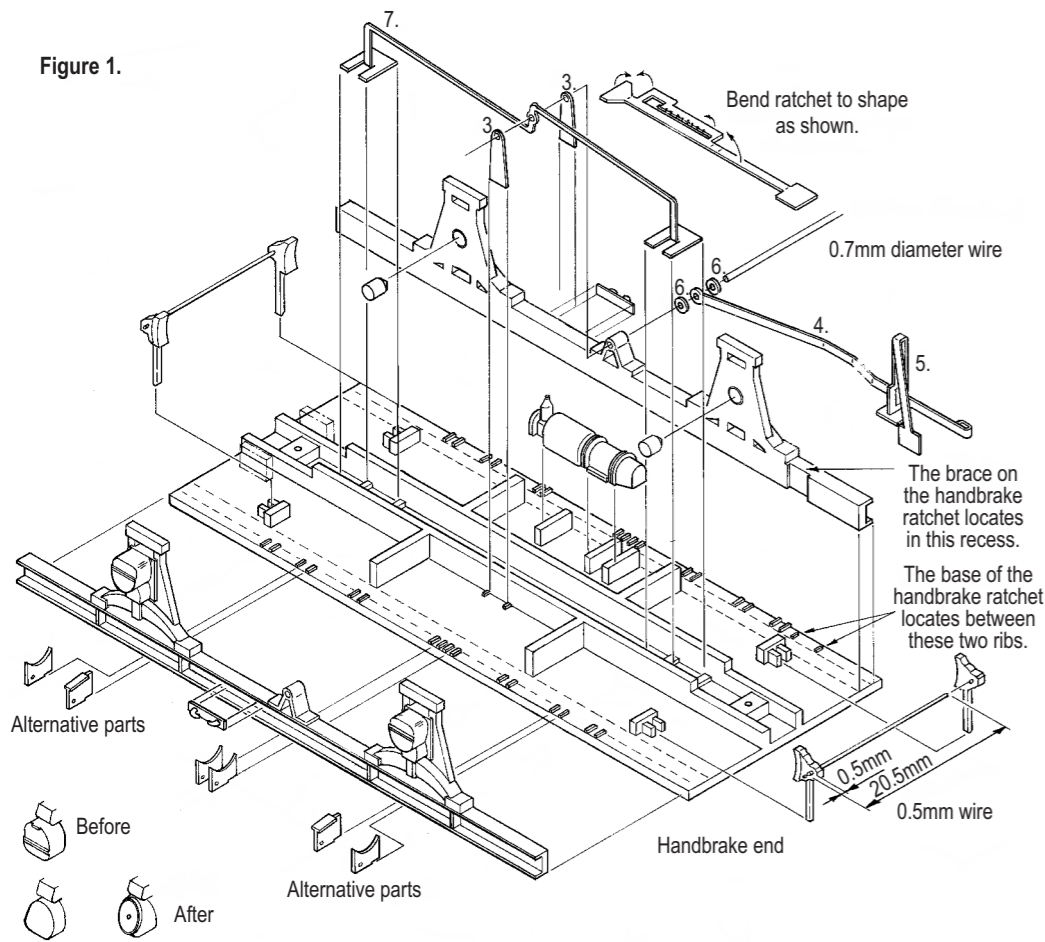
Etched brass parts should be attached to the plastic body with ACC i.e. superglue.

## Underframe

For the arrangement of parts refer to figure 1.

Use a sharp knife or side cutters to remove the two rectangular raised blocks either side of the centre sills at one end of the floor. These are only needed for the wheel brake on an IY wagon and are drawn chain dotted at the left end of figure 1.

Figure 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.

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.

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.

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 B van 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 door pillars on the body. Alternative parts are provided for the outer brackets, so use one style or the other. The I wagons were built with outer brackets of the same shape as the inner ones, featuring a curved cut-out in the lower edge and photos show these brackets still in use in the late '50s and early '60s. Cement these brackets located hard up against the outer ridge moulded on the floor, so that the outer face of the bracket will align with the outer face of the door pillar when the body is installed. Photos taken in the '70s show many, but not all wagons fitted with a plain bracket. If these 'modern' style brackets are used, cement them against the inner of the two ridges moulded on the floor, so that the web of these brackets will be centred behind the door pillars when the body is installed.

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 below where the larger doors will go on each side, but slightly closer to the location of the central stanchion.

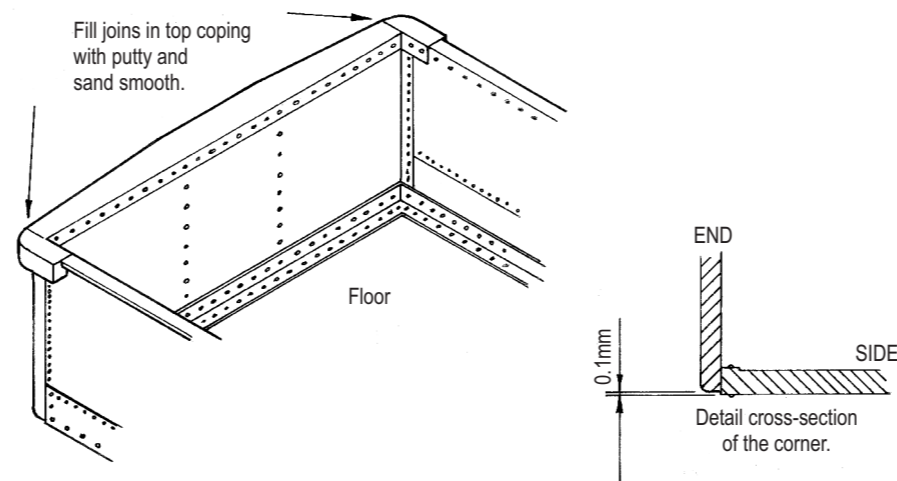
Secure the two central brake supports (3) to the underframe with ACC. Small ribs are moulded on the surface of the floor to aid with positioning, but also make sure that the holes in these brackets are in line with the holes in the vee hangers on the side sills.

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.

## Couplers

The kit is designed to use Kadee No5 or No58 couplers (not included). Assemble the couplers in their draft gear boxes and clip the ears off each side. Attach the couplers to the floor with cement and/or 2mm x 5mm pan head screws (not included) using the holes moulded between the centre sills at each end of the floor.

Figure 2.



## Body

Remove the two lashing rings that have been moulded below each end; they are only used on IY wagons.

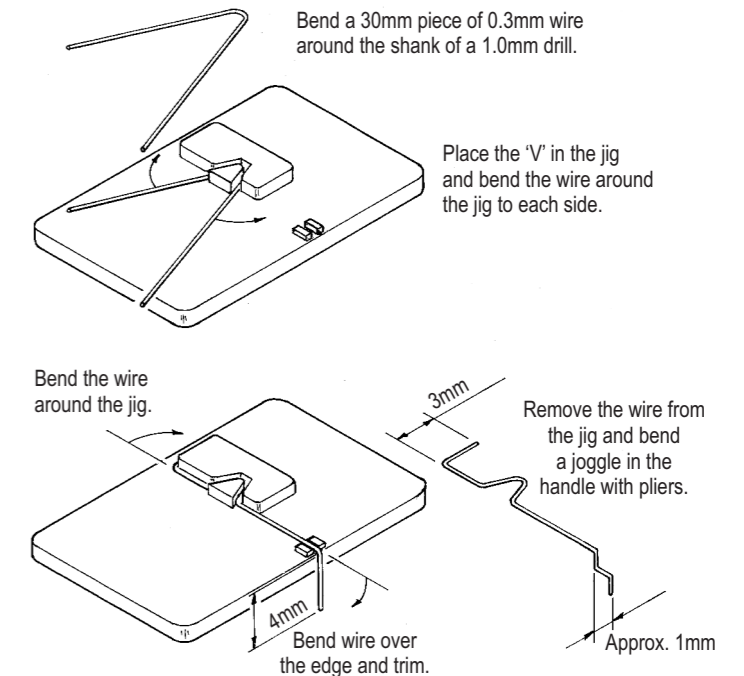
Check the fit of the sides and ends. Note that the ends overlap the sides, so that the edge of the end is only about 0.1mm short of being flush with the sides. Assemble one side and one end with cement and set aside. Repeat for the other side and end. When these two sub-assemblies have some strength, assemble them together to make an open box, ensuring that all the corners are at 90°. This is most easily done with the body upside down on a flat surface, so the parts are supported by their top edges.

Once the cement has hardened and the body has some strength, invert the underframe and carefully lower it down into the upside down body, so that the cut-outs in each end are located around the coupler draft gear boxes. Also ensure that the smaller doors are located at the handbrake end, so that the central stanchion is located adjacent to the vee hangers below the side sills. The floor needs to rest on the shallow rivet strips moulded in the back of each side and end. If need be, give the body a gentle pinch between forefinger and thumb to ensure that this happens. The conjunction of the rivet trips on the edges of the floor with the sides and ends represents the angle iron used to attach the sides and ends to the floor on the prototype. When satisfied with the fit, carefully cement the body to the underframe.

## Uncoupling levers

Form two uncoupling levers to shape from the 0.3mm wire, as shown on figure 3.

Figure 3.



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