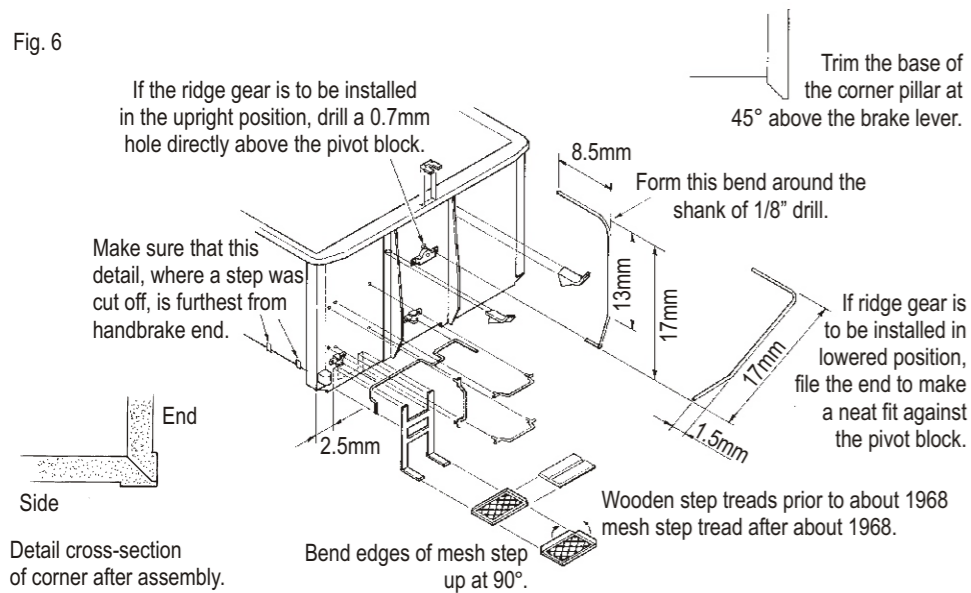


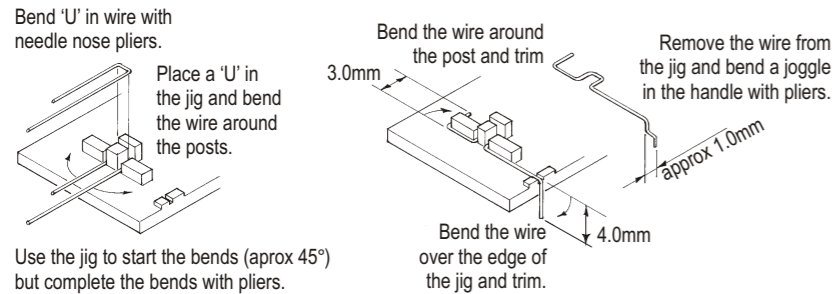
Fig. 6



Once the cement has hardened and the body has some strength, carefully lower the body down over the underframe so that the cut-outs in each end are located over the coupler draft gear boxes and the extensions of the door stanchions come down even with the brackets that extend from the side sills. There are two small squares moulded near the bottom edge of one side towards the R/H end. Ensure that this detail is not on the handbrake side. The shallow step moulded in the back of each side and end should rest on top of the floor. When satisfied with the fit, carefully cement the body to the underframe.

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

Fig. 7



Install the uncoupling levers on the ends of the wagon, secured in the moulded brackets with ACC.

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, below 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.

Assemble two shunter's steps from parts 10 and 6. Wagons with the modernised handbrake generally also had shunter's step treads made from expanded metal mesh. If building this model, bend the edges of the

etched step (10) 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 6.

Etched brass handrails (6) 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 position the handrails with fine tweezers.

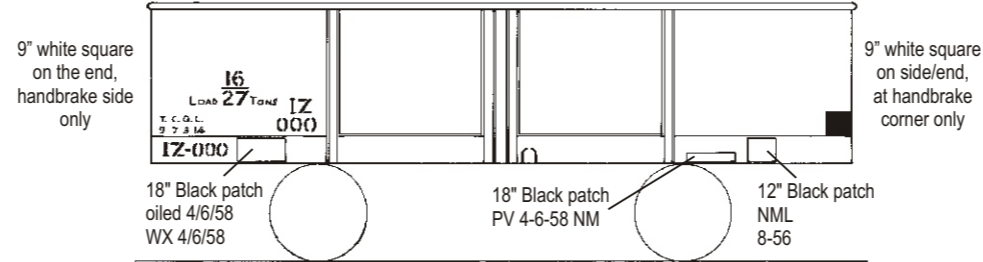
Painting and decals

The IZ wagons were painted all over wagon red throughout their lives, although the interior was always left unpainted.

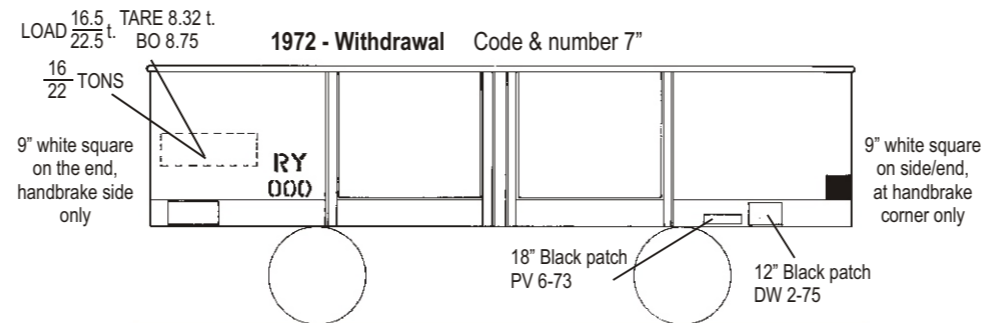
Decals are provided which cover various periods in the wagon's history. Refer to figure 8 for the placement of lettering. The decals will adhere best to a gloss paint finish.

Wagon red body and underframe For 1957-1958: Transpose code/number with tare

1959-1964 Style For 1965 - 1972: change code to RY and capacity to 16 22 TONS
Code & number 5"



The interior of all wagons was left unpainted steel.



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 WELDED GZ/IZ/RV WAGON LEVER HAND BRAKE

Prototype Notes

The wagons represented by this kit were constructed at various VR workshops in 1938 and 1939 as grain proof GZ wagons, numbered 1701-2000. By the mid 1950s the VR had constructed a large fleet of GY wagons and the GZ wagons, which had a smaller cubic capacity than the GY, were downgraded to general goods traffic and recoded IZ, retaining the same numbers and load rating of 16/27 Tons.

During 1963/64 there was a spate of derailments that were traced to 'W' irons of 27 Ton capacity IZ and HZ wagons cracking where they were riveted to the underframe. The solution adopted was to replace the 'W' irons and reclassify the wagons RY, retaining the same numbers, but with a reduced load rating of 16/22 Tons. The handbrake rigging was also changed in the mid 1960s and it is most likely that this change was made concurrent with the change in code from IZ to RY as the wagons were passing through the workshops.



Welded IZ with original handbrake rigging.

Models illustrated have been fitted with couplers (not included).



Welded RY wagon with modernised hand brake rigging.

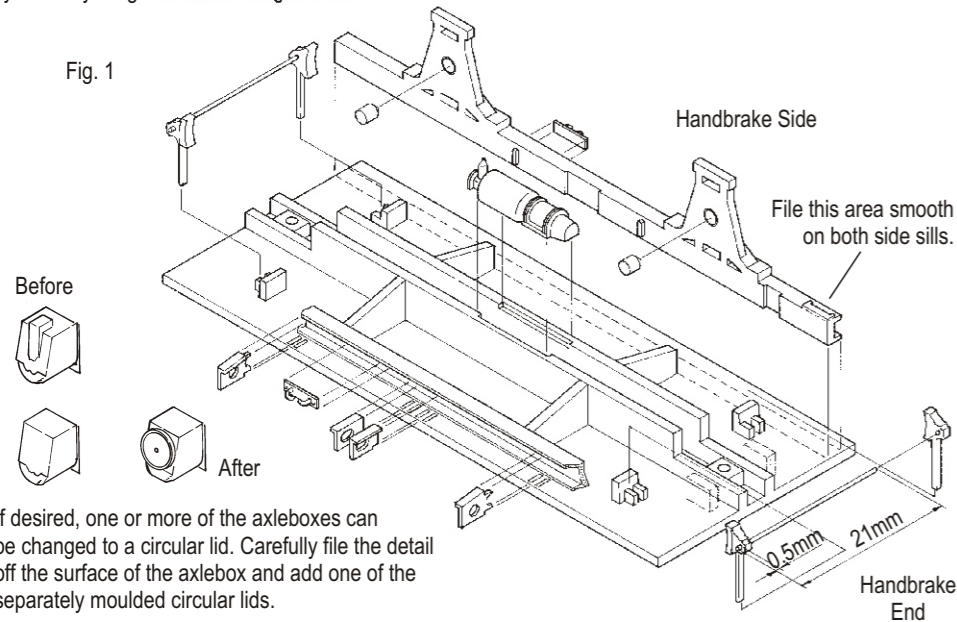
Assembly

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, 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 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. One side sill has small ribs moulded on the inside face, so it will be necessary to make notches in the piece of wood to accommodate them during this step. This work will ensure that the side sills are installed at 90° to the floor. Also remove the small raised locator from the bottom flange of each side sill at the handbrake end, by carefully filing the bottom flange smooth.



If desired, one or more of the axleboxes can be changed to a circular lid. Carefully file the detail off the surface of the axlebox and add one of the separately moulded circular lids.

Refer to figure 1, identify the handbrake end of the floor and use a pair of side cutters to remove the blocks adjacent to the centre sills at that end.

Press a delrin bearing into the hole in the back of each axlebox and cement the side sills to the floor, with the wheelsets sandwiched between. Ensure that the side sill with the notches in the back is installed on the handbrake side of the floor and the ends are flush with the ends of the floor.

Cement the brake cylinder to the centre sills, orientated as shown in fig 1.

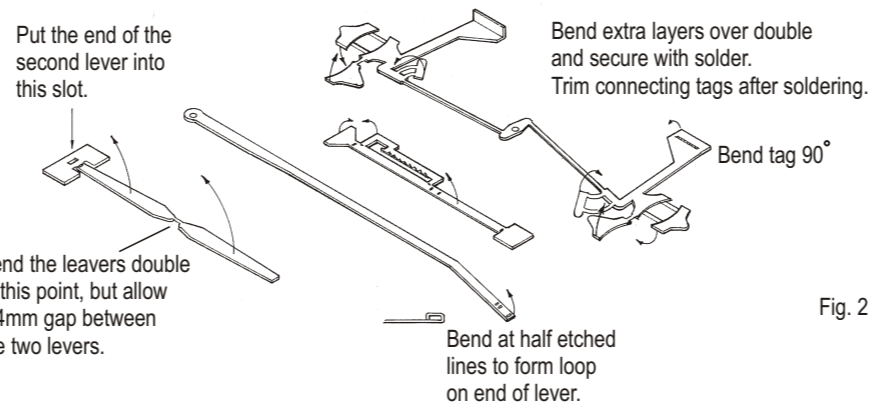
Cut two pieces of 0.5mm wire, each 21.0mm long. Smooth the cut ends and press each end into the holes moulded in a pair of brake shoe mouldings, so that the wire projects from the outer face of each shoe by 0.5mm. Locate each assembly in the lugs moulded in the lower face of the floor and secure with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

Add the four brackets on each side that support the door stanchions, locating them against the side sills and between the small ridges moulded to the floor. Each part is slightly different, so ensure that the parts are arranged and orientated as shown on figure 1. Finally cement a rope hitch to the web of each side sill. The hitches on each side are located directly opposite one another, so each is centred below the door which is furthest from the handbrake end.

Brake rigging

Parts for the brake rigging are provided on the etched brass panel, with part numbers etched adjacent to each part. The hand brake rigging (7) includes detail layers that are best attached while the brake rigging is still part of the brass fret. Fold the detail layers into position, as shown on figure 2 and secure with solder. Either pre-tin the mating surfaces before folding or use solder paste. Only after the layers are soldered in place should the connecting tags be removed and the edges dressed smooth by careful filing.

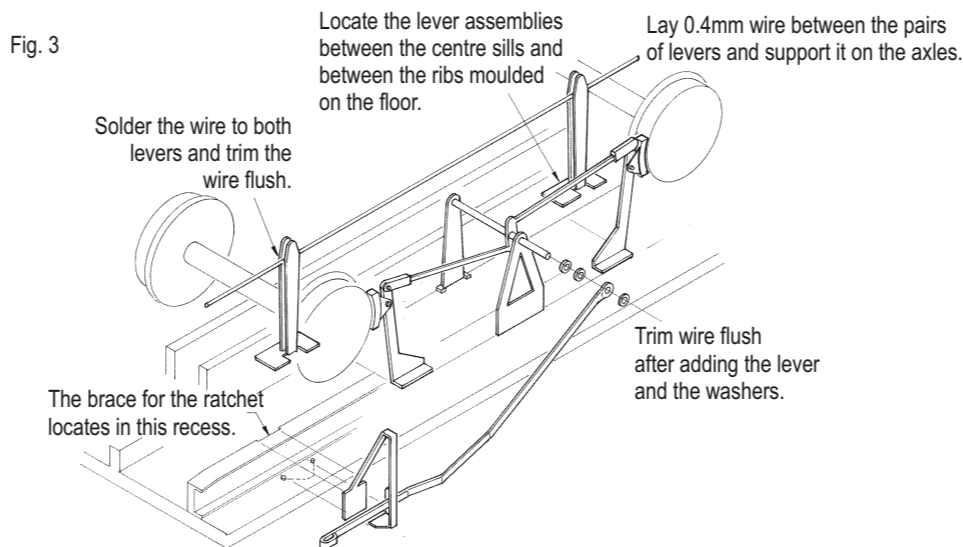
2



Form the handbrake ratchet (11), the handle on the end of the hand brake lever (5) and the air brake levers (2) to shape, as shown on figure 2.

Refer to figure 3 for placement of the brake parts on the underframe.

Attach the brake levers (2) to the floor between the centre sills with ACC. There are ribs moulded to the floor to assist with positioning. Place the length of 0.4mm wire between the levers and rest it on top of the axles. Solder the wire to the levers and then trim the wire flush with the outer face of the levers. Also trim the tags between the levers.



Use ACC to attach the vee hanger (8), the central support (9), the handbrake rigging (7) and the brake ratchet (11) to the floor. Recesses in the back of the side sill together with small lumps on the floor assist with positioning these parts.

Thread a 15mm length of 0.7mm diameter wire through the holes in parts 7, 8 and 9 and secure with ACC or solder. Add two washers (4) to the wire outside the vee hanger.

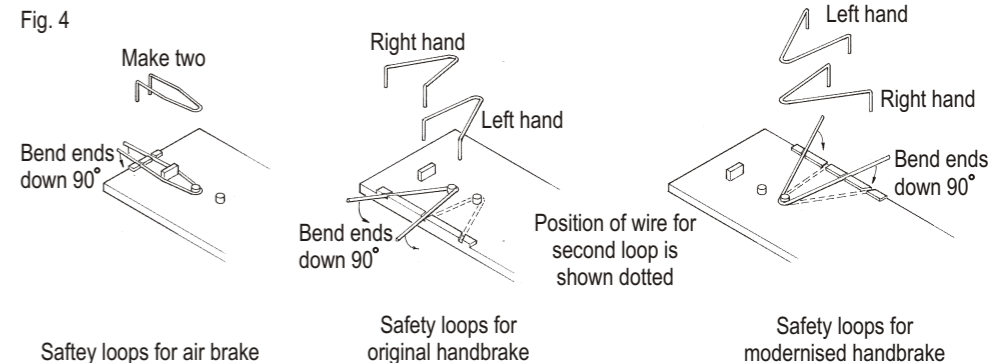
Form shallow bends in the brake lever at the half etched marks and thread it through the opening in the ratchet, before placing the hole in the end over the 0.7mm wire. Add a third washer to the outside of the lever and

3

secure with solder or ACC before trimming the excess wire flush with the last washer. If the wagon is to be in traffic the lever should be positioned in the stepped recess at the top of the ratchet, but can be placed towards the bottom of the ratchet if the wagon is to be parked on a siding.

Safety loops

Safety loops were positioned around the brake rigging to prevent parts dragging on the track in the event of a failure of any of the connecting pins. A jig is provided to assist with forming these to shape from 0.25mm brass wire. Cut the wire into pieces 30mm long and form each into a 'U' shape, by bending around the shank of a 1.0mm or #61 drill. Refer to figure 4, which shows how the rest of each loop is formed to shape.



Two identical loops are needed for the air brake rigging as well as a L/H loop and a R/H loop for the handbrake rigging. Attach these loops to the floor with ACC, using the ribs moulded on the floor and the back of the side sill to guide placement.

Refer to figure 5.

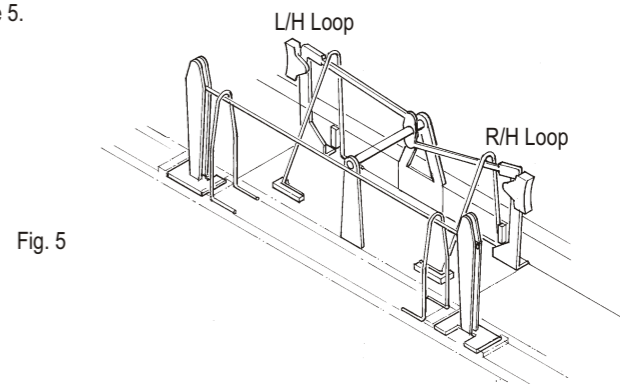


Fig. 5

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 #2 x 3/16 pan head screws (not included) using the holes moulded between the centre sills at each end of the floor.

Body

Check the fit of the sides and ends. Note that the sides overlap the ends by a very small amount, as shown in the detail cross-section on figure 6. When satisfied, 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°.

4