7th Heaven

Aus7 Modellers Group Inc.

Journal of the Aus7 Modellers Group Inc.
No 19

$7.70 inc GST
Spring 2008

In this Issue:

Aus7 Modellers Group Inc.

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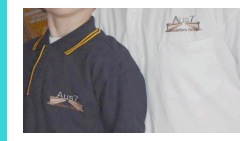

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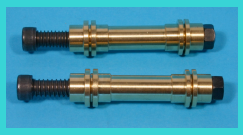

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All memberships are due for renewal by June 30th each year, no matter what time of year you joined.

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CONTRIBUTIONS

All members are invited to submit articles, reviews and other items for publication in 7th Heaven.

We are short of material for future issues so if you have something to contribute please contact the editor.

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One Modeller's Opinion

Lead Times

by Trevor Hodges

In the middle of 2008 I was invited to exhibit Queens Wharf, my 1:43.5 scale slice of the lower Hunter Valley, at the AMRA Hurstville, Sydney exhibition in Oct. Only after I had accepted the invitation did I get around to taking a really close look at the layout and assessing the work I would need to do to get it ready to display publicly. I don't need to go into too much detail here, but rest assured that the lead up to the exhibition was an extremely busy few months for me.

It may surprise some of you, considering how much ink I've spilt over the last few years detailing my exploits in O-scale, that I only have one operating locomotive to run on Queens Wharf. That locomotive is 4811; the NSWGR 48 class loco I scratchbuilt a few years ago. Since I built it a lot has changed in this scale, not the least of which is the availability of a kit for this particular class of locomotive. I have one of these kits, but like so many other kits I own, it sits unbuilt in a cupboard in my garage.

As with the layout itself, 4811 needed some refurbishment and repair to get her ready for her appearance before the viewing public. I had some DCC problems to deal with, an issue surrounding headlights to address and some minor damage to repair, some of which occurred in dealing with the other problems. As I'm writing this a couple of weeks after the exhibition I can report that all went well, the layout operated above my expectations and 4811 shuffled back and forth all weekend with barely a hiccup.

A couple of days ago I had a chance to do some thinking about the layout and 4811 and I was trying to determine how old the locomotive is. I can't say exactly how old she is but I have a photo of her in a folder on my computer that is dated 27.11.01. That makes her almost 7 years old! Where's the time gone?

I had many conversations with friends and modellers over the course of the long weekend at the exhibition, but two in particular stand out for me. One was with a manufacturer who was expressing his concerns about attracting participants to our scale. He was saying that there simply weren't enough sales to justify him turning up to an exhibition like Hurstville. My response to him was that I feel building interest in a scale like ours can sometimes have incredibly long lead times. The seeds you plant today by turning up at exhibitions and other train related events and explaining why you do what you do to anyone who cares to ask eventually might grow into something. How can you tell what long term effect you're having?

The other conversation that has stayed with me was with an outstanding modeller who I've come to know through the Aus7 Modellers Group. I was admiring a scratchbuilt model he was working on and talking to him about how he was going about tackling the project. Considering the quality of his work he surprised me by saying that this was his first scratchbuilding project and that one of the things which had given him the push to give scratchbuilding a go was a talk I delivered at an O-Gauge Modellers Workshop about how I scratchbuilt 4811. The talk, as this person reminded me, concentrated on the fact that scratchbuilding locomotives and rolling stock was far more achievable than many modellers think, so therefore you should give it a try. When I went back and did some checking it turns out that I delivered this talk in 2001!

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On The Cover

As day ends the afternoon pickup goods crosses Stringybark Creek.

Building a Waratah S Wagon

Gary Flack

When I commenced in the hobby the only “RTR” items were in brass and out of my reach money wise, so it was kit bash or scratch build. My era is 1950/60 steam, particularly the Merriwa line. I have all the locos and rolling stock needed and I am currently building “Denman” in two modules. All the locos I have are white metal kits and I enjoy building these kits and most of the rolling stock are also kits.

I have been modelling in HO for around 30 years now and after I moved to the Central Coast of NSW in 1991 I joined the “Wyong and Districts Model Railway Club” in 1993. The President of the club at that time was Trevor Hodges. Yes he did model in HO. Trevor moved to the country and changed his modelling to “O” scale and he would continually tell me how much better “O” scale was over HO, in an effort I assume to get me to change scales.

Another member of the club, Stephen Reynolds, talked me into attending a BDO with him a couple of years ago and looking at the level of detail on the models I decided to have a go at O. I will never fully model in O but will continue to build the odd loco/ wagon etc. so the following article is from the perspective of a HO modeller building his first O scale model.

As I opened the kit at Stephen's house and peered inside, my first thought was, surely all these parts don’t belong to a little S wagon, do they? Then, this is going to take some time to put this together. A couple of weeks later I opened the box again and had a good read of the instructions. Yes I actually did read the instructions first.

The first job was to familiarise myself with the parts and make sure I had them all and that I also knew where they went. This should be the first step for any kit as there is nothing worse than being halfway through a kit and finding that a part is missing or damaged. Your enthusiasm tends to wane while you are waiting for the replacement part. Once I knew all the parts were there and where they went, I took to the next task of cleaning up the body of the wagon. There was quite a bit of flash on the ends of the top sills so I started to remove this with a fine craft knife but unfortunately I broke off part of the sill which fell to the floor and as every modeller knows once something small falls on the floor you never find it but you do find other bits that you lost weeks ago! Funny that.

So here I am with a noticeable piece of the body missing. What to do? After dismissing the thought of trying to fill it in, and also of leaving it as prototypical damage, I decided to tarp the wagon when finished. Problem solved. Next came the W irons and axles. Reading the instructions was a bit confusing, so a phone conversation with Stephen and a bit more reading was required until we sorted out the arrangement. Maybe it was our confused minds that took a while to work it out, but I feel a picture is worth a thousand words so it may be helpful if the instructions had

some photos of the construction process along with the diagrams. Once the axles were secure I tested the wagon on a flat surface to test that all was level and square. At this stage a decision was made to fit sprung buffers and the Waratah operating coupler, so off went my order to Waratah. Just on the sprung buffers and coupler, I might say that they take some time and effort to get them right and working correctly, but it is time well spent. They look absolutely fantastic.

I was now up to the "fiddly bits" and before going any further I would suggest that when you reach this stage you get as much detail information as possible. Good old AMRM had a number of articles and photos of the various models and variations. The yard brake setup was built as per instructions but I was a bit disappointed that it did not have the locking gear modelled on it. That would have made it just that more realistic. Make sure when you put this assembly onto the wagon that you have put it the right way around! Luckily it was not that hard to remove.

I had to have a couple of goes at creating the spring effect that connects the brake cylinder rods. My advice would be to take it easy when wrapping the brass rod around the thicker one. I did change the way that the brake pull rod was connected to the brake shoe rod. The instructions advocate that you solder each end to the brake shoe rod. I actually drilled a small hole in the brake shoe side just above the brake shoe rod and inserted each end of the pull rod into the brake shoes. I then soldered the single pull rod to the V section and soldered it into the brake bracket. Once I was happy with this I glued the ends of the rod into the shoe. I deviated from the instructions in not using the small brass wire for the safety straps. I used fine fishing wire for this as it takes its own loop profile and will spring back if hit. I have used fishing wire before in my HO modelling to represent the truss rods underneath passenger cars. It is very good for details that might get bumped or damaged as it will spring back to shape. Because I was now going to tarp the model, I was able to drill holes straight through the body for the handrails, tie down lugs and brake shoe supports. This made them much more secure.

Anyone who has tried to make the chain mechanism that connects the coupler release rod to the coupler release pin and succeeded in doing so using the link from the larger chain supplied and inserting it through the smaller chain and the coupler release pin hole please let me know how you did it! After attempting this for about 15 minutes I gave up and soldered the ends of the small chain to the coupler release pin and release rod.

The model was painted in gloss black and then the decals applied. I found that the tare weight decals were too large to fit into the spot where they go and as the photos I had were of very weathered wagons you could not see this on them and so I decided to leave them off. The wagon was then weathered in line with an article in AMRM using Tamiya acrylic paints and rubbing alcohol. The colours used are Buff (XF57), this applied in diluted form to all the metal parts and Medium Grey (XF20) applied in a dry brushing effect to the woodwork areas. Flat Brown (XF10) is then used diluted to all areas that you want to represent rust and finally diluted Nato Black (XF69) is then applied all over the wagon. This represents the soot etc. that comes from the loco and also blends all the other colours together. You can then use Flat earth (XF52) diluted and applied to the running gear to represent the mud and dust that is picked up on its journeys.

If you are going to have a tarp or load in the wagon make sure you know which tie down lugs you are going to use and make sure they are facing upwards. The tarp was made with dried out hand wipes. There was a container of these sitting in the glove box of my car for a couple of years and they had dried out. They were stronger than tea bags and also larger. I cut one to size and soaked it overnight in a diluted mix of black and rubbing alcohol.

After it had dried out it became apparent that you could see through it, so I decided to "laminate" two together and the result was acceptable. I then made up the triangular flaps that the ropes tie to using the same material and then white glued them onto the tarp. The "rope" I used was salvaged from the bottom of some vertical blinds, (the bit that runs along the bottom and joins each one to the next). This was threaded through the flaps and tied and one was glued, using gel super glue, to the inside of each corner.

Once all the ropes were in place I made up a "load" with some polystyrene foam from packing from a box and placed it in the wagon. The tarp was then put over this and positioned so that the ropes were in line with the lugs that were facing upwards. I then proceeded to tie each rope to the lug under it and then super glued (normal super glue this time) the knot and end of the

rope so it would not unravel. The same was done to the rope where it was tied to the flaps. Once the superglue was dry I trimmed each end of the ropes.

I must say that I enjoyed putting this kit together. It is a well made and detailed kit. Congratulations to Waratah. This kit has given me the inspiration to go back to my HO models and add extra details so thanks to Kieran Ryan and his brass etch detail kits I have added yard brake, steps and hand rails to my HO S wagons and what a difference that has made.

I have to say that I'm not a "RTR" modeller and I enjoy scratch building and kit making. This is the attraction that O scale has for me, together with the amount of detail you can show. Now it looks like I will have to get back to my 7mm diorama of Wappinguy Bridge and finish it so my S truck has somewhere to sit!

7mm at Hurstville

Aus7 and O scale generally were well represented at the Hurstville Exhibition this year despite the absence of Stringybark Creek. Indeed one corner of the hall could well be described as "7th Heaven". There could be found the Aus7 stand, O –Aust Kits, Keiran Ryan Models, Waratah Model Railway Company and not far away the layout Queens Wharf.

The stands and the layout generated quite a bit of interest and our members manning the Aus7 stand did a great job of answering questions and promoting the advantages and attractions of O scale. This was made obvious by an impressive range of models on display on our new display stand and the light and sound equipped locomotives on a short display track. Having a 50 class chuffing up and down and a 48 idling noisily away with lights blazing made quite few start thinking about stepping up to O. In fact two new members were signed up over the weekend along with five renewals. Quite a few back issues of 7th Heaven, CDs and point jigs were sold.

We did well in the competitions also. Queens Wharf was awarded the Norm Read O Gauge Award and the Hannah Kelly Memorial Award for best scenery. Matthew Ratcliffe gained first in the kit based rolling stock section with a CW wagon and your editor was pleased to take out both first and second place in the scratch built rolling stock section with an LHG and an EHO. Colin Shepherd's CPH, FPH and X200 took all places in the scratch built motive power section.

A big thank you is owed to members who gave up their time to man the stand, lend models for display and generally help out over the weekend. Thank you to Mark Fisher, Martin Hartley, Warren Crowley, Roger Porter, Mick Moore, John O'Niell, Bruce Wood, Trevor Hodges, Matthew Ratcliffe, David Faccini and Paul Chisholm.

7mm Scale Chart

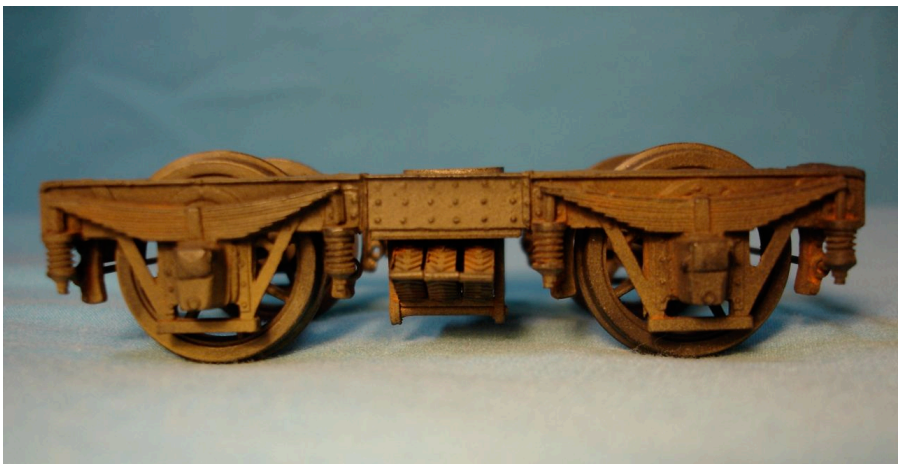
The liftout conversion chart in this issue was kindly supplied by Harry Horgan. We are sure you will find this a useful tool for your modelling.

Thanks Harry

How to Bodgie a Bogie

by Paul Chisholm

The New South Wales Government railways were heavily influenced by British practice in regard to locomotive and rolling stock engineering so you would think that given the number of 7mm models and parts currently available from the U.K. that there would be a fair chance of finding a close equivalent of most items. Indeed this may be so for some parts but certainly not for the bogies used under 19th and 20th century NSWGR passenger stock.



I have a particular interest in building models of NSWGR passenger vehicles and while there are many challenges, that of finding correct bogies has been a recurring difficulty. The NSWGR seemed to delight in taking a basic British design and adding their own peculiarities to it. No doubt this was done to frustrate any future modellers!

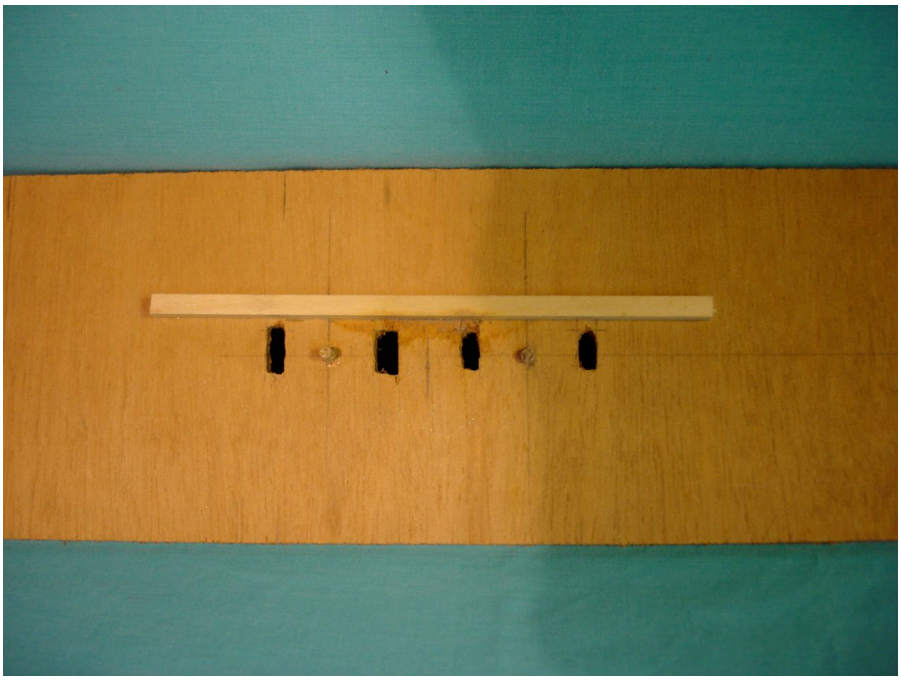
My adventures in this field started a year or two ago when I built a model of an LHG brake van. A search through all traders links from the O Gauge Guild website and perusal of the advertisements in many issues of the Gazette drew a blank for anything like the 2BK bogie used under these vans. Some lateral thinking brought me back to looking at just what was available on the home front and the bogies under the O Aust ACM car seemed to have possibilities. Sure they were too long and lacked leaf springs but the basic shape of the frame, axle guards, journals and other detail was pretty close so I bought a set to experiment on. The conversion I carried out has worked well and I have now used modified versions of this basic bogie under the LHG, an EHO and most recently for the six wheel bogies under a TAM sleeper. The process is not too difficult (really) and while the result might not be an exact replica I am prepared to live with any compromises, as the result is a lot closer than anything else I have seen.

Here is how to go about it. Firstly for a seven-foot wheelbase bogie such as the 2AD and 2BK and secondly for a six-wheel bogie of the 3AD, 3AE, 3AF or 3AG variety as used under all of the 72'6" cars. Further information on these and other bogies used under NSWGR passenger cars can be found in "Coaching Stock of The NSW Railways – Vol 2" published by Eveleigh Press in 2003 and still widely available.

The 2AD, 2BK conversion is pretty straightforward. Take deep breath and a sharp jewellers or razor saw, clamp one of the side frames in a vise in such a way that the detail on the sides is not damaged then cut off both axle guard/journal assemblies at the points indicated in diagram 1. Cut off and discard the hardware hanging below the centre section of the frame. Clean up the castings and put to one side while you prepare a jig for holding these in place while you solder the bits back together at the new wheelbase. I make these jigs from a piece of ply with holes drilled at the desired wheelbase and a skewer, brass rod or similar glued into the hole. This rod should be close to the diameter of the bearing holes in the side frames so that they are held firmly in position. Holes also need to be cut into the ply to allow the small spring assemblies at the ends of the leaf springs to sit down into them so that the W irons sit flat on the ply. When the rods are firmly set in place put the two axle guards in place and glue a piece of stripwood across the top between them to form a brace for holding everything level while soldering. The photograph should make all this clear.

With the axle guards in place on the jig take the centre section of the side frame and carefully cut to a length that allows it to just sit between the axle guards at the new wheelbase. I have found from experience that a very slight gap is better than a tight fit as it allows the solder to penetrate the gap and give a stronger joint. This should be done by removing sections from each end so that the bracket assembly for the spacer is kept centred.

As we are dealing with white metal you will need a temperature controlled soldering iron and suitable solder and flux. I use Carrs Green Flux and #70 low temp solder. I have found that a setting of



Soldering Jig

around 275 degrees works well but your iron may give different results. Play it safe and test on some scrap first.

After applying flux to the joint hold an axle guard and the centre section in place and apply solder. It should run into the joint and give a bond strong enough to withstand most reasonable service the bogie is likely to encounter. Test the joint and if firm repeat the process for the other axle guard and then solder up the other side frame in the same way.

The journal/spring assembly castings can now be attached to the W irons. I glue these with Araldite, as it is very difficult to solder them without heat transfer breaking the other soldered joints. When these have set use a drill to clear out the bearing holes so that the brass bearings supplied will sit right down into the hole without any projection.

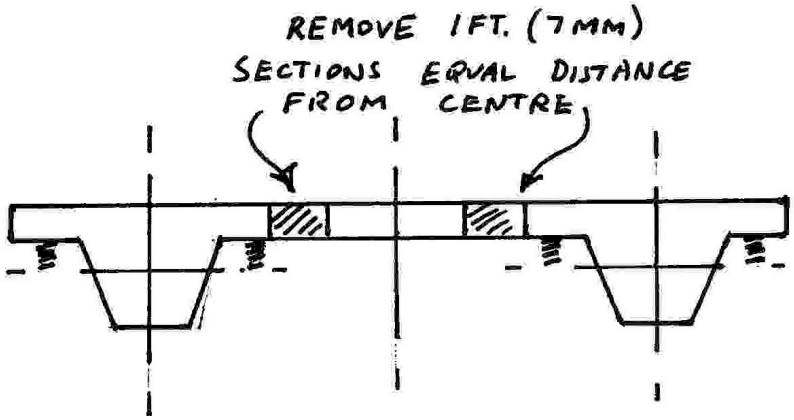
Now, comes the fun bit, trying to get it all to go together so that the axles are parallel, at right angles to the rail and all four wheels sitting flat. To achieve this the spacer between the frames (often incorrectly called the bolster) has to be just the right length so that there is not too much side play of the wheels nor are they so tight that they don't turn freely. Sometimes the spacer has to be shortened and sometimes it is too short. The inconsistency seems to arise from slight differences in straightness of the side frames and the cutting/ rejoining process. The choice of wheels is yours. I have used both Waratah and Slaters with equal success.

For my first few attempts at this I glued the spacer to one side frame, put the wheels in place, offered up the other side frame and held everything together on a flat piece of glass while a liberal amount of Araldite hardened the joint at the other end of the spacer. Although it can be done, this requires three hands and an ability to control your temper. Later efforts have involved drilling holes for 10BA countersunk screw/bolts through the bracket and the spacer bar and tightening up the whole assembly when everything is square and parallel. This sometimes requires some packing with brass strip or the extension of the holes into an oval to give a bit more side play but it allows for much more adjustment and once everything is tightened up the bogie is very solid. It has the added advantage that the wheels can be taken out again if ever the need arises.

Once this basic structure is completed the main spring assembly can be added. For my four-wheel bogies I have sourced these from Waratah Models as spare parts from their PHG kit. These have then been made up into a sub assembly and attached below the frame. This can be seen in the photograph. For the six-wheel bogie these springs seemed too light so I made up my own from laminations of 10 thou styrene and constructed a triangular shaped sub assembly, which once again was attached with Araldite to hang below the frame.

The appearance of these bogies is considerably enhanced by adding transoms at each end. These can be made from brass but styrene is quite satisfactory as they are not load bearing and merely sit between the frames for cosmetic reasons. The shape of these is best gleaned from photographs. Some are straight but others have a depressed centre section to clear the automatic coupler fitted to some vehicles.

Diagram 1.

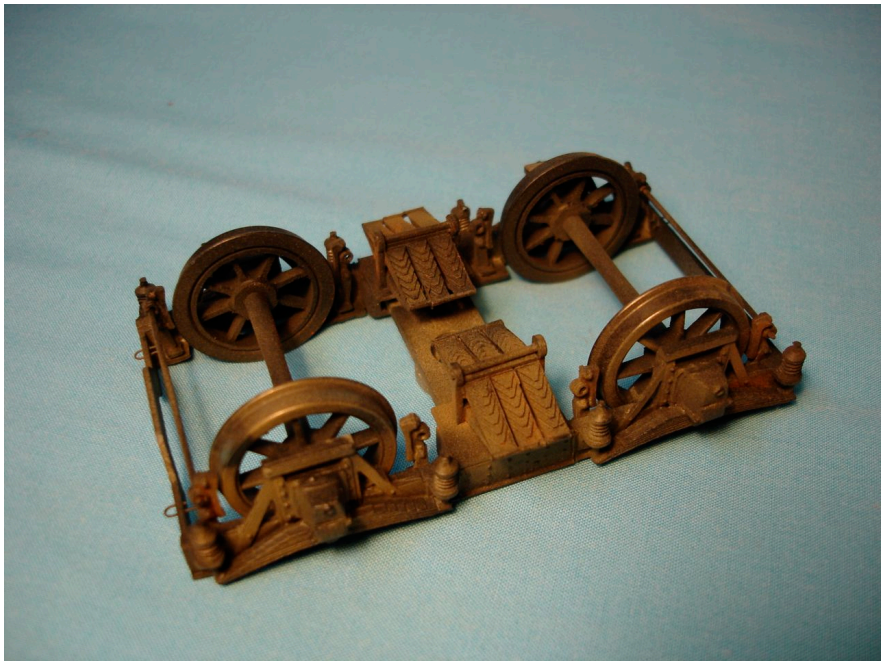


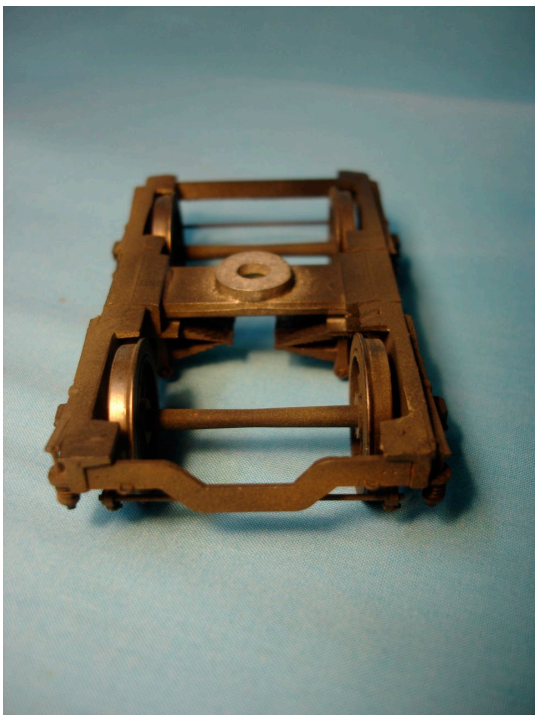
The brake shoe assemblies are best left until this point so that they can be brought up as close to the wheels as possible to avoid that unsightly gap. They can be soldered in place with a quick “dab” so that previous joints are not loosened. They should have the hole for the rod running across from one side to the other drilled out first and this rod can be represented by .032 or similar brass rod.

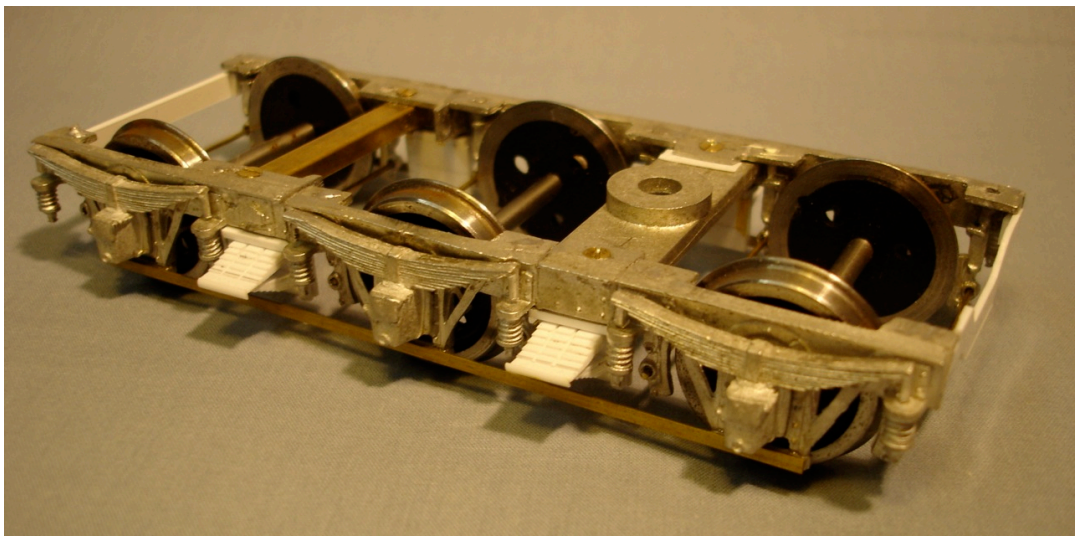
There are countless other details which could be added such as attachments for safety chains, full brake rigging and so forth and how far you go will be determined by your own taste in such matters.

The six wheel bogies are basically the same but for the extra section spliced on. The location of the cuts will be different. The main consideration here is that the cross bearer must be towards one end of the bogie so that it is between one of the sets of wheels. I suggest that this is made the end of the bogie closest to the end of the vehicle so that overhang is minimised to reduce coupling and buffer lock problems on curves. A second cross bearer will need to be added and this can be made from brass section or similar.

It all sounds harder than it is and until some of these bogies become commercially available it might be the only way you will get a somewhat authentic looking NSWGR bogie for your scratchbuilt carriage.







Team Efforts

John O'Neill and Chris Harris

Building 7mm kits can be daunting for the inexperienced and it's great to have help and advice from someone who has already built the wagons or locomotives that you might be struggling with. The following relates the activities of two groups of Aus7 members who have banded together to assist each other. The first is the 50 class working group which has formed to help those putting together the Century Models D50 kit. The second group was organised by Warath Models to guide modellers assembling any of their kits.

50 Class Capers by John O'Neill

Readers of 7Th Heaven may be aware of the recently formed group of modellers keen to assemble their Century Models NSWGR 50 Class kit, in a workgroup session. Your correspondent is please to report that a number of meetings have taken place, with a high repeat attendance, so I guess the first test was passed;– we returned for more! In order to protect the innocent (read novice loco builders) from the inevitable embarrassments that will eventuate as "learning experiences" take place, reference will be made to loco numbers, or each persons sequence in the novice list, rather than the individual. In the fullness of time, it may become clear "which is who", or who built which particular 50 class.

The first session focused on some key aspects to building the 50. Which style / type of 50 is ones chosen model? Which manufacturer? What references are available – such as the excellent Ron Preston 50 Class book, NSWR engine numbers etc. 5163 actually brought along a partially built 50, which was disassembled just to help with familiarisation of the kit. 5yyy brought along sample tenders and materials.

5163 and 5yyy patiently sat through session one answering numerous questions – what part is this, where does this go, what does a XX look like, my hornblocks don't fit, does anyone have spare frame spacers, why would you attempt more than one 50, and most importantly, are we mad? In conjunction with the answers was continual encouragement and "it's just a challenge, not a problem". Also, I think I caught a few sly grins and muttered references about future challenges we are yet to encounter!

Session one kicked off with two completed 50's available for reference, another 50 well advanced in terms of superstructure and sub assemblies (almost at the painting stage), starts made on three tenders and two kits opened for almost the first time. Novices four and five started on the frames while novices one and two, scared off by what looked rather complex, chose to focus on the tender. Pretend novice three had a couple of tenders in progress. If all goes to plan, at least five 50 class locomotives will be assembled by modellers building their first Century Models kit. The unofficial target is October 2009 AMRA exhibition.

Discoveries to date

- Most kits have a missing part or two. Some have spares/duplicates. So check your box.
- Reference books i.e. photos are really important.
- Get yourself some (good) tools now. A drill press should be considered mandatory and a heavy duty soldering iron. Remember, that if modelling in a group, you might like to consider sharing the expense of tools, by individuals obtaining different items.

We'll try and keep the wider Aus7 audience up to date with progress.

Session three unfortunately commenced on a down note as the group lost Ron Sebbens. His patience, skill and guidance will be missed by the team and the broader modelling community. This timely reminder of our temporary nature served to urge us (and hopefully all others) on in turning a box of parts into a completed model.

Session four took place after a long break, with half the group spending time overseas on holidays. Some of the travellers anticipated returning and finding themselves way behind their colleagues, but it seems progress stalled across the team. So, the biggest challenge was recalling "now where was I up to four months ago?"

Only half the team could make this session, so each of the novices in attendance had to work harder at questions for the instructor! However, novice one decided to throw out a real challenge by breaking a drill bit in the tender bogie hole just after lunch. Much amusement was then shared as a hammer was taken to the removal process. Having succeeded with the extraction, it was time to repair and tap the hole.

All appeared on track as the bogie was attached to the tender chassis, so much so that the words 'now that wasn't too bad' floated over the modelling table, closely followed by "why is my chassis sitting at that strange angle?"

Expert diagnosis soon determined that the tapping process was not vertical. Oh dear. Never fear, a larger hole and bigger bolt can fix that. Out came the pedestal drill, nice and new, to enlarge the hole - novices one and two combining to operate the heavy machinery. This was very successful until it was realised that the good bogie hole was enlarged, rather than the bad. The good news is that both bogie holes have been enlarged, larger size bolts utilised, and the tender chassis sits nicely on the bogies – a much relieved novice one. As this transpired novice two remained very quiet, thinking it is not necessary to mention that the instructor tapped his bogie holes for him. Interestingly, the instructor had suggested to novice one, prior to the "drilling work", that the use of two large bolts to keep things consistent might be considered.

Pretend novice three arrived just in time for lunch and spent the afternoon sitting in the sun reading the instructions and enjoying the above mentioned entertainment; basically because he has three 50 class tenders completed, a 19 class tender in progress as well as making a start on his 32 class tender. Based on this progress he considered the relaxation warranted and didn't want to get too far ahead of his colleagues!

It has become very apparent to the team that modelling together is not only helpful (loads of answers, sharing of tools, experience on hand etc.), but actually makes the session more of a social event and puts fun into the project. So passed another very enjoyable session, with novices one and two tenders passing the 50% complete mark - but little did we know that a surprise was in store!

More in this exciting saga in the next issue!

"Ah, so that's how it's done." John Parker gives David Faccini a helping hand at the Waratah workshop.
Photo by Michael Chapman

The 50 class group endure their primitive working conditions!

Waratah Workshops by Chris Harris

Modelling tends to be a solitary pastime. Sure we have the Yahoo chatroom to communicate with each other and there are the two Forums and at least the Hurstville exhibition, when we can get together each year. The Stringybark Creek group do a lot of work on that layout at group "working bees". But most actual model construction is carried out by individuals in their garages or modelling rooms, with nobody to keep them company, or provide encouragement, except the dog (and most dogs know diddly squat about NSWGR practices). There is nothing unusual about this but it doesn't need to be the only way that we enjoy our hobby. Building models in company with other keen modelers can give an extra dimension to the enjoyment we get from the hobby.

One of the benefits of modelling in a group is the opportunity to obtain advice or assistance from someone else when we are having difficulty with some aspect of model construction. Dave Morris and I at Waratah Model Railway Company decided that we should try to arrange a day where interested modellers could get together to do some group modeling. We arranged to hire a scout hall in Sydney and held the first "Waratah Workshop" in May 2008. We provided morning tea and lunch, as well as work tables, so that all that the participants needed to bring was their tools, a modelling lamp and a Waratah kit.

Ten people attended and we were able to set up a long work table with good natural lighting, which was wide enough to have five modellers down one side and the other five working opposite them. Although we didn't particularly plan it this way we soon realised that this was an ideal arrangement because it meant that each person could speak to any other person without having to shout and just as importantly each person could see what each other person was modelling without having to get up and move around the table.

Dave and I were able to demonstrate methods we use when constructing our kits and to answer questions about kit construction but the others there often had useful suggestions to make as well. Working together around a table fosters a certain amount of camaraderie as well, which makes for a great social occasion. The day was very enjoyable and satisfying and I do not think that anybody who attended would not have gone away without having learnt something from the others who were there; whether it was a new tool, a new construction technique or perhaps just clarification of the instructions for one of our kits. Additionally, although we only work on Waratah kits (and who does not have at least ONE Waratah kit sitting in a box in a cupboard waiting for that "rainy day"), the new tools and techniques that you will be exposed to on days like this are just as useful for construction of kits produced by other manufacturers or for scratchbuilding.

We intend to hold these Waratah Workshops every six months or so and a posting will be put up on the chat room or you can contact Dave or me for further information. We do ask that you let us know if you are coming so that we know how many we have to cater for. There will be a modest "donation" requested from each participant to cover the cost of hiring the venue and providing the food and drink. We do not seek to make a profit from these days but merely to provide an opportunity for interested modellers to get together and learn from others.
We hope you will be able to attend.

Air Brush Advice

Bruce Lovett

The last issue of 7th Heaven contained a short article describing the use of a spare tyre as an air supply for an airbrush. While this method is quite suitable as a stop-gap there are some issues which readers may need to be aware of.

Firstly the air in a tyre can contain moisture, so a moisture trap should be fitted between the tyre and the airbrush. Secondly, air compressors at garages can allow oil into the compressed air and subsequently into the tyre. Thirdly, tyres can also contain dust which comes from the nozzle of the air hose or when the tyre was fitted to the rim. Finally, airbrushes operate best on a pressure of between 25 and 35 pounds per square inch, or whatever that is in metric, but by using a car tyre you will be operating with an ever-decreasing air pressure with very little warning of when it is going to run out of air. This will leave you with a part-finished job and no air to clean the airbrush properly before the paint hardens inside.

If you build superb models you will want a paint finish to the same standard as the model. Therefore you should consider buying a quality airbrush such as a Badger or Iwata and a compressor with a receiver (air tank) that will give you a constant supply of clean air at the same pressure without any pulsation. Talk to your favourite hobby shop, such as those that advertise in our magazine about what is available.

I have two Badger airbrushes, a single action and a double action and between them they have painted hundreds of HO and O gauge locos and rolling stock over a period of forty years. The double action one is my favourite as it gives you more control over both air and paint. However, the single action model is a good one to learn how to airbrush and for general airbrushing.

The air supply for these is provided by a Holding brand compressor which is designed for airbrushes as its maximum pressure is 30 p.s.i. The other, a much larger and heavier one but still portable, is a Kumas brand where the pressure can be adjusted from 10 to 100 p.s.i. No doubt there are other suitable brands available.

Finally, of you want a first class finish on your models; buy first class tools that are designed for the job. My father drummed into me from an early age, "Bruce, look after your tools and they will look after you." This is timely advice because an airbrush is a precision instrument, like a micrometer or vernier calliper and should be treated as such.

Forum Report

Paul Chisholm

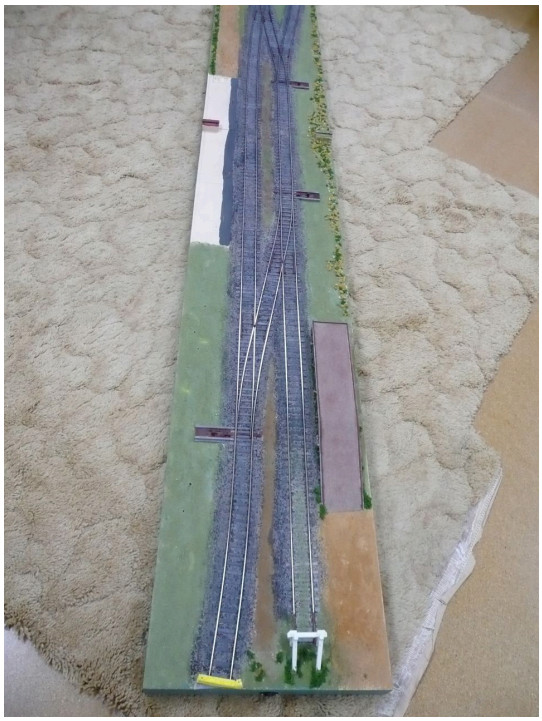
If you are an Aus7 member and haven't attended one of the twice-yearly forums you don't know what you are missing. The last forum, sometimes called the Big Day In, was no exception. It was a day of interesting, useful and well-presented workshops, great camaraderie and the presence of a number of O scale oriented vendors.

Presentations included a segment on colour light signals on the NSWGR by Bruce Parker, layout construction methods by Trevor Hodges, constructing 7mm passenger vehicles in styrene by Paul Chisholm, tips on building the century Models D50 by John O'Niell, a scratch building presentation by Roger Porter, tarpaulins by Dave Morris and pointers on painting figures by Nick Sheridan. Vendor reports by Waratah, Bergs and David Peterson Modelling Services (formerly PME) brought everyone up to date on developments in their product lines.

>> 16

So You Don't Have Room For A Layout!

Bruce Lovett



*This portable layout measures 10 feet long by 16 inches wide ready for operation. (3.04 x 0.4 m.) When folded it is only 5 feet by 16 inches by 7 inches (1.52 x 0.4 x 0.08 m.) and can be easily stored in your wife's wardrobe. * You can have a lot of fun making up and breaking up trains and later, it could form part of a permanent layout, or, build two of these layouts and join them together down the side wall of your garage. Want to know more, then ask Bruce Lovett.*

> **There should be plenty of room in your wife's wardrobe for isn't she always complaining that she " doesn't have a thing to wear !"*

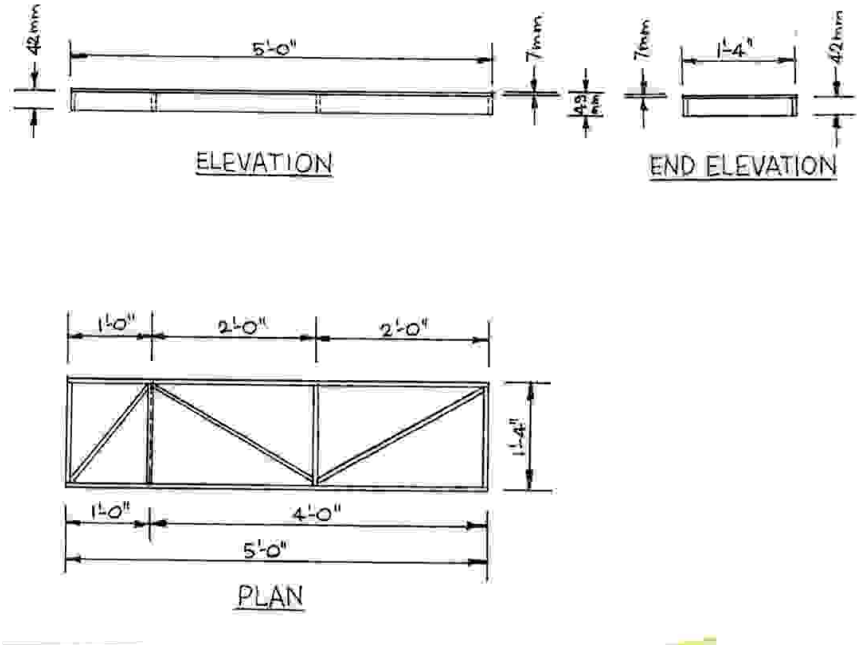
This was the sign displayed on my layout at " THE BIG DAY OUT" at North Sydney Leagues Club, Cammeray, on Saturday, 27th October, 2007. I am not too sure which attracted the most attention, the sign or the layout! This layout was built first of all to show that you don't need the Sydney Town Hall to build an O Gauge layout and secondly, it might encourage some O Gaugers to take the plunge and try their hand at building an operating layout. If only one O Gauger gets the message and builds a similar layout I will feel that my efforts were not in vain. And don't lose sight of the fact that a layout like this one not only can provide a lot of fun at this stage but can be incorporated into a larger permanent layout in the future.

To illustrate my point, between 1st January and the 1st March, 2006, I built a similar but slightly larger layout measuring 12'0" by 1'6", using the same type of construction, but using hand laid track. This layout was on display at the BDO in March, 2006. Perhaps you tried your hand at some shunting that day. It now forms the terminal of the branch line under construction at my home.

As you can see from the plan the layout is built in two sections and hinged in the middle for transport or storage. It is of lightweight but surprisingly strong construction due no doubt to the diagonal bracing underneath. I settled for a total length of 10'0" so that it would fit comfortably into my Mitsubishi Lancer sedan with the back seat folded down and not be too heavy as I am not getting any younger. It actually worked out a little heavier than planned because the plywood tops were 7mm thick instead of 6mm. If it is built to a total length of 12'0", the passing siding will be longer and provide more scope for shunting.

The material used for the tops was two sheets of 7mm thick plywood 1200 by 900mm cut into three pieces per sheet 900 by 400mm. This is sufficient for either the 10'0" or 12'0" versions with a little left over from the 10'0" version. For the framework 42 by 19mm (the old 2"x1") was used with the diagonal bracing of 18 by 18mm dressed all round (DAR) radiata pine. All the timber was bought from Bunnings who were kind enough to cut the plywood sheets on their vertical saw bench. There aren't any fancy joints, all joints are butt jointed with two nails and acrylic glue to hold it together, then a screw in each joint as well once the joint was checked for squareness. The plywood tops were fitted with acrylic glue and 25mm brads (fine nails) then left overnight on a flat surface with full 4 litre cans of paint on top for the glue to set. If you don't have full cans of paint try full buckets of water.

When the glue had set, the diagonal braces were cut for a very tight fit



then glued and nailed in place and left to cure for 24 hours. Provided you have accurately cut the timber and the joints are tight and of course the glue is dry and hard, a corner can be raised without any flexing or twisting of the panel.

Next step is to fit the riser blocks and hinges so that the layout can be stored or transported, however, first of all the height of the riser blocks has to be determined. Measure the height of the highest object that will be permanently fixed to the layout, say the signals or telegraph poles, divide by two and add on about 12mm for safe measure. The result will be the height of each riser block which can be made of 42 by 19mm pine. Fit these in place with glue and nails or screws and when the glue is dry clamp the two base boards together with G cramps and screw the ordinary butt hinges in place. 40mm steel hinges were quite adequate for the project.

At the same time cut two pieces of 42 by 19mm pine to act as spacers when the layout is folded for storage or transport. Fold the layout until the two baseboards are parallel, measure this distance and add on 84mm for the height of the two frames. Drill ¼" holes 21mm in from each end on both pieces, clamp these onto the ends of the baseboards and drill ¼" holes through the ends of the baseboards. Run the drill back and forth a number of times to make sure the holes are clear and slightly oversize. Use 50mm hex head bolts, washers and wing nuts to hold the baseboards together. A tip. Put one washer on each bolt hard up against the hex head and secure in place with super glue. Saves having to worry about one washer.

The final step before laying track is to give every surface top and bottom a coat of paint. This bloke is out of his cotton picking mind I hear you say! It doesn't have to be a quality furniture finish, any water based or solvent based paint will do as the main reason is to seal the surface so that it prevents moisture penetration which can cause warping etc. with disastrous results. Anyway, it should look nice when you store it in your wife's wardrobe.

Now we come to the more interesting part – the design and laying of track. If possible try to design the track work so that it is not parallel to the baseboard edge. Even as small an angle of 5 degrees looks more interesting than parallel to the edge. On my layout I angled the track about 5 degrees and curved the track at each end slightly in opposite directions but straight through the station and yard area. At one end a normal crossover of two right hand points was used, but at the other end a left hand and a Y point were used for variety. This meant that the siding off the Y point shot off at an angle adding more variety. Play around with points and angles until you have a design that suits your requirements and equipment, then mark it on the painted surface with a pencil or felt pen. It's a lot easier to see it on the painted surface isn't it!

On all the layouts I have built, the track has been laid on 1/8", now 3mm, sheet cork cut into strips 70mm wide. These strips are either glued or stapled in place and the track laid on top. When the glue has dried it is a good policy before laying the track to run a sanding block over the cork to make sure there aren't any bumps. Incidentally, the cork strips can be curved by making cuts from the centre of the cork to the OUTSIDE of the curve about every 20 to 25mm. When the track is laid and ballasted the cuts are hidden.

I don't think there is any need for me to tell you how to lay track. You have probably read many articles on the subject. The only point I would make is that it is a good idea to lay the tracks across the join between the two base boards. Drive some fine 20mm panel pins down beside the rails, on the outside of course, then solder these to the rails. The rails can then be cut, preferably with a Dremel or similar tool and cut off disc thereby ensuring that they will always line up when the layout is unfolded. Clean up the ends of the rails with a fine file when the layout is folded.

After the track is laid, carry out the electrical work and to ensure good electrical continuity across the join between the two baseboards, drill holes down beside each rail a short distance in from the join. Solder wires onto the outside of each rail and run the wires through plastic spaghetti before soldering onto the opposite rail. Needless to say allow enough slack for folding the two baseboards. The spaghetti gives added protection to the wiring.

Continued in the next issue.

Showcase

There is some excellent O scale modelling going on out there and it would be great to share it with our readers. Send in a photograph of your work and let us be inspired.

Steven Reynold's first place winning entry in the Waratah modelling competition.

Chris Sims took third place with his detailed and weathered LV.

This very severe modification of an S wagon was another entry by an unknown builder. Let us know who you are so we can give you credit.

Another fine competition entry from Matthew Ratcliffe

<< 12 The result of the Waratah Model Competition was an eagerly awaited finish to the day with Steve Reynolds taking out first place (he won last year too), Roger Porter second and Chris Sims third. Photographs of the winning entries are in the Showcase page.

If your reason for not attending was distance to travel bear in mind that the day was attended by members from Nelson Bay, Narromine and Warren. We even had two of our international members from the U.K.

These are really worthwhile days so when the date for the next is announced mark it on your calendar and try to attend. You won't regret it.

<< 2 I must admit that consideration of topics like "the future of our hobby" or "the future of O-scale" rarely keep me up at night. I've got far more important things to keep me occupied, like assembling some of those unbuilt kits that are sitting in my cupboard. I believe that O-scale has a lot to offer the modeller and that the best way to promote the scale is to get the models in front of those who might be interested. However perhaps we should all keep in mind that it's the small things we do that really make a difference; an encouraging word to a young modeller, the delivery of a short talk at a model railway seminar or the publication of a few photos of a model you've built on the internet or in a magazine. You may never know what effect you're having but if it gets or keeps someone involved in our scale and in this hobby then it can be no bad thing.

Commercial News

Trevor Hodges

Berg's Hobbies

Berg's Hobbies, 181 Church St Parramatta, NSW, 2150, (02) 96358618, http://www.bergshobbies.com has announced that they will be producing a 7mm scale kit of the NSWR 41 class diesel-electric shunting locomotive. There were 10 locomotives in this class and the first entered service in 1953. The last of the class, 4102 was withdrawn from service in June 1975. The class worked as shunting units all over the Sydney metropolitan area in locations such as the Botany line and on the Cook's River shunter, were frequently used in employee passenger trains which ran to Enfield and Chullora and from the abattoirs line and they also worked the Camden line before closure. This kit is slated for release sometime in 2009 and it is hoped to be priced under $1000.

Keiran Ryan Models

Keiran Ryan, *Keiran Ryan Models*, 39 Coachwood Cres, Picton, NSW, 2571, (02) 46772462, krmodels@gmail.com & www.7mmkitsnbits.com has announced that the long awaited (Z)20 class 2-6-4T is slated for release in the first half of 2009. This kit will feature a turned brass boiler, water cut brass chassis utilizing 1mm thick stock, with a separate motor unit that will allow maintenance to be carried out without the complete disassembly of the loco. The locomotive superstructure will be made up from etches in brass with detail castings in whitemetal and brass. The kit will be supplied with Slaters wheels and gearbox. Compensation will be incorporated into this locomotive's construction but this will be achieved without the use of hornblocks.

KRM have announced the development of a 7mm scale kit for the NSWR BMT 3000 milk tanker. These bogie tank wagons were first introduced into service in the 1940's and were still running in the 1970's. The kits will utilize Waratah's G bogies and it is hoped that they can be available for release in the first half of 2009.

The 7mm scale kits for both home and distant signals are now available to Aus7 members at $45. It is hoped that the bracketed kit will be available in the New Year. In conjunction with the release of these kits KRM are holding open days for those wishing to have some guidance with the construction of their signal kits. The first of these days will be on the 3rd and 4th of January with another being held on the 24th and 25th of that some month. The cost is $10 for attendees to cover the cost of lunch. Contact KRM for details.

O-Aust and Century Models

O-Aust Kits/Century Models can be contacted at pa_rl_krause@bigpond.com, and via the web site at www.oaustkits.com.au, at PO Box 743, Albany Creek, Qld, 4035, mob 0419680584 anytime or on (07) 3298 6283 between 7 and 9 pm.

O-Aust have announced that the FR independent car should be available for sale by Christmas – the instructions were being finalised at the time of writing. The price should be comparable with that of the ACM. The BR will be the next carriage to be developed and this will also be the independent version. When the diaphragms have been developed the FR, BR and CR will all be made available in their intermediate guises. The HR is the next carriage that O-Aust intends developing. Its release will allow a full R set to be modelled.

The NSWR (C)30 4-6-4T locomotive kit is still on target for a release in the first half of 2009. The MHG is still under active development and should be available in the 2nd half of 2009. An EHO passenger/guards van is planned and should be available for release during 2009. The production challenges of the 3000 gal tank wagon have been overcome and this kit should be available in 2009.

The feasibility of producing a new NSW outline diesel kit in 7mm is being assessed. This will be scheduled for release after the release of the (C)30.

Waratah Models

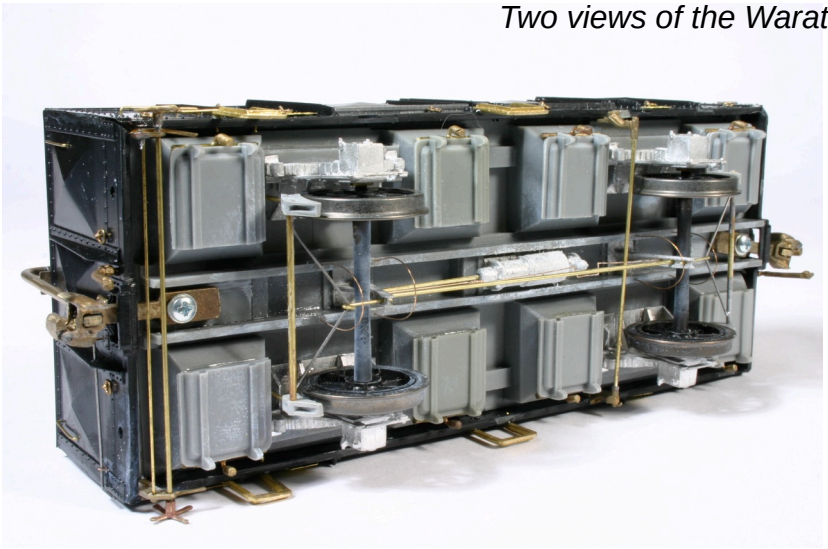
Waratah Model Railway Company, PO Box 509, Revesby, NSW, 2212 (02) 97851166 waratahmrc@optusnet.com.au have announced the release of their NSWGR U wagon kit. This kit is essentially an enhancement of Waratah's pre-existing plastic, injection moulded K wagon kit. The kit includes the basic K wagon kit and provides a set of urethane and brass castings to allow the modeller to produce a U wagon. U wagons were bulk wheat wagons which were introduced into the NSWR starting in the 1920's, with construction spread out over 30 years. They were the second largest group of wagons on the NSWR after the S wagon. Their use began to decline with the arrival of bulk bogie stock in the 1950's and many were converted to K wagons. These kits retail for $140. There is an excellent article on the U wagon by Craig Warton in the June 2002 issue of AMRM.

While on the subject of U wagons, Waratah wanted readers to be aware of a programme of updated and improved instructions for their kits. This process started with the ICV and now includes the U and S wagons. These new style instructions include colour photos and more detailed description of the construction sequence of the model.

Modellers contemplating the purchase of an ICV van kit need to be aware that stocks are quite low with only a handful of the kits still available. It may be quite a while before a re-run of the kit is contemplated.

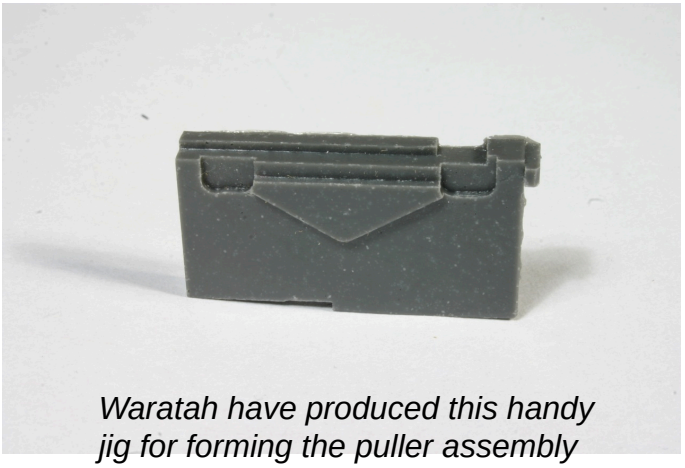
Two views of the Waratah U wagon

Waratah have released two new NSWR outline bogie sets. These are sets of diamond bogies in brass and 2SE bogies in whitemetal.



Waratah hope to have the NSWR BWF bogie flat wagon available for release in the first half of 2009. This kit will feature a cast urethane body, cast brass diamond bogies and whitemetal and brass details. These flat wagons were built in 1916 and some were still running in the 1950's. They were constructed with a 29' long body (31'8" over the buffers) and were 8'6" wide. They were primarily used to carry bagged wheat but were also used to carry timber, wool, logs and chaff. Refer to Craig Warton's article in the April 1994 article of AMRM for details.

After a problem was detected in the roof of their PHG van kits, Waratah ordered a replacement roof from their supplier. They've asked purchasers to check the kit and if it is found that shrinkage has occurred and the roof doesn't fit the walls, return it to Waratah for replacement. There will be no change for this replacement roof and Waratah will refund the cost of postage.



Waratah have produced this handy jig for forming the puller assembly and cross shaft for the brake gear on four wheel wagons.

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