

O-Aust Kits

PO Box 743

ALBANY CREEK QLD 4035

Phone (07) 3298 8283 (7.00pm to 9.30pm ONLY)

Facsimile (07) 3298 6297 (24 hours)

Mobile 0419 680 584

Email pa_rl_krause@bigpond.com

Web www.oaustkits.com.au

NSWGR 'ACM' BRANCH LINE SLEEPING CAR 1:43 KIT



Photo courtesy AMRM

PROTOTYPE NOTES

The ACM branch line composite sleeping cars were converted from Dean bogie, BX first class carriages commencing in 1931. A total of ten (799, 2045, 1838, 2047, 1725, 1945, 655, 666, 730 & 1723) were constructed, with the last entering service in 1936. Each had one first class, three sleeping and two second class compartments, giving a capacity of six sleeping, six first class and sixteen second class passengers. Two (730 and 799) had their Dean bogies replaced by 2AN bogies. All were originally fitted with ball type ventilators. By the 1960s these had been replaced by torpedo vents on all except 1725 and 1945.

They remained available for use until 1973.

KIT PARTS LIST

2 end castings
 2 side castings
 2 roof castings
 1 floor casting
 2 chassis beam/solebar castings
 4 door castings
 2 first class seat castings
 2 sleeping compartment (day travel mode) castings
 1 sleeping compartment (night travel mode) casting
 4 second class seat castings
 styrene sheet for internal walls
 .020" x .040" styrene strip
 4 bogie sideframe castings
 2 bogie stretcher castings
 2 cast pins for attaching bogies
 8 axle box castings
 8 damper castings
 16 brake shoe castings
 8 brass sleeves (bearings)
 4 wheel sets
 1 brake cylinder
 1 air tank
 2 battery box castings
 1 generator set.
 4 buffers
 22 Torpedo vent castings
 12 Two step support brackets
 2 brake wheels
 2 train pipe hoses
 6 marker lamps (on 2 sprues)
 6 marker lamp brackets (on 2 sprues)
 6 door handles (on 1 sprue)
 Styrene strips for steps
 Brass wire 1.2mm
 Brass wire 0.8mm
 Brass wire 0.5mm
 Clear styrene for glazing
 1 sheet transfers

YOU WILL NEED TO SUPPLY

Couplers
 Two screws for attaching bogies

TOOLS REQUIRED

Large files and needle files
 Superglue
 Pin vice and/or 'Dremel'
 Drills 0.5mm, 0.8mm 1.2mm, 1.6mm & 1/8", + one to suit the screws for attaching bogies
 Soldering iron (variable temperature)
 Low melt and resin cored solder
 Craft knife, tweezers, small pliers, side cutters, scissors
 Fine wet or dry paper
 Modelling putty
 Decal setting solution

ASSEMBLY

Note:

Read ALL instructions before commencing assembly to understand the correct sequence.

All flash on the castings should be removed before assembly.

Some castings may have air bubbles - these are easily puttied if desired and will not affect the end result.

Occasionally a casting may be warped. This problem is easily rectified by placing in hot water in a flat-bottomed container for a couple of minutes and allowed to cool on a flat surface.

The instructions for the assembly of this kit assume that the person assembling the kit has some basic kit building skills.

The quality of the finished product is dependent on the care taken in its assembly.

If you have any problems please feel free to contact O-Aust Kits direct.

It is recommended that the body castings be washed in warm water and liquid detergent, rinsed clean in warm water to remove mould release compound and air dried before commencing assembly.

BODY ASSEMBLY

Step 1 The corners of the sides and ends should be filed to a smooth surface to ensure a clean joint in the corners.

Step 2 Attach the four doors to the ends of the side castings. Once secured with glue the end overhang which is no longer required should be removed allowing a smooth surface to attach to the end castings.

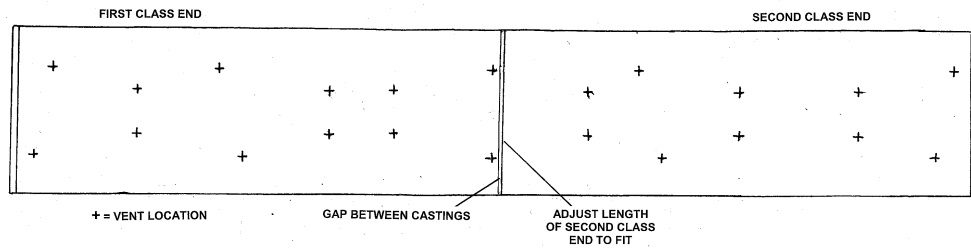
Step 3 Attach one of the side castings to an end casting with the side butting onto the end and noting that the sides fit between the ends. Take care that it is flush along the bottom edge and at the corners and square. When happy with the position, apply glue and hold firmly in place until the glue sets.

Repeat the process for the other side and end.

Step 4 Make up the body by joining the two ends/sides together ensuring that the joints are square and the corners are flush.

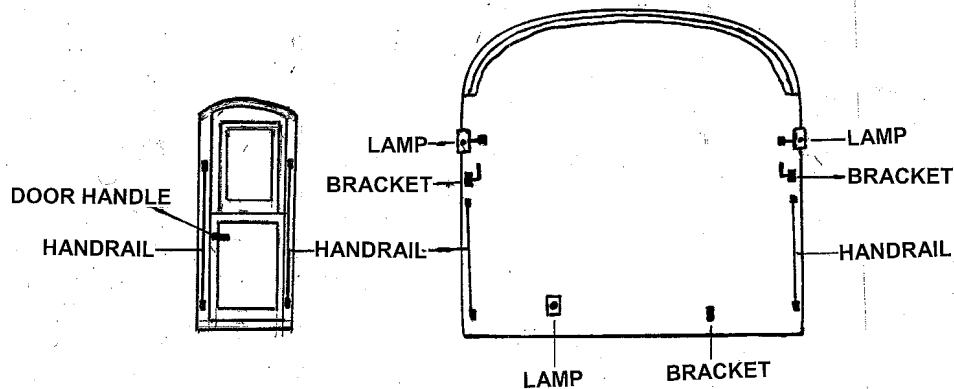
Ensure the corners are square using the floor as a guide. When happy with the position, apply glue and hold firmly in place until the glue sets. Reinforcing the inside of the four corner joints is also recommended. **Note: do not glue the floor in place at this stage.**

Step 5 Drill holes in the roof casting for the vents noting that the roof casting has dimples indicating the location of the roof vents. Attach the two roof castings to the sides/ends separately to form the coach body ensuring that the joints are square and flush. Note the difference in the castings with one being for the first class compartment end and the other for the second class compartment end. It may be necessary to shorten **the second class part** at the centre joint for the two roof castings to fit. When happy with the position, apply glue and hold firmly in place until the glue sets. Some puttying and sanding will be required to achieve a smooth finish. The roof castings are located as per the following drawing:



Step 6 Glue a strip of .020" x .040" styrene along the joint between the body sides and the roof to represent the fascia board.

Step 7 Drill the holes (0.5mm) for the handrails, door handles, marker lamps and brackets. Form the handrails from 0.5mm wire provided. Glue these fittings in place. The following drawing and the drawing at Step 23 indicate the appropriate locations:



Step 8 The roof torpedo vents should now be fitted. Refer to the drawing at Step 6 for locations. For modeling the early version, fit ball type ventilators available from Kerroby Models.

Step 9 Firstly; check that the dimensions of the floor casting match those of the assembled body. Note that the first class and second class ends are identified on the casting. This is necessary to ensure the correct positioning of the underbody detail. Make adjustments to the floor casting where necessary, keeping in mind that any adjustments need to be made equally to each side or end.

Do not fit the floor to the body at this stage.

At this point consideration needs to be given to how you wish to join the body to the floor later in the assembly process. The options are to screw the two pieces together (recommended) or to glue it in place. If the screw option is preferred, securing lugs should be fitted at this stage. The recommended location for these is in the toilet areas at each end of the carriage.

Step 10 The body is now ready for painting. The sides and ends should be painted standard NSWGR Indian Red or equivalent. The roof should be painted grimy black unless you wish to portray it in as new condition and the interior in a colour to simulate the varnished timber of the prototype. An article on how to achieve a varnished timber appearance can be found in Branchline Modeller #2 on Page 17.

Step 11 Transfers - Ensure the paint is thoroughly dry and dust free

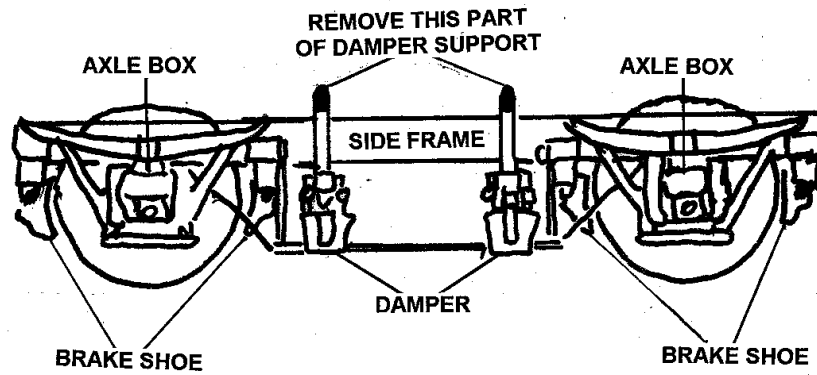
NOTE: Transfers adhere better to a glossy surface.

Trim margins around lines letters and numbers as close as possible, place in warm water until transfer is almost ready to release from backing paper, then place on paper towel to absorb excess water. Wet area with decal setting solution, place transfer on model and slide transfer off backing paper into position. Apply decal setting solution over transfer, mop up excess solution with edge of kitchen paper and allow 24 hours drying time. To protect transfers and paint work, spray a thin coat of clear flat paint eg. Testor's Dull Cote or similar brand over entire model. Allow 24 hours drying time in a dust free area.

Weathering to your requirements is recommended.

Step 12 Windows should be glazed using the clear styrene provided. Note that the windows in the toilet compartments are opaque white. This can be achieved either by painting the inside of the clear styrene with flat white paint or alternatively by using some thin white styrene sheet.

BOGIE ASSEMBLY



Step 13 Clean off any flash from the castings.

Step 14 Drill four 1.6mm holes in the top lip of the bogie sides for the brake castings, and 1.6mm holes in the sides for the dampers. Clear out the axle bearing holes with a 1/8" drill. Also clear holes in back of each axle box casting with a 1/8" drill.

Step 15 Fix each axle box casting to the bogie side using the brass sleeves. Make sure these are flush on the inside. Super glue is best for this but don't use too much and try not to get it inside the bearing.

Step 16 Cut the curved part of the damper castings and set aside for installation later at Step 24. This is a concession to allow the coach to negotiate tight curves. If in doubt refer to the drawing at Step 24. Then fix the damper castings to the bogie side frames using super glue. (two per side)

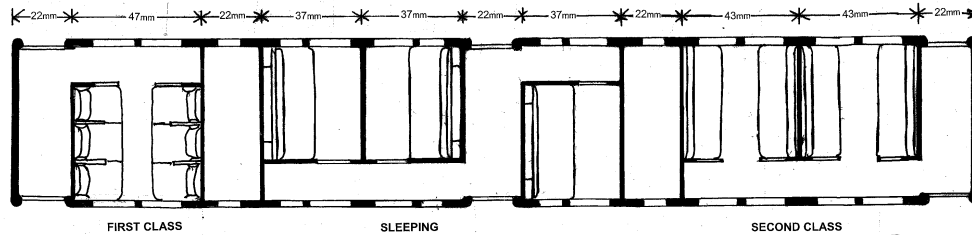
Step 17 Fix the brake castings into the holes in the top lip (four per side) with super glue.

Step 18 Fix the stretcher into one side of the bogie, insert the wheels into this side then fit the other bogie side and fix at the stretcher.

If desired a small amount of equalisation can be acquired by securing one bogie side to the stretcher using a small screw which is not fully tightened. A small amount of filing to the top face of the stretcher to give a very small rounding where it enters the bogie side may be necessary, but don't over do this.

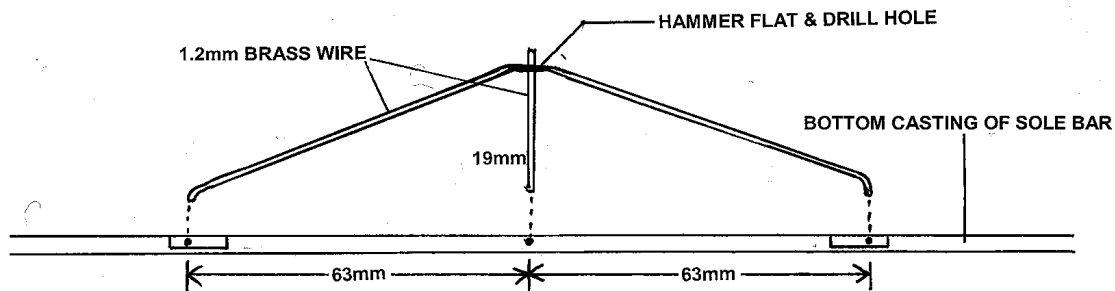
UNDERBODY ASSEMBLY

Step 19 Strips of styrene sheet of suitable height have been supplied for the interior walls and should be cut to appropriate lengths using the drawing below as a guide. The interior detail seat castings and walls are glued to the floor as per the following drawing:



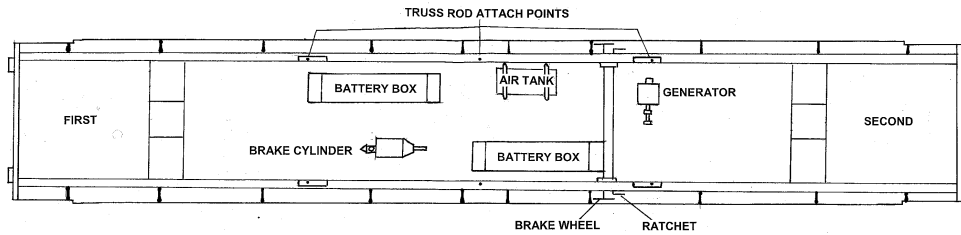
Step 20 Fit the two chassis beam/solebar castings tightly between the buffer beams. Glue to the solebars flush with the inside face so that it projects over the outside face. This represents the steel channel used for the solebars.

Step 21 Using the 1.2mm brass wire supplied, fabricate the truss rods and fit as per the following drawings: The central joint should be soldered to secure and strengthen.

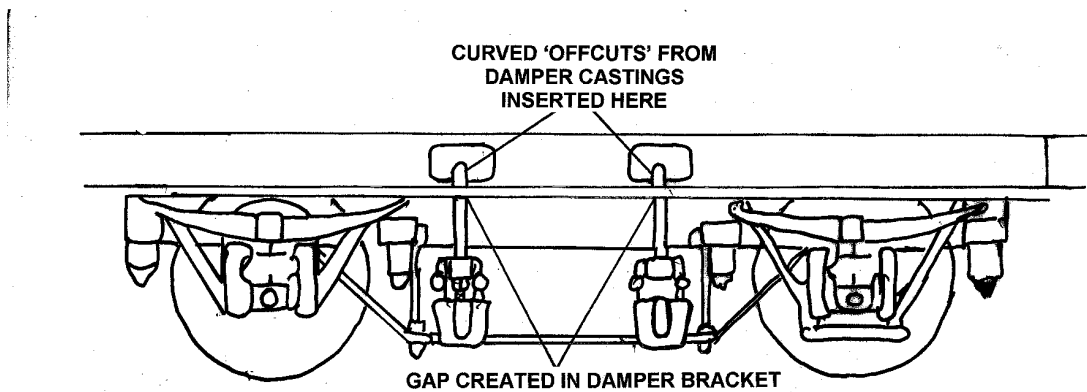


Step 22 The yard brake brackets are part of the floor casting. For yard brake assembly the ratchet handle is on the outside of the bracket and pointing to the end of the coach. A length of 0.8mm brass wire forms the yard brake shaft between the two spider wheels, the ratchet shaft is 0.5mm brass wire.

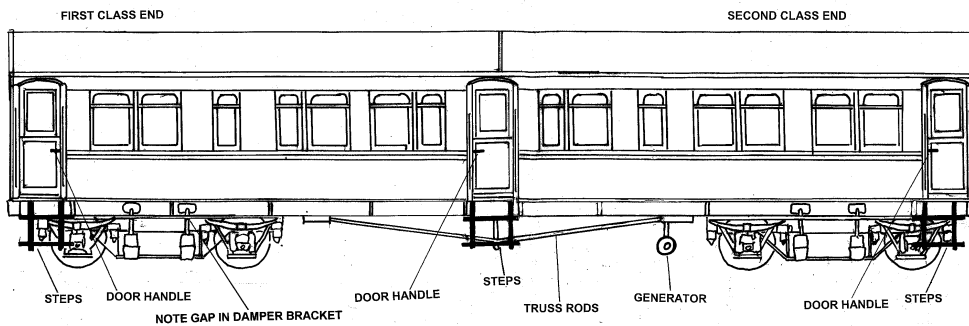
Step 23 Fit the brake cylinder, air tank, battery boxes and generator to the floor as per the following drawings. Support brackets are cast onto the floor casting to assist with location.



Step 24 The 8 curved off cuts from damper castings from Step 16 should now be attached to the solebar at the appropriate locations as per the following drawing:



Step 25 Build the steps from styrene strip and brackets supplied and glue in place to the support brackets cast in the solebar on each side using the following drawing as a guide:



Step 26 Fit the buffers in the holes in each buffer beam. To enhance the model you may prefer to substitute sprung buffers for the solid ones supplied.

Step 27 Couplers of your choice should now be fitted as per the manufacturer's instructions (couplers are not supplied with this kit).

Step 28 Drill holes in the buffer beam and glue the train pipe hoses to the right of the coupler pockets. A dimple is provided in the chassis casting to assist with the correct location.

Step 29 The underbody is now ready for painting. The interior partitions are painted in a colour to simulate the varnished timber of the prototype and the seat covers dark green. The underbody and bogies should be painted grimy black.

FINAL ASSEMBLY

Step 30 Fit the completed body to the assembled floor/underbody using the method of attachment chosen at Step 9.

Step 31 Drill suitable holes in the floor casting and attach the bogies to the wagon using screws (not provided).

You are ready to roll after lubricating the axles

REFERENCES

Coaching Stock of the NSW Railways; Cooke, Estell, Seckold and Beckhaus; Eveleigh Press 1999; Pages153-154.

Australian MODEL RAILWAY Magazine, November/December 1978, Page 30.

Australian MODEL RAILWAY Magazine, May/June 1979, Page 47

BRANCHLINE MODELLER Number 2 Page 17. Article on varnishing timber coaches may be of assistance at Step 10 and Step 29.