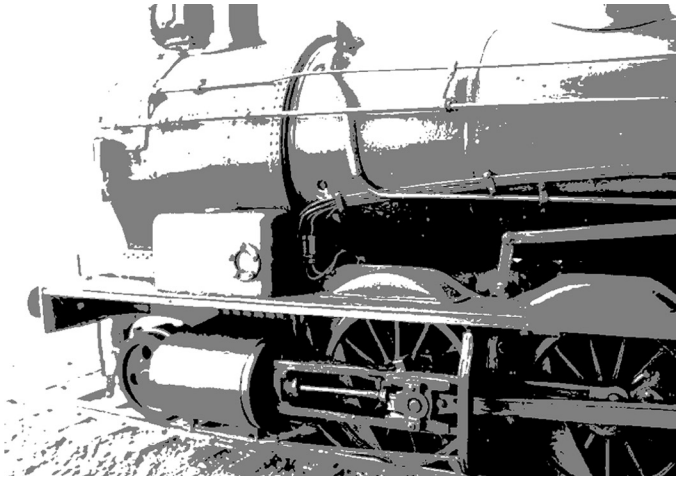
7th Heaven



Aus7 Modellers Group Inc.

$4.00

In this Issue :

No 11
Spring 2006

Aus7 Modellers Group News

There are some interesting items of news to pass on to members regarding events and the achievements of some members. Perhaps the biggest news comes out of the Sydney AMRA exhibition at Hurstville with Stringybark Creek taking out two awards for Best Layout and the Norm Read trophy for the second year in a row. In addition to this Trevor Hodges took out first place in the open modelling competition for Scratchbuilt Rollingstock for his 7mm scale ICV van. So well done to all those members! It might also be appropriate to congratulate and thank the organizers of the AMRA exhibition: they have been very supportive of the Aus7 Modellers Group over the last couple of years and have helped us showcase O-scale modelling to the public and to a sometimes skeptical modelling community. So to Glenn Percival and his team and to Mick Wade for his efforts in past years, thanks for all the hard work.

Trevor Hodges award winning ICV

If you look at the bottom of this page you will notice an announcement for the next 7mm Modellers Forum. One thing you may also notice is that this is now officially being called the Aus7 Modellers Group BDO. We thought it was about time we gave Nick Sheridan, who has been organizing these excellent events pretty much on his own, a helping hand so we've had a friendly "take over". Virtually nothing will change with regard to the way the event is run except that you may notice Roger Porter, our new Treasurer, welcoming attendees and collecting the contribution at the door. Thanks for all the hard work Nick and let's hope your organisation continues on into the future. There's not much else we'd want to change about the BDO.

There are some very vague plans to run BDO's in Queensland and Victoria in the next couple of years. If you live in one of these states and think you could help out with organizing these proposed events let the Secretary Trevor Hodges or President Keiran Ryan know what help you may be willing to provide. It won't happen without local involvement.

Aus7 Modellers Group Inc.

Announcement of the Aus7 Modellers Group

NSW 7mm Modellers Forum (aka the 'BDO')

North Sydney League Club,
Kamaraigal Room,
12 Abbot St, Cammeray

Saturday 11th November 2006
open from 8.30am for a 9.30am start

Topics to include a Snafu competition and Early Days modelling

Contact Nick for details on:
(02) 9956 6552 or 0421 058 945

One Modellers View

Content

When the Aus7 Modellers Group was formed three years ago I don't seem to recall a lot of discussion taking place at the time concerning what the future would hold for the organisation. It was quite clear even then that the main "purpose" of the organisation would be to provide information to members through the pages of a newsletter, namely 7th Heaven however the exact shape and direction of the group wasn't planned, it simply developed quite naturally as time and resources allowed.

Recently the group has taken on the responsibility of becoming involved in the organization of the twice yearly 7mm Modellers Forum (Big Day Out). Some members may be surprised to read that the group has never had a formal role in the BDO. Many people , including the new editor of AMRM, just assume the BDO is organized by the Aus7 Modellers Group, but this is not the case. While Nick Sheridan, the person who actually *does* organize it, has occasionally used executive members as a sounding board for topics and dates, until this recent change the Aus7 Modellers Group has never had a formal organizational role in the BDO. Why make the change now? While it wasn't planned the time just seemed right for this to happen.

Looking back over the last ten issues, it seems that one of the things that has remained consistent about 7th Heaven is how regularly changes have been to its format. You may not have noticed yet but this issue has twenty pages, up from the usual sixteen. Before each issue is written, edited and assembled Kim and I discuss in broad terms what the direction of each issue will be and this is largely based on the material we have on hand. For a long time we've wanted to increase the size of the magazine but there have always been technical and content constraints on this happening. While Kim was printing the magazine at home, adding extra pages was a real problem, however with the move to commercial printing it's relatively easy to vary the number of pages, the size of the print run or the thickness of the paper.

While the switch to commercial printing has removed many of the technical limitations on the production of 7th Heaven, although this has costs associated with it, this does not change the other major constraint to a bigger, better magazine, the need for content to fill each issue. A recent drive to generate content for 7th Heaven has been so successful that, for the first time in its history, we have enough material on hand to fill a couple of issues. While this means our writers may have to wait a little longer to see their article in print, it affords Kim and I the luxury of being able to plan each issue.

This relative abundance of material has allowed us to experiment with the larger format this issue. We hope you like the change but we need to point out that feast can quickly turn into famine and for this reason we need members to keep those contributions rolling in.

Trevor Hodges.

7th HEAVEN

Editor: Kim Mihaly

Editorial Address

120 Folkestone St Stanthorpe Qld
Ph (07) 4681 1031
kim.mihaly@tpg.com.au

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Issue 9 + are $4.00 each

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$2.50 p&h for 3 or more copies.

Aus7 Modellers Group Inc.

President

Keiran Ryan
39 Coachwood Cres, Picton, NSW, 2571
(02) 4677 2462
krmodels@gmail.com

Secretary

Trevor Hodges
24 Chester St, Warren NSW, 2824
(02) 6847 3453
trevorhodges@dodo.com.au

Web Site

www.aus7modellersgroup.com

On the cover:
Keith Truemans GY will appear in a future issue .

Notes on the Century Models 50 class

Roger Porter

The Century Models 50 Class loco is an excellent kit, and the finished loco is certainly equal to any of the top name kits from the U.K. Being the author of the original instructions, it's appropriate that I pass on a few hints and tips that I found during construction. As modellers, we all have different techniques, the notes that follow are just what I found worked for me.

FRAMES & CYLINDERS

The frames are made from 1.6 mm brass, which is relatively heavy for model frame material, more than twice as thick as the frame material supplied with 7 mm DJH or Gladiator kits from the U.K.

The advantage of this material is that the frame is very rigid and will not deflect, and adds weight to the loco. The disadvantage is that it's difficult to attach details and fittings by soldering. A normal hobbyist soldering iron of around 40 to 60 watts just can't get enough heat into the job, the mass of brass acts as a large heat-sink. I used an 80, and a 100 watt iron, which was necessary to make a reasonably quick joint. Some modellers may prefer a miniature gas torch. A large iron may also be needed on the cylinders and back plates, which also contain a lot of brass.

HEADSTOCK BRACKETS

The headstock brackets, part # 30 should be mounted 2.0 mm lower than indicated, to clear the back end of the buffer spring retainer. This will require a new hole to be drilled in the frame 2.0 mm lower than the hole provided. Even then, it may be necessary to relieve the top flange of the bracket to give working clearance to the back of the buffer.

FRAME SPACER

The front frame spacer casting, part # 25, must be generously relieved to give access to the rear cylinder securing nut. I was not generous enough with the relieving, and still can't get a grip on the nut. The frame is so rigid in this area that a large part of the spacer can be cut away, it's critical that the cylinders are secured firmly, as working the loco can loosen the securing nuts.

BRAKE CYLINDER

The brake cylinder, part # 12 or 13 must be moved rearwards slightly to clear the rear driving wheel flange. Elongation of the mounting hole will give enough clearance, test fit on assembly. You may also need to relieve the brake cylinder mounting flange to clear the adjacent footplate bracket, part # 28. Also, the flange on the brake cylinder body may need to be "nicked" to ensure clearance to the rear driver flange.

BRAKE SHOE HANGERS

Contrary to the instructions, the brake shoe hangers, part # 56 and 57, should have the end with the hole uppermost, and the end with the cast-on pin towards the bottom. The brake shoes acting on the first and third drivers should be attached to a piece of 1.0 mm brass wire passing through the frames in the holes provided.

The hole in the frames for the wire supporting the brake shoe acting on the first driver should be re-drilled 2.5 mm lower, and 1.5 mm to the rear of its current position.

To achieve better fixing, the boss at the top of the hangers should be soldered hard against the frame, located by the brass wire. Then, the hanger must have a slight crank bent into it so that the brake shoe still lines up with the wheel tread.

It's important that the brake shoes are very rigidly attached, because clearances are very fine and short-circuits can occur onto the wheels if they bend even slightly. Some relieving of the top end of the hangers acting on the third and fourth drivers will be necessary to coax them into the correct clear position.

CYLINDER DRAIN OPERATING RODS

The small brass strips forming the operating rods that connect the cylinder drains (part # 16) to the motion bracket (part # 5 or 8) hang low, are very fragile, and are prone to damage or detachment due to handling or minor derailment. This is particularly so with the Laird crosshead version, in which case it can short-circuit to the leading driver. These strips should be reinforced by soldering a piece of 0.8 mm brass wire to the back of the strip, and making sure that both ends are securely soldered to the motion bracket and cylinder drains.

MOTOR / GEARBOX

I elected to use the Slaters 30:1 ball bearing gearbox with Mashima motor supplied by PME. Rather than stand vertically, this motor points forward into the boiler. Accordingly, a very large hole must be cut through from the front of the firebox into the boiler. Make the hole as large as possible to give manoeuvring room for motor, wires and things.

Also, I cut a very large hole in the spectacle plate to give more internal room for firebox light and wiring.

PONY TRUCK

With a full size loco, the pony truck is equalised back to the springing and supports a proportion of the loco weight. On a model, it's on a simple pivot and lightly dances around looking for somewhere to derail. I tightly packed the inside of the pony truck casting, part # 26, with strips of lead so that it rides more firmly.

MOTION BRACKET

The motion bracket for the Laird crosshead, part # 8, must be relieved to give clearance to the front driving wheel flange. Forming a partial slot with a cut-off disc in a motor tool worked well, test fit on assembly. The motion bracket for the alligator crosshead, part # 5 may require similar treatment, I haven't done one yet.

WEIGHT

I didn't use the steel bar weight provided, as I wanted to keep the boiler clear for the decoder and sound / lighting. But there are a few nooks and crannies where small pieces of lead can be added, which I did. A large slug can be mounted inside the roof of the firebox, a smaller piece between the frames at the very front. I haven't weighed the loco, but I've used the scientific method of it "feels about right ". The exhibition running will show if it's weighted adequately.

TENDER PICKUP

I'm a great advocate of supplementary pickup from the tender, particularly on a rigid-framed loco. This is surprisingly easily achieved by having shim bronze, or brass strips contacting the tops of the tender wheel flanges, screwed to the top of the bogie frame through a styrene insulating pad, and connected to the loco with a sub-miniature plug / socket, Jaycar part # PI-6470. The outboard sections of the bogie bolsters cast onto the tender underframe will need to be substantially notched to clear the pickup strips. Also, a small weight should be added to the inside of the tender.

PLUNGER PICKUPS

The plunger pickup points should have their ends very slightly rounded and smoothed, and the backs of the driving wheels must be de-burred, smoothed and polished. The raw point on a pickup catching on a wheel burr can catch and give a hesitation to otherwise smooth running.

LOCO / TENDER DRAWBAR

I like tenders to be close coupled to their engine, but for them also to be able to negotiate curves and point work. These conflicting ideals are easier to meet if the drawbar is very long. The front attachment point of the drawbar is about in the centre of the cast polyurethane angle block under the cab floor as described, and the rear attachment point of the drawbar is 12 mm in front of the pivot point of the front tender bogie, the hole centres in the drawbar being 54 mm apart.

DRESS UP ITEMS

Some final detailing, or dress-up items can make a great difference, and turn a plain model into one with real personality, such as;

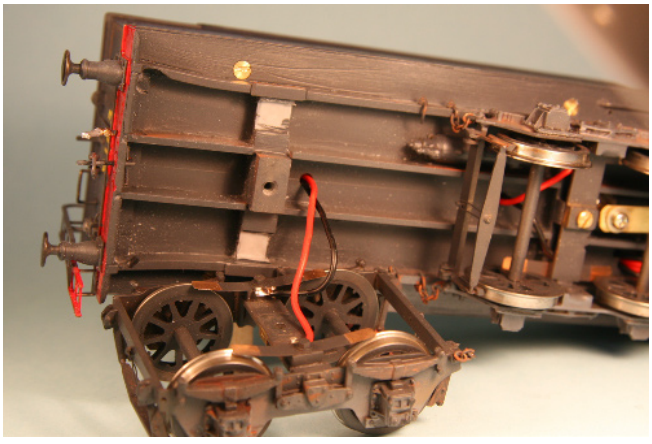
- Loco crew, from Kerroby
- Re-railing jack, from Railcar
- Brass cabside numbers, from PME
- Cab blinds and rear curtain, from teabags
- Coal load, from Chuck's

SOUND / LIGHTING INSTALLATION

Additional notes are coming detailing the installation of sound and lighting. In the meantime, if you intend to add sound or lighting, you should make the following modifications during construction of the loco.

If you don't intend to add sound or lighting, do the mods anyway, because, like me, when you've seen a good sound / lighting installation, you'll want it. Some of these things can't be done later on.

- Drill out front and rear marker lights 2.5 mm, and provide 1.0 mm holes for wires into smokebox, and tender interior.
- Drill hole for wires into bottom rear of headlight shell, with corresponding hole into smokebox. These should be about 3.0 mm holes to accommodate two tails from a LED.
- Make sure that smokebox door is removable. It's secured at bottom with lug, part # 106, and secure it at the top with pin drilled through smokebox next to the headlight and diametrically opposite the lug into the rear of the smokebox door casting.
- For ventilation, and sound escape, form three slots in the bottom of the boiler, 20 mm x 7 mm, one above each air tank, and the third on the rear boiler course just in front of the firebox.
- File or grind out the interior of the smokebox for its full length to 29 mm diameter so that the fabulous 28 mm speaker from MRC can be installed.
- To fit the firebox light, make sure that the firehole opening is cleaned out to its full diameter

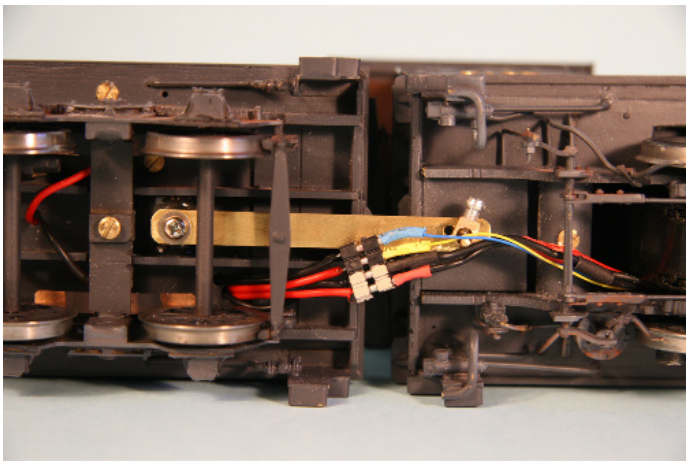


UNDERSIDE OF TENDER WITH BOGIE DETACHED.
Shows the tender pickups, the relieved areas (in light grey) in the tender bolster to clear the pickups, the wiring going inside the tender shell to re-appear nearer to the front, and two of the four c'sunk screws in the edge of the tender footplate which screw into styrene blocks inside the tender shell.

- Make sure that the tender body is detachable from the chassis. Fit blocks of styrene at four places inside the sides of the tender shell, to be picked up by No. 8 BA Countersunk screws from the outside edge of the underframe. The ladder is loosely pinned at the bottom, attached at the top.

SMOKEBOX / HEADLIGHT CLOSE-UP.
Shows the 0.8 mm brass wire pin beside the front of the headlight that engages in a hole in the smokebox door casting to retain it, and to allow the door to be removed. The "blob" on top of the pin is something from the junk box to give a grip to tweezers.

CAB INTERIOR.
Shows multi-pin connector next to drawbar pin, and some dress-up accessories



UNDERSIDE OF CAB AND TENDER
The long drawbar, and the Jaycar miniature multi-pin connector -with a dab of grey paint to ensure correct polarity when connecting, and an underside view of the tender pickups.

A Very Big Weekend - Hurstville 2006

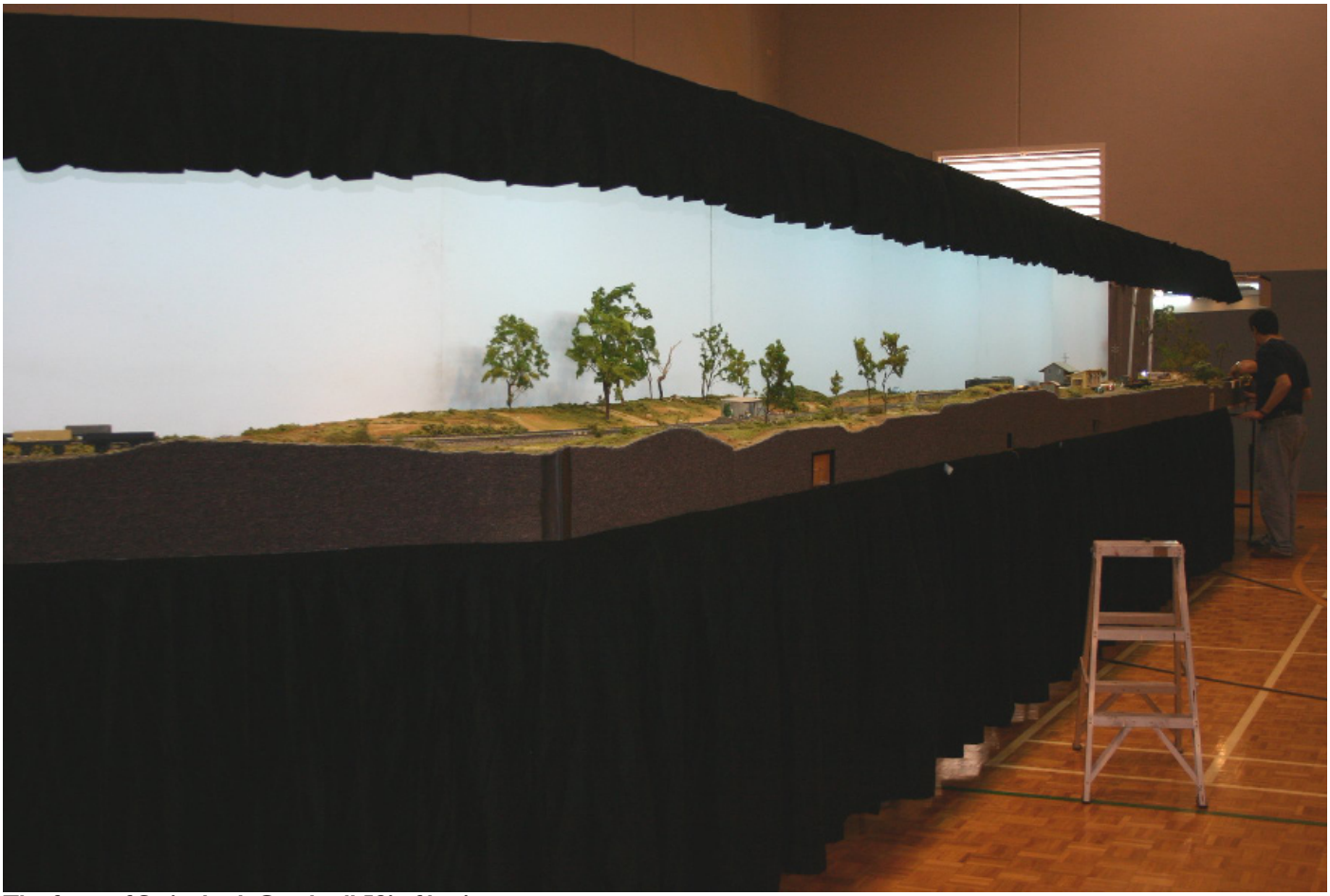
Trevor Hodges

The AMRA's Sydney Model Railway Exhibition was held at the Hurstville Acquatic Centre over the October long weekend, September 30th to October 2nd. This is the second year that the AMRA has used this venue and, while there was some trepidation in the lead up to last year's exhibition concerning access and the capacity of the centre, exhibitors and the general public seem to have settled quite comfortably into this new "home".

From left, "Woz" Clowry, Paul Chisholm, Roger Porter and Chris Harris set up on Friday.

The Aus7 Modellers Group had a stand at the Hurstville exhibition and this was manned by a number of members including Chris Harris, Ron Sebbens, Martin Hartley, Tim Ryan and yours truly. Over the weekend we managed to sell a large quantity of caps, shirts, track gauges and almost the entire stock of 7th Heaven back issues. Both Marty and Tim used the opportunity to demonstrate modelling to the general public. It's satisfying to contemplate the fact that there will finally be an assembled 7mm model in our President's home, even if it belongs to his son! Thanks to all those members who helped out on the stand.

It would be impossible to write a report on the Sydney Hurstville exhibition from an O-scale perspective without mentioning the behemoth in the corner, Stringybark Creek. The layout was beautifully presented, had smooth, prototypical running and bags of impact. It's probably worth mentioning that SBC is *not* an Aus7 Modellers Group layout, it's privately owned by the people who built it. However every one of the members



The front of Stringbark Creek, all 52' of her!

of the SBC crew is an Aus7 member. One point I am sure of is that having Stringybark Creek next to the Aus7 Modellers Group stand is a great way of helping sales of 7th Heaven!

It goes without saying that setting up a layout the size of SBC is a big undertaking and most members of the crew were at the aquatic centre bright and early on Friday morning. I didn't check what time we finished up on Friday evening but Dave Morris and I sat down for something to eat at about 8.30pm, so we managed to set up a little quicker than last year, although exhibitors were allowed into the venue two hours earlier than in 2005.

Trains ran continuously on SBC over the three days of the exhibition and at times the crowds of onlookers were so heavy it was impossible to get a spot to watch the trains. The reaction of the crowds was universally positive and the AMRA judging panel seems to have agreed, with Stringybark Creek taking out the Norm Read trophy for best O-scale display and the "Best Layout" in show trophy.

While the whole SBC crew are to be congratulated on the quality of the layout, one person who deserves special mention is Dave Morris.

Woz and Grizz hold the awards won by SBC

It is no exaggeration to say that without Dave's vision and drive Stringbark Creek would still just be a good idea. Congratulations Dave, these awards are an acknowledgment of your leadership and hard work.

While the exhibition managers told me that the numbers of attendees this year was approximately the same as 2005, all the traders I know told me that Saturday was "mad". I went over to talk to Warren Herbert of Gwydir Valley Models at one point and ended up helping out on the stand for half an hour. The old mental arithmetic got a bit of a workout I can tell you! In spite of the doubts expressed in 2005 about the suitability of the venue, this year's Hurstville exhibition was an enormous success. The organizers are to be congratulated.

Dave Morris, John O'Neill and Roger Porter get into some operation

Ring of Pearls - Part 2

Keiran Ryan

When I left you last time, our hero was hiding under the floor of a disused ammunitions storage shed, and on a gorgeous, white sandy bench, our heroine was glowing in the Jamaican sunshine, without a worry in the world… oops! Hang on, that's not what was happening, that's the wrong story, so let's get back on track. In part two of the *Ring of Pearls*, we will be looking at the wedge shaped transition modules, which produce the "amphitheatre" effect and allow for a change of direction getting us away from too many straight lines, the joints between modules, the curved base sections which lead from the end modules to the rear fiddle yard and the Narellan track plan. In addition I've included some discussion of ideas and modifications that have taken place since Part 1 in issue 7 of 7th Heaven.

The Transition Modules

Because I wanted the "Ring of Pearls" to present the modules in an amphitheatre arrangement there was a need to change the angle of the front modules by 15º. Photo 1 shows the dimensions of the *transition modules* that are used to achieve this effect. The modules are simple wedges made up from Qubelok aluminium section, secured by rivets and liquid nails and covered by 4.5mm ply with a foam sub-base set at the same height as the main modules. On top of the foam base a section of track is secured at a 2300 mm radius.

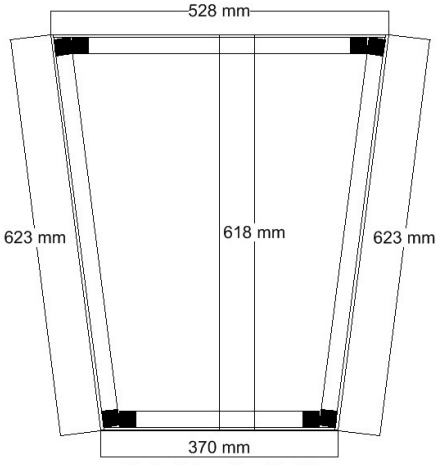


Photo 1 Transition Module

The centerline for the track has a starting point that is central to the main layout module and optimally central to the end modules. Only two of these modules are necessary for the continual running of trains allowed for in the *Ring of Pearls* concept. Any add-on modules need to conform to the track centre-line of the main modules to operate successfully. These modules will not be seen when the *Ring of Pearls* is in operating mode, as they will be totally covered by black curtains to give the amphitheatre effect. There will be no scenery applied to these modules - apart from possibly blackening the white foam to ensure that no white is showing. These modules will utilise the existing trestles from the ends of the adjoining modules.

The *transition modules* are simply bolted to the other modules with 5/16"bolts utilising wing nuts and washers and adjusted where necessary. Whilst there are possibly better ways to join the modules, I prefer to keep the joining method simple and adjust it into its operating position. Individuals can use whatever rail joining method they like between the modules as long as the joints are stable and secure. The joints can be hidden with scenery materials and/or ballast. I used a template (Photo 2) of 4.5mm ply to drill holes in the modules and then, locating the transition module centrally to the main modules, clamped and drilled the holes for the bolts in the *transition modules*.

Curved Base Sectors

The section of track from the end front scenic modules to the fiddle yard at the rear of the layout needs to be kept simple and made in such a way that it is easily set up and transported. The curves are made up of minimum cross section, *curved sectors* which form a single line of track on an 1800mm radius curve. The base is built from 2 pieces of 6mm ply laminated into a 12mm thick road base. Below this road base is screwed a simple Qubelok section, 100mm wide by the same depth as the module bases (114mm). Photo 3 shows a sectional drawing of this support through one of the intermediate Qubelok supports. These are secured to the ends and midpoints of each curved section.

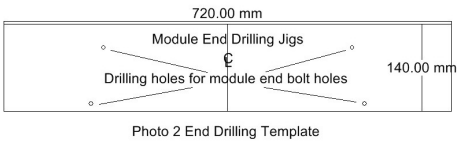


Photo 2 End Drilling Template

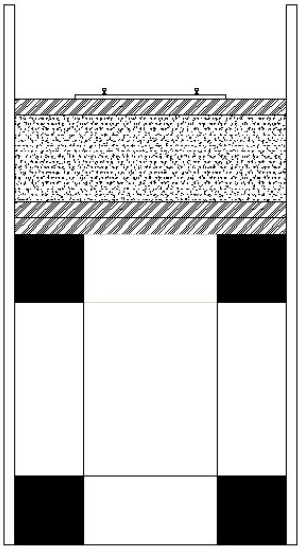


Photo 3 Curved Cross Section

The ply sidewalls running along each side of the track alignment protects rolling stock from falling off the layout. These are formed by a 160mm wide piece of ply, screwed to the QueBlock supports in 2 places on each side, with contact or construction adhesive run between the ply and the sub-road base. The sections are then built up to the same height as the module road with styrene foam and track laid, using just the right amount of PCB Sleepers – the track should be practicable but does not necessarily need to be pretty. These sections join in a similar manner to the rest of the

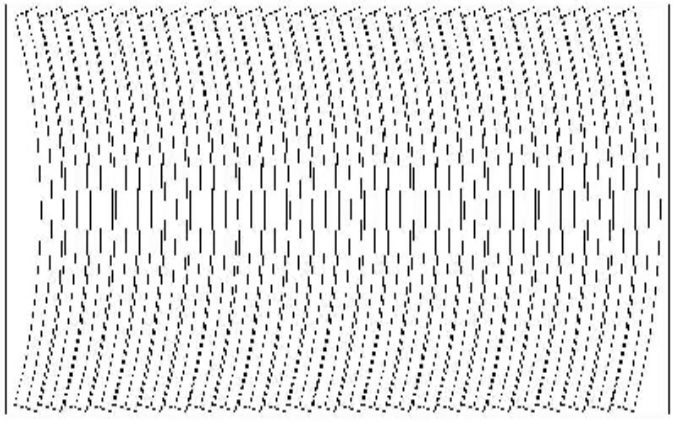


Photo 4 2400mm x 1200mm sheet of ply

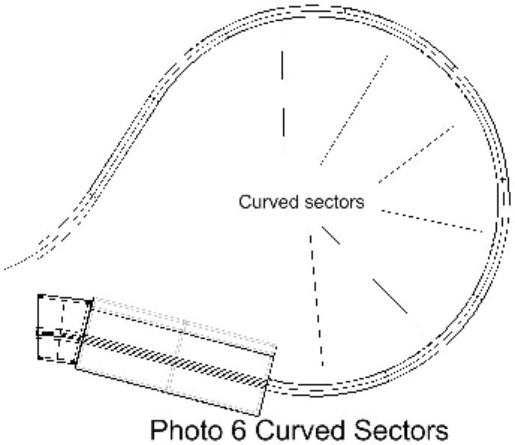


Photo 6 Curved Sectors

layout. Make sure when the modules and curved sections go together, that the radius is maintained and there is no stress on any of the joints.

Photo 4 shows the cutting template of the road base. If you just cut the major radius out of the sheet, there would be a massive waste of material. This photo shows a method to get the most material out of a 1200mm x 2400mm sheet of 6mm ply. The method shown is labor intensive, as each piece needs to be cut then routed to shape to keep the curve consistent. Take the time to cut out one really accurate template and use this as a guide for cutting the others, and then clean up with a router-trimming tool. The sections

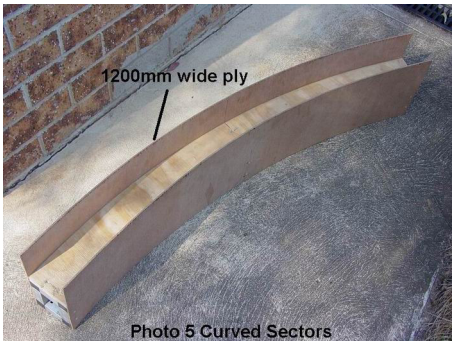


Photo 5 Curved Sectors

are bolted together and supported on trestles at the joints, or with adjustable legs attached to each module.

A section of the curved track formation can be seen in photo 5. The size of these sectors is governed by the ply sheet on the outside curve (indicated in the photo). This is 1200mm, the width of the ply sheet, with the base and the inner sheet adjusted to fit, this is also done to maximize the number of segments that can be cut from the sheet of ply. These curved sections, when complete, are joined and placed on narrow trestle legs. Photo 6 shows the *curved sectors* on the right hand end.

The Fiddle Yard

The fiddle yard consists of six lines: three up and three down. This results in two up storage lines and two down storage lines with two through lines. The fiddle yard will be attached to the rear of the layout, and supported by trestles. The final configuration of the fiddle yard has not yet been finally settled, but photo7 gives an indication of the direction of my thinking at the time of writing. Even at this stage it is crucial to keep in mine that the fiddle yard needs sufficient capacity

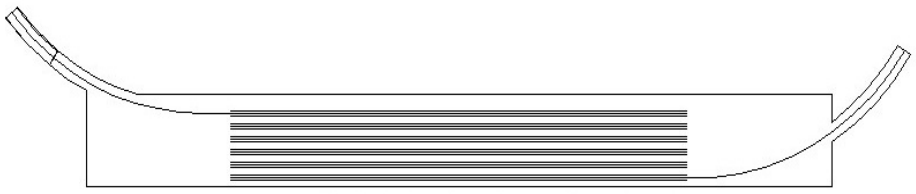


Photo 7 Fiddle Yard --- Not Final

to store enough trains to provide and interesting variety of traffic. The sections I am building are based on the Camden branch and as such short trains are the order of the day. However when the layout is running in *Ring of Pearls* mode, there will need to be the capacity to run other trains when other modeller have connected their modules to mine.

The Track Plan

The track plan (Photo 8) is a compromise plan based on the actual track plan of Narellan. This will represent the later years of the line - late 50 early 60's - when the coal loader was in existence allowing for a greater variety of traffic and a more operation. The coal loader will be built as a half relief structure as the prototype is far too large to model full sized. Photo 10 shows the full view of the coal loader

The prototype information I have on the coal loaded is very limited and I will be looking for more information in the next 12 month. I have photographs of the station building from most angles and shouldn't be that difficult to build, although it has a few quirky, individual traits that set it apart from other "standard" designs.

One of the signature features of Narellan is the use of a rotating arm signals at the rail - road crossing of the Hume Highway. This type of signal is very rare on the NSWGR and is well known to anyone with even a passing knowledge of the line and is a

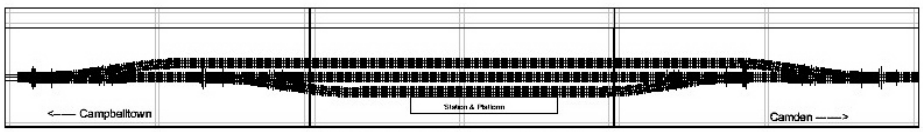
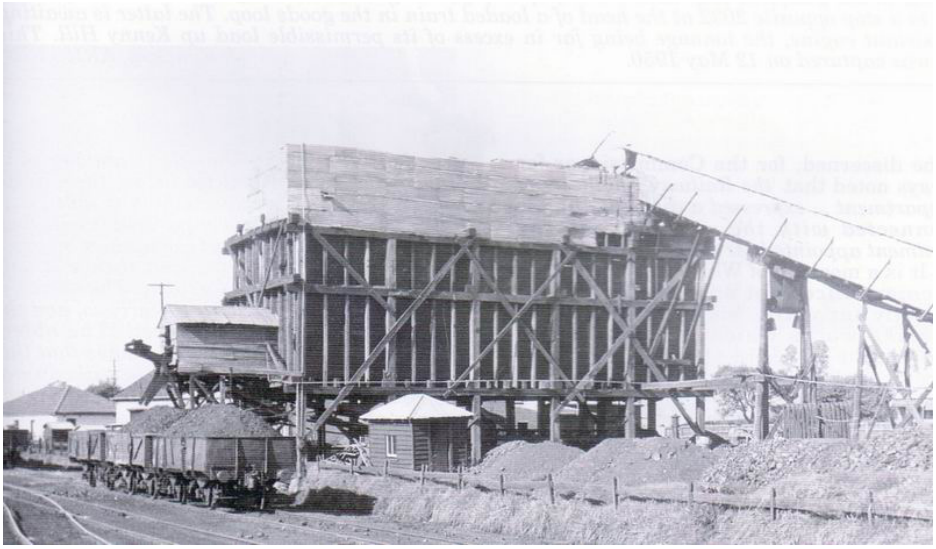


Photo 8 Narellan Layout



feature I felt just had to be included. The inclusion of an operating, rotating arm signal will really set this layout apart from what can be achieved in the smaller scales.

Modifications to part one of Ring of Pearls

As with most things that we do, methods and techniques evolve as we strive for improvement. I recently gave a talk on the *Ring of Pearls* concept at the Modelling the Railways of NSW Convention at Petersham in Sydney. During the talk, it was brought to my attention that a company by the name of Durafix (based in NZ) has a product that allows aluminum welding using a similar method to soldering, using a butane torch. They can be found on the Internet at http://www.durafix.net.au/.

I purchased a pack of 22 rods and a stainless steel brush in a kit for $60.00, and found the product to work very well. With this product, I can now make changes to the trestle legs at any time as I can weld the top joints myself. I can also flat pack them so that storage is no longer an issue. I can also weld cross bracing to full lengths of Qubelok and minimize the use of the plastic joiners, which actually weaken the strength of the modules. As I progress along this line, I will keep members of the Aus7 Modellers Group informed.

Conclusion

This project is a learning process. I have learnt that no matter what we design, develop or build, there is always a better way of doing it. Improvements are always a matter of using better materials and ideas. Don't ever be afraid to change your ideas if you think that the outcome will be better. Photo 11 shows the overall *Ring of Pearls* concept, measuring 3.9m x 14.4m. This is still a large layout by conventional standards; however it does have the ability to enable others to be involved by building their own modules.

I am in the early stage of another idea, which will bring 7mm modelling to the public's attention in a smaller footprint of about 5.5m square. When the idea is explored I hope to have something to submit to 7th Heaven.

Photo 12 Main Module

Finally I have included a few more photos and drawings that have been done in the development process of Ring of Pearls. Photo 12 shows the partially completed main module sitting on its aluminum trestles while photo 13 is a drawing of the proposed

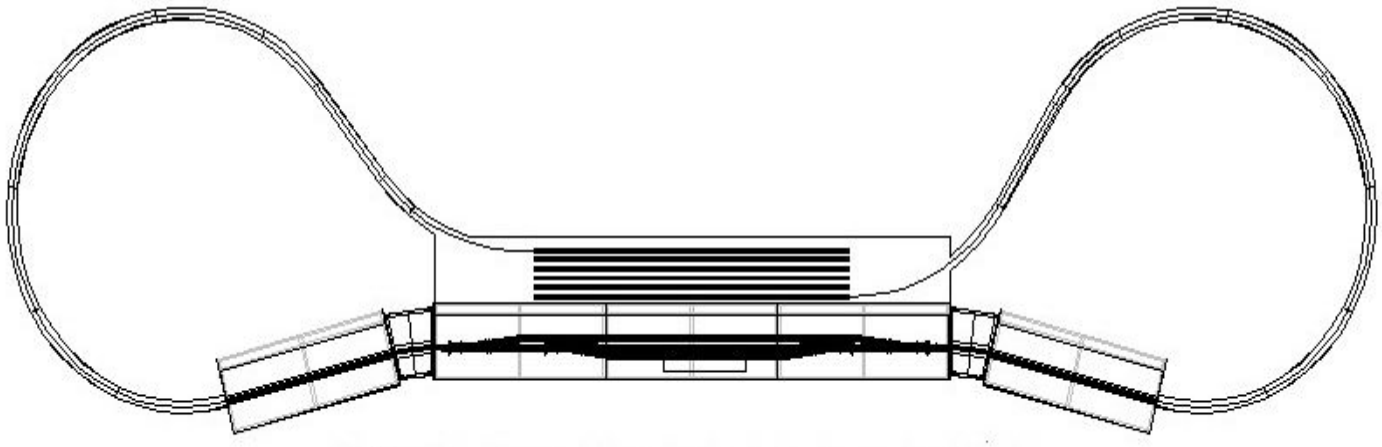


Photo 11 Ring of Pearls Final Look ------ For NOW

Cowpasture Bridge Module.
This module is a massive compromise: firstly, the bridge sections have to be etched so the section needed shortening, so one rivet was removed from each panel, then one panel was removed from each girder, and finally one girder was removed so that the bridge actually fits into the module. The reason for the removal of the rivet and the panel was that this made the girder sides suitable for etching and fitted the etched sheet. The actual framework for the Cowpasture Bridge Module is seen in photo 14. The bridge will be depicted at high tide so that the depth of the module is minimised.

Photo 15 shows the *transition module* bolted to one of the main modules. The actual module that is bolted to the transition module will have a blank ply end panel with a tunnel mouth for the trains to travel through. This one is simply put together to show the fitting of the *transition module*. I hope you enjoyed the Ring of Pearls articles.

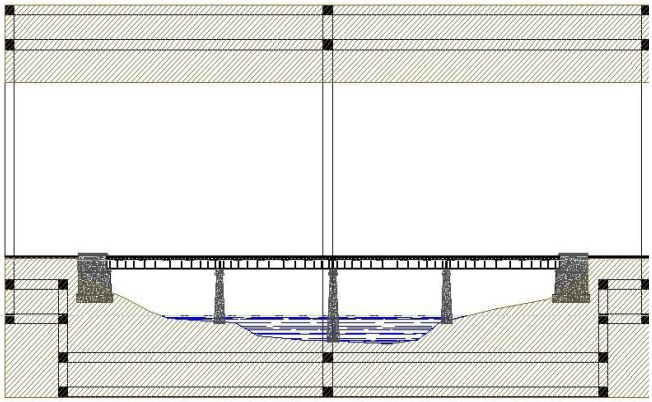


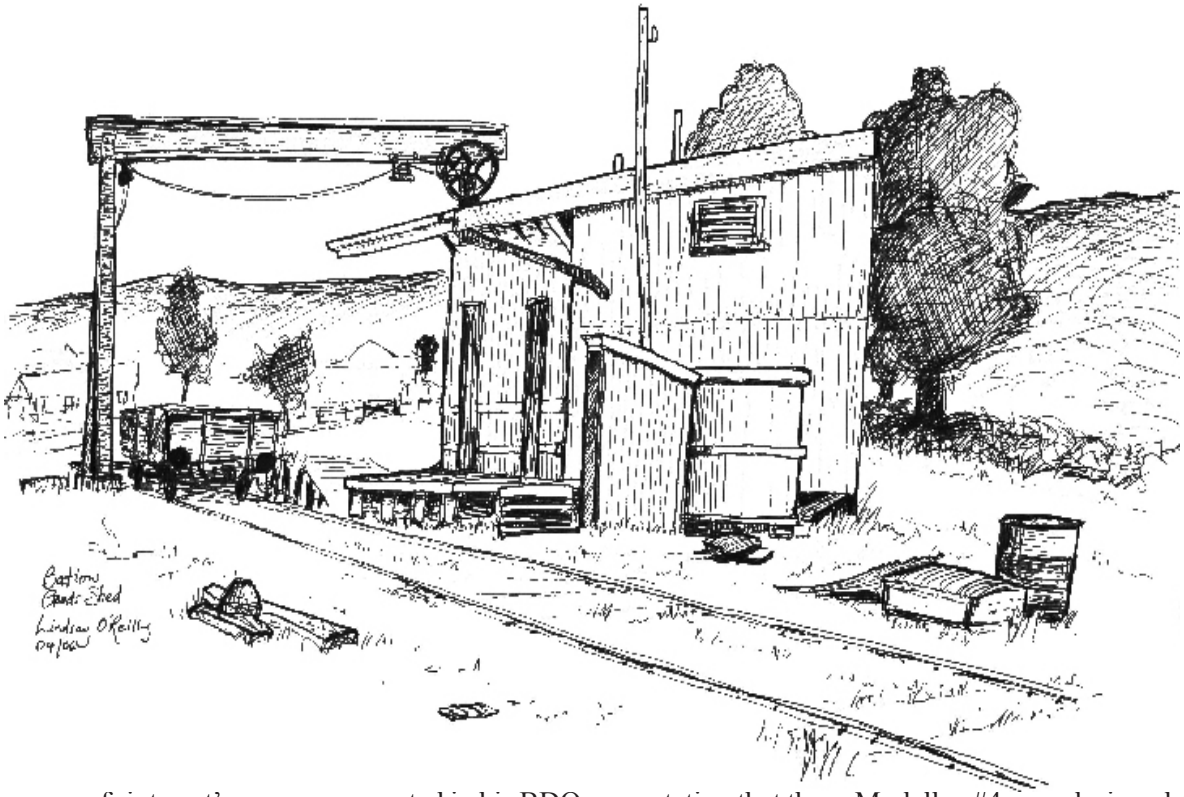
Photo 13 Proposed Cowpasture Bridge Module

Photo 14 Cowpasture Bridge Module

Photo 15 Transition Module

Comments on Rodney Barrington's Tumut - Batlow Track Plan

John Lee - Sketch Lindsay O'Reilly - Trackplan - Rodney Barrington



As a 'person of interest', or more correctly, having an interest in an 'O' scale version of Rodney Barrington's Tumut/Batlow plan which he presented at the March 25th 2006 NSW 7mm Modellers Forum, Trevor Hodges asked me to comment on how Rodney used the space and the layout design principles he seems to have applied.

Before we get to the nitty gritty let me assert that because of space (and physics) considerations, all model railway plans will be compromises. For example, a prototype branch-line curve of 5 chain (330ft) radius reduced to 7mm scale still has a radius of 2310mm. Given such constraints the overriding consideration becomes 'if the author set out to replicate such and such how well did he do?"

A quick appraisal arrived at by comparing the prototype track layout with the plans Rodney provided to the BDO, and published in 7th Heaven, indicates that he produced a satisfactory compromise, given various constraints which will be discussed later. Rodney noted in his BDO presentation that the shorter 'O' scale version of the plan (6.00mX7.25m) required changing the junction layout at Gilmore but again, this compromise does not adversely affect operation in my opinion.

Layout Size

I submit that the factors governing whether a layout will fit into a given space are:-

- Minimum radius of curves
- Turn-back or 'blob' curves
- Size of your town trackage and space between towns.
- Aisle width
- Staging or storage tracks

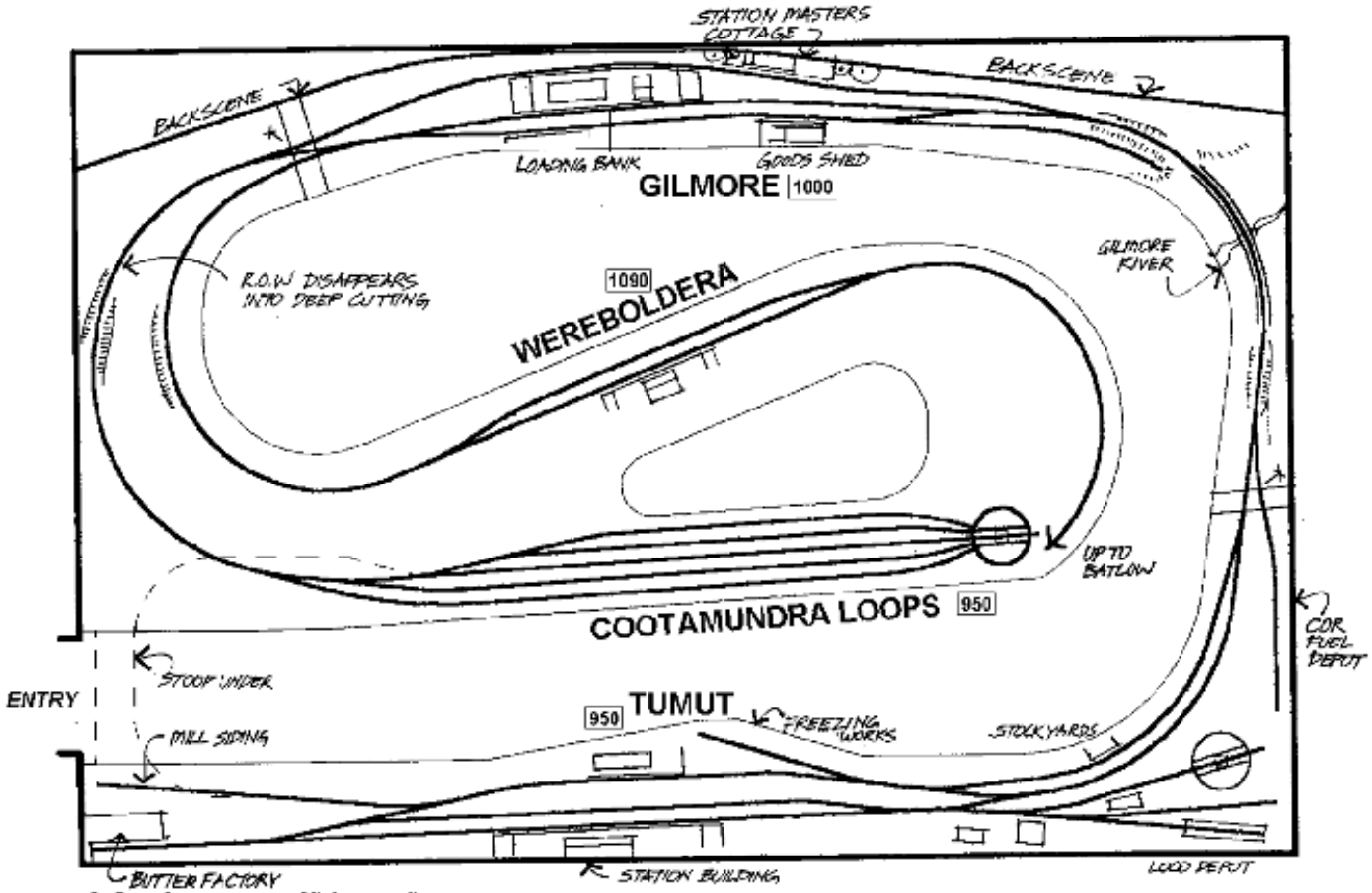
Minimum radius

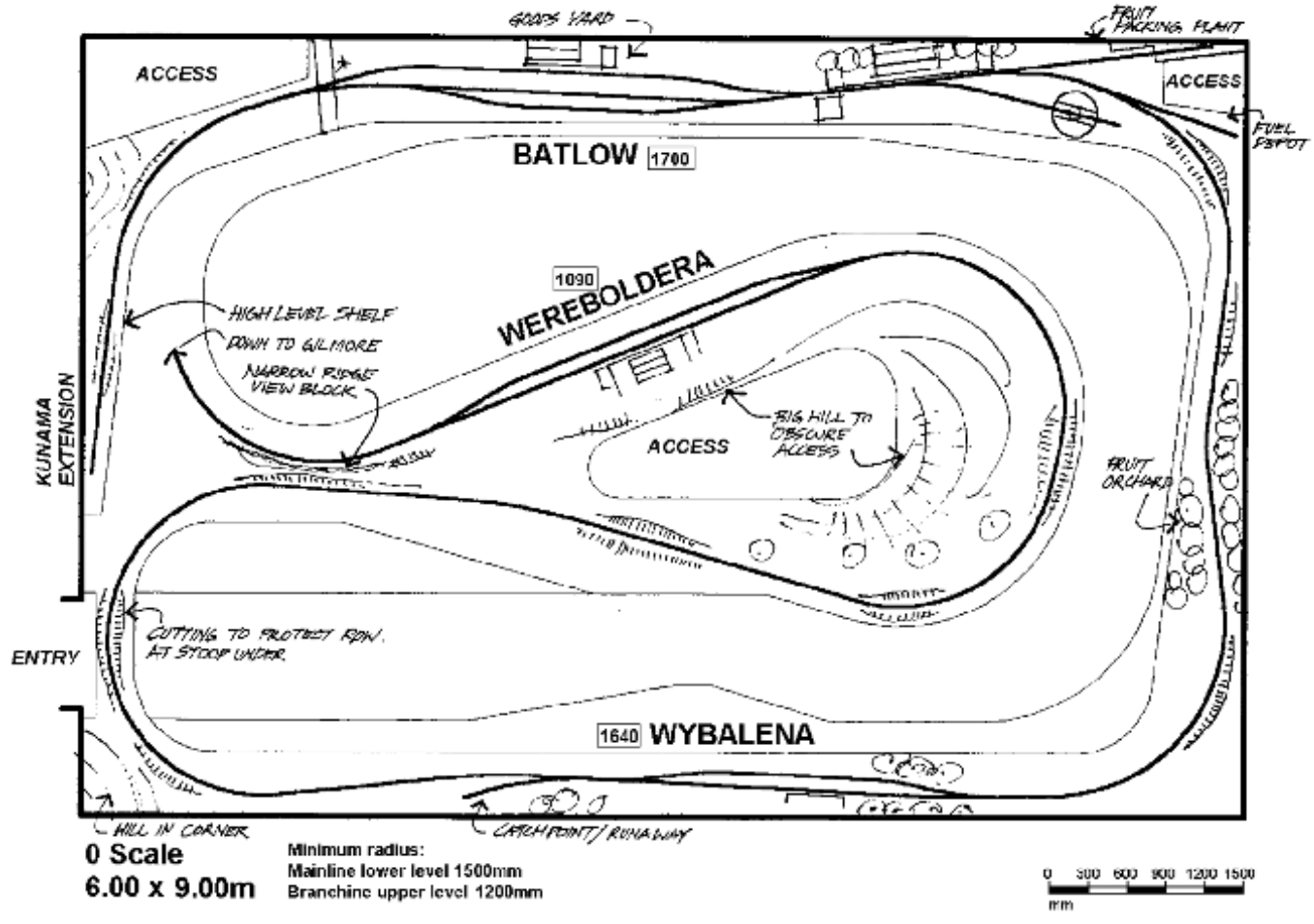
As Trevor notes in his introduction to the article published in Issue #9 of 7th Heaven, Rodney originally attempted to design the 'O' scale layout in a space of 6m x 6m i.e. a standard double car garage, but found this beyond him and opted for spaces of 9m X 6m and 9m X 7.25m

The original H.O. plan in Branchline Modeller #4 was designed to occupy a room 5.06m X 3.78m and had curves, (in that H.O. plan), ranging from 600mm to 1500mm. A simple doubling of the *Branchline Modeller* plan would result in an 'O' scale plan requiring approximately 10m x 7.6m. If the aisles were kept at the H.O. design criteria of 700mm and 600mm respectively, the space could reduce to 9.3m x 6.4m (10m – 700mm X 7.6m – 1200mm).

Note however that a mere doubling of layout size would result in bench work/shelving width far in excess of the recommended maximum of 760mm (2'6"). For instance Tumut 'shelf' in a doubled H.O. version becomes over 1000mm wide!

Two of the plans presented to the NSW 7mm Modellers Forum were bigger than the one published in issue #9 of 7th Heaven. These are 9.00m X 6.00m, (upper level branch-line min radius 1200mm) and 9.00m X 7.2m (upper level branch-line radius 1350mm). In Rodney's design review published in issue #9 pf 7th Heaven he


STATION MASTERS COTTAGE
BACKSCENE
BACKSCENE
LOADING BANK
GOODS SHED
GILMORE 1000
GILMORE RIVER
R.O.W DISAPPEARS INTO DEEP CUTTING
1090
WEREBOLDERA
UP TO BATLOW
COOTAMUNDRA LOOPS 950
COR FUEL DEPOT
ENTRY
STOOP UNDER
950 TUMUT
FREEZING WORKS
STOCKYARDS
MILL SIDING
BUTTER FACTORY
STATION BUILDING
LOCO DEPOT
0 Scale
6.00 x 9.00m
Minimum radius:
Mainline lower level 1500mm
Branchline upper level 1200mm
0 300 600 900 1200 1500
mm


GOODS YARD
FRUIT PACKING PLANT
ACCESS
ACCESS
FUEL DEPOT
BATLOW 1700
1090
WEREBOLDERA
HIGH LEVEL SHELF
DOWN TO GILMORE
NARROW RIDGE VIEW BLOCK
KUNAMA EXTENSION
ACCESS
BIG HILL TO OBSCURE ACCESS
FRUIT ORCHARD
CUTTING TO PROTECT ROW AT STOOP UNDER
ENTRY
1640 WYBALENA
HILL IN CORNER
CATCH POINT/ RUNAWAY
0 Scale
6.00 x 9.00m
Minimum radius:
Mainline lower level 1500mm
Branchline upper level 1200mm
0 300 600 900 1200 1500
mm

states , “I have been advised that for NSW ‘O’ scale modellers a minimum radius required to avoid buffer lock is around 4’6” “ (1350mm).

It would appear that the larger minimum radius partially causes the wider, 7.2m plan. (note only partially as the difference between the two minimum radii is 300mm, yet the plan has widened by 1200mm (6.0m to 7.2m))

In ‘Track Planning for Realistic Operation’, 3rd edition (Kalmbach), page 84, John Armstrong writes that in H.O. curves of 22” are sharp, 28” conventional and 34” broad. Doubling these for 7mm ‘O’ scale we get 44” (1100mm approx), 56” (1400mm approx) and 68” (1700mm approx). So if curves of 1350mm or better have been adopted for the Tumut Batlow plan we are looking at the use of conventional to broad curves for what is essentially a branch-line plan.

On Bruce Lovett’s layout I have seen NSW outline 4 wheel and bogie stock happily operate around 940mm (37”) curves though I admit I am unsure whether Bruce deleted buffers and mounted his Kadees out from the buffer beam.

So the first question I would ask regarding Rodney Barrington’s Tumut/Batlow plan is: was the minimum radius for the curves set too high? In support of this question I have seen double deck American plans with a turnback curve (reverse loop) equivalent of Cootamundra/ Wereboldera Loop designed for ‘O’ scale with 48” (1200mm) curves set in a space of 5.18m (17ft) X 5.48m (18ft) (refer Model Railroading March 1987 page 25)

Turnback or ‘blob’ curves

The ‘blob’, as you will see if you refer to the plan in issue #9, contains the Cootamundra loops on the ‘lower’ level and above it Wereboldera loop.

Layout designers are not particularly enamoured of blobs’ and turn back curves because, of necessity, they are space eaters. Indeed, John Armstrong notes that such designs can call for a space of at least 4 times the radius.

All good layout designs as per Tumut/ Batlow incorporate staging and Rodney has cleverly turned a necessity (the scenic Wereboldera climbing loop), into a virtue by incorporating Cootamundra ‘Loops’ (my quotes), underneath.

Personally I would have preferred the Cootamundra ‘Loops’ to have been a true reversing loop so that trains (and locomotives) could turn back in one continuous movement rather than being reversed by a run around and turntable.

The design notes do not specify whether only standard turnouts are used but I would have thought that by use of curved turnout(s) (1200mm/ 1600mm) a reverse loop would have been possible.

Size Of Town Trackage And Space Between Towns

In the material supplied at the NSW 7mm Modellers Forum Rodney provided plans of the rail layout at Gilmore 1921, Tumut 1903 and 1920. Unfortunately there was no material for Batlow. According to the prototype plans supplied, Gilmore (1921) contained a loading bank and a goods shed. Tumut (1920) contained a stock siding, freezing works, goods siding, loading bank, mill siding and butter factory.

I am not aware of whether the layout of these two towns changed substantially but assuming they didn’t Rodney’s plans within the restrictions of compromise appear to reasonably follow the prototype layout.

Members of the NMRA Layout design SIG have suggested that the space between towns be at least two train lengths so that shunting in one town does not tail into the other. As normal train lengths on Tumut/Batlow line were perhaps 8 wagons composed of both 4 wheel and 8 wheel stock - equivalent to a couple of metres in ‘O’ scale Rodney has, probably without even knowing it, complied with this recommended practice.

Aisle Width

At best I would regard this layout as a one or two person operation. If operations are restricted to one person then aisle width at 600 – 700mm is o.k. If more than one person is involved in operating the layout, and they have to cross paths, then aisle widths should be from 900mm up for free movement – again room size and the need to put as much layout into the towns as possible is the governing factor here.

Operations

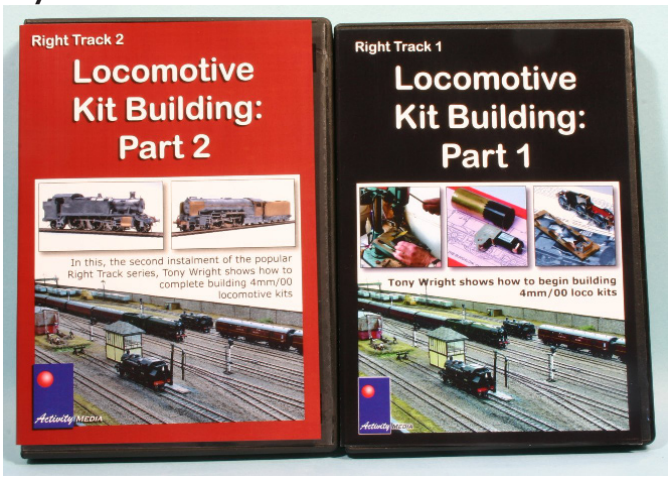
The attractiveness of this layout is that short trains can be operated with small locomotives. Notwithstanding this ‘limitation’, there is plenty of action built into the plan whether that action is train meets (see Country Branchlines New South Wales Gundagai –Tumut - Batlow pages 12 and 13), or shunting (see pages 20-21 et al) of the same book.

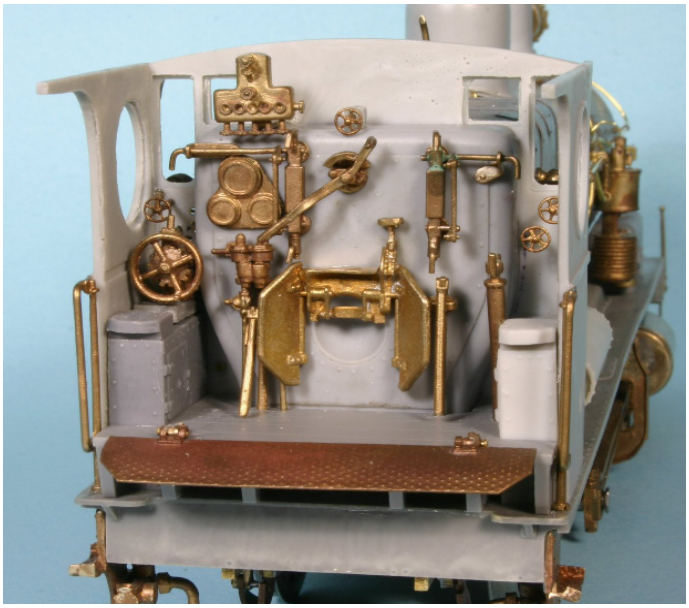
According to Rodney’s article in ‘Branchline Modeller’, locomotives used on the line were the classes 19, 12, 25 and C30T’s, with passenger services being provided by 600/700 class railcars and CPH railmotors. Indeed if you want to go ‘modern’ between 1972 and 1975 you can even have a Tulloch built self propelled, air conditioned, railcar between ‘Cootamundra’ and Tumut (AHRS Bulletin March 1992 page 58)

As a matter of interest in later years the ARHS Bulletin March 1992 page 62 notes that a Task Force set up to review whether the line to Tumut should be closed in 1984 reported that 4 companies had 80% of freight on the line in 1982-83. The shares were – Australian Fertilisers 17.4%, Shell Oil 18.6 %, Letona Pty Ltd 18.4% and Pyneboard P/L 24%.

DVD Review - Locomotive Kit Building Pts 1 & 2 by Activity Media

Ray Rumble





The cab of Ron Sebben's part built 50 class.

Recently, after a long absence from the hobby, I had decided to purchase and build some O-scale rolling-stock and locomotive kits. Upon receipt of my first locomotive kit, and after reading the instructions, I was horrified at the high level of skill a modeller needs to acquire before a locomotive can be completed. After viewing the DVD set, Locomotive Kit Building Parts 1 & 2 featuring experienced UK modeller Tony Wright, I'm now quietly confident I can approach my kits with a certain degree of confidence. Attending the BDO's helped too!

Tony Wright presents a detailed account of the building of three different UK outline 4mm loco kits but the principles, short cuts, hints and methods are equally applicable in 7mm. Each DVD is segmented into four or five components under broad headings and guides the modeller step by step through the entire building sequence. This segmented presentation is excellent for later re-running a particular stage of the construction process that might interest you.

I'd had these DVD's recommended to me when I attended the Gauge O Guild's Guildex event at Telford in the UK in September 2006. The two DVD's in the set cost me approximately AU$85, including post, and can be ordered on line on their web site at www.activitymedia.co.uk and email info@activitymedia.co.uk or you can contact them by mail at Activity Media Ltd, 7 Conway Drive, Flitwick, Beds, England, MK45 1DE.

As a special offer to members of the Aus 7 Modellers Group, Activity Media are offering the two DVD set at the UK price, saving you 3.75 GBP on each disc (approx AU$9.00). You simply need to quote your Aus7 membership number as part of your name and address.

I can thoroughly recommend this purchase and an asset you will run over and over again to take advantage of Tony's years of experience.

Commercial News

Trevor Hodges

Berg's Hobbies

Berg's Hobbies, 181 Church St Parramatta, NSW, 2150, (02) 9635 8618, http://www.bergshobbies.com/ has announced the latest project from Greg Waldon, producer of the (Z)18 class kit, will be the NSWGR 2-6-0 (Z)24 class goods locomotive. Twenty five of these locomotives were built by Dübs and Co for the NSWGR, starting in 1889, being supplied with six wheel tenders. Belpaire boilers were fitted between 1903 and 1908 and at the same time cast iron flared chimneys were fitted. They worked main line goods until being displaced by the 2-8-0 standard goods classes and were thus moved onto lighter branch line workings until displaced by locos such as the 30T. A number were sold to private concerns and with the last NSWGR example scrapped in 1960. 2408, 2413, 2414 & 2419 survive in preservation.

Bergs have also passed on the information that very limited quantities of the (Z)18 class are currently available from parts on hand. If you would like one of these kits you'll need to be quick because another run will not take place until sufficient orders warrant such an undertaking, so the wait could be lengthy.

A new 7mm model has arrived from the New Zealand's *The Model Company*. It is a Ruston-Bucyrus 10-RB excavator which retails for $175.00. This kit, along with the extensive range of other Model Company kits, can all be purchased from Bergs.

It's also worth mentioning that Century Models locomotive kits can now be purchased through Berg's Hobbies in addition to the existing range of O-Aust kits.

Keiran Ryan Models

Keiran Ryan, *Keiran Ryan Models*, 39 Coachwood Cres, Picton, NSW, 2571, (02) 46772462, krmodels@gmail.com & www.7mmkitsnbits.com has made a firm commitment to release the 2-6-4T (Z)20 Class at the March 2007 BDO.

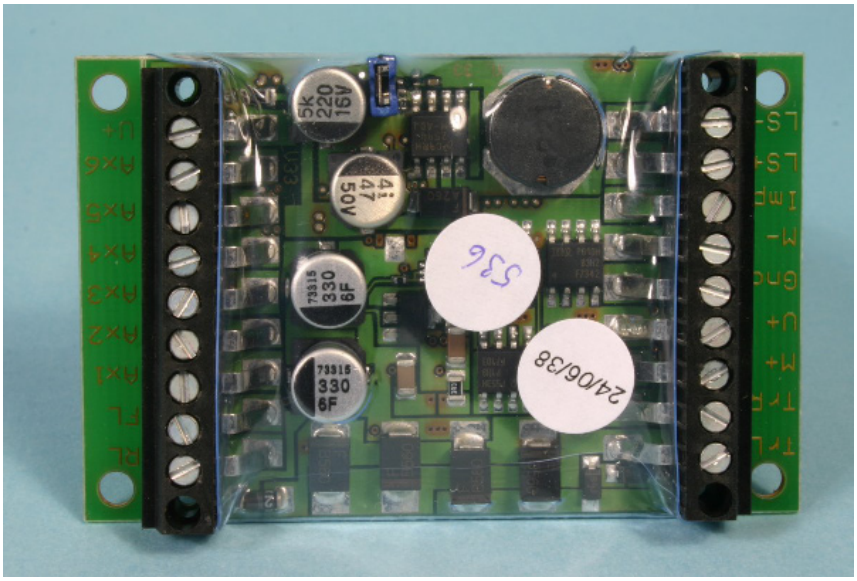
Work has begun on the proposed range of 7mm scale signal kits. Due to the work required by the modellers to build lattice post signals, these are not a viable option and they will not be produced. The signals will be supplied with an etch that will produce a tapered wooden post signal, starting with the metal arm variety and the larger spectacle plate. These should be available in 2007, along with catch point indicators, standard lever frames and point slack adjusters.

Keiran has recently decided to restart work on a kit that he had allowed to drop off the agenda. The Mobil NTAF 5443 bogie oil tank wagon, with welded frame and riveted tank, will be supplied as a etched brass, pewter kit with the water pipe being supplied as the base for the tank. While this is a late model tank wagon he feels it should complement the O-Aust Kits tank wagons currently being developed.

O-Aust and Century Models

Peter Krause of *O-Aust Kits/Century Models* can be contacted at pa_rl_krause@bigpond.com, and via the web site at www.oaustkits.com.au 0419680584 anytime or on (07) 33665307 between 7 and 9 pm, has received pre-production samples of both the BCH and SRC 4 wheel wagons and these were running on Stringybark Creek over the weekend of the Hurstville exhibition. Production of the first batch of BCH's is underway at the time of writing and it should be available for sale in time for the BDO. There is still some work required on the SRC patterns before production can proceed. The planned second batch will be the BWH version. Work is progressing on the Shell 3000 and 5000 tank car kit with patterns now completed and test shots of most of the 3000 car castings recently received. Most major pattern work is now complete for the planned LLV kit - only the roof to go. Work is continuing on the Century Models C32 locomotive kit and it is on target for a mid 2007 release. A CR passenger coach and a guards van kit are also on the radar for the end of 2007.

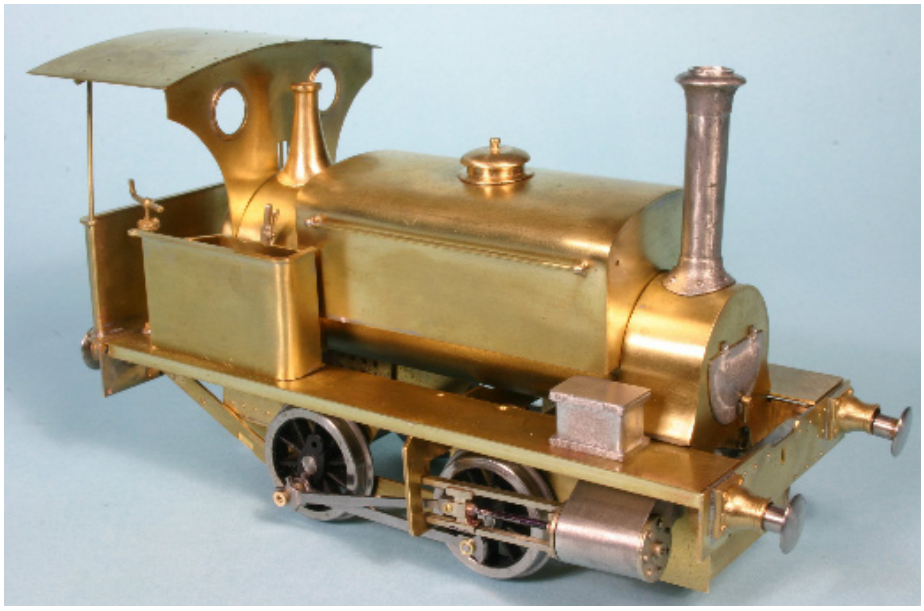
In future wagon kits can be made available to order with Slaters wheels in lieu of the until now standard North Yard wheels. Contact details for O-Aust Kits and Century Models will change as of January 2007. Check the web site for details. Any changes will be passed on to readers of 7th Heaven.



Loksound Decoder

Model Railroad Craftsman

Model Railroad Craftsman, shop 2-21 Campbell St, Blacktown, NSW, 2148, (02) 98318217 or fax (02) 98314132 sales@mrrc.com.au and http://www.mrrc.com.au/ has stocks of the long awaited Loksound 4 amp DCC decoders which are suitable for big O-scale diesel locomotives such as the Bergs 48 class. Gary Spencer Salt had samples of these decoders at the Hurstville exhibition and, while at $295 per decoder they are not cheap, the sound quality and volume level of these decoders has to be heard to be believed. Aus7 member John Parker hooked up the decoder in his half built 48 at Gary's stand as a demonstration of the decoders capabilities and as he cranked up the volume we had to raise our voices to hear each other. As someone who has struggled to get enough volume out of a Soundtraxx diesel decoder to be heard under exhibition conditions, I knew this was an item I had to have. The unique thing about this range of decoders is that the owner can, with the right equipment and software, download and install their own sound files for use in the decoder and Gary loaded the sound profiles I needed for 4811 onto the decoder I had purchased while I waited. Presumably if you want your loco to play the theme music to Casey Jones then that can be arranged if you can find a .wav file for it. Either John Parker or I will have our 48's at the next BDO to give a quick demo to anyone interested. For anyone who isn't interested, bring your ear plugs!



PME F Class

Prototype Model Engineering

Prototype Model Engineering (PME), PO Box 644 St Ives, NSW 2075, Ron Sebbens on (02) 9449 6605 have announced the development of two new locomotive kits, Manning Wardle classes F and K, in conjunction with Slater's Plastikard of the UK. The kits to be offered by PME are based on brass kits prepared by Slaters and will be supplemented by components prepared by PME. They will allow modellers to build UK variants as well as form the basis for building the engines imported into NSW. PME has been undertaking extensive research of the F and K Classes and has been able to access building records to ensure prototype accuracy. Both kits will be delivered complete with motor, gearbox and wheels. The K Class will sell for $460 while the F Class will sell for $440, plus postage and insurance

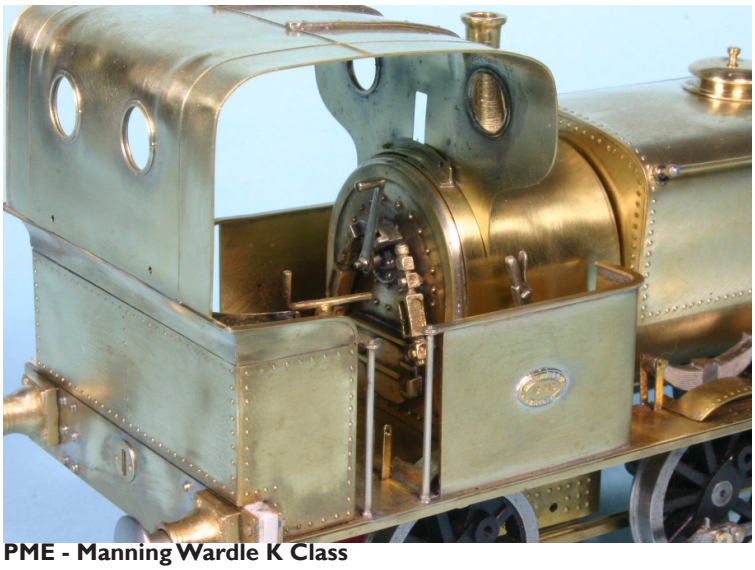
Five of the F Class engines were imported by the Public Works Dept. to NSW over the period 1913 to 1917 and used on construction works. One, "Cardiff", was purchased by the NSWGR and two others were used on Maritime Services Board works.

PME will be able to produce a kit which includes etchings and castings for the following variants to be modelled:

1. The engine used at Dunmore Quarry
2. The engine used on the Potts Hill Reservoir construction
3. Three UK variants

Two of the K Class engines were imported by the NSWGR for use on the Camden line. A kit of the K Class which ran on the Camden line will be produced which includes etchings and castings for the cab, splashers, spring supports, brake gear for cast iron brakes, and nameplates.

Subject to ongoing research, PME is planning to offer components for other F and K Class engines used in NSW. These are likely to include the F Class "Cardiff", and the K Class engines used on the Richmond line.



PME - Manning Wardle K Class

Trainmaster

Warren Herbert of *Trainmaster,* available from *Gwydir Valley Models*, PO Box 740, Glenn Innes, NSW,

Trainamster Hobbies LCH - Pilot Model

2370 or on (02) 6732 5711 or info@gwydirvalleymodels.com had just received a prototype model of their 7mm scale NSWGR LCH coal hopper over the weekend of the Hurstville model railway exhibition. This model will be produced in injection moulded plastic and will be r-t-r. The model pictured will have a detailed evaluation made of it and a list of improvements sent back to the manufacturer in India. At this stage there is no timetable for the release of the model.

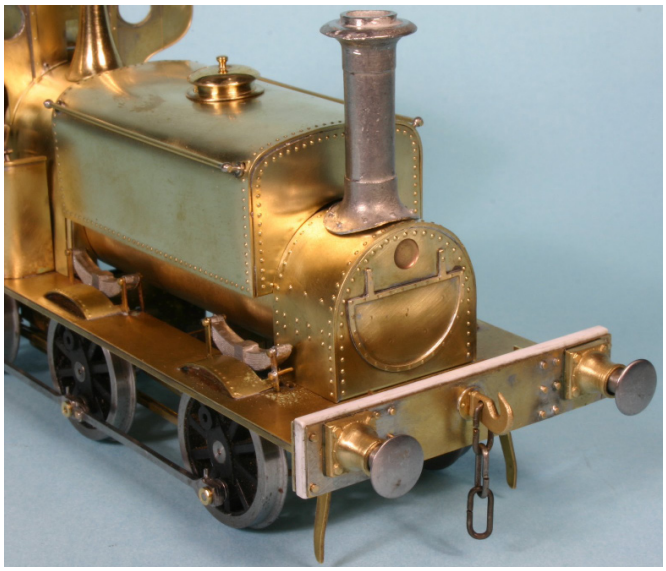
Waratah Models

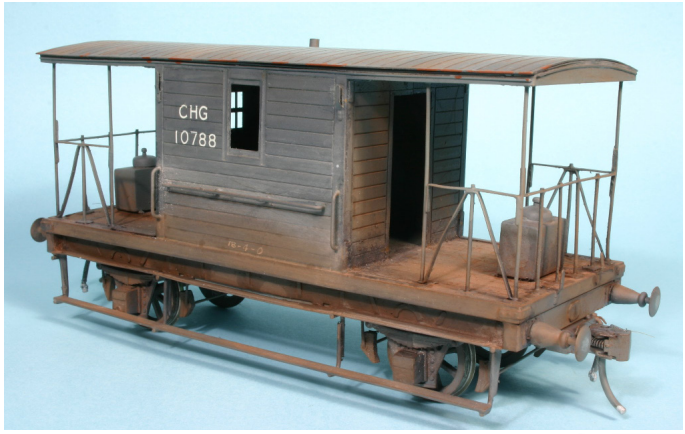
Waratah Model Railway Company, PO Box 509, Revesby, NSW, 2212 (02) 97851166 charris@nigelbowen.com.au and davemorris59@yahoo.com wished to pass on the news that, due to ill-health, delivery of the NSWGR PHG brake van kit has been delayed by about 4 weeks. Everyone who placed an order for one of these kits should have by now received a request for the outstanding $400 balance of their payment. All going well the kits will be available by the BDO. Anyone who ordered a kit but who has not been contacted is advised to contact Waratah.

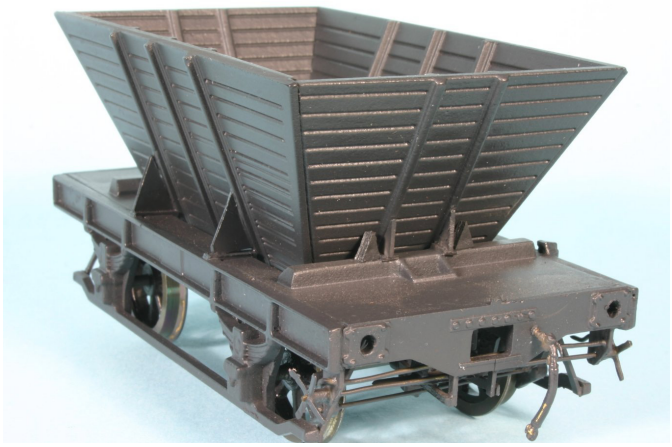
The Waratah S wagon is close to release and should be available for purchase at the BDO. This wagon is an improved version of the Gago S wagon and is made up of a one piece body casting, high level of scale fidelity with separately applied tie down rings which were cast integral to the body in the original kit. Price is to be announced when the body casting process have been completed however this should be in line with other wagons in the Waratah range.

The improvement process of the scale knuckle coupler is an ongoing saga for Waratah and both Chris and Dave are well aware that this is causing some issues for their customers. The fourth set of approval castings had just arrived as this is being written (early Oct) and minor improvements to the master are still needed. Waratah ask that purchasers remain patient and the final version should be on the market in a month or two. They would like to say by the BDO but this is looking less likely.

Finally Waratah have announced that work has commenced on a yard crane to supplement their range of line-side details kits. Further details of this will be passed on as they come to hand.







Above : PME's F Class Manning Wardle
Above right : Redfern Model's CHG
Right : Trainmaster Hobbies LCH (pilot)

O-Aust Kits & Century Models

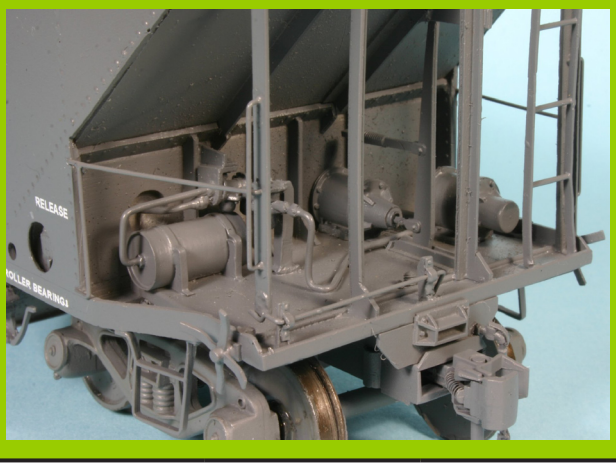
www.oaustkits.com.au

What's New?

The arrival of the first production batch of the NSWGR BCH coal hopper is imminent

The kit will be supplied with North West Short Line wheelsets as standard

Alternatively and by prior arrangement it can be supplied with Slaters wheelsets (some minor adaptation of the bogies will be necessary)



A new production run of the NSWGR ACM Branchline Sleeper kit is currently underway and it should be available shortly

We already have a number of backorders to fill but there are still a few left for those who are quick enough

A pre production sample of the NSWGR SRC 4 wheel refrigerated wagon was on display at Hurstville. For those who missed it here it is

KITS AVAILABLE

Century Models	O-Aust Kits 7mm	O-Aust Kits 1:48
NSWGR Z19 NSWGR D50 (to order)	NSWGR S wagon NSWGR CW NSWGR UME NSWGR BHG NSWGR BCW NSWGR MRC	QR QLX

KITS BEING DEVELOPED

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O-Aust Kits & Century Models
PO Box 486Ashgrove Qld 4060
Phone (07) 3366 5307 (7.00pm to 9.30pm ONLY)
Fax (07) 3366 4378 (24 hours) Mobile 0419 680 584
Email pa_rl_krause@bigpond.com
www.oaustkits.com.au