

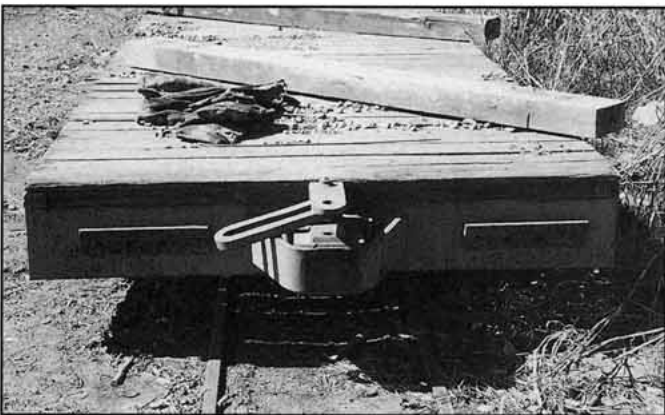
# SUGAR CANE COUNTRY

## Building 2' gauge Queensland cane train models in 7mm scale

JOHN BURGESS • PHOTOGRAPHS BY THE AUTHOR

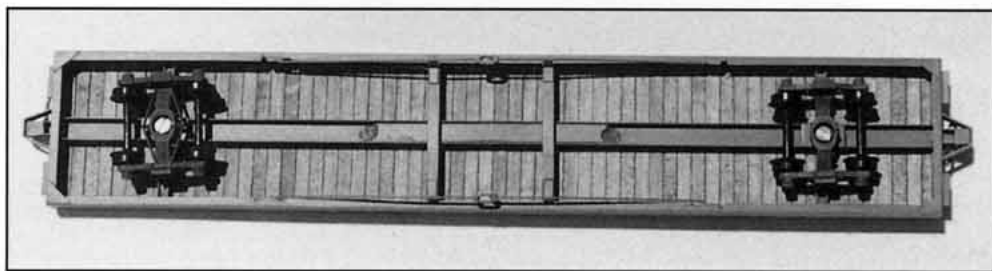
Like many modellers I have dabbled in several scales, followed several prototypes, and built a swag full of models over many years. I have (finally?) settled into working in 7mm scale with a preference for the 2 foot gauge sugar cane tramway systems of Queensland. Most devotees of 7mm scale simply use standard HO track which scales out to approximately two foot three inch gauge, a small enough compromise to represent two foot gauge. Mechanisms, detail parts, trucks and other items can be borrowed from O scale, 4mm scale and HO scale which adds to the convenience and economics of 7 mm scale.

In my opinion, the unique nature of Queensland's cane trains have an endearing charm and appeal that sets them apart from the 'big stuff', as well as being different from, (dare I say it) 'run-of-the-mill' narrow gauge.



**ABOVE** This end view of the prototype 33' flatcar shows details of the link and pin coupler and buffer beam on which it is mounted. The angle plates either side of the coupler are used for placing a sleeper on to allow a road vehicle to be loaded. Note the gravel and planks on the deck and the almost buried rails.

**RIGHT** The author's completed 33' car from beneath showing beam and truck placement.



In this article I will explain the construction of two (similar) Moreton Sugar Mills flat cars.

### NAMBOUR SUGAR MILLS 33' STEEL FLATCAR

I chose to build my models from brass shapes and strips and *Northeastern* scale lumber for the decking. If you are not comfortable using brass then styrene and *Plastruct* shapes offer good alternatives.

I began by cutting a length of 7/32 inch square brass tube from end to end. This created the basis for the two side sills with enough material leftover for the end channels. These pieces were trimmed to final size and cleaned up with a flat file. All the ends were mitred at 45° and soldered together to form the rectangular frame. Note that the channel sides face in. The centre sill and cross beams were added next which added to the rigidity of the basic frame. A narrow length of lead strip was soldered into the centre sill which adds enough weight for the car to track properly. This also keeps the centre of gravity down low.

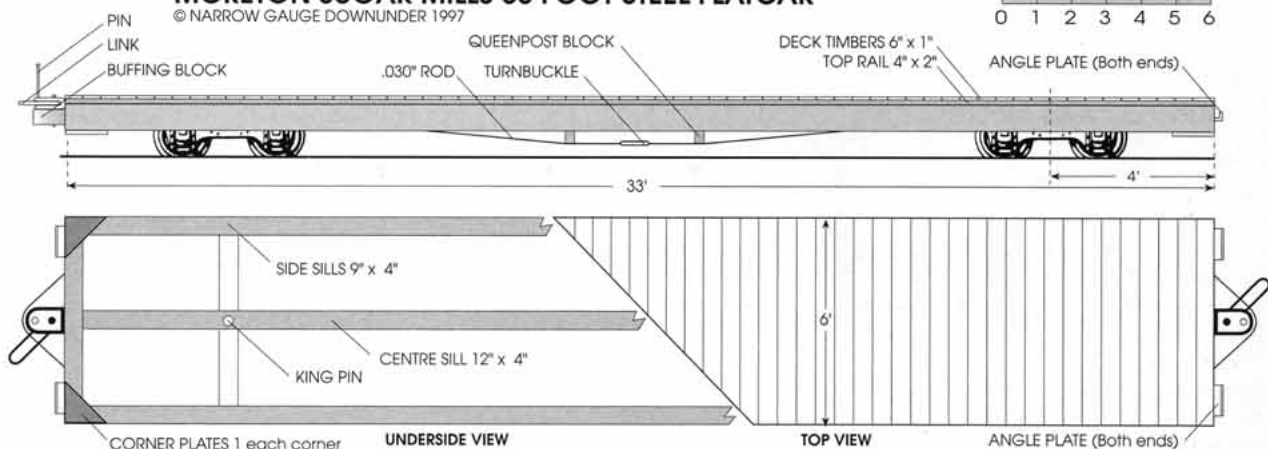
Next I fabricated the link and pin style couplers using brass shapes and strip following prototype photos as a reference. The queenposts are short brass strips that are bent to shape. Truss rods were fabricated from .030" brass rod with *Precision Scale Models* 'O' scale turnbuckles soldered in place on their flat side for better ground clearance as this car sits very low and close to the rails.

Two truck bolster pads drilled and tapped for 8BA bolts were soldered to the centre sill a scale 48" in from each end of the car. I then added the four angle brackets across each corner of the frame as per prototype.

I sprayed my flatcar (before adding the timber deck) with *Floquil* Zinc Chromate Primer with a dash of White to approximate the faded appearance of the prototype. I stained the decking material with *Dylon* fabric dye and left it to air dry before adding it to the car with ACC. I fixed the *Kadee* HO scale archbar trucks to the bolster and fitted them with 28" wheels. (14" in 7mm scale). *Model Die Casting* 'Fox' style trucks would also be appropriate for this car. I gave everything a light spray of *Floquil* Dust to blend it all together and set it aside to dry before entering service.

### MORETON SUGAR MILLS 33 FOOT STEEL FLATCAR

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FULL SIZE FOR S SCALE. 1:64

## NAMBOUR SUGAR MILLS 24' WOOD FLATCAR

The second flatcar is very similar to the 33' car except that it is much shorter and features timber construction, except for the unusual end beams made from steel channel.

I began by cutting the timber sides and ends from 6 x 3 mm (model aircraft) pine. I lightly distressed the outside face using a fine pointed file to represent the effects of the sun on the prototype car. Next I cut the two centre sills from 4 x 2 mm pine and distressed them as above. I stained all timber parts with *Dylon* fabric dye and then spread them out to air dry. Once completely dry, the side, end and centre sills were glued together to form the underframe rectangle. Again, I added a thin strip of lead between the centre sills for extra weight.

The unusual steel end beams were made from K&S 1/4" square brass tube cut down the centre to create a 'C' channel. The couplers and corner plates were made from brass strip and soldered onto the channel. These strips come 1' 3" along the outside beams and are bolted to the beam with four bolts which I represented with *Grandt Line* brass NBW castings.

I made the side tie-down eyelets from .015" brass wire. These fixed the eyebolts to the side beams. The eyebolt rings came from a craft shop. Four assemblies are required each side.

Next I pre-painted the end channels and eyebolt assemblies with flat white and added them to the timber frame. I distressed and stained the deck timbers and fixed them to the frame with white glue.

I used *MDC* Fox trucks with *Kadee* 28" (HO scale) wheels. The prototype has no markings so I finished up by spraying the entire model with flat sealer to dull it off and protect the finish.

I enjoyed building these models as they were both straightforward in construction and they capture the ground-hugging appearance of the prototype cars. My appreciation goes to Steve Malone and George Hadley for their assistance in researching these cars.

The purist 7mm modeller should consider using Sn3 flextrack and turnouts as 14mm equals exactly 2 foot gauge in 7mm scale. Until our next sugar cane project, watch out for tramway crossings!



**ABOVE** This view of the prototype 33' steel framed flatcar at work in June 1996, shows how workmen place timber sleepers onto the end angle plates to provide a ramp for loading a vehicle. In this case, a small tractor.

**LEFT** This close-up photo shows the unique end beam detail of the 24' flatcar and the link-and-pin coupler as coupled to another car. Note how the steel end beam wraps around, and is bolted through the side beams.

**BELOW** The completed 24 foot car as it appeared after painting. The end beams and the (eyebolt) tie-downs are painted flat white while the rest of the car features stained timber. The nut, bolt and washer castings are painted a rust colour. The hand made link-and-pin couplers actually work, just like the prototype. The author reports that both flatcars track beautifully due to them riding so low on their trucks.

