Steam Era Models

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

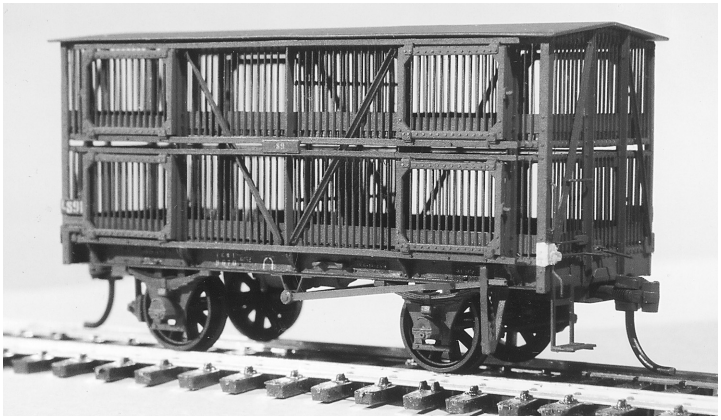
VICTORIAN RAILWAYS 'L' SHEEP WAGON

Prototype Notes

The steel framed sheep wagons represented by this kit were built in batches from 1896 up to 1925 and for many years were included in the consists of goods trains all over the state. They featured a gable roof and were numbered from 1 to 1252. Wagons 1 to 452 had the brake cylinder on the opposite side of the wagon to the handbrake, whilst 453 to 1252 had the handbrake on the same side as the brake cylinder. This kit specifically represents wagons 453 to 1252, however a small alteration to the solebars, detailed in the assembly notes, will allow a model representing wagons 1 to 452 to be constructed.

Fifty bogie sheep wagons, coded LL, were built at Newport in 1928. The design was based on the four wheel L wagon, however the LL featured a round roof and was wider than the L. More four wheel wagons followed, with L1253 to 1332 built in 1938 and L1333 to 1432 followed in 1953. These last two batches were constructed of Cor-Ten steel and featured a round roof.

With the closure of many branch lines in the 1970s the fleet of livestock wagons was gradually reduced in number so that by 1976 there were only 697 sheep wagons remaining on register. Further reductions followed until V/Line (as the Victorian Railways had become) finally withdrew from the carriage of livestock in October 1986.



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

Assembly

Read through these notes before commencing assembly, to familiarise yourself with the assembly sequence. Certain steps need to be done in a particular order to allow the model to be painted, both inside and out. Because of the fine cross section of the bars, best results will be obtained if the model is painted by airbrush. Where plastic parts are to be assembled **after** painting, carefully scrape the paint from any surface that will form part of a join.

This kit comprises both polystyrene and etched brass components. It is recommended that plastic to plastic joins be made with a liquid solvent cement. Etched brass components should be attached to the plastic parts with rubber-base contact cement, such as 'Pliobond'.

Remove the plastic parts from the runner system carefully using a sharp knife or flush cutting side cutters.

Body sides and ends.

Commence construction with the sides and ends. Place a small puddle of 'Pliobond' on an impervious surface, such as a piece of sheet metal, and thin the cement by adding MEK with a #2 paintbrush. When the cement is about the consistency of enamel paint, brush a thin coating along the back of the etched brass panels of bars, in the areas that will attach to the body framing. This can be done while all the panels are still part of the etched fret. Apply a similar thin coating to the horizontal frame members of the sides and ends. Allow the cement to dry for about 5 minutes. The parts are laid out on the fret in the same order that they attach to the sides and ends, so it is best to remove the panels of bars from the fret one at a time, and attach them to the body moulding, before moving on to the next panel. Place the etched fret on a polythene bag on top of a sheet of masonite and cut the panels from the fret with a sharp knife in a vertical 'chopping' motion to cut through the tags. Brush a second thin coating of 'Pliobond' along the horizontal members of the body frame and press each etched brass panel into place. When the panels are all in place on the side and end mouldings, add the bracing, as shown in figures 1 and 2 as well as the etched brass waybill clip and number panels.

Figure 1.

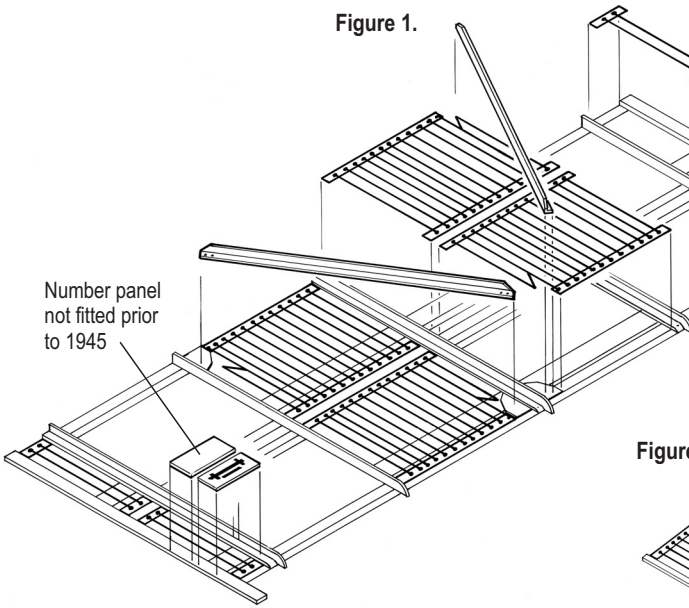
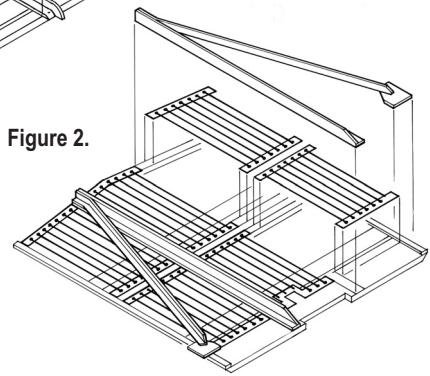


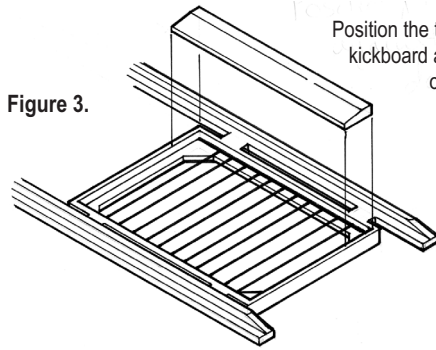
Figure 2.



Cut the door panels from the etched brass fret and lay one in the recess in the back of each door. Secure the etching in place with a drop of superglue, applied with a pin, in each corner of the door. Add a kickboard to the bottom edge on the back of each door, securing the board in place with a brush of solvent cement. The bottom edge of the doors can be identified by the rivet detail on the bottom door track under each door. There is also rivet detail on the doorframe that will align with the kickboards. Refer to figure 3.

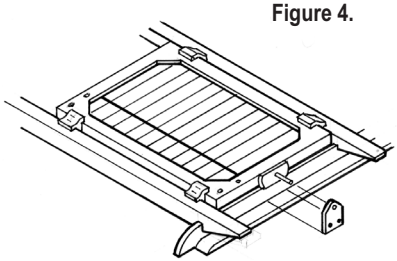
Position the thick edge of the kickboard against the edge of the door frame

Figure 3.



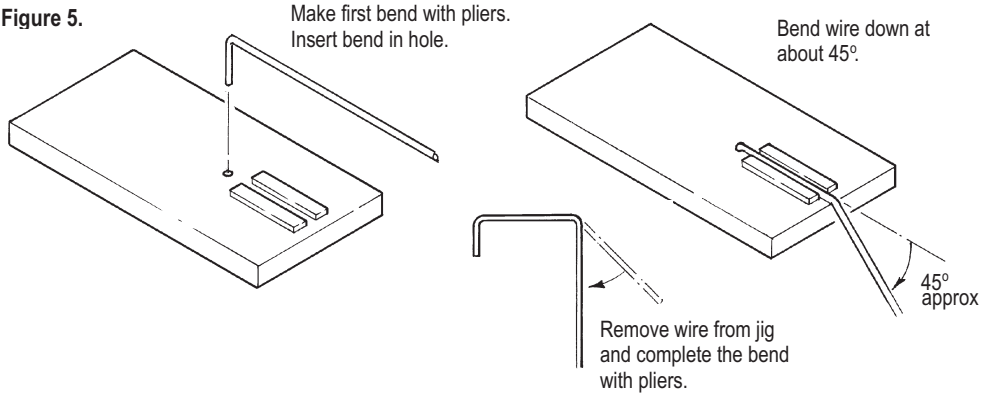
Place each door and track assembly in position on the side. The ridge on the back of each track will locate in notches in the faces of the vertical pillars. Secure the door tracks to the pillars with a brush of solvent. Add the door locking plates to the pillar adjacent to each door. The hole in the plate locates over the spigot moulded on the outer edge of each door. Refer to figure 4.

Figure 4.



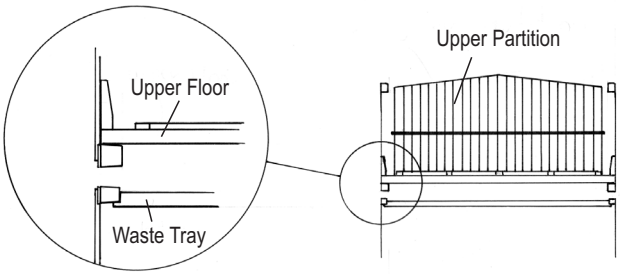
Cement the right hand edge of one side to the left hand edge of one end to form an L shaped subassembly. The edges are mitred to help with positioning. Repeat for the other side and end. Form 6 handrails from the 0.25mm wire supplied. Refer to figure 5. Trim each handrail so that the legs are the same length as the thickness of the jig. Install the handrails in the holes moulded in the ends and secure from behind with a drop of superglue applied with a pin. Paint each subassembly wagon red and put aside to dry. The etched brass interior partitions should also be painted dark grey/brown at this stage.

Figure 5.



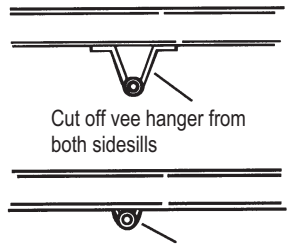
Paint the upper surface of the upper floor and the backs of the kickboards a weathered wood colour, e.g. Humbrol No. 28 matt camouflage grey or 'Floquil' concrete. Once the paint is dry, insert the upper floor into the corner of one side / end subassembly. The floor locates in the gap between the body framing and the kick board. Run a brush of cement around the bottom surface of the floor where it meets the body. Offer up the second side / end subassembly to trap the upper floor in position. Cement the second side / end to the floor and run a brush of cement down the inside faces of the corner pillars. With the body upside down, lower the waste tray into the body so that the rebate along one long edge catches on the body framing, as shown on figure 6. Tack with cement then pivot tray into position so that the other edge is resting on the body framing. Cement in position. Cement the upper partition centrally in the slot in the middle of the upper floor, using either Pliobond or superglue.

Figure 6.



Underframe

Figure 7.

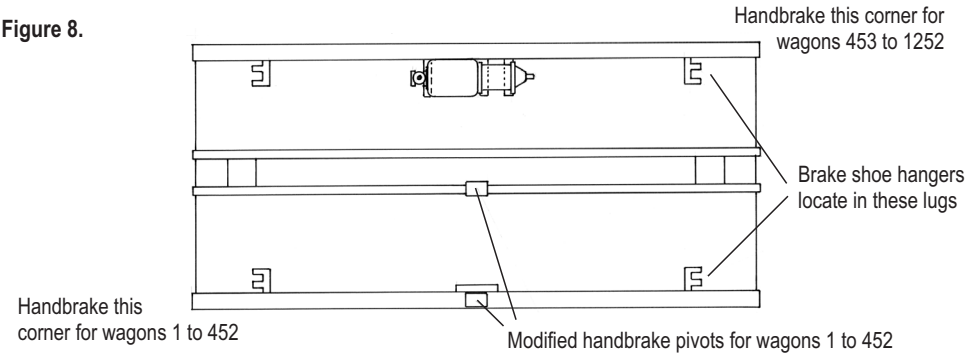


Remove the draw or slight taper from the top of the side sills by careful sanding. Glue a piece of 180 grit opencote aluminium oxide sandpaper to a flat piece of wood and rub the top edge of each side sill over it, using a second block of wood with one edge planed at 90° as a guide. This step will ensure that the side sills are installed at 90° to the floor. Fit the delrin bearings into the holes in the axle boxes. If a model representing wagons 1 to 452 is to be constructed, cut the vee hangers from under the centre of each side sill. Save these offcuts and cement one back in position as shown in figure 7. Cement the second offcut to one centre sill as shown in figure 8.

Cement the side sills to the floor with the wheels sandwiched between. Make sure that the back of each side sill is hard up against the lugs moulded on the underside of the floor, that the wheelsets turn freely, that the axles are at 90° to the side sills and that an equal amount of side sill projects beyond each end of the floor. If the model is to represent wagons 1 to 452, the side sill with the shortened vee hanger should be cemented on the side opposite to the brake cylinder supports. Cement the brake cylinder to its supports on the underframe. Cement the brake shoes to the floor, locating the vertical hangers in the lugs moulded on the underside of the floor. Refer to figure 8. Ensure that the brake shoes do not drag on the wheels.

Cement the waste chute in the recess in the centre of the upper surface of the floor. Cement the interior partitions in place, locating them in the groove either side of the waste chute, using either superglue or Pliobond. Paint the floor and waste chute a weathered wood colour, e.g. Humbrol No. 28 matt camouflage grey or 'Floquil' concrete.

Figure 8.

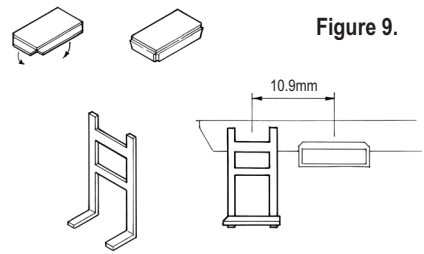


Final Assembly

Lower the assembled body onto the underframe and secure with a brush of cement at the junction of each of the body pillars and across the back of the headstocks. Carefully cut through the gate along one end of the roof and fold it in the centre. Place the folded roof on top of the body and secure with a brush of cement around the top of the body.

Alternative etched brass shunter's steps are provided. The wooden variety was used from the mid 1950s until the late 1960s, with the steel step being used from that date onwards. If using the later design of step, remove a tread from the fret and fold the edges as shown in figure 9. Attach the chosen step tread to the step frame by soldering or contact cement and then attach the assembled step to the wagon headstocks with contact cement or superglue.

Figure 9.

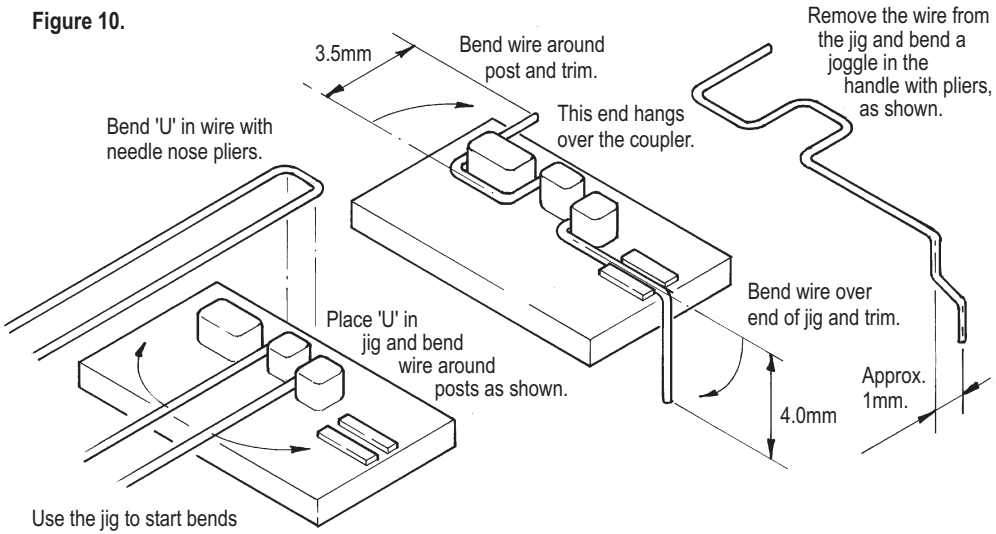


Bend two uncoupling levers from the 0.3mm wire supplied using the moulded jig. Refer to figure 10.

Secure the uncoupling levers in the brackets moulded on the ends with contact cement or superglue.

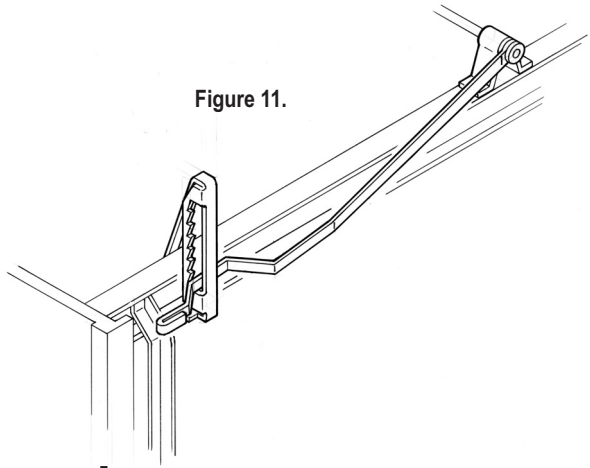
The kit is designed to accept either Kadee #5 or #58 couplers. The draft-gear box may be cemented directly to the floor, after first removing the side lugs.

Figure 10.



Drill a 0.7mm hole on the mark of both hand brake V hangers. Note that a model of wagons 1 to 452 will only have a pivot support on the side opposite the brake cylinder. Use the 0.7mm drill to enlarge the hole in the etched brass brake lever and spacer washers, while these parts are still attached to the etched fret. Form the handbrake ratchet to shape with the half etched lines on the inside of the bends. Glue the top of the ratchet to the floor, immediately to the left of the RH door pillar at the RH end of the wagon. Make sure that the ratchet is on the brake cylinder side for wagons 453 to 1252 and on the opposite side for wagons 1 to 452. Glue the tag on the end of the brace behind the side sill. Bend the handbrake lever to shape and thread the lever through the opening in the ratchet. Thread the length of 0.7mm diameter wire provided through the handbrake pivots. Place one spacer washer over the projecting wire, then the brake lever and a second spacer washer. Secure the parts with superglue or contact cement. Trim the wire flush with the face of the washer in front of the lever. Refer to figure 11.

Figure 11.

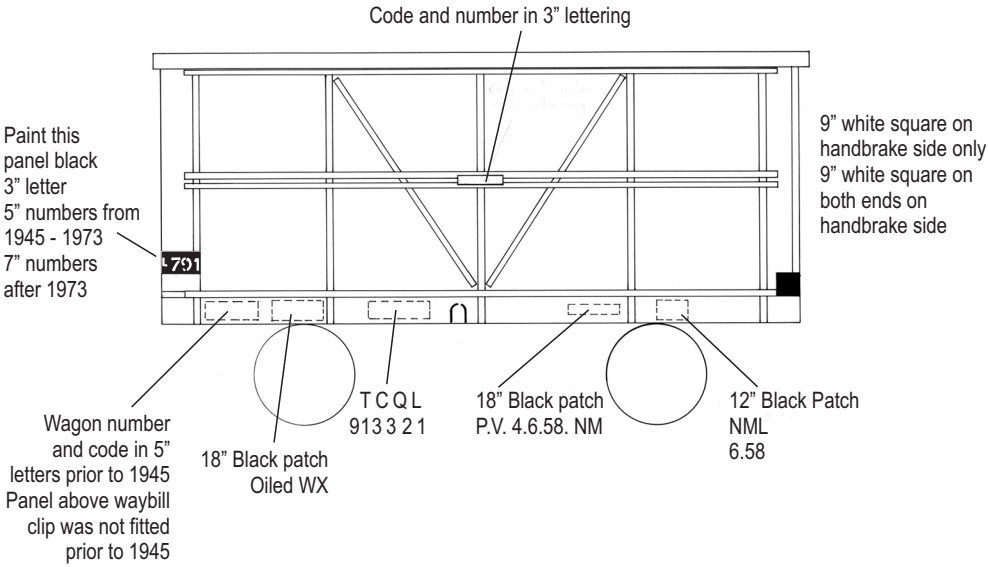


Painting and Decals

The model should be painted overall wagon red. We recommend Steam Era Models VR wagon red spraying enamel. Because the sides and ends were pre-painted it is only necessary to spray the roof and underframe. If care is taken, no wagon red will enter the interior.

Decals are provided which cover various periods in the wagon's history. Refer to the diagram below for the placement of lettering.

By the 1950's most L wagons no longer carried the number patch centred on the door tracks. If it is desired to build a model with this patch in place, cut a piece of 0.005" polystyrene sheet (not included) and cement it to the door tracks centrally, as shown on the painting diagram below.



To Apply Decals

1. Trim decals close to lettering to remove excess film.
2. Immerse in water for ten to fifteen seconds, then set it aside on a tissue until the decal straightens out.
3. Slide 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 tissue to soak up excess water.
5. The use of a decal setting agent such as Solvaset is recommended to assist decals in snuggling down over rivets etc…
6. A flat finish such as Testors Dulcote applied to the entire model will give a uniform dull finish.