

Modelling Cane Railways

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25

On30 Tourist
Railway
Carriage

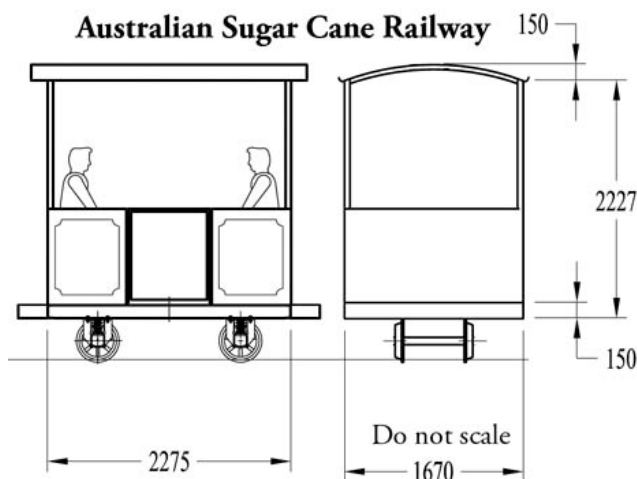
CaneSIG: <http://www.zelmeroz.com/canesig>

Modelling an On30 Tourist Railway Carriage

Modelling a museum or tourist railway can solve some of the potential anachronisms that arise if you try to mix steam and diesel power on a shire or sugar cane layout. This article details the construction of a simple tourist railway carriage using a cane bin underframe.



Carriages used by the Australian Sugar Cane Railway (ASCR, Bundaberg) for their weekly tourist train service. Shown here in green livery, they were later repainted in gloss red (see next page) for better visibility. Ross Driver photographer.



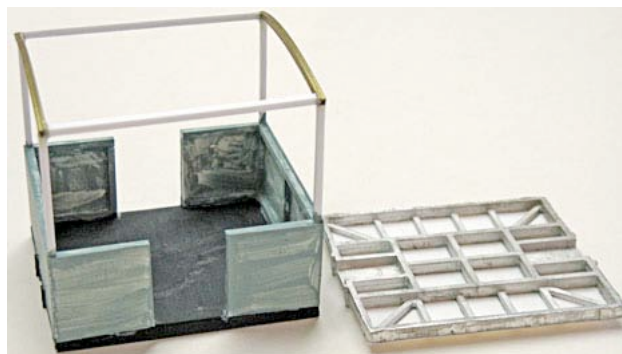
Dimensions for the ASCR carriages (approximately 5.5' x 7.5'), based on a Bundaberg Sugar cane bin underframe. Bin dimensions vary from mill to mill and era to era. Ross Driver draughtsman.

The various two foot gauge museum and tourist railways developed in Queensland often either built carriages on old cane bin underframes. The ASCR carriages above are typical of the style, albeit with

padded seats, safety gates and couplings, sprung axle boxes, etc.

Looking at photographs of tourist railway various carriages it is soon obvious that a wide variety of construction materials were used, both for the carriages and their fittings. Many of the carriages have some form of decorative skirting around the roof; some have a canvas-type roof, rather than a solid (smooth or corrugated) top. Most seating appears to be wooden slat benches, but the ASCR carriages uses a padded bench, similar to that used on older buses, trams or trucks.

My model is built on a pewter underframe (with the side frame mounting hardware removed), axle boxes and wheelsets from a *RJ Models* Moreton Mill bin kit. This gave me a weighted base with wheelset and coupler mountings at the correct height, saving me time and effort.



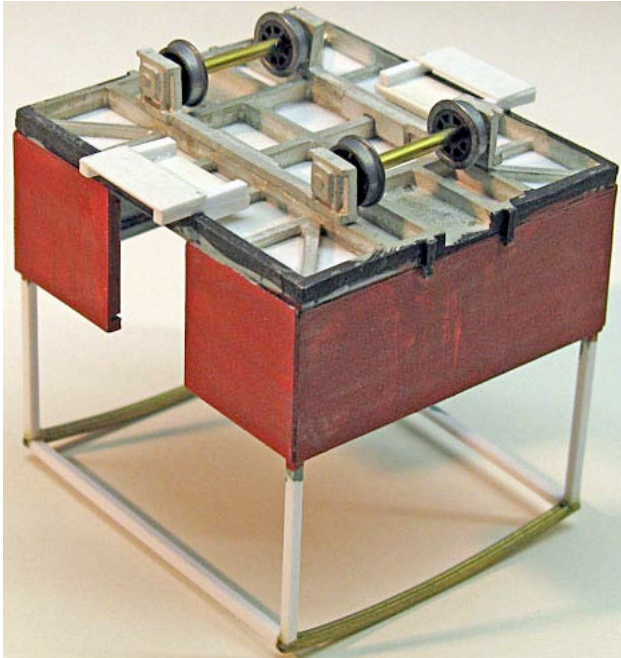
The ASCR carriages are both shorter and narrower than my carriage, based as it is on the *RJ Models* pewter kit of a Moreton Mill bin (roughly 9' x 8'). The upside-down base at right will be used for a second carriage.

The floor is .015" styrene, as are the walls. Uprights and horizontal ribs are .080" square styrene, oversize but the closest available material. The end roof ribs are .080" hand-curved brass square tube, superglued in place. A centre styrene rib (.080" square) and corner braces were added after the .020" styrene roof was superglued in place. Metal joints and the roof were fixed with gap-filling superglue, styrene-to-styrene joints with liquid cement.

The coupler pockets accept Kadee coupler boxes provided the 'ears' are removed and were installed after the axle boxes and wheelsets were super-glued in place. Narrow steps were added at the doors using styrene and safety chains installed on fine copper

wire hooks. Unfortunately I didn't check the loading gauge closely enough when designing the steps and the model as built cannot pass across the bridge that joins the two sides of my home layout.

The benches were formed from hand-shaped balsa on two feet made from dimension stripwood. The model was hand-painted with acrylic paints and weathered with cosmetic powders.



Carriage with axle boxes, wheelsets and steps installed. A styrene spacer was superglued into place at each door and the styrene step and risers fixed with liquid styrene cement. The two black fixtures near the coupler pocket are the only remaining bin side mounting hardware and would also have been removed if the carriage had been built so the side panels extended to the bottom of the frame.

The finished carriage was not heavy enough according to the NMRA's recommended practice so lead shot was glued into some of the underframe spaces. Adding passengers would also help the weight problem provided they were metal, not plastic figures. However, this four wheel model would still not track well as there are slight differences in the axle bearing heights, resulting in a wobbling three-, rather than four-point, ride.



Finished carriage, with roof bracing and padded seats added, painted and weathered. Kadee couplers have had their uncoupling arms cut short since the carriage doesn't have a braking system, thus no need for simulated air hoses..

When building the companion to this model I'll need to add weight to the underframe before it reaches the painting stage and will need to be more careful when attaching the axle boxes to ensure that all four wheels ride the rails squarely. Interestingly, this hadn't been as much of a problem with previous models built using the *RJ Models* underframe so it may have been a slight casting error with one of the axle boxes. Finally, I'll also consider fabricating the whole superstructure frame from .080" square brass rod, rather than using styrene.

Acknowledgements

Additional information on the Australian Sugar Cane Railway can be found on its web site, <http://QldRailHeritage.com/ascr>. Additional tourist carriage photos can be found on the CaneSIG site.

An article on tourist railway cars and the construction of this car can be found in Zelmer, ACL (2008). 'From Cane Train to Tourist Car' in *Narrow Gauge Down Under*, #30, pp 43-45.

NMRA Recommended Practices RP-20.1 Car Weight can be obtained from the National Model Railroad Association, <http://www.nmra.org.au> in Australia.

