



# From Cane Train to Tourist Carriage

By now readers may be aware that I'm probably more interested in the novel and unique than with more conventional sugar cane railway locomotives, rolling stock and facilities. This article focuses on one such oddity: tourist train carriages constructed on ex-sugar cane bin underframes.

Cane locomotives likely first began to be scrapped soon after they were introduced into the cane fields, as some of the early steam locomotives were already second- or third-hand. However, preservation activities started in the second half of the twentieth century and resulted in a number of tourist and museum type railways.

Whether using horses, steam, diesels, or diesel-powered steam profile locomotives, these all require some means of carrying passengers, and carriages built on ex-cane railway stock were an economical choice.



The photographs show carriages from three different tourist operators. The oldest are likely the ex-St Helens Island carriages now at the Durundur Railway (Woodford) waiting to be restored. They have a minimalist superstructure with three rows of slat-type seats. The corrugated roofing material runs lengthwise; the roof end and seat end provide some structural integrity but overall the car is pretty basic. From a modelling point of view, the most difficult task would likely be fabricating the seats.

The Big Pineapple (Nambour) carriages have a little more structural integrity, but with a patterned canvas-type roof covering they might be more difficult to model. There are two different carriage designs, one with two forward facing slat-type seats; the other with back and front-facing seats and an open centre for wheelchair access. Again, the slat-type seats would provide a modelling challenge.

The Australia Sugar Cane Railway (ASCR, Bundaberg) carriages are the strongest and safest of the three types shown. With their trailer-type couplings, padded seats and sprung wheels they are likely the smoothest riding as well. Several years ago the carriages had decorative scallops along the underside of the roof but the more recent repaint has eliminated this decoration. The hinged decorative gates would provide a real challenge if modelled.

*TITLE PHOTO: ASCR carriages with secure-closing decorative gates, padded seats, sprung wheelsets and trailer-type security couplings to eliminate jerky riding. Note the decorative trim around the roof. Ross Driver photographer.*

*TOP LEFT: Tourist cars from St Helens Island, now relocated to the Durundur Railway (Woodford) and out-of-service waiting for restoration. Lynn Zelmer photographer.*

*BOTTOM LEFT: ASCR current paint scheme, 2007. The red carriages are much easier to see in the bush areas of the Botanic Gardens and at the grade crossings. The lettering on the right hand side of each carriage is in a builder's plate format and includes a car number. Trains operate with a guard in the last carriage (pictured) who normally has both a two-way radio and a cable operated signal system. Lynn Zelmer photographer.*

*BELOW: Big Pineapple (Nambour) tourist train operating through their pineapple fields. The first, second, fourth and sixth carriages have front facing benches. The third and fifth carriages have a wide entry and centre space for handicapped access. The train is pulled by a steam profile diesel powered locomotive of American appearance. Lynn Zelmer photographer.*





## The Model

I model in several different scales. This time I needed 1/4" scale (On30) models, so for convenience the calculations here utilise feet and inches, rather than metric measures. The size of wholestick trucks and bins can vary from mill to mill, and even over time, so absolute dimensions aren't critical except to provide enough space for passenger access.

Wholestick truck frames are large enough (roughly 5' x 6') for small tourist train cars, but as models they would be very light, have the potential to be top heavy, and would likely operate poorly as a consequence. The ASCR carriages are roughly 5'6" x 7'6" but I decided to use a pewter underframe from the RJ Moreton Mill cane bin kit (roughly 8' x 9') as it would simplify my modelling, and provide more weight for the completed model than a styrene fabrication.

Having made that decision I removed some of the cane bin fastening detail from the bin sides, cleaned up a small amount of flash from the castings, redrilled the holes for the kit's brass wheel bearings and superglued the bearings in place. The bearing blocks, wheelsets and couplers were set aside to

be added later. A sheet styrene deck was glued in place, providing a base for the superstructure. The rest of the model uses sheet and dimension styrene except for the end roof formers (1/16" square brass tube bent by hand) and the padded seats and backs (carved balsa wood).

When I built the Fijian navvy wagon several months ago (NGDU #28) I knew that it would be too wide for the loading gauge on my layout. However, I didn't think to check whether the steps on this tourist carriage would be outside my loading gauge. Sure enough, the carriage came to an abrupt halt when I attempted to cross the bridge linking the two sides of my home layout. Interestingly, the carriage is well within the new NMRA On30 loading gauge, however my loading gauge is based on that of the Brisbane AMRA layout for their On16.5 (7mm) models. The width won't be such a problem with my new display micro-layout, but its 9" radius curves require rollingstock that will stick to the track under adverse conditions.

The NMRA recommendations for weighting suggest either 2 or 3 ounces, depending on whether I use HO or On3 standards (there are currently no On30 standards). As constructed, the car weighs just over an ounce even with

the pewter underframe and metal wheels, and there is limited scope for adding extra weight. As well, even very slight differences in the height of unsprung wheel bearings can cause a four wheel wagon such as this to rock as it moves down the track. I'll add what weight I can by gluing shot in the underframe openings but this carriage may not operate well on any layout.

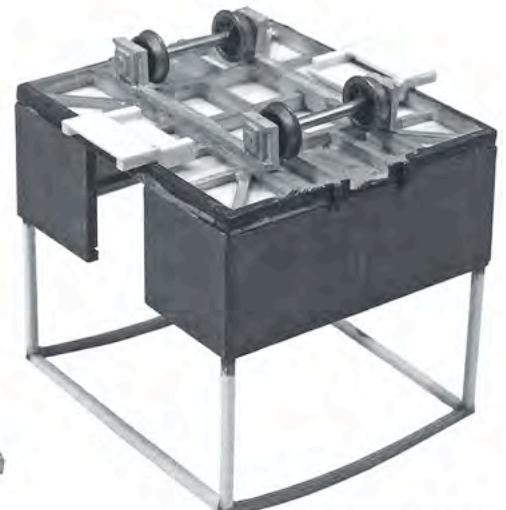
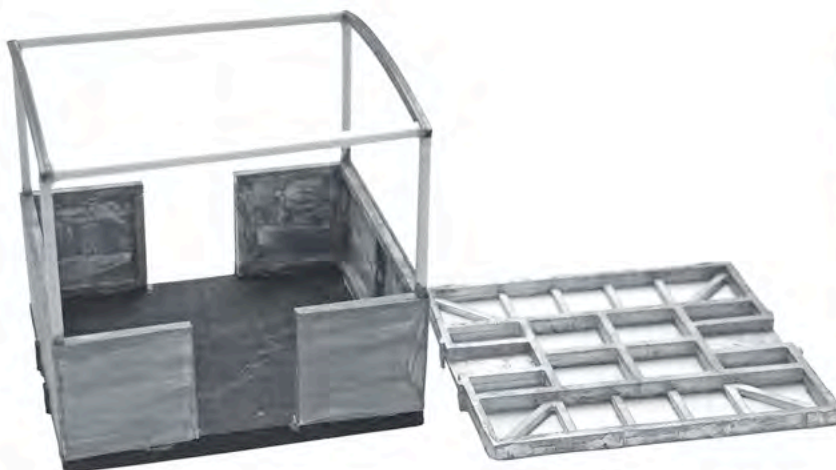
The carriage was hand painted with acrylic paints and weathered with cosmetic powders. While a tourist operation would want clean and brightly painted carriages, my carriage will be part of the 'shire' operations on my layout and doesn't need to be so neat.

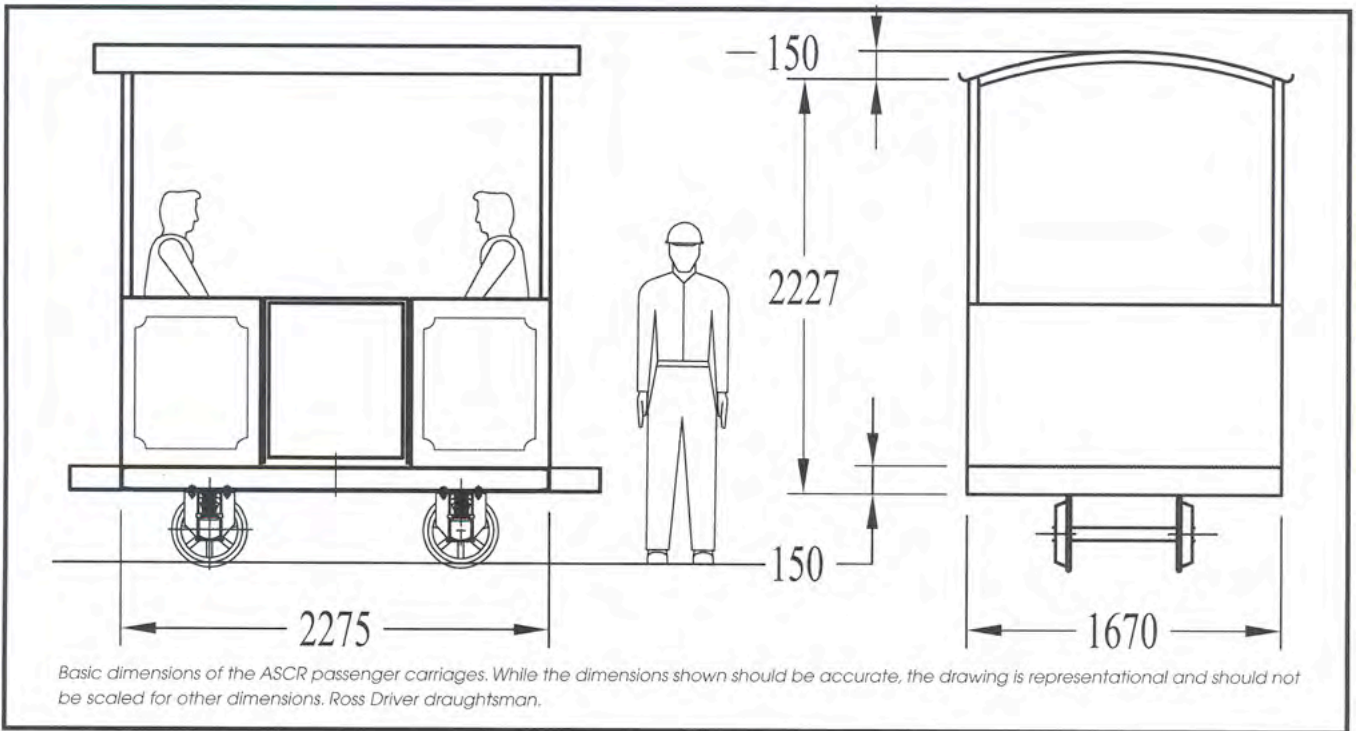
I have another two RJ kit underframes prepared as I write this article. I'm planning to build at least one more carriage similar to the first, albeit with a different step arrangement so it is within my loading gauge. I would also like to put some passengers in the carriages but am having troubles finding enough sitting people (in pewter for weight) to make it worthwhile. Perhaps I need to try my hand at modelling them as well!

*PHOTOS THIS PAGE: Construction details for the On30 model inspired by the Australian Sugar Cane Railway, Bundaberg. ASCR carriages are both shorter and narrower but the model uses a pewter underframe from the RJ Models Moreton Mill bin kit.*

*The superstructure uses sheet and dimension styrene, except for the hand formed square brass tubing used for the curved roof. The RJ Models axle boxes and wheel sets have been added, along with side steps. Unfortunately the steps exceed my loading gauge, and lead shot will also have to be added in the underframe spaces to bring the model's weight closer to the NMRA recommendation.*

*The completed, painted and weathered tourist carriage shows the treatment of the security chains, padded seats, etc. While the ASCR carriages have decorative gates, security chains appear to be more commonly used by other operators. Bracing has been added to each roof support and a central curved rib (styrene), added after the roof was installed, completes the roof framework. Kadee couplers have their uncoupling arm cut short as cane railway rollingstock lack brakes, thus there is no need to model air hoses.*





## Acknowledgments and References

Additional information on the Australian Sugar Cane Railway and the Durundur Railway (Australian Narrow Gauge Railway Museum Society) can be found on their web sites, <http://QldRailHeritage.com/ascr> and <http://www.angrms.org.au> respectively.

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

Additional photos, plans and modelling details can be found on the CaneSIG web site (<http://www.zelmeroz.com/canesig>).