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MODEL RAILWAY

MAGAZINE

The Hills Line Revisited



Commonwealth Railways G Class 4-6-0
VR Tarps from Tea Bags
Building Working Vestibule Connections
Reviews • Mailbag • AMRM News

Issue 335 Vol. 29 No.2

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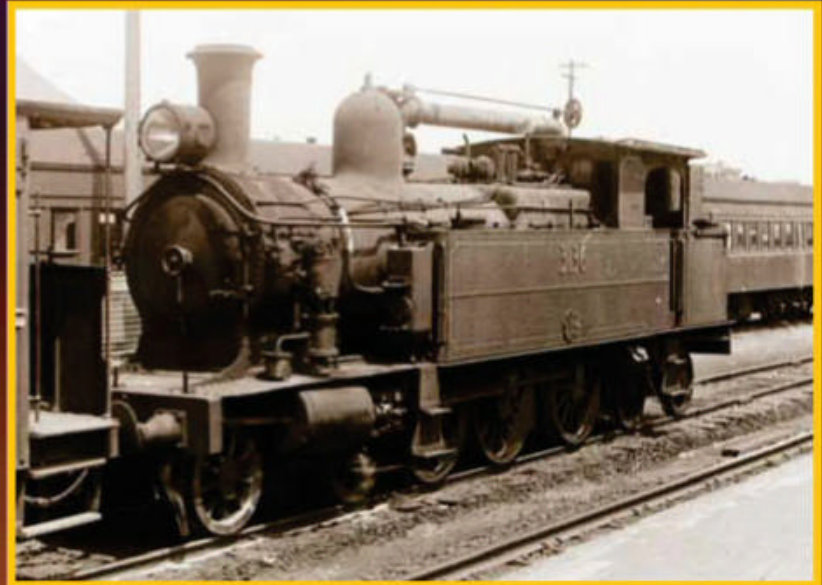




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Photo: John Eassie



Photo: Howard Armstrong

**12 Different Numbers
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Photo: Ian Dunn



Photos courtesy P. Turtle

NR class Locomotive

In late 1997 National Rail Corporation out-shopped two NR class locomotives bearing indigenous design based on the work by Alice Springs artist Bessie Liddle.

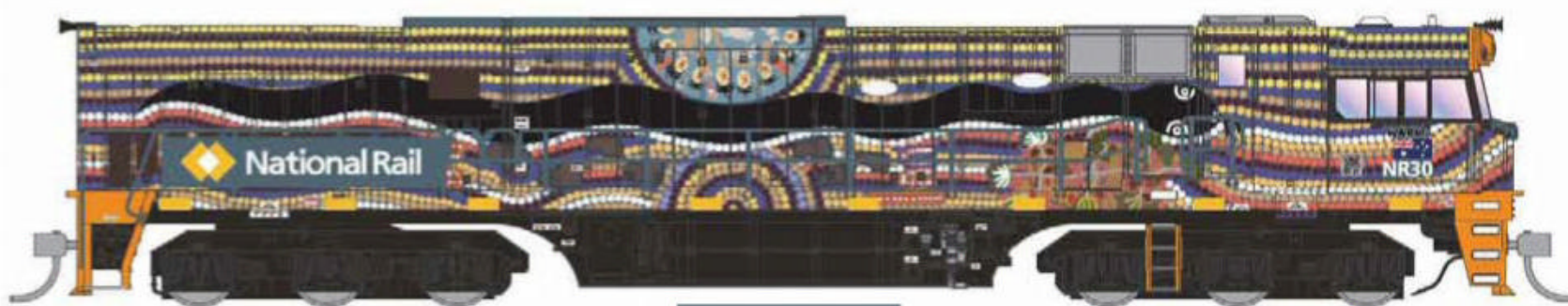
The first was launched in Sydney by Cathy Freeman in November 1997, Warmi NR30, featuring an Aboriginal Dreaming story. Decorated by Bessie after a Warmi dot painting showing a snake, bush tucker and women's footprints.

The second was launched in Alice Springs by Mark Vaile in December 1997, Kungara Mankurpa NR52, this design depicts the Star Dreaming story Seven Sisters. Decorated by Bessie, a dot painting showing the travels of the Seven Sisters and their pursuit by the Snake Man in Pitjantjatjara country.

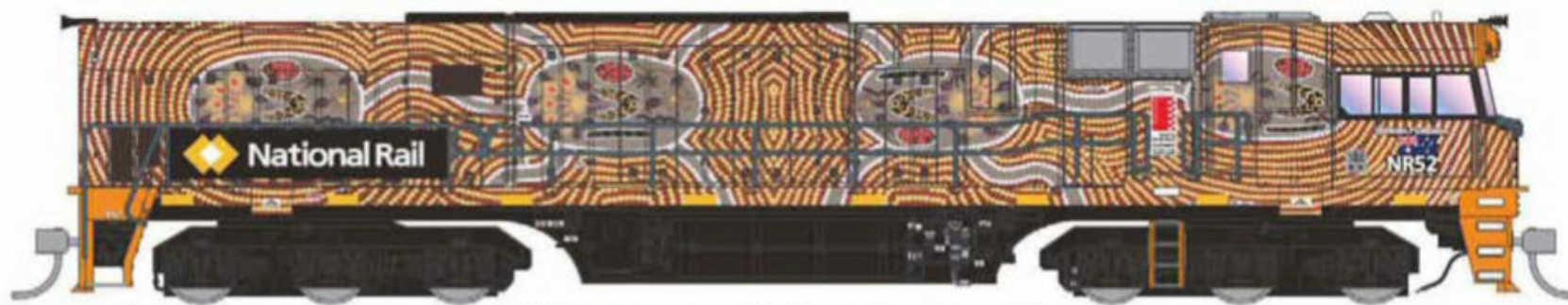
The production is limited to a total of 660 units across the 6 options and is fully licenced by the artists agency.



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NR 30 WARMi © Bessie Liddle / Copyright Agency



NR 52 KUNGARA MANKURPA © Bessie Liddle / Copyright Agency

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Editor: James McInerney

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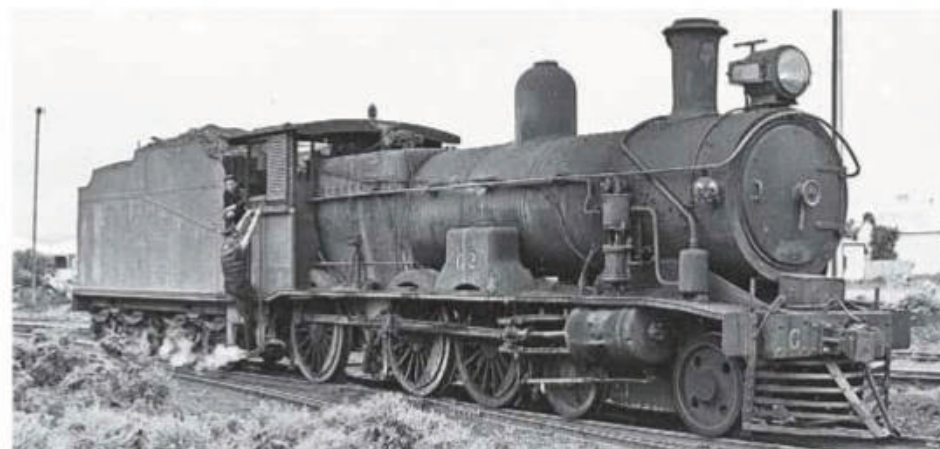
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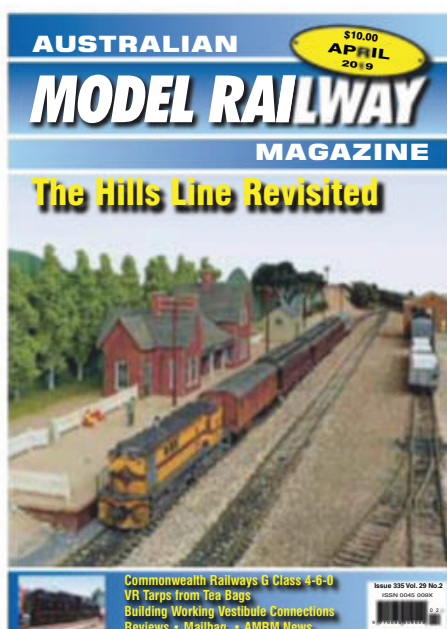
Steve Williamson solves a problem affecting the running of a DCC fitted steam locomotive.

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ON THE COVER: A passenger train, led by 858, stands at the platform at Woodside, the new station on Barry Lloyd's HO scale SAR layout, 'The Hills Line'. The major extensions to this home layout, which was last featured in AMRM Issue 302 (October 2013), are covered in this issue. Photo by John Dennis.



On Friendship

To me, one aspect of this hobby that can be taken for granted is friendship. I am reminded of how important these friends can become upon hearing that a very close associate is ailing badly. I met him and his family through model railways and he will always be with me.

Finding a friend or a mate in model railways is not hard. The simple attendance at an exhibition, open day or a club meet will always present the opportunity to meet people. Normally it is quite easy to strike up a conversation where we can work out any common ground. Couple this with other issues such as age and location and nature will take its course.

It is no secret that, decades back, I wanted to join what then was a prominent group who modelled the NSWRR, but membership was not open to new people. So, based on their operation, an associate and I formed our own group that has lasted (in small numbers) until today. How did I meet that associate? He sought me out on a hobby issue, we had many common interests. We remain friends coming up to five decades later.

Friendship in the hobby has many marvellous benefits, especially if your activities include building a layout or scratchbuilding. Certainly, there are many books and magazine articles, and today there is the Internet as well, but nothing beats first hand explanation and participation in learning a new process or solving a modelling problem. Our group built two exhibition layouts and along the way we all learnt from each other: track laying, wiring, scenery, locomotive building, carriage and wagon construction. Sure, some of us specialised in certain fields, but the rest of us still tried to match the quality of their work. We all learnt from each other.

There were trips away showing the layouts, events that were shared with our families and also where we made contact with and became friends with many others of distinctively different interests, as we competed with each other to show the public the best in model railways. Even this competition had its benefits, not only in modelling, but also in the task of transporting a layout. One of the highlights of our exhibitor experience was when we were invited to exhibit in Adelaide, carrying the layout in a hire truck half-way across the country. We needed all the advice on hand and layout moving skills for this event where, when arriving in Adelaide, every point motor needed repositioning after the long bone-shaking journey.

Field trips with associates are more profitable than doing it on your own. Observing a scene is one thing. Discussing and debating what you see can always add to the personal observations. The same goes for a model. Having a friend point out that an important part has been missed or built incorrectly is far better than having a stranger point it out later.

Among friends, the Australian mannerism of teasing can become the norm in social groups, which is what a model railway group can become. More often than not, this teasing is a part of the process of communicating. Teasing your friend of an error or two (on a model) can be a process for breaking the ice and starting a conversation.

Of course, we are not all built the same way and some of us have problems communicating with those we do not know. A club I belonged to years back had one officer appointed to deal with this issue; the task being to identify the visitor or individual who was not mixing well and to try to 'bring them in' with introductions, etc. But even then, some of us still find it hard to mix. It is where the fun of teasing can become an issue, for the line between teasing among friends can quickly become bullying to someone who is not on the same communication wavelength. It is up to the individual to be sensitive to the target of jibes and jokes and to be sure we are not insulting or being offensive. This is a fine line.

We are all entitled to enjoy this hobby, with the emphasis on the word *enjoy*. This cannot happen if someone is being bullied...

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The Annual Membership Fee for SCMRA is \$60.00 from March to February and the Joining Fee is \$20.00, which includes the membership data pack. Applications must be received by the first of the odd month to meet our mailing list deadlines. For applications received between the 2nd September and the 2nd January the Half Annual Fee is \$30.00 plus the (\$20.00) Joining Fee (does not include October issue of AMRM). All fees are GST Inclusive.

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Meetings are usually organised on the second Saturday

of each month in New South Wales. For further details and location please contact the divisional representative.

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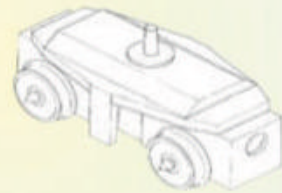
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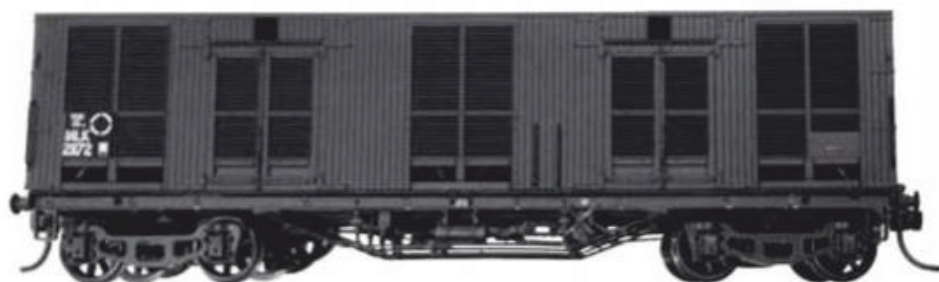
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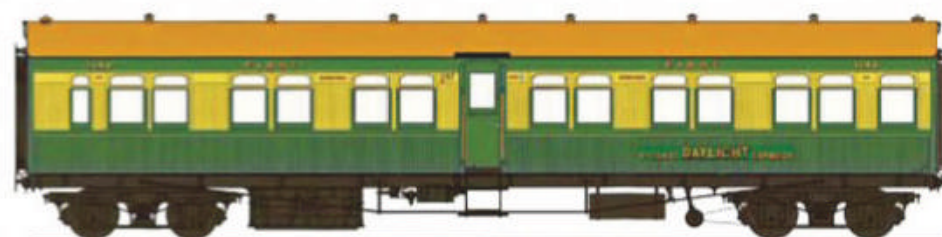
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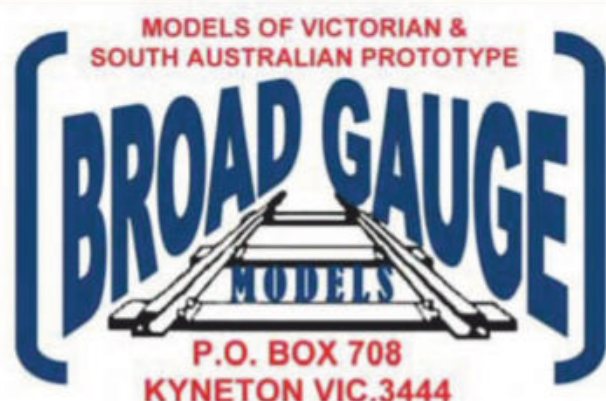


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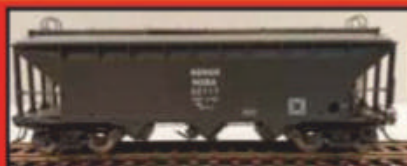


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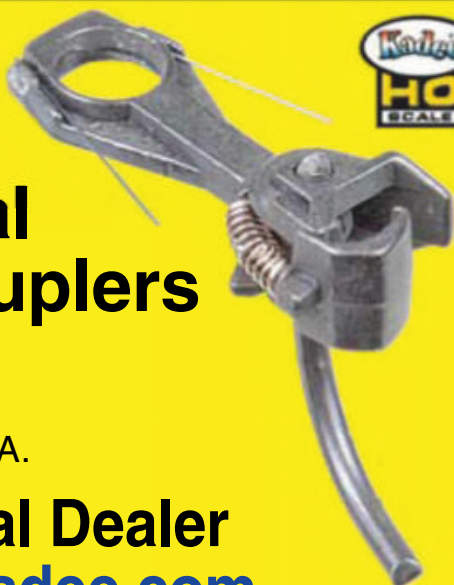
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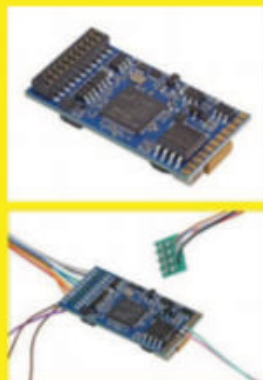
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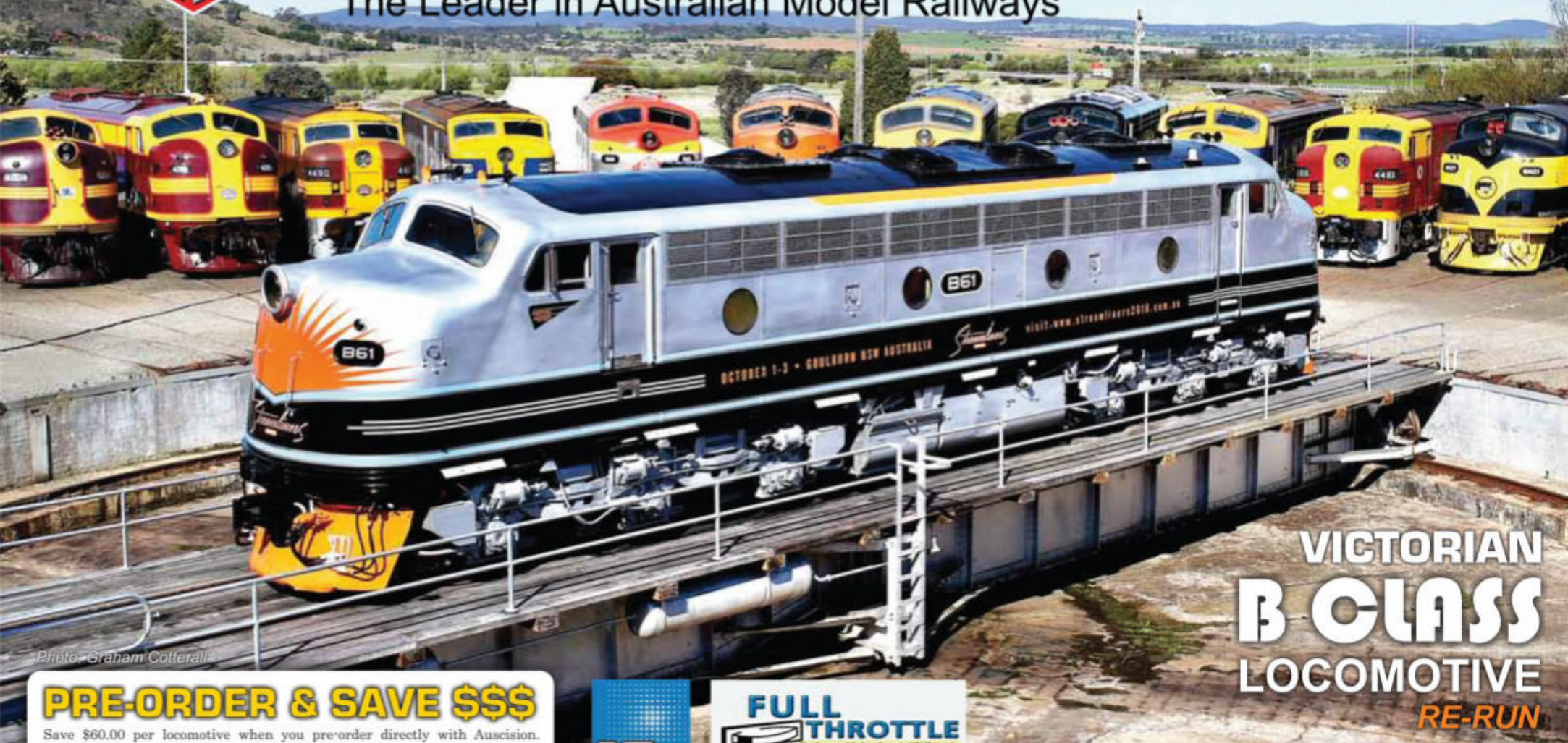


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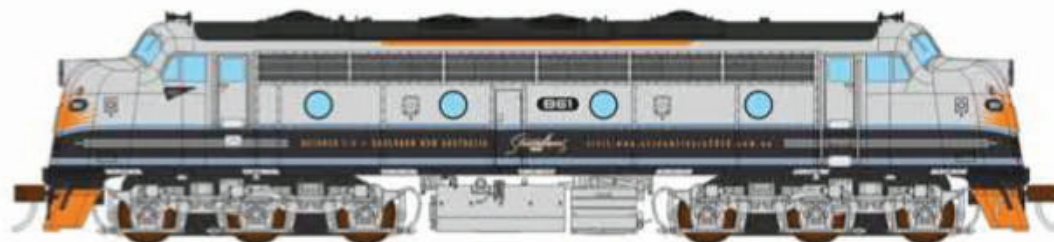
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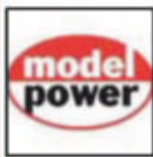


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▲ Big Alco, 956, has pulled into the passing siding at Woodside to wait for a cross with an up passenger train from East Hills.

◀ Mainline Alcos 702 and 944 are standing in the Mile End shed awaiting their next turn of duty, while 948 is under repair in the background and branch line 848 stands over the pit. A major feature of the new Mile End depot is the locomotive shed, constructed from a British Metcalfe kit that has been extended to house two mainline locos. The track leading to the turntable passes next to the shed and retains coaling and watering facilities for servicing the occasional steam loco that may turn up on a special working.

◀ Branch line Alco 858 passes St John's church, working a Hillside to East Hills passenger service. The train is crossing the bridge over Church Road and will shortly make a stop at Crane's Crossing. The loco is hauling a typical 1960s era branch line consist of three 'Centenary' cars and a goods brake van.

The Hills Line Revisited

Barry Lloyd describes the extensions to his HO scale SAR home layout that have occurred since its last appearance in these pages. Photos by John Dennis, unless otherwise credited.

This layout last featured in AMRM Issue 302 (October 2013), describing that layout as it was at the time of publication. Reference was made at the end of that article to a proposed addition in the form of a dedicated locomotive depot to better service the 20 diesel locomotives in the fleet. At the time this task had been shared between the facilities at Dry Creek and Fairfield.

Mile End Depot

Approval was subsequently obtained to build the new depot and it was named Mile End Diesel Locomotive Depot, though it has become known simply as 'Mile End Loco'.

A suitable location for the depot was easily identified, basically on the other side of the passage way which gave access to both Hillside and Dry Creek yards, which were the main sources of work for locomotives. It was a convenient operating arrangement which did not require walking elsewhere in the room to work the locomotives into or out of Mile End.

Track access to Mile End could not be provided easily with any form of direct connection to either Hillside, Dry Creek or Hamley Bridge, without a reversing move somewhere, a situation consid-

ered unsuitable. In the end an extra set of points was provided at the up end of Blackwood yard to create a lead to the depot. This arrangement has worked well as locomotives running into or out of the depot do not need to enter Blackwood yard, avoiding a potential source of congestion. The extra light engine running time needed has not been an issue.

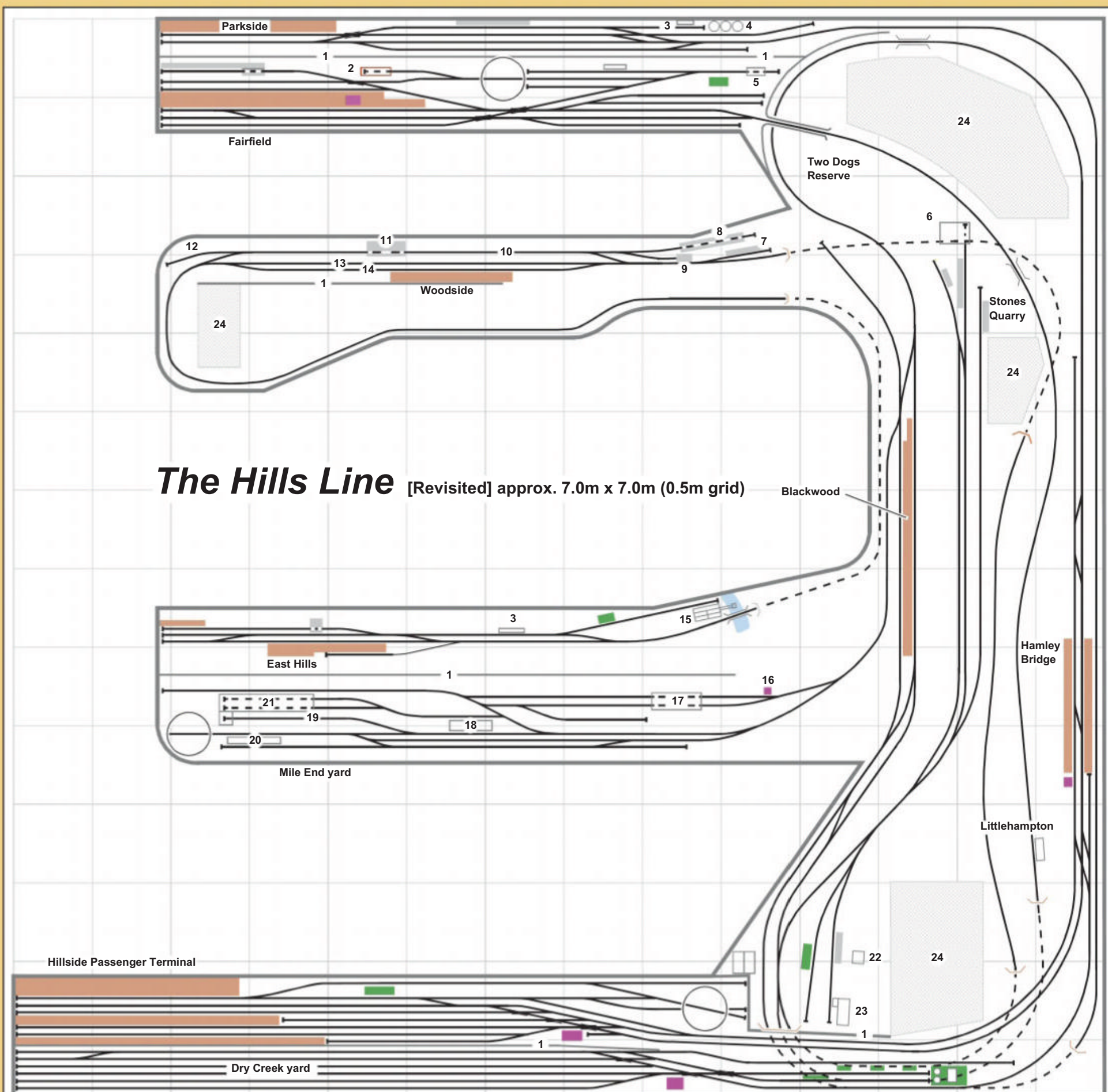
The Mile End complex also hosts a Light Repair Centre (LRC) where, as the name suggests, repairs to any vehicle in the fleet can be undertaken. The LRC is a simple scratchbuilt structure with one track inside the centre and another running under a verandah on one side of the building. Often special train movements are scheduled to deliver vehicles needing attention to the centre and later to return completed vehicles to their respective home yards.

A New Through Station

As a large part of the open section of the garage was by now not required by my car for parking, it was decided to also address another issue that had been a shortfall in the original design – the lack of a small country through station midway along one of the main lines. I felt that having the ability to



◀ To mark the closure of the layout described in this article, the author's first train, a Tri-ang 0-4-OT 'Nellie' and her three wagons, traversed the layout for the final time on Saturday, 26 May 2018. Here, the 'official' train is about to depart from Blackwood on the way back to Fairfield. Despite her age, 'Nellie' performed well and completed the round trip from Fairfield to Hillside and back again without incident. The author's intention was that 'Nellie's' next run would have been at the head of the first train on the new layout. Photo by Barry Lloyd.



The Hills Line [Revisited] approx. 7.0m x 7.0m (0.5m grid)

LEGEND:

- 1 wall
- 2 heritage engine shed
- 3 stock race
- 4 silos
- 5 loco depot
- 6 Blackwood explosive facility
- 7 mill platform
- 8 grain shed
- 9 oil siding
- 10 goods siding

- 11 goods shed
- 12 livestock pens
- 13 passing loop
- 14 main line
- 15 East Hills Flour Mill (& water wheel)
- 16 pointsman's cabin
- 17 light repair centre
- 18 fuel depot
- 19 pit
- 20 coal stage

- 21 main shed
- 22 Blackwood Timber Company
- 23 Blackwood stock race
- 24 void

- signal boxes
- goods sheds and platforms
- loco fuel points
- platforms

amended from the original layout plan (drawn by Jonathan Llewelyn)

© Pete Grant 2018



A view of the extended branch line to East Hills. The terminus, East Hills, used to occupy the spot now filled by the new station, Woodside, in the middle left of the picture, but has now been moved to the far right, next to the new locomotive depot at Mile End. Compare this view with the panorama of the old layout shown on pages 18 and 19 of AMRM Issue 302 (October 2013).

work a train to a small station, do some shunting and then continue on to the next station would add a new dimension to the train running. Until then, all three lines radiating from Blackwood only ran to terminal stations.

It was decided that another station could be attached to the back of the Mile End baseboard, so the question of the desired through country station was tackled next. The Commissioner, as he is prone to do, simply decided that the East Hills station module could be moved across the room and be attached behind Mile End, allowing the space thus created to be used for the new through station. This new station was named Woodside, after the station of the same name on the former SAR branch line that ran from Balhannah to Mount Pleasant in the Adelaide hills.

As East Hills was not part of the early configuration it was easy to separate the station module frame for the move across the room. However, this caused a bitter row to erupt among the good citizens of East Hills. The cut would leave their main source of work, the flour mill, behind, to become part of the new Woodside yard. After much negotiation, it was agreed that the flour mill would go with the East Hills yard and, by way of compensation, a

stock feed mill would be erected at Woodside to pacify the residents of the new town. The stock feed mill was also provided with its own rail sidings.

The layout of Woodside yard follows the prototype to a large degree, with the addition of the two sidings for the mill; one to serve the loading platform at the front of the mill and another for the delivery of bulk grain at the rear. The oil siding which existed at the up end of the prototype yard now serves the mill.

The arrival and departure signals that were at East Hills remained in position due to the amount of work required to relocate them. They now control train movements arriving and departing Woodside. The colour light departure signal can be controlled by whichever station has control of the single line section to Blackwood. The lower quadrant arrival signal is operated by the Woodside panel in the same way as it was in its former role as the East Hills arrival signal.

The section from Woodside to East Hills is now worked under Train Order conditions. This adds a new dimension to train running as well as saving the cost and time involved in purchasing and installing more signals at East Hills.

Improved Train Operations

The addition of Woodside has had quite an effect on the running of the East Hills line. There is now more goods traffic, generated largely by the mill, but also by the goods shed and cattle siding. By its nature, the yard at East Hills cannot accommodate the larger trains arriving after they have picked up loading from Woodside, so a lot of trains now only run as far as Woodside and return. Several goods trains actually run straight through Woodside while others will stop to shunt, but leave any outgoing wagons there to be collected when the train returns on its way back to Dry Creek. This has given rise to the need to increase motive power on the line, with more mainline locomotives appearing to tackle the rising grade from Woodside, through Tunnel No.2 to Blackwood.

Another aspect of train working on this line is that there are now a number of opportunities to incorporate passenger and goods trains crossing at Woodside. Leaving wagons on the passing siding creates interesting challenges for the scheduling of these trains – not unlike some instances that used to exist on the SAR.



◀ Another view of the Mile End shed showing some of the interior detail of the roof construction. The shed is fitted with electric lighting, formed by LED strips muted with tape to represent the more muted glow from incandescent lamps. The lighting was provided to enable operators to see where locos were in the shed; a unit standing at the back of the shed is quite hard to see in the dark. A location board is located near the shed to indicate which locos are where, but this board does not always get updated. So far there have been no 'incidents' where a loco has hit the rear wall!

The Future

The layout will have been dismantled and placed in storage by the time this goes to print, as yet another house move is planned. The process will start with an official 'closing day' after which

the process of disconnecting, cutting, packing and transporting will begin in earnest.

The very last train to run was my Triang Nellie and her three wagons, which are now in their 52nd year!

▼ Another view of most of the layout, showing how the extension fits in to the existing layout. Mile End locomotive depot is in the foreground with the East Hills terminus behind.



► A view looking towards the main line at Mile End, highlighting the remaining steam era infrastructure that still exists in the yard. In the background can be seen the diesel fuel point and the repair sidings.

A New Start

Plans are being developed for a special room to house the layout in the new home. This room will be 12m by 10m, giving extra room to expand the layout while still retaining the basic configuration as it is now. More running length between stations and the lack of any tunnels will give more opportunities to showcase the trains while they are running.

One new siding at Parkside and one at Dry Creek will be provided to ease some of the congestion currently experienced at Dry Creek at times. Some of the interlocking for the triple junction at the down end of Blackwood will be able to be simplified, and a new line will serve Stones Quarry which will be separated from Blackwood sidings. Mile End Loco will be tucked in next to Hamley Bridge, providing a much more convenient connection to both Hillside and Dry Creek yards.

Perhaps the best part of the new layout will be that operators will no longer have to reach over one station to work another behind it. This situation currently exists at two locations – Parkside located behind Fairfield and Dry Creek behind Hillside. On the new plan all stations will be directly accessible thus removing possibly the biggest inconvenience with the system as it is now.

Sadly, Barry's plans for his new layout will not now come to fruition as he died unexpectedly after a short illness on 18 December 2018 – Editor

► An up goods, hauled by 805, crosses the girder bridge over the swamp between Crane's Crossing and Woodside, observed by a passing 'gunzel' from the conveniently provided look-out!

► Big Alco, 956, hauling a down goods, passes the church on the hill, just after the bridge over the swamp seen in the previous photo. The locomotive is crossing the bridge over Church Road. On arrival at East Hills the loco is scheduled to work a livestock special back to Dry Creek.

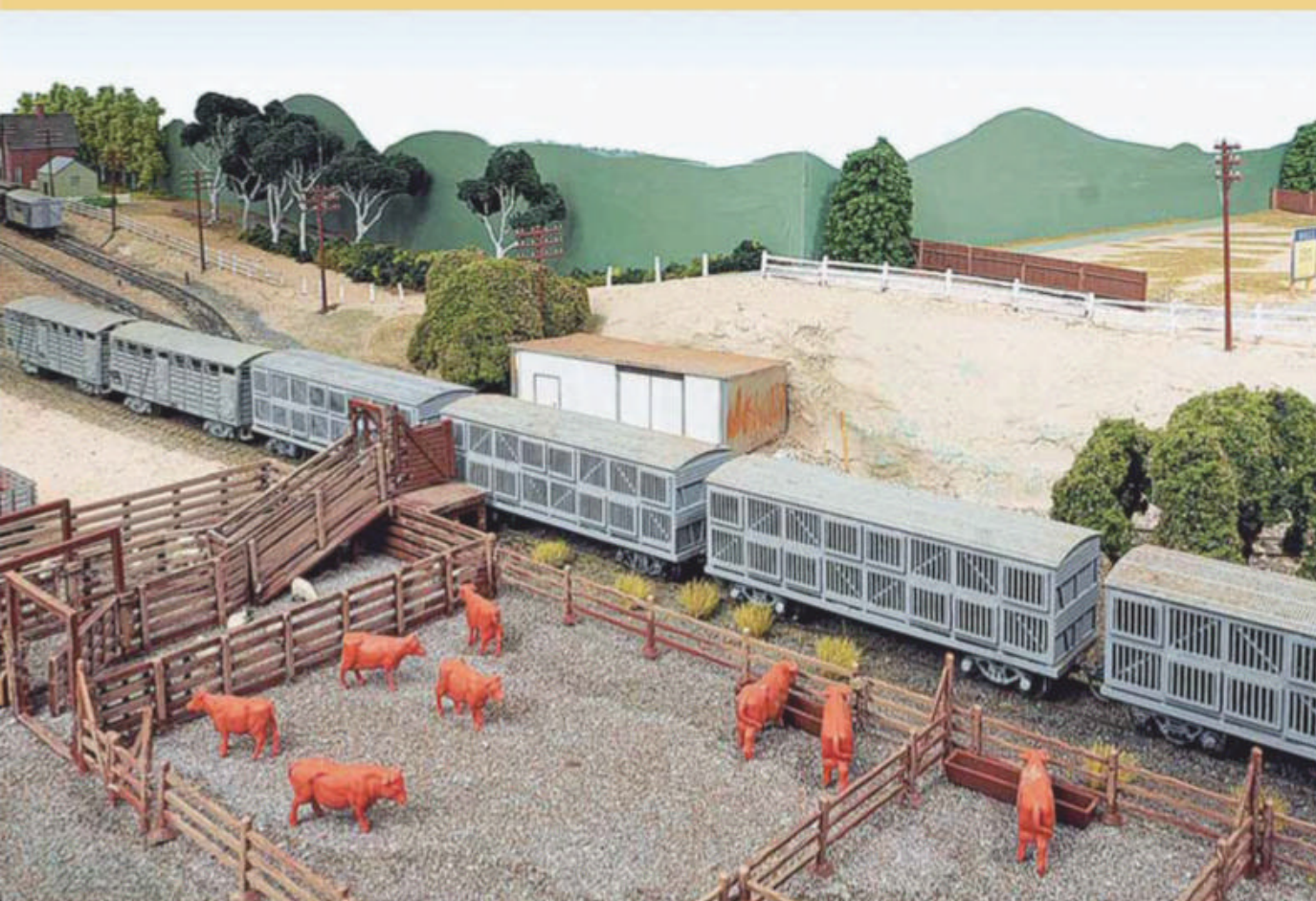




◀ English Electric loco 805 arrives at Crane's Crossing while working an up East Hills goods train. The train will stop here to load or unload van goods before continuing on to Woodside.



◀ Between the swamp and the church is this footbridge which gives pedestrians access to the church and the lookout over the swamp. Little Alco, 858, rolls past with an East Hills-bound passenger train.



◀ The stock siding at Woodside generates a useful amount of traffic for the line and a rake of sheep and cattle wagons is in the process of loading some of this four-legged traffic. The ganger's shed on the far side of the line was scratchbuilt from card to a design often found around SAR country stations. On the prototype Woodside, the shed was on the near side of the line, but for convenience was placed in this position, opposite its 'real life' location. The real shed was still in existence when last visited, but had been modified to serve as a hay shelter.

► Mainline locomotive, 956, is arriving at Woodside with a short train of empty vans for the stockfeed mill. After shunting here, the train will transfer the loaded vans from the mill to their destination at East Hills. The prominent stop board governs movements into the mill siding, as well as departures from the passing siding toward Blackwood.



▼ The up local passenger train, hauled by 858 running long-end leading as there are no turning facilities at East Hills, arrives at Woodside for the cross with 956 on the goods. The Rx 'cool car' insulated van on the rear of the passenger train was often a feature of SAR passenger trains, used for important perishable products, such as the beer supply for the local pubs!





Scratchbuilding a NSWGR VHO Passenger Brake Van Part 2

Kevin Tiernan continues his series of articles on building an HO scale passenger brake van. Photos by the author.

The first article in this series, "Scratchbuilding a NSWGR VHO Passenger Brake Van: Part 1" appeared in AMRM Issue 334 (February 2019).

The Guard's Doors

We are almost ready to take our four side sections and join them to form two completed sides. Before we can do this, however, we need to prepare the centre guard's doors. Measure the width of these two doors and file them down until you get a measurement of 10mm in width both top and bottom.

If you are using recycled doors from a donor Lima carriage, or from a set of commercially available sides, these doors may still have a tiny 'dot' on each side, leftover as part of the residual 'belt rail'. Gently use your scalpel to remove these and lightly sand back these surfaces. While the moulded-on handrails are quite adequate as they are, you will also need to remove them if you wish to replace them; otherwise, leave them as-is.

Cut two sections of Evergreen No.144 (0.040" x 0.080") at 15mm. Glue these strips to the top of the doors, ensuring the front edge of the strip is level with the front of the top. Next, cut four sections of Evergreen No.124 (0.020" x 0.080") at 25mm; these are to be glued onto each side of the door with the tops butted up hard against the previously applied No.144 section, the front edge level with the front edge of the door roundels and any excess protruding from the bottom of the door. When dry, trim away the excess from these strips and file/sand smooth, checking the door measurements to ensure a uniform width of 11mm.

Finishing the Sides

Take a 'left' side section (the edge to be fixed to the guard's door should be on the right-hand side when viewed front on) and check the width of the whole section is completely uniform and square. With the top edge of the side section and the guard's door pressed up against a steel rule, check the mating surfaces are both perfectly flush with no gaps. Apply glue to the left-hand edge of the guard's door and mount to the side section while using the rule to ensure the tops are level.

While the glue is drying, check that the top front edge of the guard's door is level with the front edge of the letterboards, the door is vertically level with the side section and not at an angle (check this on both the front and back sides of the guard's door) and that the door is perfectly flush with the rest of the side.

Leave this assembly to dry for a few hours then repeat the whole process with the 'right' side section (the edge to be fixed to the guard's door should be on the left-hand side when viewed front on; the glue is applied to the right-hand side of the guard's door).

For additional security, apply four 24mm sections of Evergreen No.104 (0.010" x 0.080") to the rear of the sides. Two of these are applied to each side of the guard's door, to level the side sections to the rear of the door, while the other two are applied to overlap both the previous strip and the rear of the

guard's door. Leave everything to dry overnight by positioning the sides upside down on a flat surface (i.e. the tops of the sides are pointing downward onto the glass).

The final piece of bodywork to be carried out on these sides is the inclusion of the coffin chambers and dog box compartments (the objects which look like square louvred sections), which were only fitted to one side of the carriage. If you refer to Diagram 1 in the previous article you will see I have included four of these on the plans, and therefore I will describe this step as if we are including all four on the model. However, depending on the particular VHO you are building you may not need to include all of them; again, check your prototype photos and go from there.

Two of these coffin chambers/dog boxes are located in the top section of the side, extending down from just below the base of the double letterboard (NB: according to the photographs of the various prototypes, it appears these chambers were always located in the same positions on these vans, no matter what type of letterboard these carriages had), while two were located in the bottom section of the side extending downwards from the base of the belt rail. All of these chambers are located in the left-hand 43mm section of the side.

Measure down 6mm from the base of the double letterboard at several points within the relevant area and scribe a line with a fine-tipped permanent marker or sharpened 2B lead pencil; now repeat this exercise from the base of the belt rail. Next, measure and mark three vertical lines within the top section of the side; from the left-hand edge of the side you need to mark and rule lines at 5mm, 25mm and 30mm. For the bottom half of the side, measure in from the left-hand edge of the side and mark four lines at 20mm, 25mm, 30mm, and 35mm. If it helps you, draw a small "X" within the two top 'squares' (one between the left-hand side (0mm) and 5mm, and one between the 25mm and 30mm marks), and the bottom two squares (between the 20mm and 25mm marks, as well as between the 30mm and 35mm marks).

Using a steel rule as a guide, scribe the squares into the styrene with a very sharp scalpel blade – two gentle, but firm, passes per line should be all you need here. We are now going to employ the same method we used to create the windows within the luggage doors, except we are going to partially 'fill in' these holes again after we finish. While all we need to remove is just the front section of siding without touching the 0.030" base, I've thought about how to do this without damaging the front of the sides, and to put it simply 'there is no polite way to do this', so we will have to punch through the whole side and install a new 0.030" 'plug' for each hole.

Take a 3mm drill bit and pin-vice and drill through the centre of each square. Widen the squares out to their line markings using the same techniques listed previously (scalpel blade to get

close to the edges before a combination of small jeweller's files to finish the edging and to clean up your work).

Take a sheet of excess 0.030" styrene and cut a 30mm long strip that is just over 5mm in width. Next, cut the strip into four pieces just over 6mm long. We now need to gently file these pieces down until they are a snug fit in each of the four holes. When satisfied, lay the side with the base section against a flat surface and firmly push the plugs' corners with a toothpick from the front until the rear of the plug is perfectly flush with the rear of the base section.

Glue the plugs in place with a solvent glue; you should first use a small 'bead' around each edge on the front side before giving the rear side an all over 'coating' in these areas. Don't forget to constantly check the plugs haven't 'risen' in the hole when glued by again using the toothpick to firmly push the plugs flush with the rear of the base section, as shown in Photo 6.

When this has dried it is time to 'line out' the vents in the squares; cut eight pieces of Evergreen No.132 (0.030" x 0.040") just over 6mm long. Test fit these along the vertical edges of each square, and trim away any excess before gluing into position with the 0.030" faces glued to the plug (the 0.040" width should make these strips protrude out of the sides slightly).

Cut another eight pieces from the same strip, but to just over 3mm long. Again, test fit these along the top and bottom edges of the squares, and glue them into position with the same orientation as before. When dried, gently clean up the front face of this border with some 320 grit wet and dry sandpaper if needed.

The vent louvred 'slats' are made from six pieces of Evergreen No.131 (0.030" x 0.030") cut to 3mm lengths (see Photo 7). Place a small dab of superglue onto the plug and position these pieces horizontally within the square. While the glue is beginning to set, use your scalpel blade to establish a regular spacing between each slat, making sure the overall appearance is as consistent as possible (in my opinion, vent slats are always one of the hardest things to get right when scratch-building them so do your best here). Leave it all to dry for a few hours.

Moving onto some superdetailing...

The prototype has a letterbox and small brass plaque to the left of the guard's 'ducket', which features on both sides of the carriage. The letterboxes are made from a 5mm strip of Evergreen No.103 (0.010" x 0.060") and glued to the left-hand side of the guard's doors, with the bottom right-hand edge positioned 11mm from the edge of the door and 2.5mm above the belt rail. Similarly, the plaque is made from Evergreen No.102 (0.010" x 0.040"), cut to 3.5mm and glued with the bottom right-hand edge positioned 12mm from the left-hand edge of the door and 5.5mm above the belt rail.

The guard's duckets are made from 0.030" sheet styrene cut to 9.8mm x 6.5mm (the 9.8mm is the vertical measurement). Square up the edges before using a small jeweller's file to 'round-off' a quarter angle along the top and bottom; make the round-off about 0.030" wide. Make sure the edge lines on the front are as straight as possible before fitting to the carriage sides. These are to be glued with the right-hand edge 4mm away from the left-hand edge of the guard's door (see Photo 8).

Handrails, Side Rails and Door Handles

The final task for the sides is to create the handrails, side rails and door handles, all of which are made from 0.45mm brass wire. Assembly wise, it is easier to start simply by making the door handles first before working outwards to the vertical handrails and finally the



The cut-outs for the coffin chambers and dog boxes have been constructed and the base plates installed. The next step is to construct the louvred doors.



The completed coffin chamber and dog box doors.

more complex horizontal side rails along the body. For this section you will need to complete all of this work with a set of 'rat-nosed' pliers, along with a set of side cutters (e.g. the Xuron brand of cutters mainly used for track construction and cutting), a ruler and callipers.

First though, some hints for those who are new to bending handrails, or for those looking to improve or troubleshoot their methods. Measure the width of the tip of the pliers so you can more easily judge the dimensions and save a little time, rather than 'juggling' pliers and a ruler.

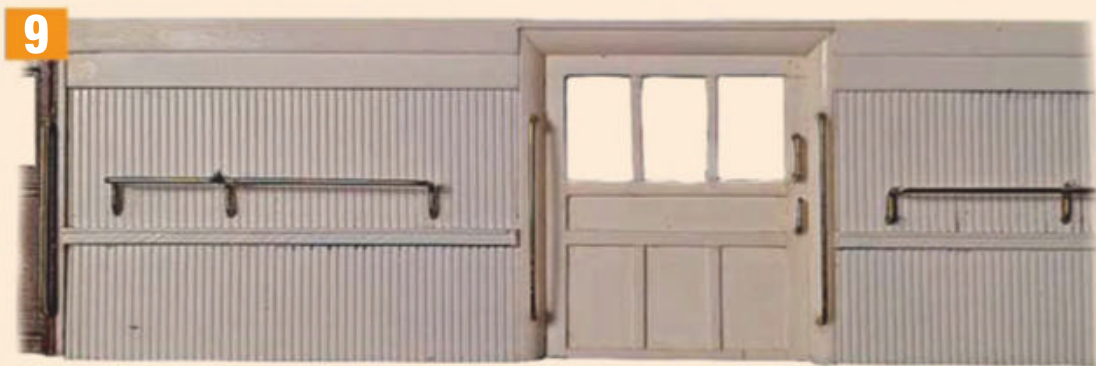
Another handy shortcut when bending wire into a 'U' shape is, once bent, take the finished U and check how level the 'prongs' are by holding one side of the U in the pliers and eyeing up the free side to the other side, before gently bending it to level if needed. This small step will help substantially by eliminating any installation problems when positioning the handrails, or 'out of level' handrails which bend awkwardly along the visible section.

The actual door handles are simply made by measuring from the end of the wire 2mm and forming a 90° bend. From the bend, measure along about 4mm and cut. Make six, one for each door on the VHO. Two, for the guard's doors, are to be positioned where the current moulded-on door handles are; gently trim away the moulding before using a 0.5mm drill and pin-vice to drill a hole to the left-hand side of the old moulding area (the 'open' section of the handle is positioned towards the centre of the door). Position the 4mm length of the new handle into the hole with the 2mm section sitting horizontally, and superglue into place from the rear while making sure the handle sits about 1mm out from the door face.

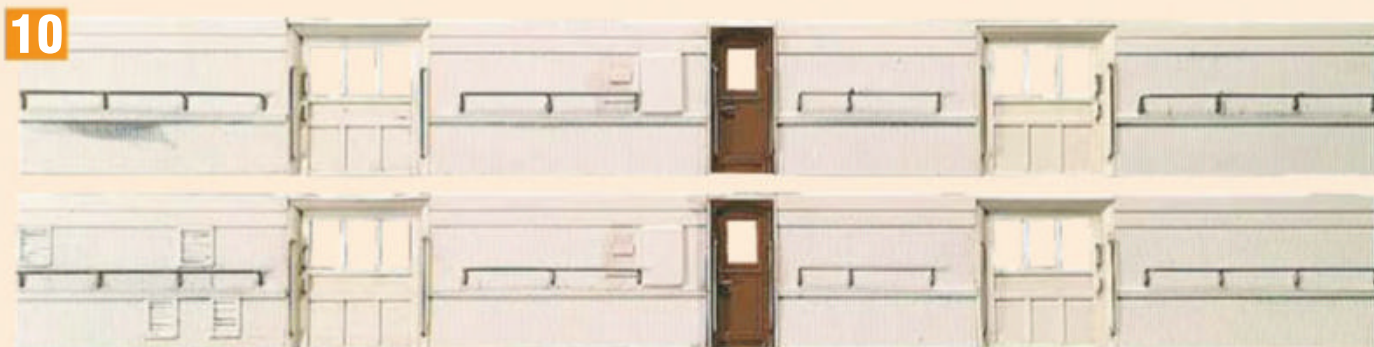
The four handles for the luggage doors are drilled in the centre of the



The guard's door, ducket, letterbox and mailing instructions notice board have been added.



The hand rails and side rails attached to the body sides. While the side rails can be tricky to bend, the end result is worth the effort.



A completed pair of VHO sides, ready for assembly.

outer sides of the door face (please check the prototype photographs for details), positioned 9.5mm from the bottom of the carriage side. Drill and glue with the handles positioned vertically (open section pointing upwards).

Make the four 'grip' handles, which are also positioned on luggage doors just above the recently applied door handles. Measure along 4mm, before bending the wire 90°. From the bend, measure along 3mm before inserting another 90° bend to form a 'U' shape; measure along 4mm and cut. On the same vertical plane as the luggage door handles, measure 13.5mm and 16.5mm from the bottom of the carriage side and drill two holes. Install the handle and superglue in place ensuring the 1mm gap from the door face.

The vertical handrails are made by bending the wire into a U shape, with the measurements 4mm - 14.5mm - 4mm. The locating holes are drilled into the vertical door 'roundels' at 3mm and 17.5mm from the bottom of the sides (for a more stable hole when drilling, it helps to drill into the face of the roundel at a 45° angle before slowly bringing the pin-vice back to a normal vertical position as you drill. All of this should be accomplished within the first six or so turns of the drill before drilling the hole 'home' from a normal vertical position). You will need twelve of these handrails, one for each side of every door.

Finally, make the complex horizontal side rails, which sit alongside the horizontal length of the carriage. In order to simplify this step, I will describe the bending technique first before listing the centre section (hereafter labelled as the 'shaft') dimensions. The golden rule to remember here is that all the bends occur in the prongs of our U-shaped handrail with the shaft remaining unaffected. Refer to Diagram 3 at all times during this section for a visual reference.

Bend up a U-shaped handrail with 6mm prongs and the required shaft length. Position the handrail in your pliers with the shaft pointing out of the front and the prong out of the side, with a 2mm measurement between the bend and the edge of the pliers (in other words, you should have about 4mm worth of the prong hanging out of the side of the pliers). Hold the pliers so the shaft is horizontal and bend the prong vertically downward by 90°. Repeat this step at the other end of the handrail; if you

have done it right, your handrail should now have a downward pointing vertical prong at each end.

Next, position the remaining prong in the pliers with a 2mm spacing between the bend we have just made and the edge of the pliers (2mm of the prong remaining out of the side of the pliers). Before you insert a second 90° bend, ensure the prong is positioned perpendicularly across the width of the pliers and the shaft is still horizontal to the jaws; bend when ready then repeat for the other end. You should now have a U-shaped handrail with what I can only describe as straightened 90° 'S' type bends in each end.

You will need four handrails with a shaft length of 38mm (for the 43mm side sections), two at 28mm (for the 45mm side sections), and two at 22mm (for the 32.5mm side sections).

Now the side rails are complete, drill the holes to position both them and the handrail supports in place (all handrail holes are to be drilled 1mm above the belt rail). The 38mm handrails (for the 43mm side sections) need to have their holes drilled 1mm and 39mm in from the outer ends of the side. Two handrail support holes are to be drilled 12.5mm in from these two outer holes.

The 28mm handrails (for the 45mm side sections) need to have their holes drilled 5mm and 33mm from the outer right-hand edge of the left-hand luggage door's roundel. A single handrail support hole needs to be drilled 14mm in from between the two outer holes, which will position it in the centre of the handrail.

The 22mm handrails (for the 32.5mm side sections) need to have their holes drilled 7mm and 29mm from the outer left-hand edge of the right-hand luggage door's roundel. A single handrail support hole needs to be drilled 8.5mm in from the left-hand hole.

Finally, make twelve handrail supports, which are positioned at intervals along the length of each handrail. Repeat the above method of bending the prongs used when creating the side rails, but this time use a fresh piece of wire instead of a U-shaped piece of wire. The final product should be the exact same shape and dimensions as the 'ends' of the side rails (2mm, 2mm, 2mm with 90° bends in between).

Position each side rail into place but do not superglue into position yet; check them for overall evenness and consistency, adjusting if needed. When satisfied, start to position the handrail supports into place; each handrail support, when positioned correctly, should have the outer end touching the back of the side rail and sitting level, not sitting above or below; adjust if necessary. Either superglue or spot solder the handrail supports to the side rails.

If soldering, complete all of your soldering before using any superglue – safety first! Prepare the joint with a small amount of flux (if you can, try to use a 'non-corrosive' flux for this step, such as the Brunel Hobbies No.3 Flux), before using your soldering iron (use a temperature controlled soldering iron for this

step, not a standard one) to apply a small amount of 145°C 'detailing' solder to complete the joint. The joint will normally occur straight off, so don't dwell with the iron. Clean up any solder debris (if needed), before cleaning the solder joints with a neutralizing solution (Methylated Spirits, CLR, etc.). When dry, position the completed side rail assemblies and superglue them in place from the rear (see Photos 9 and 10).



Comparison between an original end, with a 1mm 'packing strip' added to bring it up to the same (scale) height as the sides, and the modified end with the grooves between the timber siding extended onto the packing piece.

Construction – The Body

Take both sides and check the overall length is the same on both. Another useful indicator is to stand them on their ends on a glass surface and to look at the 'top'. File down any excess and level up the edges until you have a completely matching and level set of sides; set aside.

Prepare the ends of the carriage by cleaning them of any casting burrs or flash, and checking the mating surfaces are level. Use callipers to measure from the bottom of the ends to the top of the side; if using the Sydney Hobbies SH42 '72'6" Car Rebuilt Ends', you should have a measurement of 24.5mm or so, which will match the sides. If so, skip this next step and proceed onto assembly.

However, if you are using either Lima, L&C or Casula Hobbies original 'Matchboard/Tongue & Groove' ends, these will measure approximately 23.5mm and will need to be packed up by 1mm (Photo 11). Clean up the ends and make sure they are free of flash and casting burrs; in particular, pay close attention to how level the mating surfaces are where the sides join onto the ends, and ensure the bottoms of the ends are flat and level.

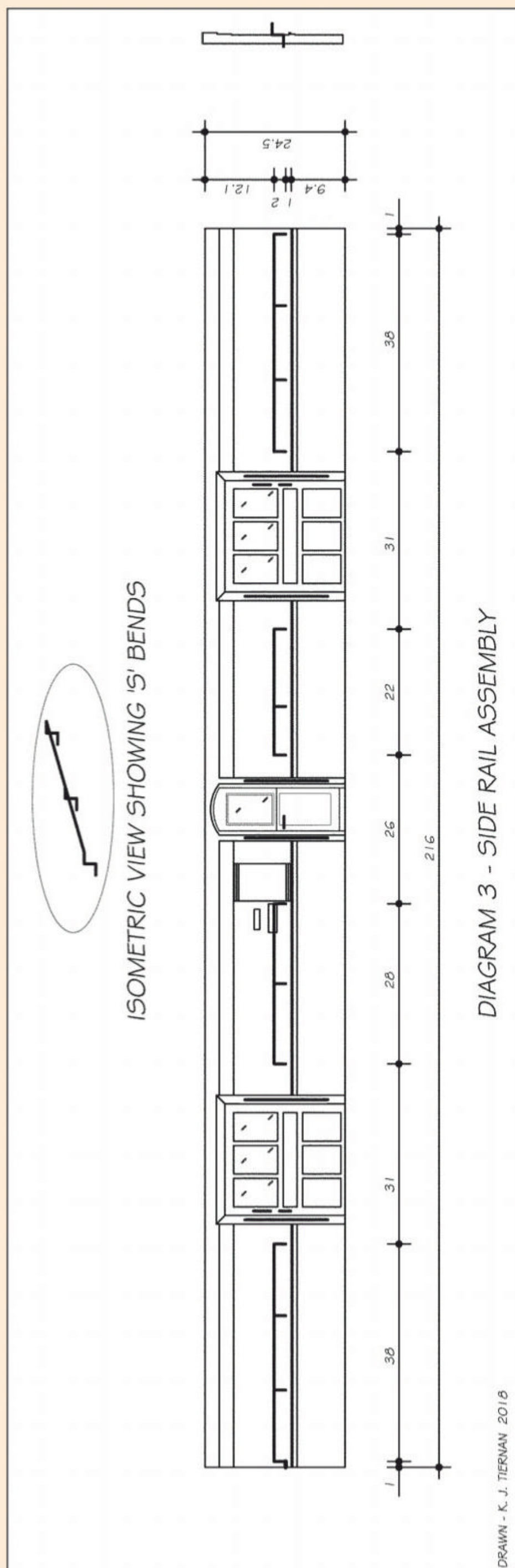
Cut two strips of Evergreen No.147 (0.040" x 0.156") 34mm in length and glue one to the bottom of each side, making sure the edge of the styrene is level and flat to the rear of the end (again, use a flat glass surface for this situation). When dried, use a sharp scalpel blade to cut away the excess styrene from the front of the end as closely as possible to the end. Use a combination of gentle filing and sanding with 320 grit 'wet and dry' sandpaper until the styrene perfectly fits the entire front profile of the end.

Finally, if you wish, use your scalpel to continue the 'grooves' into the new styrene by laying the whole blade in the groove and gently pressing down (don't scribe or cut these grooves. By using the above method you can achieve perfect continuous grooves by positioning the scalpel and simply letting the blade do all of the work). Clean off any final flash and recheck your work with the callipers to ensure your work is at the correct height and level (Photo 11).

Take a side and an end and apply glue to the left-hand edge of the side. Mate this side to the end, ensuring the front edges are perfectly aligned and not sitting at an angle, the bottom and top edges are aligned and level, and the end is sitting at a perfect 90° to the side (an accurately cut wooden or metal block is perfect for this purpose).

Repeat this process for the remaining end and side. Leave both to dry for a few hours before gluing these two 'assemblies' together (one joint at a time!) Leave to dry completely on a flat surface.

To be continued...



Tea Bag Tarps



Mark Laidlay covers the wheat in his GY wagons. Photos by the author unless otherwise indicated.

Sometime, somewhere, I heard about modellers using tea bags for tarpaulins on GYs, Victoria's ubiquitous wheat truck (they had about 6000 of them). It might have been while watching a long train of tarped GYs on the *Woodend* layout in the late 1970s, hauled by a scratchbuilt X class (steam) locomotive. It might have been at that time I heard about the use of model aeroplane dope. Or it might have been a little later discussion with Trevor Doran who used dope in his youth (the model aeroplane type!) Dope is used to tighten and seal the fabric on the light-weight flying models and works well in tightening tea bag material to represent the appearance of a full sized tarp.

Photos of prototype tarps can be seen at:

- www.victorianrailways.net/freight/freight%20pages/gy/gy2.html
- www.robx1.net
- Train Hobby books etc.

A few are reproduced in this article.

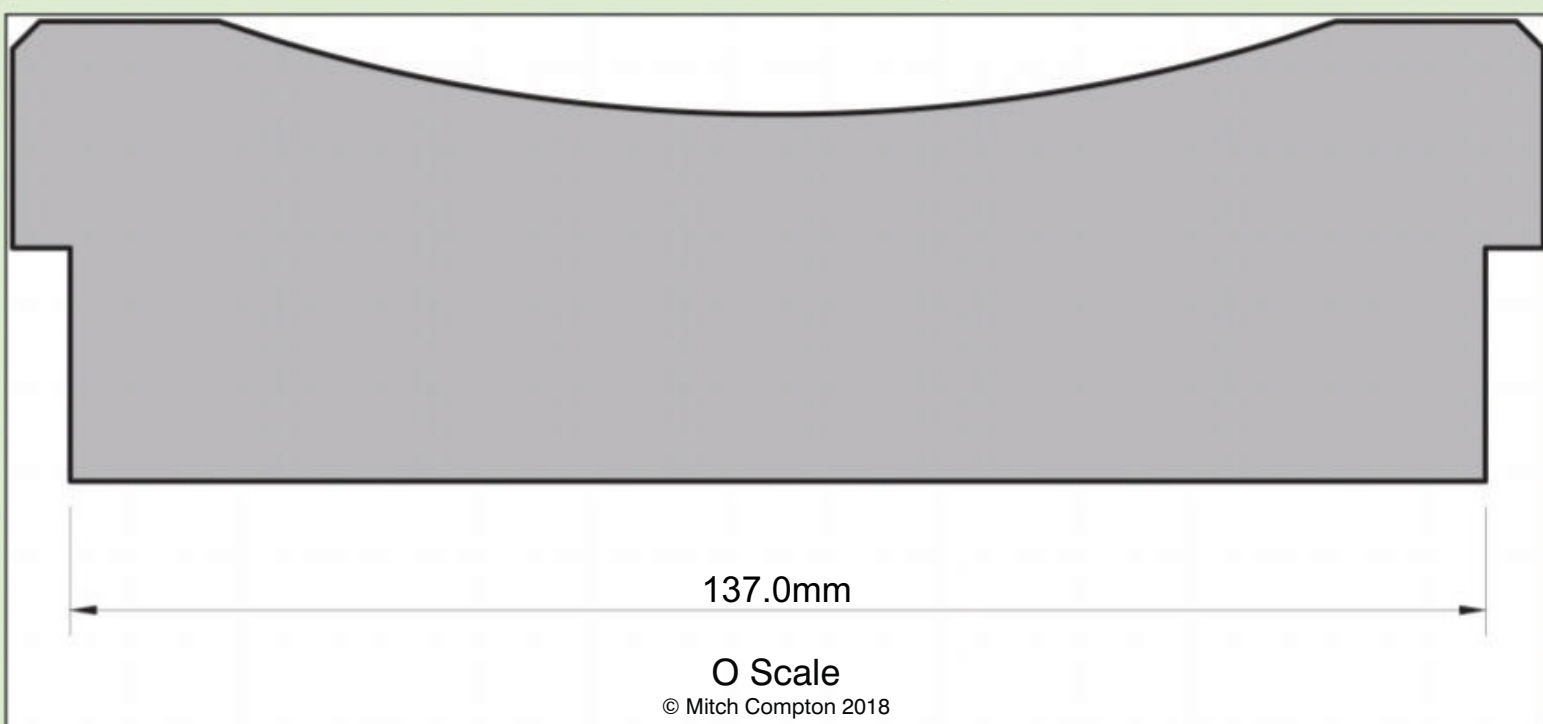
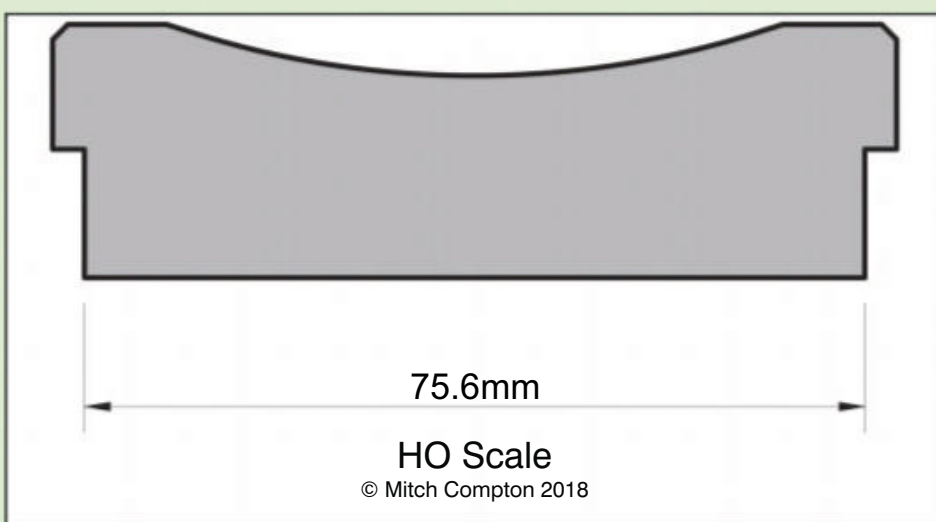
It was about this time that I decided I was a VR modeller, so I needed some GYs. I scratchbuilt some over a hot weekend in the summer of 1978, then got some epoxy Malric kits through McBees, then Broad Gauge Models brought out their injection moulded kit. So I built up about 20 GYs and fitted some of them with Broad Gauge Bodies tarps. These were just temporary, of course, until I did the tea bag version; I had a good number of GJFs (BGB and SEM) to handle most of the wheat anyway. They stayed temporary for many years while other more important things happened; track, locos, other rolling stock, an exhibition layout, DCC, fascia, structures etc...

Of late, I have been looking at many unfinished and unstarted projects including; Brasstic SAR 600 class, station building, a couple of loco kits, decalling lots of trucks and tea bag tarps for the GYs. With the arrival of 21 r-t-r GYs with no tarps the need for tarps became pressing.

Through enquiries on Railpage, I found Eze Dope. This is a water-based product that is a lot less dangerous to your health than the smelly earlier version from the 1970s. Fortunately, I never got to smell the old version so maybe it's a good thing I waited 40 years. I got a 250ml bottle of Eze Dope (which is

enough dope for several hundred trucks) from www.rcmodelaircraft.com.au, but it was listed as available from many other sources as well.

I tried dyeing and then printing VR chevrons on the tarp before fitting to the model, but once I applied the dope the tarp became transparent and shiny, so they must be painted after the tarp is attached to the truck. I tried the first tarp without a support along the cen-



tral seam; this didn't look right so subsequently I have fitted a former made of styrene or card. This better reproduces the look of the rope that runs along the seam between the tarp supports at each end of the truck.

Warnings

As the dope dries it becomes waterproof, so keep washing the brush and always rest it in water. It is likely that you will need more than one brush and they will all end up in the bin if you are doing a decent number of tarps.

Similarly, when you finish use of the dope clean the thread on the jar and lid otherwise it will stick quite well and be very difficult to open next time.

The tarps are permanent in that to be removed for any reason they need to be scraped off where they contact the truck sides etc. (I did this to several as I was not happy with the tarps first time).

There is no difference between used and unused tea bags, they just need to be dried (a couple of dry days outside on the clothes line will do that). The variety of tea doesn't matter, but those tea bags with staples at the top are best for opening up. Twinings and Lipton seem to use identical bags, thus both are suitable. I have seen some bags with seams across the bottom, though, which makes them unsuitable.

Once the tea bag is dry, cut the staple end off; the bag is not big enough to get two tarps out of one tea bag (assuming HO scale), so there is no point in being overly careful [Photo 1]. Open up the bag along the loose seam and remove the tea; flatten the bag. Maybe the tea can be used as scatter material for scenery.

Cut a strip of card or styrene as per the drawing and trim to fit. It needs to be a neat fit the same length as the interior sides and the height at the ends should match the tarpaulin supports (if fitted). To maintain a consistent look along a train try to make the top of each support a consistent height above rail level. I tried to set the height 12mm above the top edge of the truck. The curve between the supports can and should vary subtly. Glue the ridge support in place; dope or Aquadhere will work adequately. I used two pieces of 210gsm card to increase the rigidity [Photo 2].

Cut out a tarp, 50mm by 100mm, which represents a tarp having shrunk over some years. Fold the tarp in half lengthways.

The sides

Place the tarp with the fold on the ridge support with even overhang at the ends.

Tighten the tarp tightly across the centre support and down the sides, hold the tarp tightly by gripping it over two opposite doors. Apply dope on the tarp where it contacts the other two doors (wash the brush immediately), hold the tarp in place for ten minutes to ensure a solid grip that will guarantee a tight result [Photo 3].

Dope the tarp for the remaining length of the sides, leave for five minutes to ensure a good grip [Photo 4].

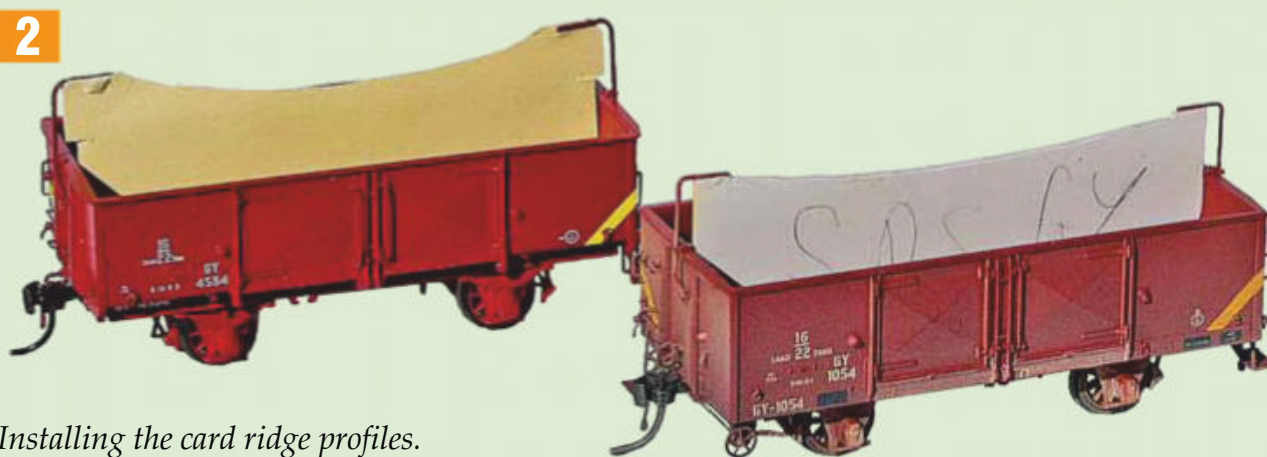
The ends

Apply some dope to the exposed vertical end of the tarp support then fold down the tarp so just the centre fold line is glued to the ridge former/tarp support, leave for five minutes to ensure a good grip [Photo 5].

Then continue the line of the tarp around the corner and dope in place, leave for five minutes or more [Photo 6].



A selection of bags in various stages of conversion from tea bag to tarpaulin.



Installing the card ridge profiles.



Start the process of securing the tarp by pulling down the tarp onto one door and dabbing a patch of dope on one door each side. When the first patches dry, do similar patches at the other doors.

Then fold down the remaining tarp into a triangle and dope in place [Photo 7].

Photo 8 shows tarp with sides and ends finished and ready for tightening up.

The middle

Dope the middle strips of both sides of the remaining tarp, avoiding wherever the tarp gets close to the ridge former and truck sides. If the dope is applied all over the tarp at the same time it tends to stick to adjacent flat surfaces such as the ridge former. Wash the brush in water after use.

Give this a couple of hours to dry and take up some of the slack in the tarp then dope the remainder of the tarp.

The damp tarp will sag a little under the weight of the fluid



Brush dope along the remainder of the sides of the tarp to secure to the side of the wagon.

5



Fold the centre of the tarp down the end of the wagon and secure with dope to the tarp support.

6



Fold the tarp from around the side onto the ends and secure with dope.

7



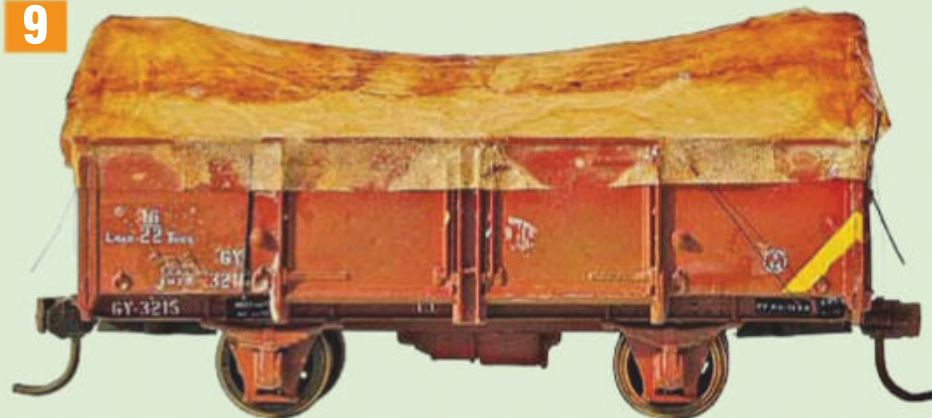
Fold the top sections of the tarp down over the ends and secure with dope.

8



Apply dope to the remainder of the tarpaulin and allow to dry.

9



The tarp after shrinking overnight. The next step is to paint it.

and as the dope dries it retains some sagging while tightening the tarp overall. Any bulges that might have been on the dry tarp are gone. Leave overnight and you will find that the tarp has tightened up and has some nice folds which bear some similarity to the prototype [Photo 9].

More dope can be added to increase the rigidity, but the shape and tension is now fixed. Be careful as the dope is thin and will run off easily.

Painting, or more particularly colour, became my biggest problem. The prototype started as an olive green, but weathered and faded to a dirty grey with a tinge of green. There are plenty of photos around, but they show a lot of variation depending on the age of the tarp, lighting on the day, film used and how it has aged and how the photo has been digitally edited for publication. How they look when you paint them will also depend on the lighting you view them under.

I ended up mainly using Tamiya flat acrylics, mainly XF-51 Khaki Drab and XF-71 Cockpit Green, each with a lot of XF-2 Flat White and sometimes combined with each other. I also used a little XF-67 NATO Green. Weathering helps unify the theme and a drift of grimy black works wonders by emphasising the folds [Photo 10].

Further detail that can be added includes:

- Repairs and patches
- 'Slack' tarps, i.e. not secured properly tightly when the truck is running empty
- The 'pocket' that the rope running through the top seam passes near the inner end of the tarp supports. I understand that the rope was tied to the inner end of the tarp supports
- VR chevrons, which were added from 1971 to indicate ownership
- Tie-down ropes, bristles from a 25mm (or similar) paint brush look promising, they are black, but when included in the weathering should fade somewhat.

GYs not only carried grain; most showed signs of having carried superphosphate. So, when weathering, some traces of white should be applied from just under the doors down on to the chassis, brake gear and W irons and axle boxes. Look at prototype photos for examples. This should be more prominent on the outside sill type (converted from IZ class, as modelled by SDS).

From the early 1970s, existing tarps had the VR chevron added and new tarps were synthetic and yellow and GYs were being painted Hansa yellow at that time. All this postdates my era so I don't have to worry about it.

The techniques described here could be used for tarpaulins on other VR trucks, as well as those of other, lesser, railways! The technique would also work in other scales; N scale would be tight, but in O scale, two tea bags sewn together on the centre ridge with the ropes around the side being tensioned by the tarp could be very satisfying.

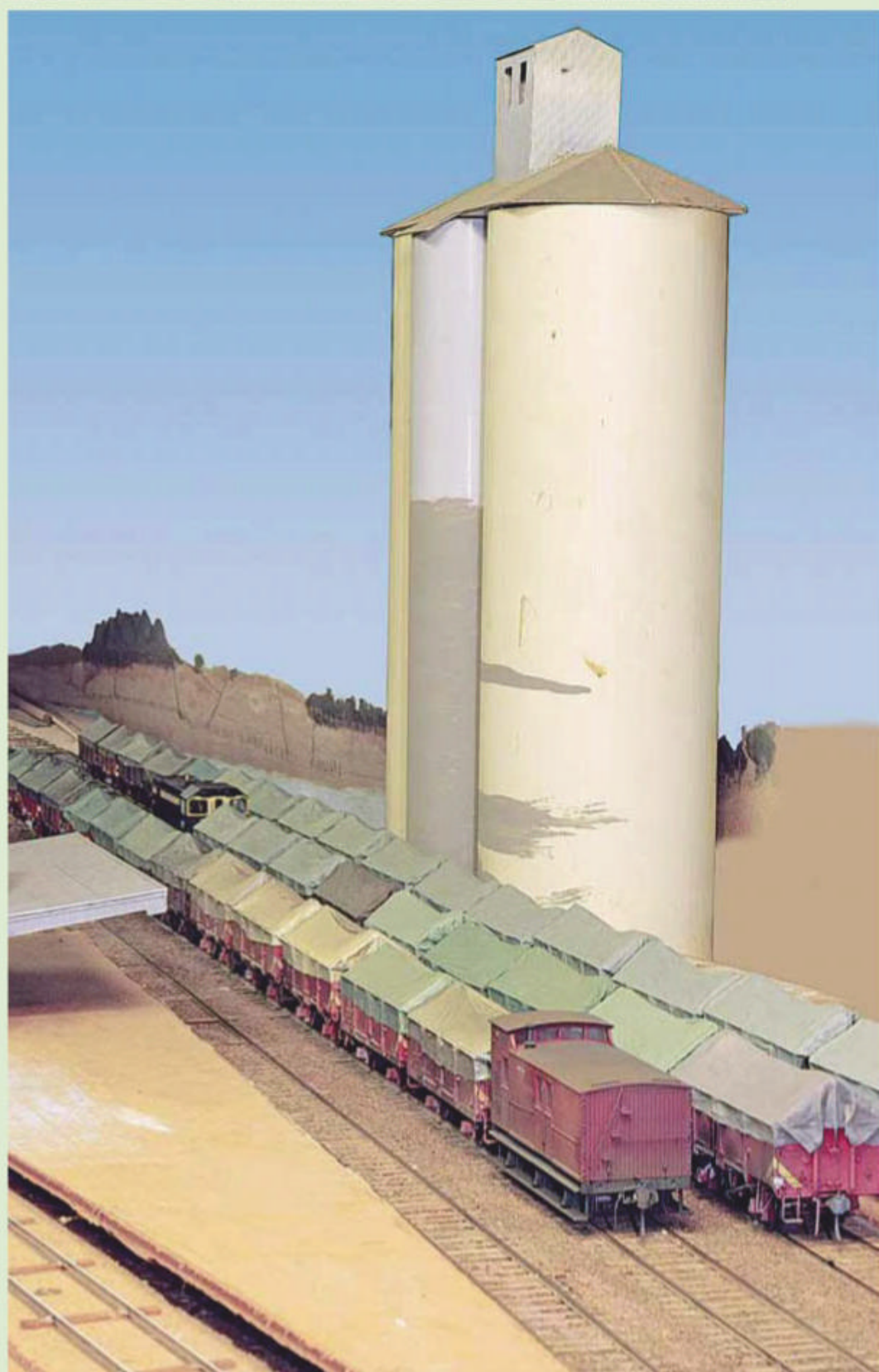
Geoff Winkler photographed tarped GY1152 at North Geelong in 1978.



Also in 1978, Geoff recorded GY4868 and tarpaulin at North Geelong. Both photos courtesy Mark Bau's website: <https://tinyurl.com/y9avbmzs>.



Ready to move the harvest on the author's under construction HO 5 1/4 layout.



10



The model is painted, weathered and ready for service.



Working Vestibule Connections in N Scale

Tony Scott constructs carriage diaphragms that look good and work in a realistic manner. Photos by the author.

Over thirty-five years ago I bought two Weico N scale VR S car kits—they had aluminium body shells and white metal ends, floors and bogies. They looked pretty good, but I decided they would look even better with vestibule connections that were in contact with their neighbours all the time. After giving it a bit of thought I came up with a method which involved cutting a hole in the end wall, making a solid box to represent the connecting passageway, and attaching it to springs that would permit it to move in and out with the pressure from the adjoining carriage.

The diaphragms obviously do not replicate the actions of the real thing, since a flexible concertina-type arrangement was way beyond anything I was prepared to attempt, but a solid, movable 'box' seemed achievable.

The technique worked and I was pleased with the result, so when I purchased three of the Aust-N-Rail *Spirit of Progress* cars I decided they also needed the same treatment. Here's how I went

about it. I'm sure the method could be adapted without much trouble to other carriages of any prototype or scale too.

Car Body

After removing flash from the windows and other edges, cut a rectangular hole in each end 14.4mm x 7.2mm, the edges of which are angled outwards toward the car sides (Photo 1). Gouge out a 1mm deep groove in the roof behind the door opening, keeping a 2mm width of the lintel in place (also Photo 1).

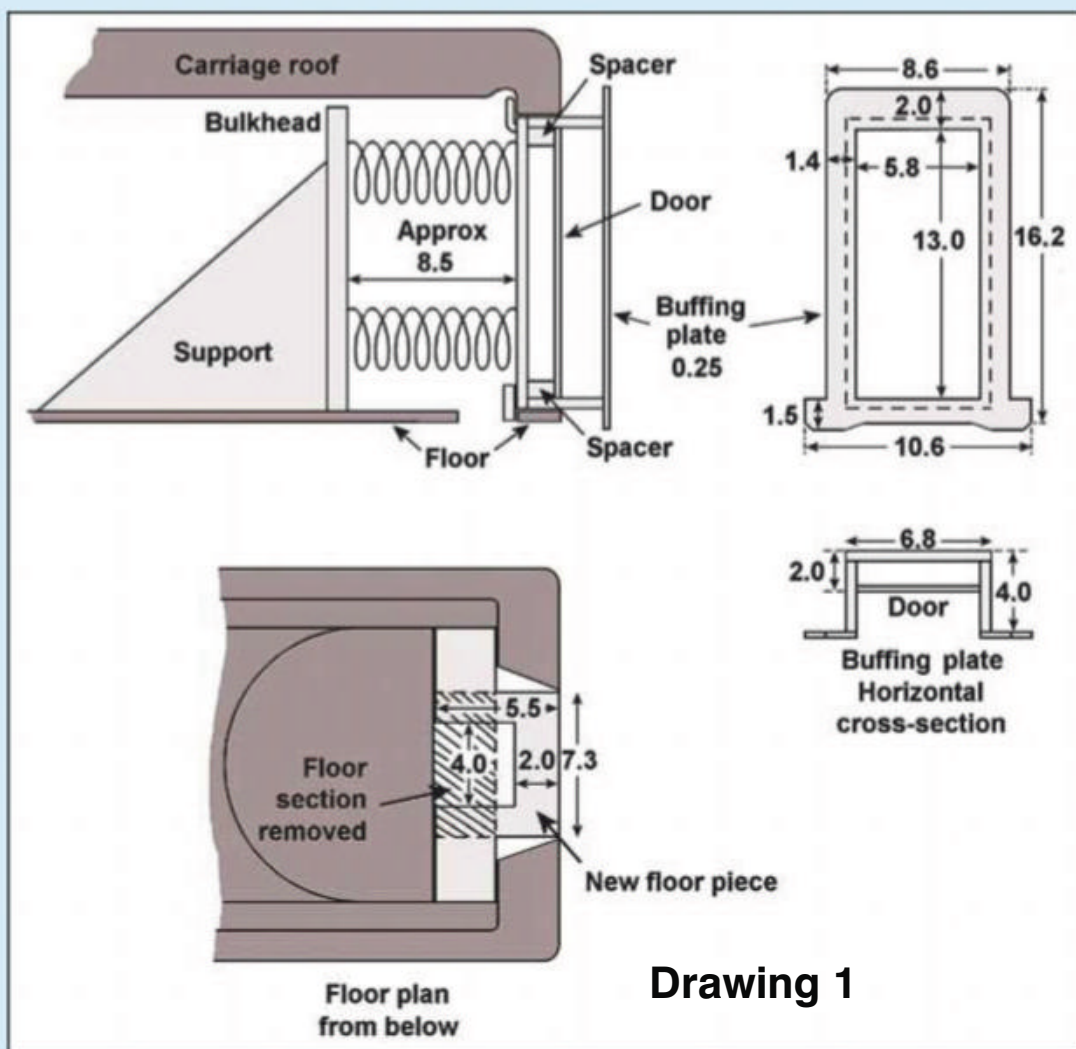
Floor

Cut a rectangular opening in the floor 7.3mm wide by about 2.5mm longitudinally (the hatched area in Drawing 1), such that the end of the opening is 5.5mm from the outer side of the car end wall, as shown in Drawing 1. Remember to allow for any gap due to the floor being a little shorter than the body. Cut out two floor sections from 0.5mm styrene in the shape shown in Drawing 1. Superglue them inside the rebated area on the underside of the floor, such that they lie flush with the end of the carriage (Drawing 1 and Photo 2). Be careful to allow for varying thicknesses of the carriage end walls.

Make two bulkheads 12mm high x 10mm wide from 1mm styrene (one for each end). Glue them vertically to the floor and reinforce with triangles of styrene or balsa, but ensuring the bogie pivot holes are clear (Photo 3).

The actual position of the bulkhead will depend on the springs you are using. I had quite a bit of trouble locating suitable springs, but finally found some at Brunel Hobbies — they are spare parts for Scalextric slot cars. They were about 7mm long, but I stretched them to 9mm. My bulkheads are located 10.5mm back from the end of the carriage, which means the springs will be slightly compressed to 8.5mm when the vesti-





Drawing 1

bules are installed. Their diameter is 2.5mm — a larger diameter would have been better because it tends to hold the vestibule straighter than a narrow one. The other important feature of the springs is that they must be soft, ie: easily compressed, otherwise you'll never get the cars to couple together.

Glue two springs near the upper and lower edges of each bulkhead, but ensuring they clear the small limiting blocks at the top and bottom of the vestibule box. Also make sure they are on the centreline of the car. I used five-minute epoxy glue (Araldite) for this (Photo 4). Paint the bulkheads black to make them inconspicuous from the outside.

Diaphragms

Construct two boxes out of 0.5mm styrene as per the dimensions shown in Drawing 2. Glue a 1.25mm spacer inside the top and bottom for the door to rest against. Cut out the buffing plates and doors from 0.25mm styrene—see Drawing 1 for dimensions. Paint all components and glaze the small window in the door before assembly.

Glue a small block of 1mm styrene on the back at the bottom and another at the top, to limit vestibule travel. The lower one should extend 0.5mm below the bottom of the box, the upper one about 1mm above the top. Photo 5 shows several diaphragms in various stages of assembly.

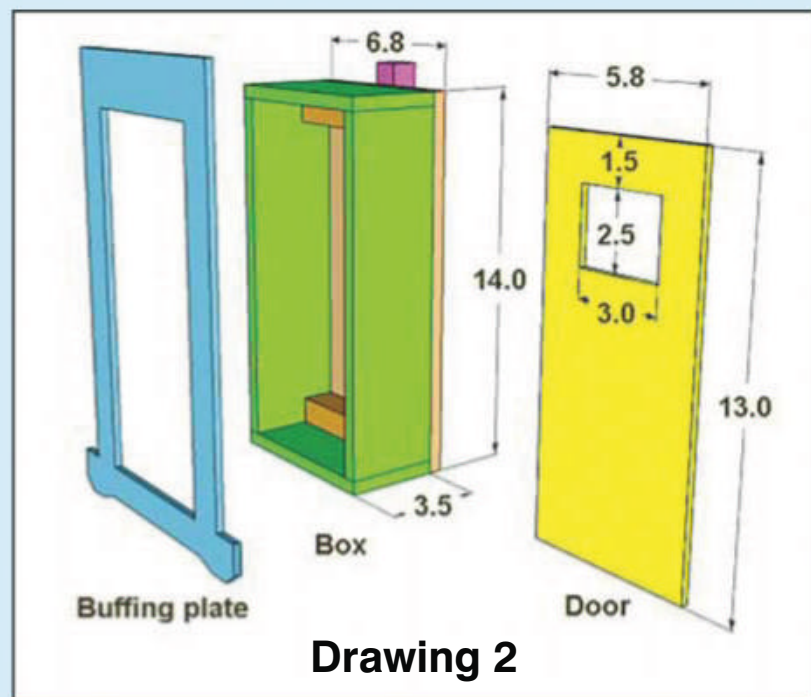
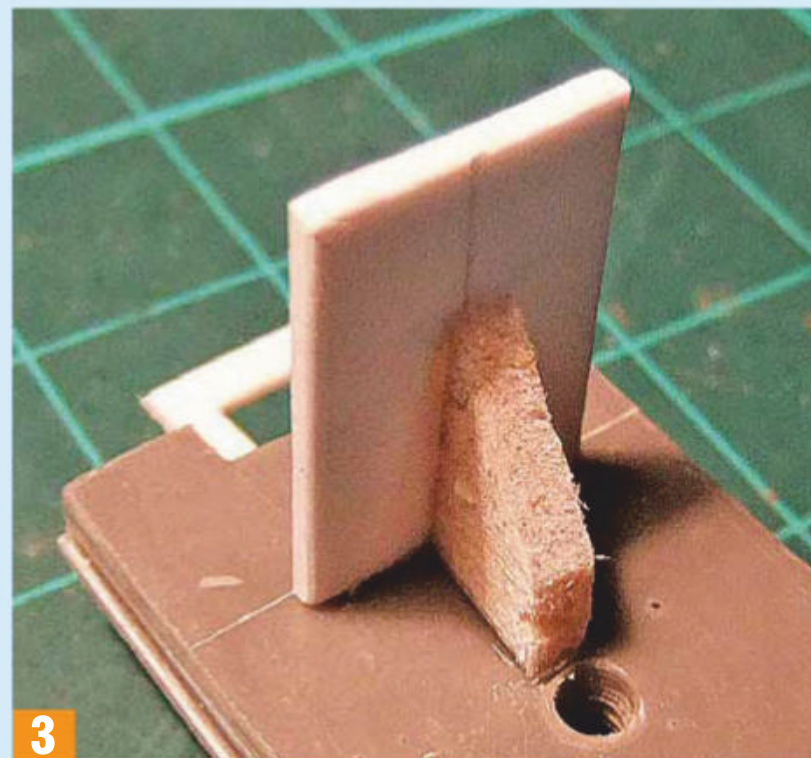
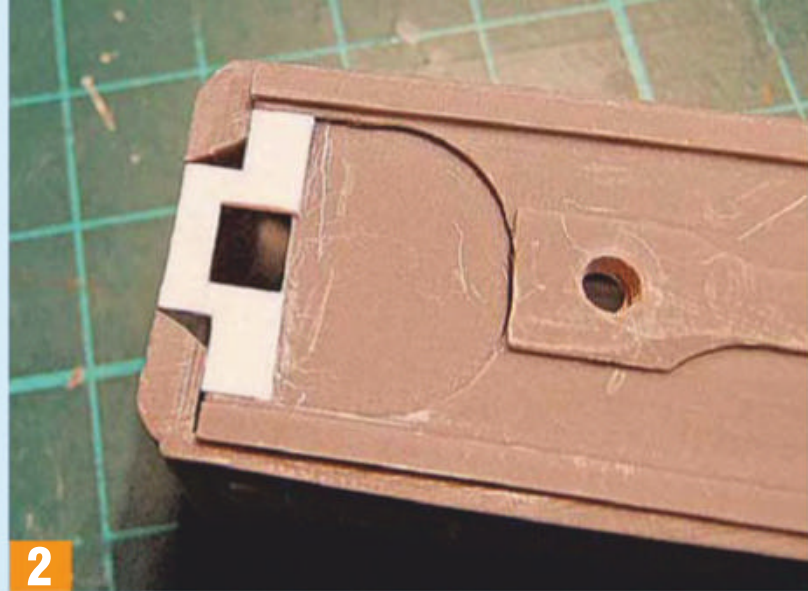
At this stage, write matching numbers on each vestibule and carriage end, then check their fit by slipping the floor in place, and make any adjustments that might be necessary — such as adding shims or filing back where needed — in order to achieve faultless operation. Make sure the vestibules not only spring in and out easily, but also move from side to side, as they would when travelling around a bend.

When all is well the body can be painted, glazed and lined. Then the floor can be attached with the vestibules in place. It might be prudent to glue the floor to the body at only a few points so that it can be removed without too much trouble later on if internal repairs become necessary. Why do I make this suggestion? Guess...

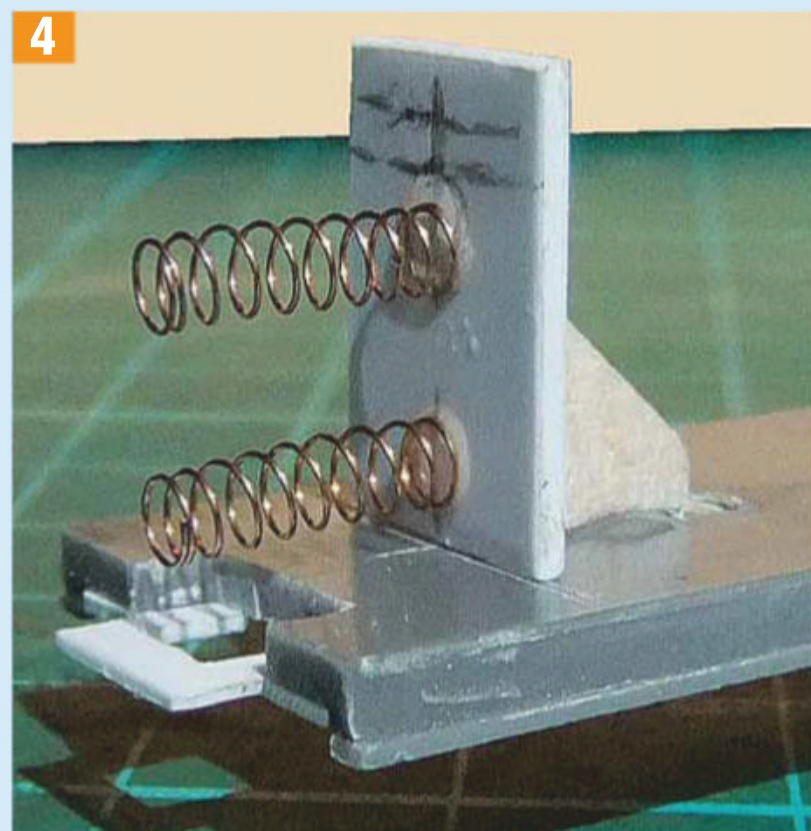
Bogies and Couplers

I'm using Greenmax TR47 bogies as they are the only N scale bogies I have seen that replicate most of the distinctive features of the prototype, namely: the straight side member, coil springs on both sides of each axle box, the central leaf springs, and both inner and outer brake hangers. There are still a number of differences, but the TR47 is much closer than any other model bogie available, as far as I know.

Because the floor has been removed at the ends of the carriage, the couplers must be bogie mounted. Unfortunately the TR47 is produced only with Rapido couplers which needed to be replaced with MicroTrains couplers. I achieved this by gluing a shaped piece of sheet brass to the top of the bogie and mounting an MT1023 coupler on the other end. This is most definitely a case of déjà vu, because it is exactly the same method I



Drawing 2





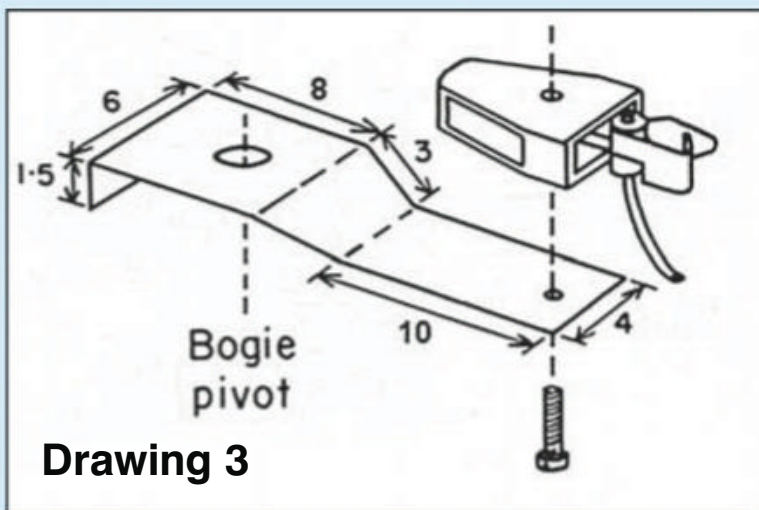
described in AMRM No.113 (April 1982) when I assembled the Weico cars.

First of all cut off the Rapidos and file the top surface of the bogie cross beam smooth. Cut out the shape drawn in Drawing 3 from brass sheet no thinner than 0.25mm. Bend a right angle in one end as shown, and make two bends at the places shown to lower the other end by about 1.5mm.

With the right-angle section held hard against the bogie pivot boss, carefully mark the centre of the bogie pivot hole on the brass and drill a hole to clear the bogie pivot pin or screw you are using. Then glue the brass to the bogie with epoxy glue. When dry, insert the wheels, place the bogie on a length of track and adjust the height of the narrow end of the brass strip so that a coupler resting on top of it is at the right height. Do not fix the coupler to the brass just yet.

Much care needs to be taken now in order for the vestibules to act properly. Attach the bogie to the carriage, turn it upside down and rest a coupler on the brass strip. Move it so that the end of the coupler's jaw is level with the outer edge of the diaphragm. Do this while keeping the bogie horizontal. When satisfied mark the position of the coupler fixing screw hole on the brass and drill a clearance hole for the screw.

Remove the bogie from the car, and glue the coupler to the brass strip. At the same time push an MT coupler fixing screw (which has had half its length nipped off) through the brass from underneath and glue it into the hole in the coupler. This is purely for reinforcement and if you find that the coupler is not in the correct position it can be reglued without the screw. Alternatively, if you are happy not using a screw at all, you can dispense with drilling the hole in the first place. The finished bogie and coupler assembly is shown in Photo 6.



I found that styrene washers, either 0.25mm or 0.5mm thick, needed to be inserted between the bogie and the bolster to ensure the couplers cleared the car frame. Photos 7 and 8 show the completed vestibule connection installed in an Aust-N-Rail *Spirit* car.



Conclusion

If everything has gone to plan, the buffing plates of the diaphragms should be just touching when the cars are travelling on straight track. On gentle curves they should also stay in complete contact, but on tighter

ones they may not touch on the outer side. As for the smallest radius they will handle, I don't really know the answer to that, but Photo 9 shows my cars on a curve of 340mm (13½") radius, which they traversed with ease.

The chief drawback with these diaphragms is that it is impossible to uncouple the cars with a pick because there is insufficient room to insert it; it can also be difficult using hands. Best to keep the rakes of cars intact during an operating session.



RECYCLED ROLLINGSTOCK

The CHG at Jerrawa

Leon Oberg describes another picturesque use of obsolete rolling stock. Photos by the author.

Visible to passengers (and crews) traversing the NSW Main South on a lineside property at Jerrawa, a small village located north of Yass, is a small, four-wheel brake van, CHG17341. Now a long way from its original area of use, the Hunter Valley, where these brake vans were designed to trail non-air braked coal trains that for generations carried coal from the mines around Newcastle to the wharves (latterly Port Waratah).

Although they had very effective hand brakes operated from inside the small guard's cabin, the CHG vans were also equipped with sand boxes, mounted on the end platforms, to assist with the braking effort, particularly during inclement weather conditions.

On some of the more steeply graded runs south of Newcastle, on both the 'Short North' and the now-closed branch line to Belmont, extra braking power was provided by permanently coupling two vans together, enabling the guard to apply the hand brakes from both vans to assist retardation on those previously mentioned steep gradients.

So, given their area of use was around Newcastle, how did CHG17341 end up on a house block in Jerrawa?

The answer is that when rail enthusiasts, Peter and Elvira Try, moved into the old Jerrawa general store in 1995, they decided to establish a small transport museum. They then discovered the Goulburn Rail Heritage Centre, which had two CHG vans, wanted to dispose of No.17341. So, in 1996 the couple took delivery, parking it behind their home/business, further improving things by fashioning a small platform and even fitting the van out to some extent with a double bunk to accommodate friends who came to stay.

But what was CHG17341 doing in Goulburn in the first place?

Again, the answer is that by February 1980, with the rationalisation of 'pick-up' goods trains, the Goulburn 'yard limits' had been increased to Kenmore PMG siding, North Goulburn Shell depot and the Goulburn Abattoirs at Joppa Junction,



south of Goulburn. Accordingly, the local Goulburn shunting staff were given the responsibility to position and collect wagons at those locations, as required. Understandably, the shunting staff did not want to ride out to those yards in all weathers on open shunting runners, nor were mainline bogie brake vans always on hand, and there was insufficient room in the cabs of the 73 class shunting locomotives undertaking the work to accommodate all the staff required.

The Goulburn District Traffic Superintendent, Ted Ritchie, arranged for two surplus CHG vans, Nos. 17063 and 17341, to be sent to Goulburn to cover these duties. Once in service, they quickly gained the nickname 'Rocky Neds', due to their rough-riding characteristics. It soon became apparent that only one of the vans was needed, so CHG17341 ended up in Goulburn roundhouse, where District Locomotive Engineer, Tony Smithson, and his creative foreman fitter, Ron Power, hatched a plan to create a cage on one platform to catch some of the pigeons that were menacing the depot.

Time passed and the depot's July 1986 closure had generally coincided with the cessation of shunting at all those outer

Looking a little worse for wear after long years of hard use in government service and then more years standing in the open at Jerrawa, CHG17341 displays a very interesting patina that would be an interesting exercise to reproduce on a model. One could even reproduce owners, Peter and Elvira Try, standing on the end platform, looking at a figure wielding a camera!

locations, so both vans happened to come together at the mostly empty roundhouse (per way continued to service track machines there and the turntable remained operational).

Peter Try said the van was "Certainly full of pigeon droppings when it arrived in Jerrawa" and, during its clean up, he replaced some door and window timbers. He told this author in August 2018 that he had recently connected a compressed air system to the brake hoses and "Would you know, the brakes still work!".

Footnote: CHG17063 continues to reside at Goulburn's Railway Heritage Roundhouse and has undergone significant restoration. 



The Ramblers Visit Lambing Flat

*Ron Cunningham describes a visit by the Friday-night Ramblers to a long-lived and influential layout.
Photos by the author.*

No-one in the Ramblers can pinpoint exactly which Friday night, but it is generally agreed that it was in the early 1990s that a group of the Friday-night Ramblers journeyed to the Sydney suburb of Burwood to visit the home model railway of one James McNerney. The reason for the descent of this group of Ramblers on James's home that evening was the news that had begun to circulate that James's then exhibition layout, known as *Lambing Flat*, had been retired from the exhibition circuit and had now been set up as a home layout.

This was well before James took up his current position of editor of this august publication but, even then, James was well known for his promoting of the modelling of New South Wales prototype. During the 1980s, among other things, his activities had included the establishment of what was to become the annual *Modelling the Railways of New South Wales* seminar (2018 saw the 35th convention to be held).

The first task of visitors to the layout in those Burwood days was to gain access to the model railway room. The model railway was located in the loft of the McNerney home, which was a typical Sydney inner-city semi-detached house. A pull-down ladder provided access to the attic from the hallway without difficulty and visitors would be quickly engaged in operating trains on the model railway (though one had to be careful about stepping backwards if it was a hot night and the safety cover to the ladder had been left open!)

James is one of those modellers who has a natural artistic streak, but, even so, visitors to his home would often find lying about many prototype reference books, along with other books and sketch manuals covering painting and drawing techniques which James called upon as he created the layout. Attention to detail, correct operating procedures, faithful replication of NSW

scenery, infrastructure, locomotives and rolling stock were central to the presentation. Over the ensuing years the backdrops, structure design and placement and particularly the extensive use of weathering on engines, rolling stock and structures all reflected this ability and his attention to capturing the 'in everyday service' look prevalent on *Lambing Flat*.

Even in its early guise as an exhibition model railway *Lambing Flat* showcased many of these facets of modelling which James championed. One of the prime scenic elements on the layout was (and still is) the Wombat Flour Mill. This scratch-built structure (first shown to the public at *Modelling the Railways of NSW: 2* in 1984) had an enormous impact on the modelling fraternity. Your scribe at the time was also a part of the push to encourage the modelling of New South Wales prototype and has always had a place in his modelling heart for this structure, capturing as it does the essence of this once so common rural industry.

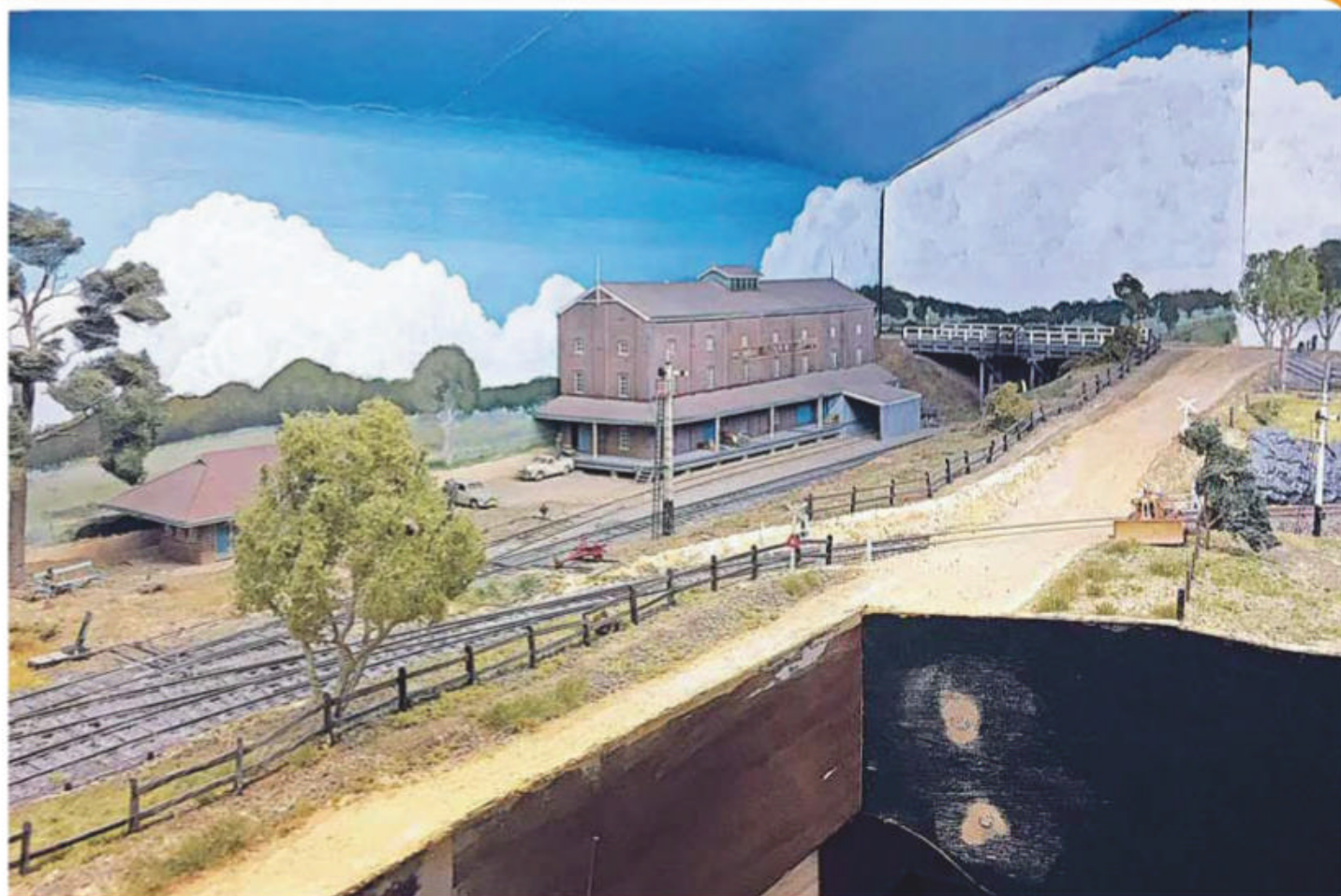
Jump forward now around twenty-five years to a recent Friday night and a group of Friday-night Ramblers found themselves gathered at the current day McNerney home at Beecroft in Sydney's north. Most of us in attendance that night were familiar with this version of *Lambing Flat* as it developed at its current location over the past two and a half decades, even if only by photos posted on Facebook and James's blog. We were gathered there again that night because word had been received that James was again moving residence and, as a consequence, *Lambing Flat* was about to be dismantled into its separate modules for the move, never to be reassembled in its current configuration.

Much has changed on the layout since that first night at Burwood several decades ago. The layout is now DCC with all



A view down the length of the newest section of the layout, the aptly (and prototypically) named 'New Yard'. At the far end of the yard, a locomotive is approaching tender-first from Lambing Flat after being turned and serviced at that location. It will proceed into No.1 road (the third track from the left), couple to the train in that siding and then be ready to proceed to its destination when authorised.

The Wombat Flour Mill, still generating traffic for the railway today, as it has done since its first public appearance as a 'stand-alone' module (the first part of Lambing Flat to be constructed) over thirty years ago at the second 'Modelling the Railways of NSW' convention at the old AMRA (NSW) clubrooms in Rockdale in 1984.



locomotives fitted with sound, rather than the straight DC and silence of our first visit. (Your scribe well remembers James's strong anti-DCC stance back in those early DCC days, but that is another story.) More space in a double garage has allowed for expansion at both ends. Innovative design techniques, such as the use of two staging yards representing the major destinations, both at one end, meant that all traffic running onto the scenic section of the layout had to be remarshalled to continue its journey, resulting in a lot of activity on a relatively small layout. The marshalling yard at the other end of the line provides shunting opportunities to keep operators very busy, reversing and remarshalling trains. Forward planning is evident as the marshalling yard, which currently functions as a terminus, is designed to be able to be expanded into a through station in any future expansion, should that suit a future scenario.

Immediately upon arrival, five ramblers pulled out their NCE controllers and settled in for three hours of non-stop operation. Orchestrated by the Train Controller (James) and his wagon card system for moving vehicles around the layout, a good time was had by all. The challenge for operators was not just to get your assigned train from one end of the line to the other; the challenge was to do this while observing the correct prototype procedures. Observing signals, sounding the engine whistle where appropriate, such as when approaching level crossings, and other prototype procedures combine to keep an operator

on their toes. It may not be far in distance from one end of the line to the other, but this emphasis on prototype operation certainly requires constant attention on the part of the operator.

Lambing Flat from one end of the line to the other is made up of a collection of dozens of small scenes, each of which is a display of detail that is a joy for even the most jaded observer to inspect, including that old favourite, the Wombat Flour Mill. Thirty five years after it was created the model is still an eye-catcher.

While there have been many changes over the decades on *Lambing Flat*, the fundamental principles on which the model railway is based have not changed. The existence of these guiding principles gives great heart to those Ramblers who have over the decades enjoyed visits to the layout. We all eagerly look forward to the time when we gather at the layout's new home to discover the next step in its evolution and to once again take up our controllers to operate our assigned movements over a line that goes a long way towards capturing the essence of the post-war NSWGR. I expect we will enjoy the new, as well as reacquaint ourselves with the old, as we proceed, observing speed limits, signals, correct operational procedure, marshalling and appropriate whistle signals, though we all just hope that it will not be too long before we do so again!

[I hope it won't be very long as well! – Editor]

This operations caper requires complete attention from both the train driver and onlookers! This image also illustrates the 'diorama' style presentation of the layout, with the well-lit layout concentrating the attention of the viewers on the scene depicted and taking their attention away from the usual clutter that accumulates in most layout rooms.





Build a Commonwealth Railways G Class 4-6-0

*Dan Carmody converts an HO scale, r-t-r, Ixion NSWGR 32 class into the CR version that was the mainstay of the Trans Australian line from the opening in 1917 until the advent of the C class in 1938.
Photos by the author, unless otherwise indicated.*

DISCLAIMER

This conversion results in irreversibly altering many detail features on the model. Consequently, the conversion will likely result in the manufacturer's warranty being voided.

Materials Required

- 0.030" thick sheet styrene
- 0.030" x 0.010" (0.75mm x 0.3mm) Evergreen strip styrene No.101
- 0.040" x 0.015" (1.0mm x 0.4mm) Evergreen strip styrene No.112
- 0.080" (2mm) square styrene shape
- 0.080" sheet styrene
- 0.8mm brass rod
- 0.3 or 0.4mm brass rod
- 1.2mm angle iron – Plastruct
- 1.0mm brass angle iron – Precision Alloy
- Window louvres – Tichy Train Group No.8041
- Replacement funnel – Mains West C32 funnel detail part – AR Kits
- Decals from Signs Of All Kinds
- Micro-Mark rivet detail decals No.84985 HO scale
- Paint: primer, black, red and copper

Tools used

- | | |
|---------------------------|--|
| ● 'Junior' hacksaw blade | ● Reamer file |
| ● Needle-nose pliers | ● Flat file |
| ● Side cutters/nippers | ● Half-round file |
| ● Scalpel | ● Superglue (CA) |
| ● Box cutter knife | ● Styrene glue (such as Methyl Ethyl Ketone – MEK) |
| ● Self-closing tweezers | ● Tamiya white putty |
| ● Tweezers | ● Airbrush |
| ● Pencil/Texta/pen/marker | |

Building the Model

Ixion make two versions of the C32. The version required for this project is the angled footplate version. As a consequence, my comments relate only to this version. The Ixion C32 is a very nicely detailed model. It has very fine detail in the form of moulded rivets, wire handrails and wire representing pipe work and the backhead provides an excellent representation of the interior of a steam engine cab.

The loco has directional lighting with Light Emitting Diode (LED) headlight and back-up lights. The headlight (first batch) has an 'odd' opaque lens. However, when the light is on, it looks fine and consequently is not of concern to me. The loco has NMRA RP25-88 profile wheels, which are also nicely 'blackened'. The rods are also nicely etched. There are electrical pick-ups on the drivers and the tender wheels. As a consequence, there is light drag on the tender wheels. Despite this drag, the loco runs very smoothly.

This article aims to create a facsimile of a CR G class, specifically representing G1 around the time it was withdrawn. Comparing prototype photos with the model, several key visual differences become apparent. The visual differences from front to back are:

- The G has a cow catcher (pilot) which will need to be built or use a suitable substitute

- The G does not have buffers (locomotive and tender)
- The G has a front knuckle coupler
- The headlight needs number boards
- The chimney location on the G is towards the rear of the smokebox in comparison with the C32
- The G does not have clack valves on top of the boiler behind the smokebox
- The G has a cylindrical air reservoir tank on the left-hand footplate adjacent to the smoke box
- The framing below the smokebox does not reflect the G accurately (the G retained the original shape of the P class frames, rather than the 'built up' frames that evolved on the NSWGR). This is the most difficult aspect to change. However, these instructions will provide an 85% solution to this aspect

The C32 whistle needs to be moved to the front centre of the cab roof to represent the G

The C32's cab sides need alteration from side portholes to a square window with louvres

The C32 tender needs substantial alteration to the body (new tender topsides).

Photo 1, showing a standard Ixion 32, provides a visual highlight of these differences and the previous dot points are the basis of this conversion through several sub-assemblies.

Modifications to the Running Gear

I found that the following minor alterations improved the hauling capacity of the loco considerably.

- remove the spring from the front bogie and add a small amount of lead flashing to the top of the bogie
- ease the draw bar holes out with a reamer, essentially the thickness of the paint (a very small fraction of a millimetre)
- then add the bogie spring to the draw-bar post so that there is a spring above and below the drawbar.

These changes provided a significant, measurable improvement. The change was effectively eight four-wheel wagons on a 1 in 70 gradient!

Dismantling the Model

This is a very easy loco to dismantle for the purposes of kitbashing! As you would expect, the model comes packaged in two parts, the loco and the tender. An 8-pin decoder can be installed inside the tender. The tender body is very easily separated from the chassis. Paying attention to the handrails, twist the tender body sideways from the chassis and it will simply slip off. This will also separate the handrails from the tender chassis. Reassembling is simply the opposite ensuring that the handrails line up. The tender has 'back up' LEDs with a simple plug holding them to the chassis. Separate this plug so that you now have two parts.

All removable parts should be taken off to assist the conversion. All items are easi-



A standard Ixion straight footplate 32 class. Comparison with the prototype photos of G1 and G2 will reveal the differences between the CR G class and the NSWGR 32 class and indicate the detail that has to be added (cowcatcher, air tank on footplate, cab windows and tender extension) or changed (frames below smokebox, chimney and whistle location, plus changing the position of the clack valves). Photo by James McInerney.

ly separated from the tender body with a gentle tug using tweezers. Remove the handrails and all detail parts from the tender. All are press fits with small dobs of a very flexible glue holding items in place. Remove the tool holders and the boxes on the tender deck. Remove the buffers. Safely store these parts as most will have to be returned to their original locations when kit-bashing is complete. However, the buffers will not be reused and can be discarded if desired.

The next task is to dismantle the loco. Most items are easily separated from the loco in a similar fashion to the tender body using a gentle tug with tweezers or needle-nose pliers. Separate the chassis/body as per the instructions. You will need to turn the wiring harness plug sideways to get it through the body. There is also a lengthy wiring loom going to the headlight. Note that some detail on the chassis will need to be press-fit back on the body for re-assembly.

Remove the buffers and the clack valves which are located on the boiler top behind the smokebox. The clack valves and associated pipes are a press fit. The chimney needs to be moved. It too is a press-fit. Hold the chimney with pliers and gently twist. It will come out fairly easily. To work on the cab sides it is best to remove the cab from the body. There are a number of press fit components such as pipes, handrails and reversing screw that attach to the front of the cab. There are also vertical handrails fore and aft of the cab sides. As you take the cab off, these will also separate. To separate the cab, first undo the two tiny screws at the rear of the loco. Gently press in the sides of the

cab to release the four tabs and gently rock the cab back to separate it from the body and footplate. If there is any of the flexible glue residue, clean it up to assist repainting and re-assembly later. The boiler back head will now slip out of the cab.

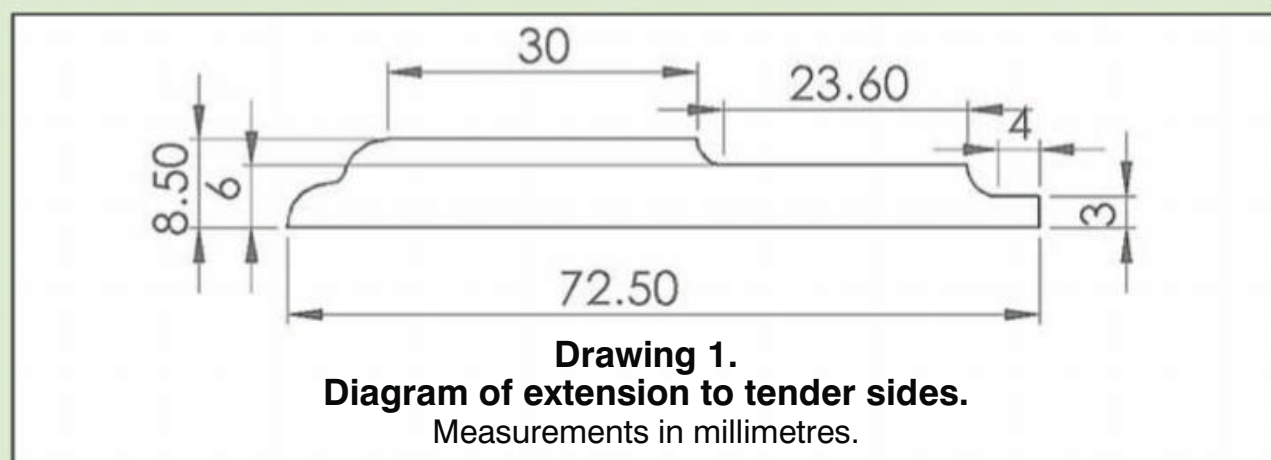
You should now have six loco parts; the chassis, boiler section, backhead, cab, tender chassis and tender body. Place any loose parts from the loco and tender into a container for reapplication later. I also return all screws to their respective threads to avoid losing them.

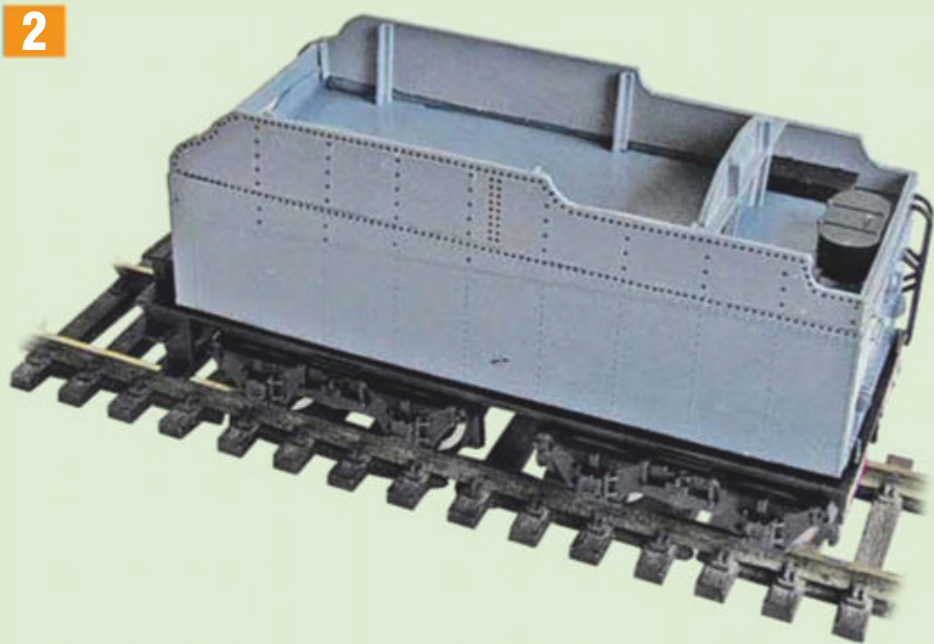
The 32 class loco numbers need to be removed. The numbers are pad printed onto the cab sides. Using a cotton bud dipped in methylated spirits, rub the numbers and they will eventually dissolve.

Alterations – Tender

This is the key visual difference between the G and the C32. The C32 tender has an outside turned coping which is not appropriate to this conversion. The easiest way to remove this is to mill it off down to the tender water tank deck level. Fortunately, a friend of mine did this for me (Thank you Mr. G!). Otherwise you may wish to consider cutting it off carefully with a fine tooth saw blade down to the level of the water tank deck. Ensure that you achieve a flat smooth surface for the new tender sides.

I made new tender sides from 0.030 inch (0.75mm) styrene sheet. Using a scale diagram of the tender sides (Drawing 1), I transferred the dimensions to the styrene and carefully cut it out. I left excess material at all of the curved sections. I removed that material with a reamer and





A rear three-quarter view of the completed tender, showing the construction details of the bunker, the added rivet detail (black dots) along with the original Ixion tender detail modified and reattached.

half-round files to achieve the correct shape. Cut four pieces of 1.2mm angle iron for each side to assist strengthening the sides and gluing the new structure to the tender body.

Ensuring no gaps, attach the sides to the tender body with superglue. Once all is set, add the ends and coal bunker end plate. The coal bunker end plate is located 17mm from the back of the tender. Add a styrene angle section across the coal bunker end plate and two vertical angle sections spaced equally across the bunker end plate. See Chris Drymalik's photo of G1 at the National Railway Museum for the detail of the tender.

The tender is now structurally complete and can be finished off. First task is to add rivet detail to the new topsides. I use rivet decals (Micro-Mark rivet detail part No.84985 *HO Scale Decals With Raised 3D Rivets And Other Surface Details*). These sheets of rivets contain numerous different patterns which suit many applications. I highly recommend them! The rivets are applied like any other decal and adhere best to gloss surfaces.

The raw styrene topsides [Photo 2] were primed, then gloss coated. I used a combination of close-set rivets (curved and straight) for the outside edges. The curved rivets were used around the curved fillets. A wider spaced set of rivets were used for the vertical rivet detail. The third type of rivet was a

Prototype

In 1912, the Commonwealth Railways (CR) commenced the construction of the Trans Australian Railway (TAR), initially using old, small locomotives purchased from the NSWGR [the six D (ex-Q class 4-4-0) and one F (ex-K class 2-6-0)]. The CR recognised early that they would need a larger locomotive and had decided to purchase locomotives based on the NSWGR P class (later C32) 4-6-0. These locos would also be used during the construction phase of the TAR.

The CR released a Request for Quotation (RFQ) and obtained ten quotes based on the P class, but with minor modifications including automatic couplers, cowcatchers and a maximum axle load of 18 tons. The best RFQ was from Baldwin Locomotive Works, New York, for a total cost of £20,456 (£5114 per loco) and four months delivery. The two Australian bids (from Clyde Engineering and Walkers), were the most expensive at £26,200 and £29,400 respectively.

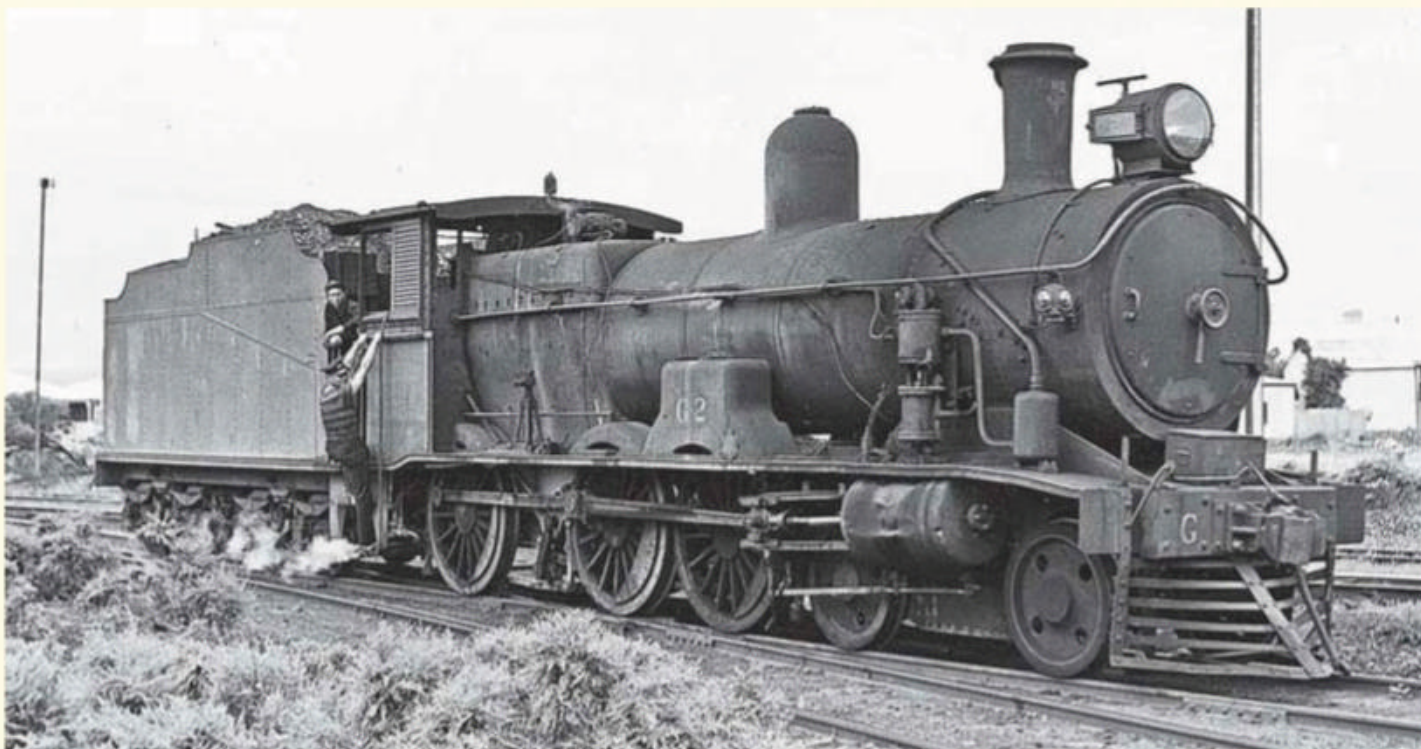
At this point, politicians entered the decision process. The Government had approved the purchase of four locomotives from Baldwin in January 1913, due to Clyde's cost and delivery time being too long. Baldwin had promised a four-month delivery versus Clyde's twelve months. Subsequent political manoeuvrings stated that purchasing American locomotives was against Government policy. By February, a contract was let with Clyde to supply four locomotives. Clyde promised to supply the first locomotive in October 1913 and the last in December 1913.

However, the project was soon in trouble and the first locomotive wasn't delivered until the end of January 1914 and entered service in March 1914.

Due to these delays, CR was able to secure a contract with Baldwin for an additional four locomotives plus a second order for an additional eight locomotives. The entire Baldwin order was delivered over a three-month period and the first four were delivered before the last Clyde delivery! In 1914, the CR requested more locomotives and subsequently, an order for a further eight was placed with Toowoomba Foundry in Queensland. The last of these locomotives was placed in service in October 1917. In all, the class numbered 26 locomotives and became the backbone of operations by the end of the First World War and for some time after.

The initial Clyde order delivered a tender with five tons of coal and 3,500 gallons of water capacities. However, the Baldwin and later orders were delivered with tenders that were capable of carrying 4,500 gallons of water and 7.5 tons of coal. Eventually all the G class tenders, including the four built by Clyde, were enlarged to 4,850 gallons water capacity and 10 tons of coal.

The first loco to be withdrawn was G8, a Baldwin loco, in February 1925 closely followed by G10 (also Baldwin) in July 1925, both after only 11 years' service. The last, G2 (Clyde) and G24 (Toowoomba) were both withdrawn in 1956 after 42 and 39 years' service respectively. Fortunately, G1 has been preserved at the National Railway Museum in Port Adelaide. G1 was a part of the Clyde order and lasted 31 years in service.



Locomotive G2, shunting in the Tassie Street Yard, Port Augusta, on 30 December 1953. Photo by Doug Colquhoun.

double row used about midway along the tender to represent a vertical set of double rivets. Once rivetting is completed, an optional step is to prime paint over the rivets to protect them as they are handled during construction.

Removed items (ladder, tool box, water hatch, etc) can be reapplied. The C32 ladder is on the left side of the tender. This needs to be moved to the right for the G. I reused the Ixion ladder which needs modification. Referring to the prototype photo for size and shape, half of the top of the ladder is carefully cut off resulting in a 90° roll to the ladder top. The ladder supports are also trimmed to size. The bottom of the ladder is trimmed level with the bottom of the tender sides (cut off angled part of the ladder). Glue the ladder to the rear of the tender using superglue to the right of the right-hand marker light [Photo 2]. Fill the old ladder

mounting holes. After the rivet decals are applied and the detail parts re-attached, the tender is now ready to paint.

Modify the tender chassis by filing or cutting off the buffer mounts flat to the buffer beam. Fill the buffer holes and file flat. There should be steps under the ladder, however I found that the steps fouled the rear bogie. Consequently, I left them off. Please take this into consideration if you choose to add the bottom steps. The tender is now structurally complete.

Alterations – Loco

Boiler: Fill the two holes in the boiler where the clack valves used to be with a fine putty. I used Tamiya White Putty. When dry, sand it back. I used a 3M flexible 180 grit 'sand blaster' sanding foam. I purchased this product from a prominent hardware store's painting section.

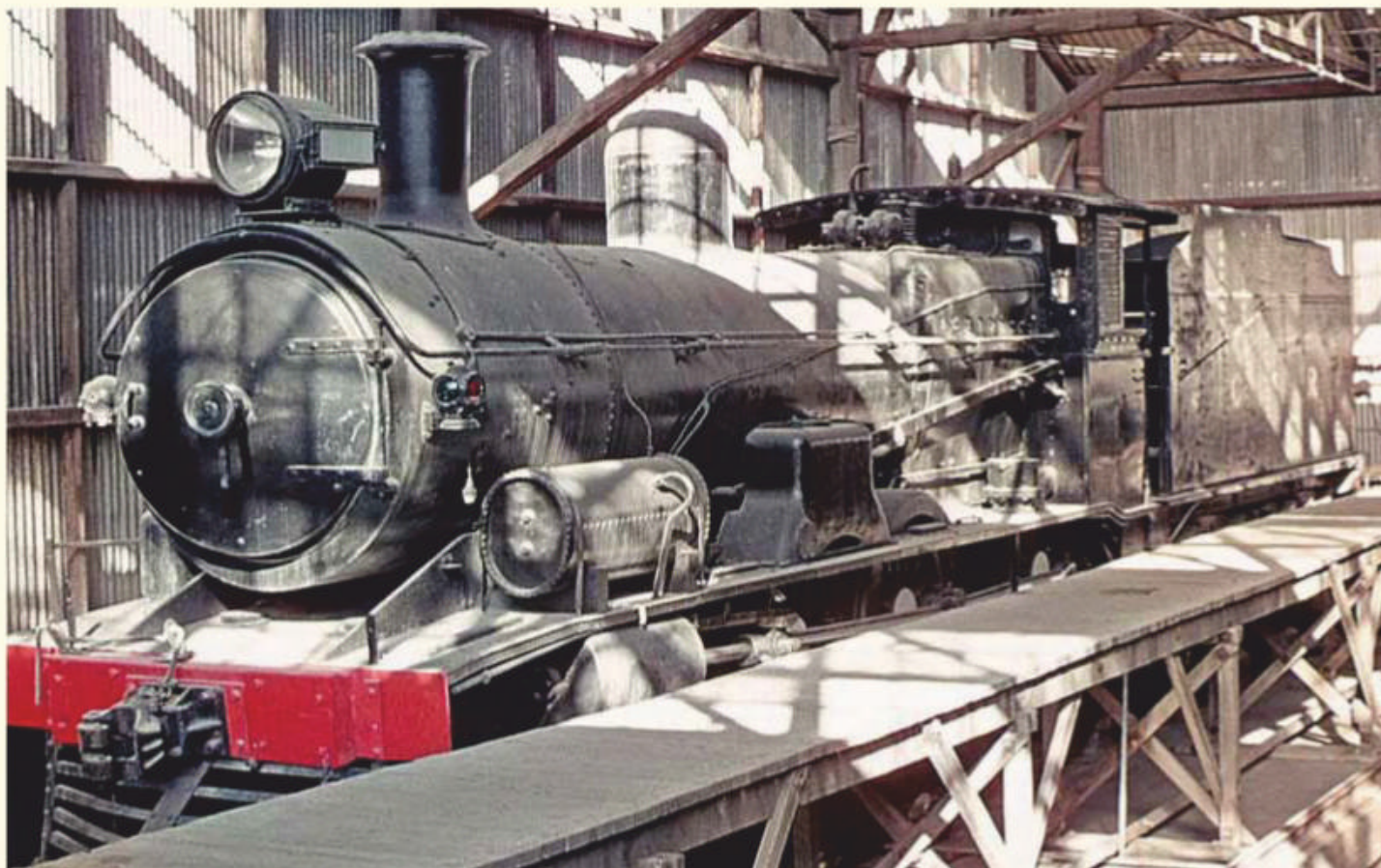
Cab: The C32's porthole needs to be con-

verted into a square window with louvres [Photo 3]. Gently file off the cab side detail around the porthole until you have a flat surface. Fill the front half of the porthole using a rough semicircle of 0.030" scrap styrene, superglued into the porthole. When the porthole plugs are set, give a gentle filing to ensure a smooth surface. Any gaps do not particularly matter as the next step (louvres) will cover this alteration.

Next, make up the louvres. I used two Tichy window louvres (part number 8041). Part 8041 is a vertical double-pane louvre (i.e. one louvre above the other). The cab side louvres need to be 7mm x 11mm in dimension. I cut each Tichy part into two louvres. I then cut off one side edge and glued the two panes together to form one larger single pane louvre. Trim this assembly to size.

Use 1.0mm brass angle to make a

G1 in the car barn at Port Augusta, 19 August 1969. Photo by John Beckhaus.



Preserved G1 being shunted at the National Railway Museum, Port Dock, Adelaide on 13 March 2005. Photo by Chris Drymalik.



3



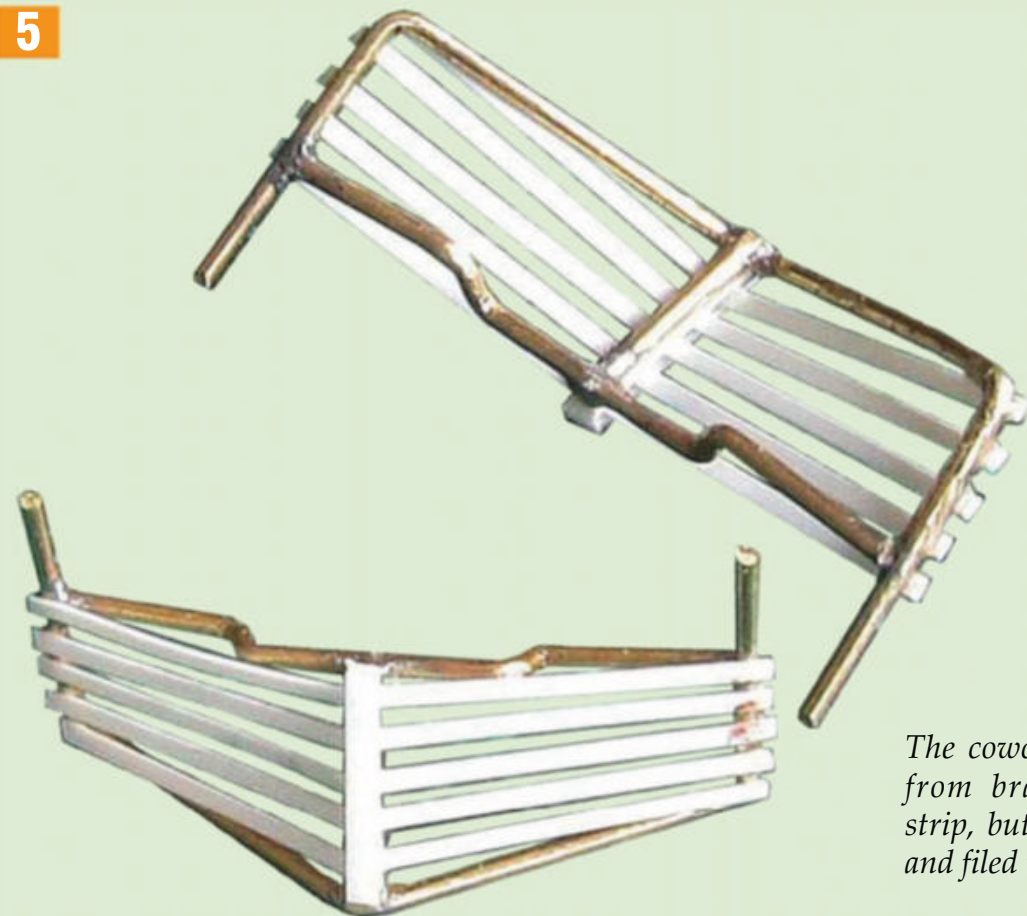
The modified cab, showing the new frames and louvred shutters.

4



The front end of the locomotive showing the modified buffer beam, front frames and headlight, plus the holes left by the removed NSWGR clack valves and chimney. The resulting holes are filled and sanded, new air reservoir added and the new chimney attached in its prototypical location further back on the smokebox than the NSW version. The whistle is yet to be moved to its CR (and original NSWGR) location on the cab roof.

5



The cowcatcher, fashioned from brass and styrene strip, but not yet trimmed and filed to fit.

window frame. These L shapes are glued to the cab sides with the angle facing externally on all sides. The louvre assembly sits inside of this frame in either the open or closed position. Glue in place.

As with the tender, the 32 class locomotive numbers are dissolved with methylated spirits as described previously.

Front buffer beam: Cut a piece of styrene the depth of the buffer beam to fill the section between the two buffer mounts. Cut a piece of 0.030" styrene to cover both buffer mounts and the styrene filler then use Tamiya putty to fill any gaps. Allow to set hard and then file off any excess.

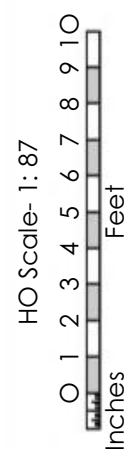
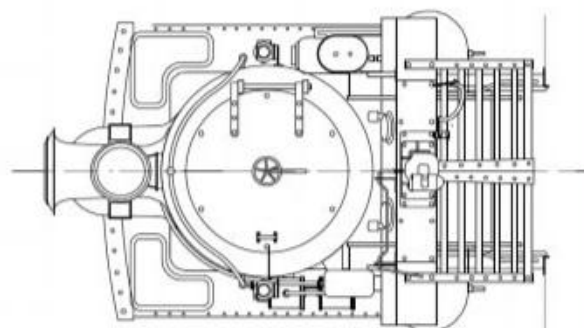
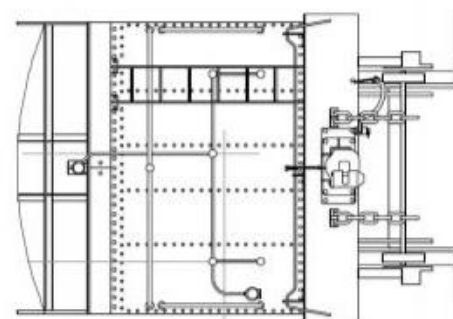
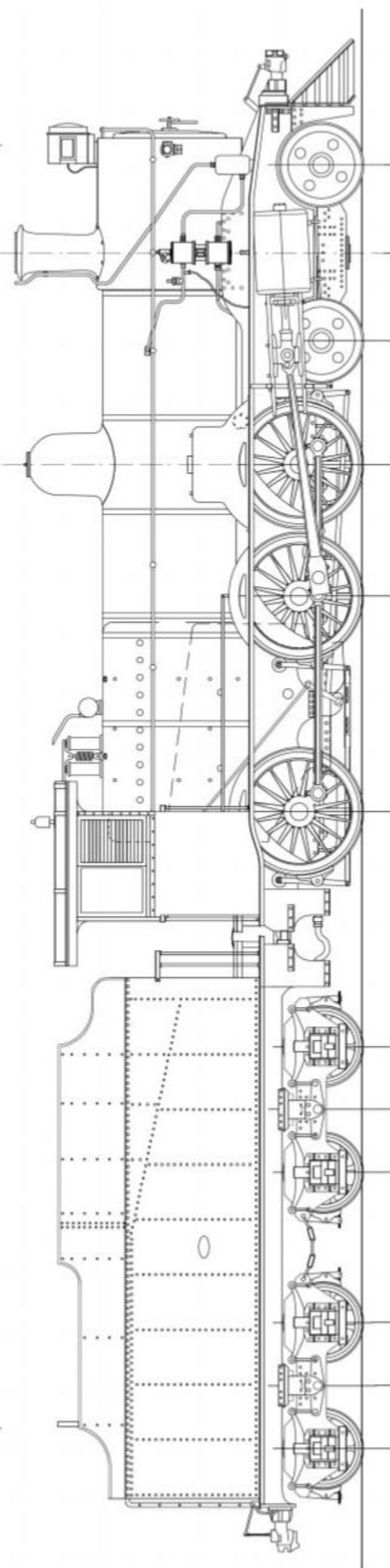
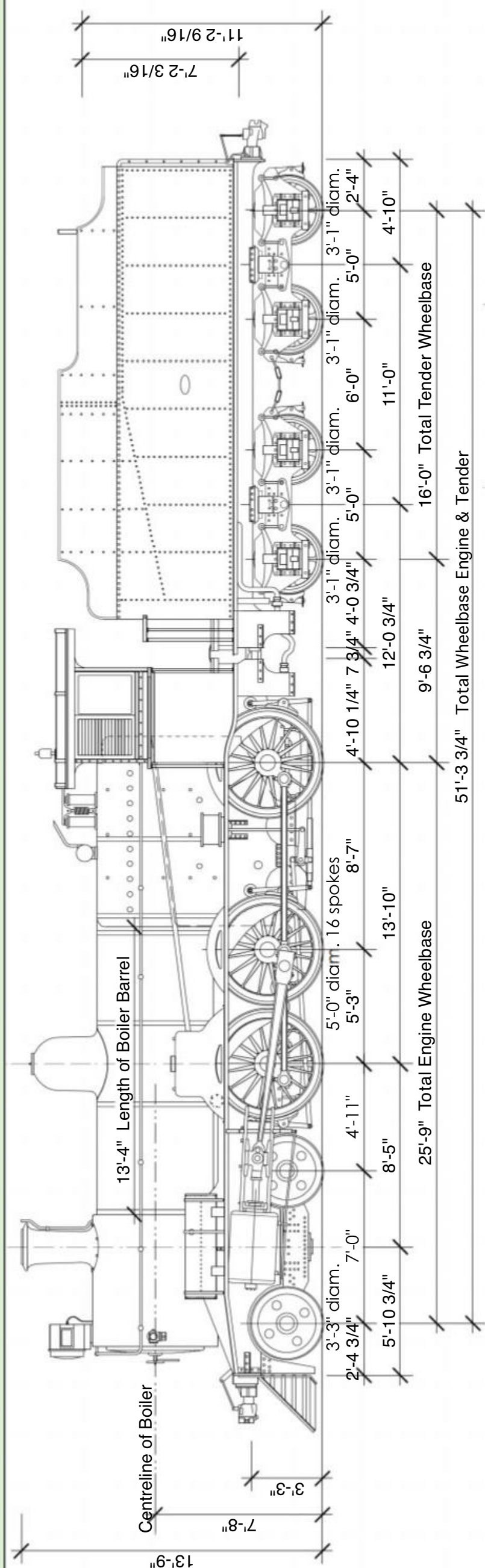
Once all is set, fill the small gap where the hook coupler used to be with styrene. Cut a new gap for the coupler pocket and file smooth to the white metal frame to ensure a good flat fit. Ixion supply a whisker coupler but, for some reason, without a coupler box. (I am advised that Ixion will supply an after-production coupler box to those who require mounting the front coupler). Mark the frame to drill out a new hole to accept a suitable mounting screw or glue the coupler box in place [Photo 4].

I require a loco to haul rolling stock tender first on occasions, so an operational coupler is important to me. To achieve this, I use a long shank Kadee so that it doesn't foul the cow catcher. If this doesn't concern you, then a dummy coupler may suit your purposes better, which will also enable simpler fitting of the cowcatcher.

Cowcatcher (pilot): This part needs to be scratchbuilt, as I could not find a suitable donor part. I built mine from brass rod and styrene. The main frame of the pilot is fashioned from 0.8mm brass rod. I used Drawing 2 as a template for bending the brass shape. A shim of 1.0mm wide styrene strip is glued to the vertical brass rod. The horizontal bars of the pilot are fashioned from 0.75mm wide styrene strip. Place five equally spaced on each side. Using superglue, place a drop on the centre strip and on the brass edge. Cut an over-length strip and place carefully on the frame. Repeat for each bar on each side. When the glue is set, trim to length. File the centre joints of each bar flat. Cut another strip from the 1.0mm strip and glue over the bars. Photo 5 shows the completed pilot.

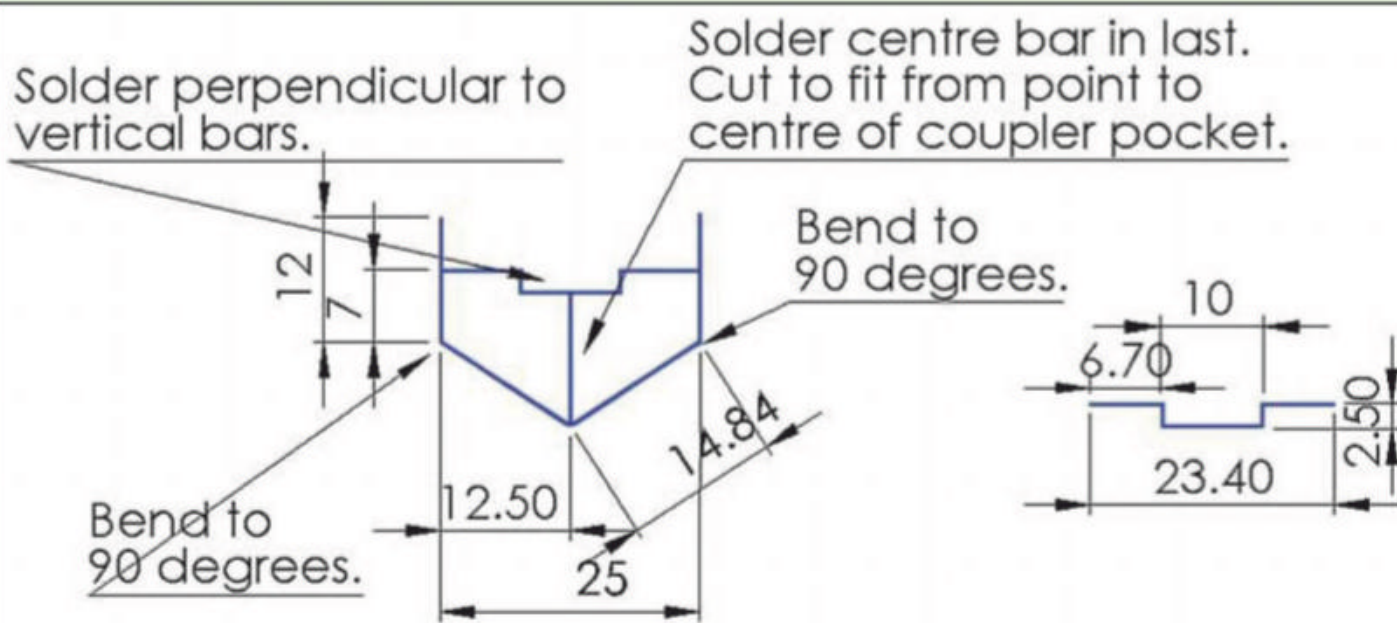
To attach to the loco, I flattened the brass rod using a hammer and anvil. The brass is soft, so a few light taps flattened the ends to improve adhesion to the loco buffer beam. I used a thick superglue and allowed it to set before touching. If you can find some 0.5 or 0.7mm brass strip, this would provide a superior cowcatcher. Unfortunately, I could not find any small brass strip, hence the consequent use of styrene.

Chimney: After removing the Ixion chimney, I carefully cut off the chimney base. I used a junior hacksaw, but a jeweller's saw would also work well. File the chimney mount smooth with the boiler. Fill the hole. I used a discarded plastic sprue



Commonwealth Railways G Class 4-6-0 Steam Locomotive

Date- November 2018 Drawn- Lindsay Bennett



Drawing 2.

Diagram for bending the cowcatcher main frame from 0.8mm brass rod.

Measurements in millimetres. Diagrams are printed to HO scale.

glued in place with superglue. When set, cut the sprue to size and file to the shape of the boiler. Use putty to touch up any imperfections.

I purchased an after-market whitemetal C32 chimney. I drilled a mounting hole at the rear of the smokebox for the chimney mounting pin. The new chimney was then attached with superglue [Photo 4].

Headlight: The Ixion headlight needs number boards. The headlight is a press fit. Gently separate it from the boiler and, using the lengthy wiring loom, place the headlight on your work bench. On one side, there is a moulding that needs to be filed off. File a small flat spot on each side of the headlight. Then using 2mm square

styrene (Evergreen No.164 Styrene Strips 0.080" x 0.080") fashion the number lights. Cut a piece 5mm long. Measure 2mm from each end and on opposite sides. Cut across the diagonal to form the two number boards. Place a drop of superglue on the flats and attach the number boards. Make sure that they are level across the headlight. When dry, reattach the headlight to the boiler [Photo 4].

Smokebox frame: This alteration aims to provide an optical illusion to simulate the G-class frame as replicating the actual frame would be very difficult with this model. Cut the curved frame off, square to the smokebox front. Using 0.020" styrene sheet, cut two new supports. Cut a

block about 6mm x 4.5mm and cut it to shape. They need to be angled at the same angle as the sloping footplate. Have the supports overhang onto the buffer beam. This requires a cut-out to account for the small lip of the buffer beam. When attached, this provides an illusion of the correct frame shape of the G class [Photo 4].

Air reservoir: Fortunately, in my 'bits' box, I had a cylinder suitable for the task. A cylinder of 16mm x 5mm is suitable for the task. The cylinder is supported by two stands. Make the stands from a 5mm square of 0.080" styrene. Using a reamer and a half-round file, carve a curve to support the cylinder, one on each side. Cut the styrene in two to form two sup-

ports. Cut the base down to 1.5mm deep and superglue to the cylinder [Photo 4]. The air reservoir needs rivets around each end and a horizontal line across the length of the cylinder in the middle. Rivets were applied the same way as on the tender using a close-set single rivet pattern [Photo 6].

There are two small pipes attached to the cylinder. I used 0.3mm brass wire for the pipes. Drill the first hole, offset from the top at an angle. Bend the wire into a half circle. I used a toothpick to form the circle. Cut the wire so that it intersects with the footplate. Drill a corresponding hole in the footplate for this pipe. The second pipe is mounted in the rear of the cylinder at the centre top. Make the pipe an L shape and run the pipe into the loco frame, under the boiler [Photo 6]. Glue the completed cylinder to the footplate, centred over the left steam cylinder.

Whistle: The whistle on the G is mounted above the cab at the front, whereas the NSWGR whistle is on the top of the firebox. The whistle is removed from the firebox and put to one side. Unfortunately, this piece was well glued and broke on removal. Fortunately, I had a cast brass whistle on-hand to use as a replacement.

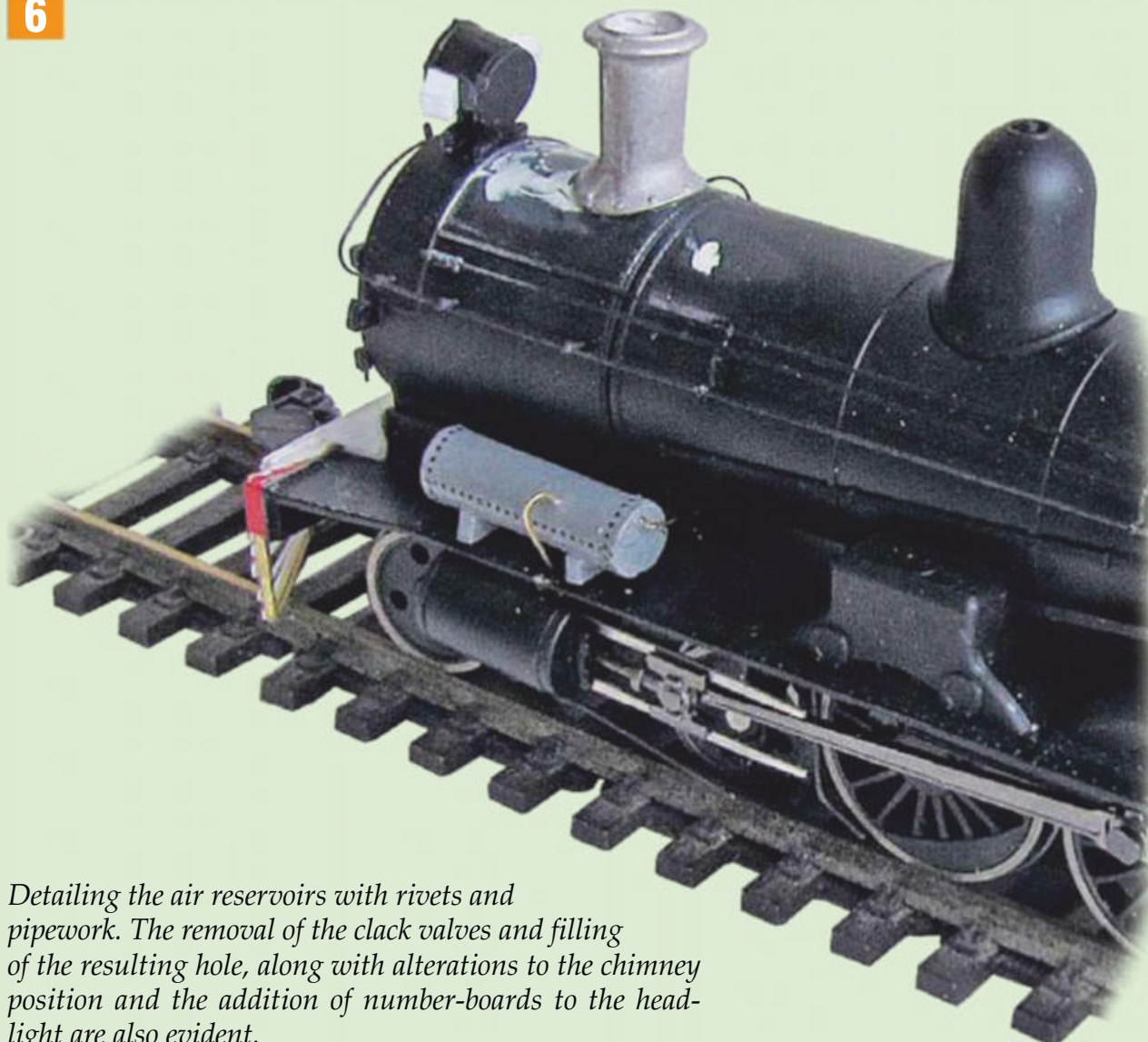
Reassembling the Locomotive

At this point I reassembled the loco so that I had a complete tender and loco body. I placed the locomotive mechanism into a press-seal plastic bag as I was not planning to paint it. Carefully reattach the various press-fit components. I found the cab hand rails a little difficult to reattach. There are holes in the footplate for these hand rails so they sit in them. I glued the tops of the hand rails onto the cab. The cab required a bit of pressure to reattach to the footplate and firebox.

Painting and Decalling

Painting is relatively simple. At various stages during the kitbash, the loco and tender need to be prime coated. I use an automotive primer pressure pack spray

6



Detailing the air reservoirs with rivets and pipework. The removal of the clack valves and filling of the resulting hole, along with alterations to the chimney position and the addition of number-boards to the headlight are also evident.

for this. Areas that needed rivet decals were also coated with a gloss pressure pack spray. I found the cab windows difficult to remove. To protect them from paint, I placed blue painter's tape on the rear of the windows, and 'painted' PVA wood glue on to the front of the windows. When the PVA is fully dry, it can be painted over and peeled off at the end.

The locomotive is black with red buffer beams. I use Floquil Engine Black for my steam fleet. I usually add a few drops of white or light grey to soften the black. I find this brings details out a little better as otherwise the loco is too black. I also paint the whistle 'copper' to represent brass. I then gloss coat for decal application. After decals, apply a satin clear coat. All of my steam fleet are 'heritage' and therefore kept shiny! (Note: Floquil paints are no longer commercially available. At this time, I am unable to recommend an alternative, as I have not yet transitioned from my supply of Floquil.)

The era you choose to model may dictate decal choices. Looking through historical photos shows considerable variation in the G class with respect to where markings were placed and what markings were used. For example, some photos show the locomotive number in various locations including the buffer beam and the sandbox. Other photos show the buffer beam only, while others show the sand box only! Likewise, the CR markings on the tender were apparent on some and not others. For this model, I have modelled G1 as a variation of the loco when photographed in the 1969 Beckhaus photo reproduced in this article.

I commissioned decals from Signs of



The completed model of G1 underway at the head of a tour train.

All Kinds (SOAK) in South Australia and the decals are now available to all direct from SOAK. Once decals have been applied, clear coat to seal them.

The Finishing Touch

The Ixion model did not have any coal in the tender. To rectify this, shape some packing foam to the shape of a coal load. Attach this foam into the coal bunker area of the tender with PVA glue. Sprinkle small coal chips onto this foam shape to simulate a coal load. To keep the coal in

place, make up a solution of PVA glue and water in a 50:50 solution plus a drop of dishwashing detergent. Carefully wet up the coal with this solution and allow to dry. I use an eye dropper to apply the glue.

Now the loco is complete and ready for service [Photo 7]. Next is adding DCC-sound, but that can be a story for another day, or you can just refer to our editor's *On the Workbench* article on the Ixion 32 class in AMRM Issue 323 (April 2017). 



DCC
WORKSHOP

Split Chassis and a Splitting Headache: Austrains 36

Steve Williamson outlines the solution to a subtle problem encountered when adding DCC to an Austrains 36 class steam locomotive. Photos by the author, unless otherwise credited.

A number of years ago, my father purchased an Austrains NSWGR 36 class 4-6-0 steam locomotive out of the 'specials' box at an exhibition. It

was one of the later run models with a 'DCC Ready' plug in the tender. During a recent visit, he brought over his entire model fleet to my layout for conversion to

DCC so he could run it on my layout (and other friends' DCC layouts).

The conversion process went fairly smoothly; his Auscision 46 and 86 class

went over to DCC without any problems, his Bergs parcel van didn't present too many issues either, but, when the time came to install DCC into the 36, nothing I did seemed to get this loco to work. The problem was that the loco would start off, the driving wheels would turn about half a revolution and then the loco would stop, then take off again, stop... you get the idea.

I've had this drama before with an Austrains 35 class (they have an almost identical chassis design), but I was lucky enough to be able to exchange it for

another one that worked correctly, so this information may also be able to assist someone who has a similar problem with their 35 class.

After doing some internet research, all roads tended to point to the fact that the motor may not be correctly isolated from the chassis, as there was only a piece of sticky tape between the bottom contact of the motor and the chassis. A piece of styrene was recommended as a solution to replace the tape and that repair was carried out with no real drama to speak of.

Once the loco was reassembled, the same problem kept occurring. I cleaned my track until I could see my reflection in the rails and I tested the chip in other locos and it worked fine, so the fault had to be internal to the loco.

Many hours of head scratching ensued until, finally, I put a meter between the left driving wheels and the right driving wheels and came up with a dead short (0.00 ohms resistance). So now, at least I had some direction to follow.

I ended up disassembling the locomotive wheels and valve gear (not a task for the faint of heart) and putting that on my track without the chassis. This all seemed to work no dramas, (my DCC system didn't short out when just the wheels and the valve gear were on the track) and I could not identify any faults in the wheels or valve gear.

I then reassembled the chassis. Sure enough, as soon as everything was back together, the short circuit came back.

After trying many different ideas and theories, the solution finally came in a place I didn't expect to find it. The model has two different lengths of countersunk head screw that hold the model together. Two of them hold the back end of the tender body to the chassis, and three of them hold the brake gear of the locomotive to the split chassis.

The two that hold the back of the tender on are longer than the ones that are meant to hold the brake gear on. However, at some point, the longer screws have ended up being used to hold the brake gear to the bottom of the locomotive (this may have been a manufacturing fault, or incorrect reassembly after servicing by a previous owner; I have no evidence either way). This created a point where both halves of the split chassis locomotive can touch and short out. The fault may not have occurred straight away, as the chassis is painted black and it takes a bit of time for the paint to rub off. However, once it does it can very easily 'fry' DCC chips and short circuit controllers and such like...

Once the shorter screws were placed in their correct location, the model worked reasonably well, however it did not want to run over the many 'Insulfrog' points that are in service on my layout.

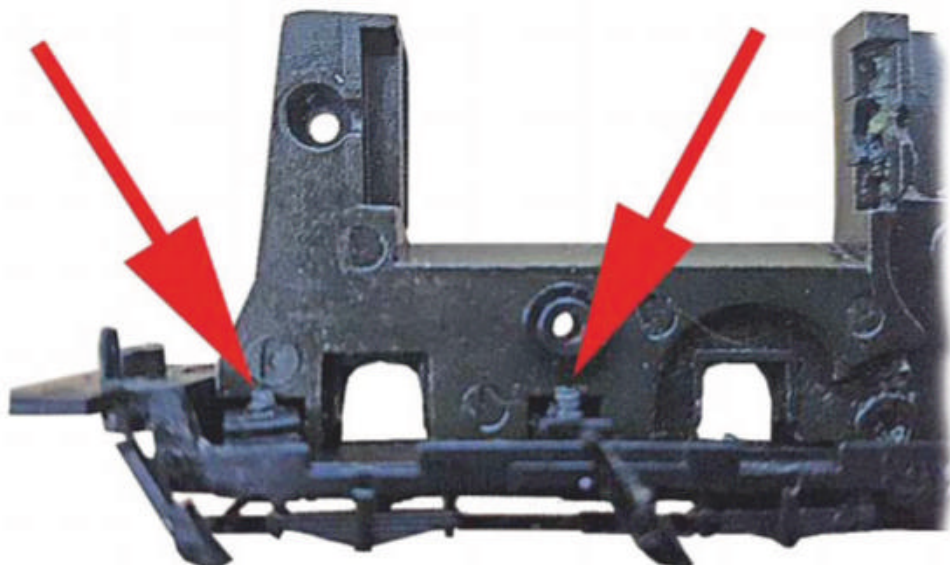
The solution for this came in the form of Marcus Ammann's webpage showing how to install extra pickups into steam locomotives (<https://tinyurl.com/yaphocu5>). [See also 'Tsunami Sound for an Austrains 36' in AMRM Issue 282, June 2010-Editor] I ended up using the brass wire pickups as they were a simpler fit for me and the locomotive has performed very well ever since.



Uh oh! The multimeter shows a dead short across the locomotive's driving wheels.



The culprits! The two different lengths of screw used to hold the model together. The shorter one is meant to be used to hold the brake gear on and the longer one is used to hold the tender body to the chassis, but, on this loco, they had somehow become swapped over, causing the shorting experienced with the locomotive.



A view of the chassis with one side of the split chassis removed, showing how the longer screws inserted in the chassis touch on both halves of the chassis, causing a short.



◀ Still wearing its traditional NSW Indian red with double buff lines colour scheme, carriage SBH2241 sits, well protected from the elements by a timber-framed, corrugated iron clad awning, on Russell and Sue Montgomery's 200 acre Tallong district property, 'Ballanya', where it has been in use as 'family sleepover accommodation' for more than a decade.

RECYCLED ROLLINGSTOCK

The SBH Air-conditioned Carriage at Tallong

Leon Oberg describes a post-rail use for a somewhat rare carriage type. Photos by the author.

Scores of redundant railway vehicles have, over the years, found new lives around the nation as on-farm storage and accommodation. Because many larger model railway layouts have rural aspects worked into their scenery, here is perhaps another prototypical use for that retired model languishing in a lower drawer.

Tallong (NSW) couple, Russell and Sue Montgomery, were in need of another room on their small homestead, to cater for family sleepovers. Some 15 years ago they were attracted by an advertisement placed by popular 'train mover', Mario Mencigar (now the principal of Australian Train and Railway Services). He had acquired the SBH from a group camp located at Yallah Bay Road, (next to Tallawarra Power Station, south of Albion Park). Mario remembered the camp had two carriages (acquired at the August 1994 RailCorp auction), as well as some cabins, as school and church group accommodation.

Significantly, the carriage was not a common item of rolling stock, but a true rarity, an SBH car that was originally a first class sitter, SBS2241, being 'Car 1' in eight-car RUB set No.141, delivered by Comeng in April 1951 for use on the *Northern Tablelands Express*.

As built, the SBS could seat 31 passengers within a 2 + 1 seating configuration. Six more seats were provided within a compartment adjacent to the ladies' toilet. In 1982/1983, SBS2241 was one of three carriages (2241, 2248 and 2249) which had their Sydney-end compartments altered to create storerooms for the dining cars used on the *Gold Coast Motorail*. These cars were re-coded SBZ.

All three were further rebuilt between 1987 and 1989, with the store rooms reconfigured into a luggage area with

guard's compartment, and given the code SBH to enable removal of the last of the timber-bodied passenger brake vans from the air-conditioned trains. The subject of this article (SBH2241) was finally condemned in August 1994.

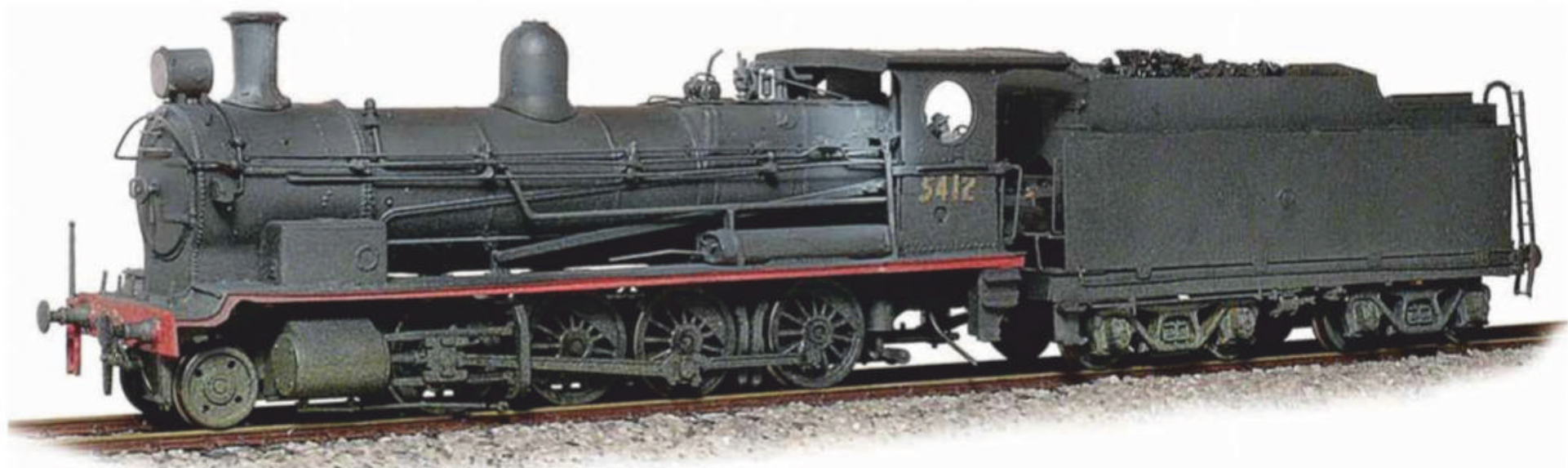
After taking delivery, the Montgomerys creatively built a deck between the carriage and their home and roofed the area over to protect their much-valued acquisition. On that deck they built a laundry, designed and timber-clad in the style of a railway building. Sundry rail artefacts, including lamps and signs bought at auctions, hang appropriately, while a genuine platform luggage trol-

ley last used at Granville sits strategically nearby, completing the railway theme.

Luckily, the carriage's luggage area and guard's compartment, with its external side lookouts, remains relatively intact, having survived the previous owner's internal alterations, making this carriage one of the few survivors to still show significant traces of the alterations carried out by the railways during the 1980s to keep the air-conditioned carriages relevant to the changing needs of both the authority and the travelling public. 🚂



The other side of the SBH, showing the deck and some of the railway memorabilia mentioned in the main text. The carriage lettering shows a prototypical example of the once-common sight of a model when the lettering decal film has not been properly 'bedded in'! That old carriage at the bottom of the drawer may have a use after all!



My Standard Goods Fleet Part 1. The D53 Class

Ray Smith converts the Eureka Models r-t-r HO scale NSWGR 50 class. Photos by James McNerney.

In this series of articles, I'll briefly give an overview of how I converted various Eureka Models r-t-r HO scale D50 class locomotives into members of the D53 and D55 class, as well as a 50 and a 53 class with Laird crossheads. Firstly, I'll start with the D53 class.

When Eureka announced that they will be producing the r-t-r NSWGR 50 class, the old grey matter went into overdrive, as this was a model that could be easily converted to a 53, my favourite class of NSWGR steam power. Basically, it needed a new footplate made from styrene, a slight shortening of the height of the cab, new air tanks on the footplate (again made from styrene), and a turret tender (kit from AndIan Models). I like the 5000 gallon Commonwealth turret tender; to me, this type of tender really suited the looks of the Standard Goods engines. I ordered my first 50 class with the view that it was to stay as a 50 class, but married to a turret tender.

The 50 class duly arrived and the loco was carefully examined to make sure there would be no complications when I converted a second 50 class to a 53 (there weren't). I started on the AndIan tender, which was my first etched brass kit. The kit went together fairly easily and quickly and, by the end of the week, I had a very nice looking turret tender. I had to cut a rectangular slot below the footplate of the tender to allow the wiring from the engine to connect with the Eureka circuit board, re-housed in the new tender. (I removed the body of the 3650 gallon tender, unscrewed the circuit board from the tender chassis and refitted it in the chassis of the new turret tender.) After painting, weathering, coal, crew and renumbering to 5243, my first Standard Goods was ready for service.

Now, the big AMRA (NSW) exhibition at Liverpool wasn't far away. I planned to purchase a second 50 class from the Eureka

stand to be converted to a 53 class, as well as purchasing a second turret tender kit from AndIan Models. Buying the loco, new for \$680.00, plus the tender kit, was going to be a big expense. But, imagine my surprise and pleasure when I got to the Eureka stand to find all these 50 class locomotives (and tenders) rejected by their original owners for some minor defect and all for a fraction of the price of a new loco. "I could surely fix one... or two?" I thought.

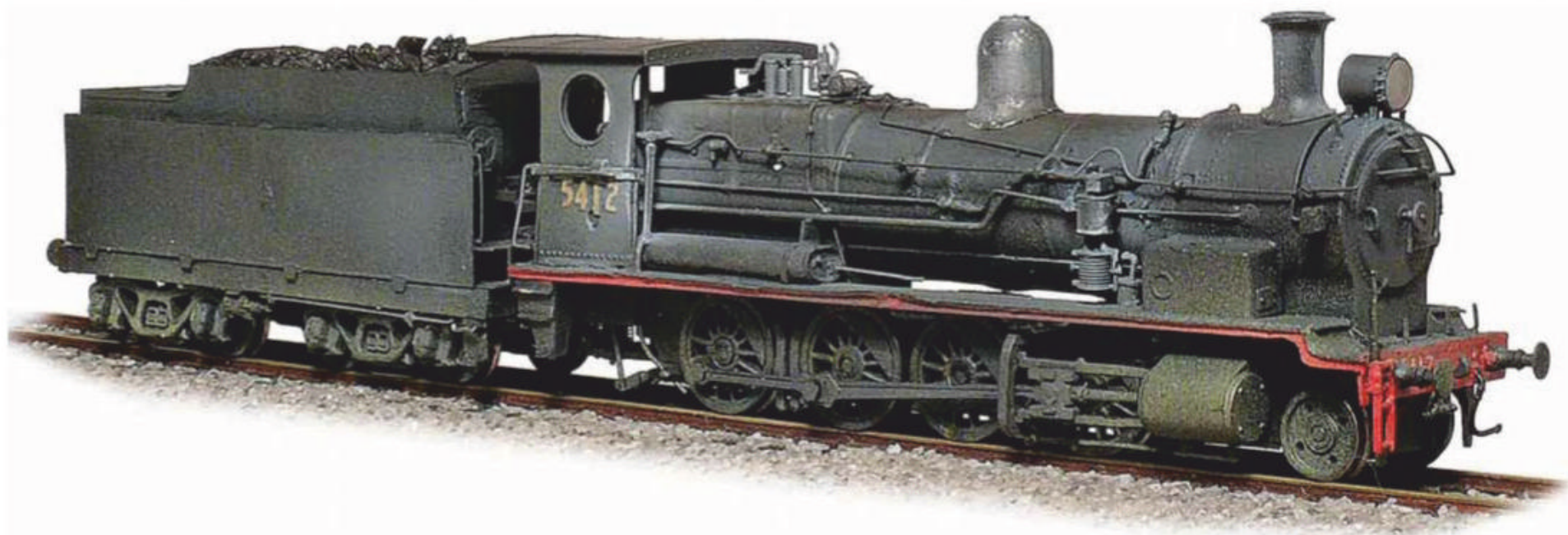
Using my third-grade arithmetic, I quickly realised that I could afford to buy two locos, plus tenders (I needed the circuit boards) and two AndIan turret tender kits. Money was soon changing hands for the locos and tenders, then more at the AndIan stand! After getting home, I started to re-read my copy of Ron Preston's *Standards in Steam 53 & 55 Class*; a momentary glance at 5597 on the cover... "Convert a 50 to a 55.....Nah!!, it's not possible...you're crazy!!" I thought. I have copies of *Byways of Steam* (Nos 16 and 17), which also have articles on the 53 class. One of the cardinal rules in loco building is to have as many photos as you can of the engine you want to model.

The first 53 I decided to recreate would be 5412, allocated to Cowra during the early 1960s. I model the Central West of NSW [*I like the boy... – Editor*], so to me this was a logical choice. A couple of days later, I was reading the copy of *Byways of Steam 16*, which has an excellent story, written by Ian Wallace, describing the members of the 53 class that were fitted with specially balanced driving wheels. "That's it, my second 53..." I thought. A couple of good photos of 5369 later and now I had two different 53 class locomotives (I like a bit of variety).

Building the Models

As I would be recycling as much as I could from the 50 class





model, I first removed the body from the chassis, then removed the sand boxes, handrails and air compressor (the compressor has a slightly higher position on the 53 than on the 50 class). The cab was removed from the firebox. It needed to be reduced in height by removing 3mm between the handrail just below the cab porthole and the sandbox lid.

I started on the footplate by marking it out on 0.060" styrene, with smaller pieces of styrene glued, filed and sanded to recreate that characteristic curved section at the smokebox end. The buffer beam was cut from 0.040" styrene and holes were marked out and drilled for the buffers (removed from the 50 class). In attaching the body to the chassis, I wanted to use the original mounting holes at the cab end as was used in the 50 class. Pieces of styrene were packed underneath the cab area to ensure that the footplate was level and provided backing for the steps that were also made from styrene.

But to get the footplate to sit level and have everything sit at the right height, I had to pack up the smokebox end with 0.040" styrene. Then, with the Dremel, I removed about 0.030" of the 0.060" styrene footplate at the cab end and then I removed about 0.020" from the underside of the footplate over the driving wheels to make sure that the driving wheel flanges weren't rubbing on the underside of the footplate. When I was satisfied, using five-minute Araldite, I glued the smokebox/boiler/firebox/cab assembly to the footplate. When that was set, using more Araldite, I glued the sandboxes, which were also modified, to the now assembled body.

Then I set the two bodies aside and started on the two Andlan tender kits and did the necessary modifications there to match the locos. I was keeping in mind that on the rear of 5412's tender, the electrical conduit arrangement is a little different from the other turret tenders (see Chris Sim's photo on p.178 of Lawrance Ryan's *Lines to the Lachlan Revised Edition* ARHS (NSW) 1993). Once the tenders were finished, I attached the two locomotive bodies to their respective chassis using the original bolts and screw holes, then ran the wires from the circuit board (which was fixed to the chassis in the tender) to the loco.

Using the draw-bars from the original 50 class, I started testing. They both needed adjustments here and there but, all in all, they both worked. I was now looking at a pair of proto-53 class

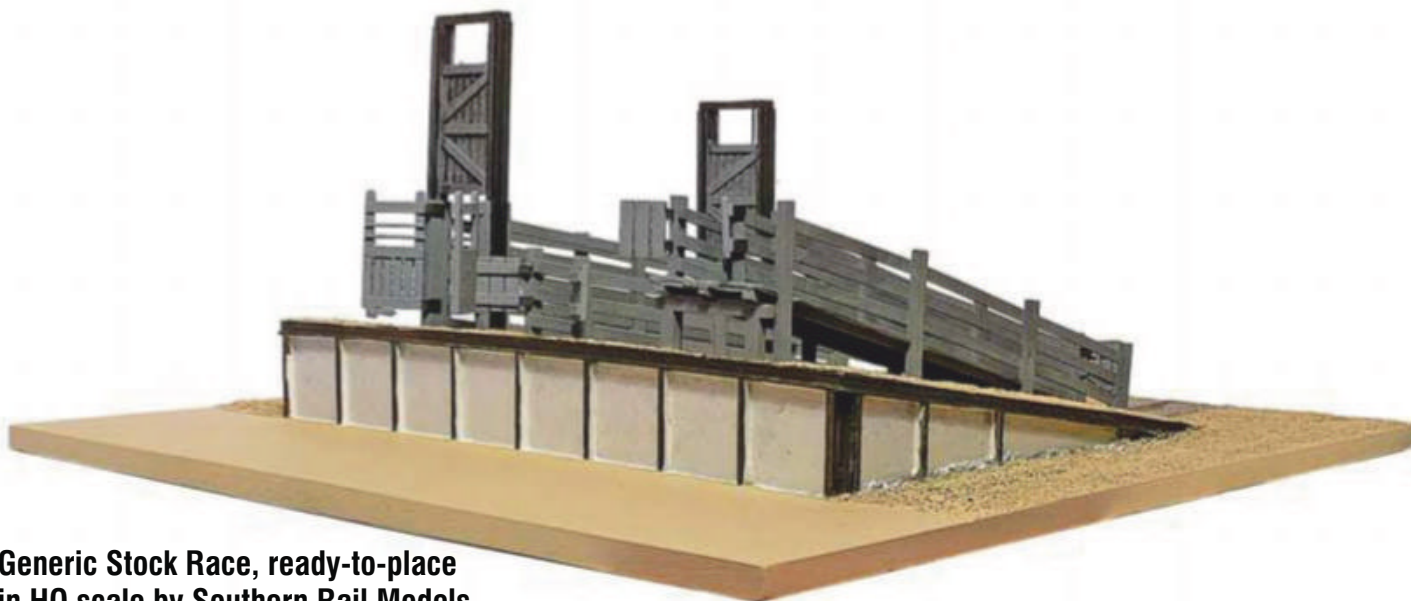
locomotives on the table, just needing final detailing. First, I removed the coupling and connecting rods from the locomotive that was nominated to be the balanced-wheel version and, after examining photos, half of the third driving wheel's face was carefully filled in with Tamiya putty.

Perhaps, in hindsight, I should've used thin styrene, but the clearances between coupling rod and wheel weren't that great and the styrene might have got caught in the movement of the coupling rod. Plus, I wasn't really sure of the power of the super glue to hold the styrene wheel balance weights in place on the stainless steel wheels. Later on, I found that I need not have worried about it. Oh well!! [*I've not had any problems with mine either* – Editor] Then I sanded the putty down to a smooth finish. Styrene strip was glued between the wheel spokes of the other driving wheels, as per photos in the article. I put the coupling and connecting rods back on and performed another test, hoping all the while that this thing still worked... luckily, it did!

Now for the final detailing of both locomotives. The air tanks on each side of the footplate were made by gluing two strips of 0.060" styrene together (those from the original 50 class were too short). When dried, filed and sanded to the right shape and with detail added to the ends, they looked the part. Archer decals provided the rivets on the footplate. The air compressor was moved to its new position and fixed to the boiler. The water delivery pipes were then added, followed by the reversing rod, hand rails and lamp brackets, plus the other bits of minor detail I wanted. Then the engines were numbered using AM Models etched brass numbers.

The locos were then primed, painted engine black and the buffer beams painted red, along with the edge of the footplate of 5412, which was also red. White number decals were applied to the front buffer beam and buff numbers to the rear of the tender. Then they were weathered, coated (with real western coal) and crewed (courtesy of Kerroby). Then, an accurate chimney and dome became available via Ray Pilgrim's 'Signals Branch' Shapeways shop. Two pairs of chimneys and domes were ordered and arrived a couple of weeks later. They were painted, attached to the locos then weathered to blend in. There we have it; I now have two 53 class locomotives, which were far more typical of the Central West than the 50 class locos. 





Generic Stock Race, ready-to-place in HO scale by Southern Rail Models, PO Box 427, Salamander Bay 2317. Ph: 0418 282 564. Website: www.southernrailmodels.com.au. Price: \$109.00.

A recent addition to Southern Rail's Trackside range of ready-to-place HO scale lineside accessories is this generic stock race. Stock races (and their associated stock yards) were once a common feature of all but the smallest wayside goods siding all across Australia, right up to (and past) the demise of stock transport by rail (the late 1980s in NSW).

While this version appears to be based on the standard NSWGR T6 (1948) design (the Southern Rail website states that it is based on the stock race still [barely] standing at Harden in southern NSW), it is sufficiently generic to satisfy the vast majority of modellers who just want a model they can 'plonk' on the layout to mark the location of their stock yards, no matter what state's prototype they are modelling.

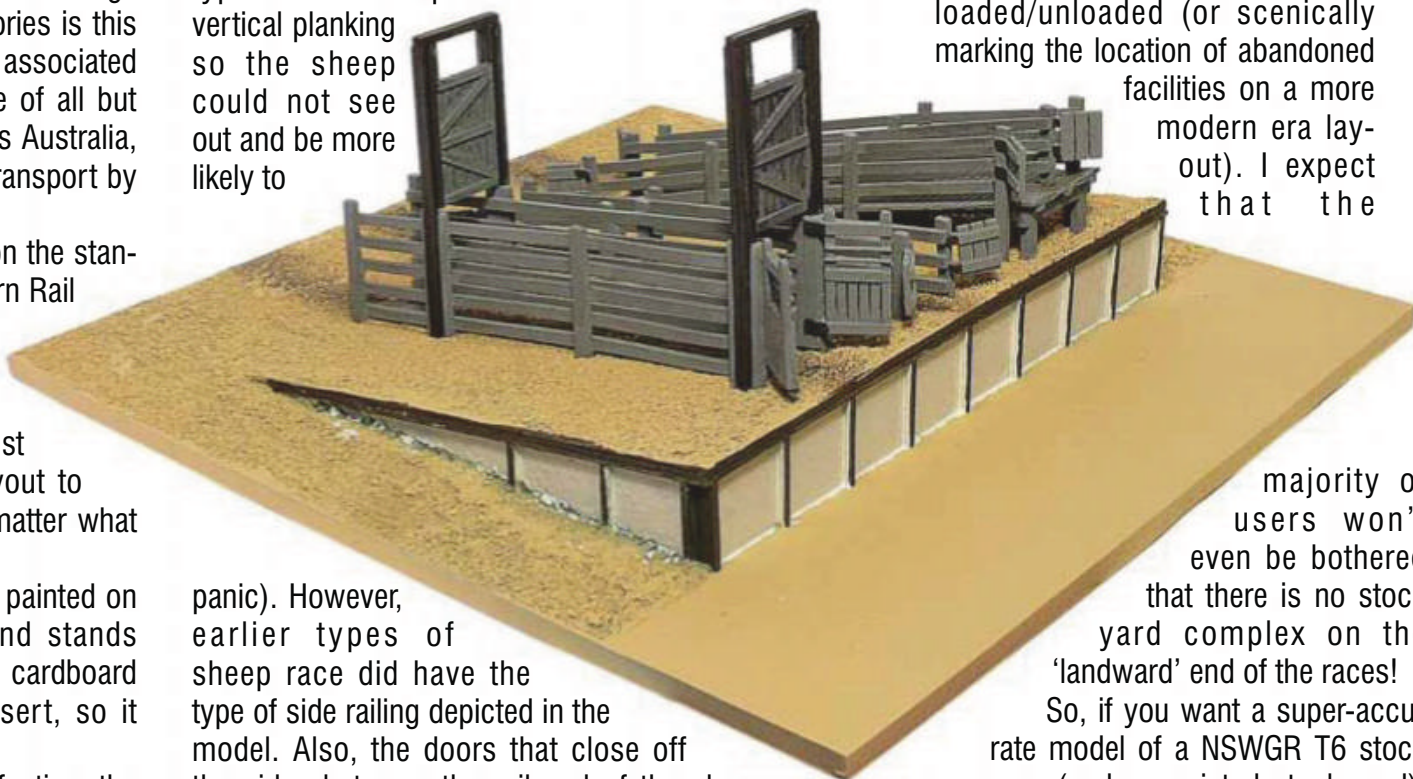
The model comes ready assembled and painted on a base measuring 195mm x 185mm and stands 80mm high. It is packed in the usual stout cardboard box and protected by a shaped foam insert, so it should arrive intact if mail ordered.

Straight out of the box it looks quite effective; the model is well-assembled and the parts representing timber (plus some of the metal!) are painted a weathered looking light grey that represents old sun-bleached timber quite well. The rails supporting the gates to the cattle race, plus the representations of the rails framing the supporting bank are painted a suitably rusty dark brown, while the representations of the concrete panels on the bank are a nice creamy/white concrete colour. The ground cover is a light ochre that well represents the light sandy soil of most Australian locations.

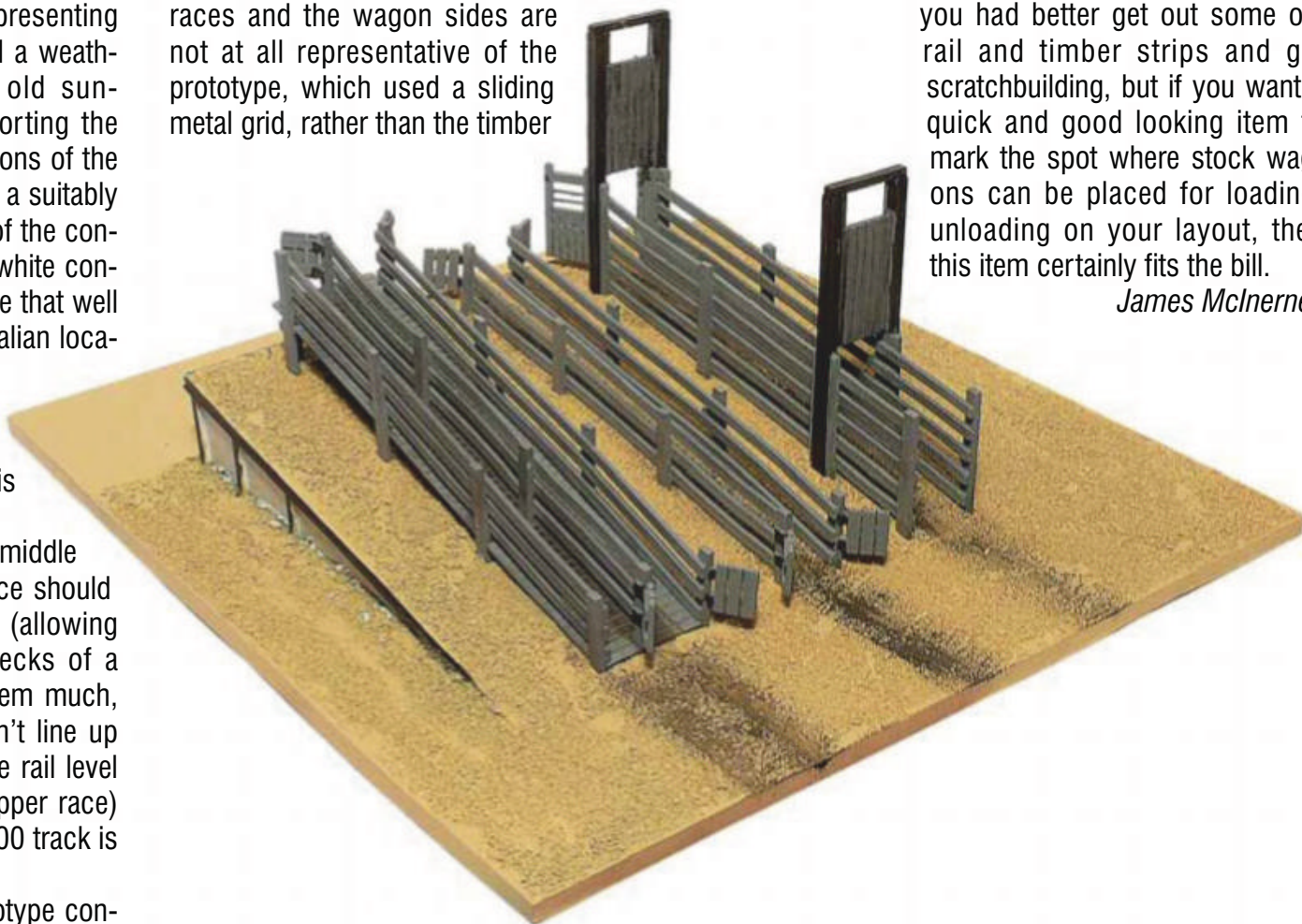
The overall dimensions of the races are a pretty close match for the prototype T6 races, though the spacing of the races is not. The outer races should be closer to the ends of the bank, leaving space in the middle for unloading stock, and the lower sheep race should be 9' centre to centre with the upper race (allowing simultaneous loading/unloading of both decks of a sheep van) rather than 9'6" (it might not seem much, but it does mean that the wagon doors don't line up with the races). On a more positive note, the rail level to floor level (3'8" to bottom race, 7'4" to upper race) dimensions of all races are spot on if code 100 track is placed on the roadbed in front of the bank.

The races also do not represent the prototype con-

struction of a T6 race as the model has timber upright posts (the prototype used old rail) and the sheep races feature horizontal rails as per the cattle race (the prototype had close spaced vertical planking so the sheep could not see out and be more likely to



panic). However, earlier types of sheep race did have the type of side railing depicted in the model. Also, the doors that close off the sides between the rail end of the sheep races and the wagon sides are not at all representative of the prototype, which used a sliding metal grid, rather than the timber



doors present on the model.

The cattle race control doors are both represented in the raised position, which would be most unusual on the prototype except under certain conditions while stock was actually being loaded. However, the abandoned race at Harden does currently have both doors raised!

While by no means a super-accurate scale model, it certainly looks like a stock race and that will certainly satisfy the vast majority of the market that Southern Rail is targeting with this item. After all, all that one has to do to make use of it is place it on the layout and it is ready to do its job of marking the spot where stock wagons can be loaded/unloaded (or scenically marking the location of abandoned facilities on a more modern era layout). I expect that the

majority of users won't even be bothered that there is no stock yard complex on the 'landward' end of the races!

So, if you want a super-accurate model of a NSWGR T6 stock race (and associated stock yard), you had better get out some old rail and timber strips and get scratchbuilding, but if you want a quick and good looking item to mark the spot where stock wagons can be placed for loading/unloading on your layout, then this item certainly fits the bill.

James McInerney



Muswellbrook Colliery wagon No.66 running empty.

NSW Hunter Valley Private Owner Four-wheel 'LL' size Hopper Wagons, r-t-r in HO scale by Southern Rail Models, PO Box 427, Salamander Bay 2317. Ph: 0418 282 564. Website: www.southernrailmodels.com.au. Price in text.

Prototype

The steam era private coal hauling railways of the NSW Hunter Valley have suddenly become very popular with both manufacturers and buyers lately, with Southern Rail's recent release of the SMR 10 class 2-8-2 tank and these four-wheel coal hoppers, as well as the release of the Phoenix Models four-wheel hoppers and four-wheel 'caboose' coalfields brake vans, making it possible for the r-t-r purchaser to model complete private railway coal trains from locomotive to brake van by merely opening some boxes!

The Southern Rail hoppers reviewed here are modelled on the final design of non-air hopper to enter service (from 1930) on the J & A Brown system. These are an originally all-timber 12½ ton capacity vehicle to the traditional design of removable 'V' shaped hopper mounted in a four-wheel chassis and devoid of air-brakes. As the largest of the private non-air hoppers, they were coded 'LL' (extra large). The timber underframes were soon found to be inadequate and were replaced with new steel frames, starting in 1937, with the entire fleet eventually converted. Unusually for the private hopper fleet, they were fitted with a NSWGR-style 'spider' handbrake wheel, rather than the usual British-style side lever handbrake.

Similar vehicles were constructed for other collieries and industrial users in the Newcastle area and many of these ended their lives on the J & A Brown system after non-

air hoppers were banned from government lines in 1974. Quite a few of these other colour schemes have been modelled by Southern Rail in this release (see website for full range).

Pre-1974, these vehicles operated on the various private colliery lines and could also be found operating on government lines, hauled by steam until the final years when the 48 class took over non-air coal haulage. After 1974 they were confined to the private lines, operating until the last section of the J & A Brown system closed in 1987.

The models provided for review are from pack LL12, featuring two red oxide Muswellbrook hopper wagons. These are reproductions of the hoppers used by the Muswellbrook Colliery in their 'long distance' coal haul from Muswellbrook to Port Waratah, wholly on Government metals and hauled by Government locomotives. Unusually, these were the only private owner hoppers to be fitted with air brakes, though this equipment was removed from the 67 wagons sold to the J & A Brown system in 1975. The wagons are modelled without the Westinghouse air brake equipment fitted so, to be strictly accurate, only depict the vehicles' appearance after the sale.

Model

The models are available in either ten-packs (\$450.00 per pack) or two-packs (\$90.00 per pack) in quite a variety of colour schemes. See the Southern Rail website for the full list and current availability (most of the first run has already sold out). The two-packs are not available separately; they can only be purchased in conjunction with a ten-pack (the standard load for an SMR 10 class 2-8-2T was 32 wagons).

The models are presented in the standard plastic-faced robust card

box and are well protected by the usual moulded plastic inserts we have come to expect from the imported r-t-r product. Straight out of the box, the wheels are in gauge and the 'scale head' Kadee couplers are at the correct height though, as usual with Kadee couplers, the 'trip pins' need a slight adjustment to clear the height gauge. The box also includes moulded plastic removable 'coal loads', so the vehicles can be portrayed in either loaded or empty form.

The models themselves are of the quality we have come to expect from Southern Rail. Everything is crisply moulded, well painted and lettered and all the important visible detail appears to be present and properly modelled. I'm not at all familiar with the prototype (completely outside my area of expertise), however, the dimensions of the model pretty much conform to information published in Ian Dunn's article, *The Four-wheel Hopper in NSW*, published in *Byways of Steam*: 27 in 2010.

The only departure from the prototype I can identify is the provision of Kadee knuckle couplers, rather than the hook drawgear carried by the full-sized vehicles. However, the practicalities of operating small-scale models make this a most sensible change, in my opinion!

The models have a weight hidden under a false floor in the hopper, bringing them up to about what I would weigh a kit of this type of model (were I to construct one), ensuring good tracking and coupling/uncoupling. Unfortunately, I have just moved and my layout is currently dismantled, so I cannot

test the models in operation, other than to roll them through the section of the layout that usually causes problems if a vehicle is likely to derail! So far, they appear to have no problems rolling smoothly through my roughest section and, unlike vehicles such as the prototype K/U/RU wagons, they do not appear to be at all 'allergic to the track'!

All in all, another excellent model from Southern Rail that many NSW modellers will find hard to resist. Even I am quite impressed with these models and, though I will not be changing my modelling allegiance to the Hunter Valley any time soon, I think I will find a reason for them to appear on the layout from time to time! Luckily, this is made easier by the review models being the Muswellbrook Colliery wagons. Who is to say they could not have wandered off to the Central West and washed up at *Lambing Flat*!

James McInerney

REVIEWS

The products covered in the Review pages have been supplied or made available by the manufacturer, producer, importer or retailer listed in each product heading. AMRM welcomes access to new product lines for inclusion in the Review pages and requests items be addressed to the Editor at Australian Model Railway Magazine, PO Box 345, Matraville 2036. Readers are reminded that the prices quoted in the reviews are those applicable at the time of going to press. Those using the prices as a guide to purchasing products by mail order should always add extra for postage, or contact the supplier for the additional cost for mail order.

Editor



Muswellbrook Colliery wagon No.7, fitted with one of the separate coal loads provided in the pack.



Wuiske Models have released a rerun of their r-t-r, HO scale, QR curtain-sided QSC van, produced in conjunction with Haskell Co of Taiwan. Now available are three new packs in the original yellow Easiliner colour scheme and two new packs in the Q-Link scheme, all with new running numbers. As usual, all types are available with either 16.5mm gauge or (correct for QR 1067mm gauge) 12mm (HOn3½) gauge bogies.



Wuiske Models have released a traditional-style, high-pressure injection moulded plastic kit for the QR HJS open wagon in HO scale. Designed to be constructed by even an inexperienced modeller in under 15 minutes, the kit contains all parts, including brake rigging and multiple-era decals, needed to build an example of this once common item of QR rolling stock (purchaser must provide couplers and paint). Dating from the early 1950s and still in service well into the 2000s, the one thousand of these wagons (produced in two

batches – the model represents the second Australian-built variant) should fit right in on any Queensland layout. The model is packed with QR20A bogies, gauged for either 12mm (3'6" – 1067mm) or 16.5mm (standard gauge).



Latitude 32 Models have produced a 3D printed, N scale, Western Australian D/DA body shell (and bogie sides), designed to mount on an Atlas SD24 chassis. The models are available via Paul Grundy's Latitude 32 Models Facebook page.

Phoenix Reproductions have released their range of r-t-r, HO scale, wooden underframed, Newcastle coal road, four-wheel brake vans. The vans are available in single-packs in a variety of colour schemes covering the NSWGR CHG vans as originally delivered with vertical planking (Gunmetal grey), East Greta Coal Mining/South Maitland Railway (light grey with a choice of vertical planking or as rebuilt with plain plywood siding) and J & A Brown (oxide red). The vans also feature double or single roofs and stove pipes as appropriate to the van number modelled.



Auscision has released their range of r-t-r, HO scale NSW paybuses in both straight DC and DCC-sound versions. The full range can be viewed at the Auscision website and the models are available by mail order direct from Auscision and over the counter at the Auscision factory shop, Australian Modeller, at Seven Hills NSW.





Some factory-painted samples of Auscision's HO scale r-t-r NSW 442 class diesel locomotive.



Apology

In the February 2019 issue of *Australian Model Railway Magazine*, in the Prototype File article by Ian Dunn, there was a photo of HG12351 at Botany, the image attributed to Bob Gallagher. Regrettably, we did not receive permission to use this image which was taken by Phil Smith. We apologise to Phil for this unauthorised use of the photo.

R. Gallagher
General Manager
SCR Publications

New Venue for AMRA (NSW) October Exhibition

The Australian Model Railway Association (NSW) announced in January that they will be moving their annual October long weekend model railway exhibition from its long term home at the E.G Whitlam Centre in Liverpool to a new venue, Hall 5 at the Southee Pavilion in the Sydney Showground at Sydney Olympic Park, Homebush. After more than 35 years (with a short

break some ten years ago) at the same venue, moving the exhibition was not something undertaken lightly and was only done after some years of the Liverpool venue's management not meeting the expectations of the association in terms of facilities and communication.

The new venue, in a more centralised location for the majority of attendees and with much easier access to public transport, provides much more modern

buildings and other facilities with plenty of room available for future expansion if necessary.

This year's exhibition will, as usual, be held over the Labour Day long weekend, 5-7 October.

New Venue for Hills Model Railway Society Exhibition Too

After 39 years in Castle Hill and well over 20 years at the Harvey Lowe Pavilion within the Castle Hill Showground, the Hills Model Railway Society has also



Some factory-painted samples of the new colour schemes to be offered with the second run of Auscision's r-t-r, HO scale, NSW 422 (and later modifications) diesel locomotives.



The first factory sample of Auscision's r-t-r HO scale NR class diesel locomotive.

been forced to relocate their popular exhibition. Citing ongoing problems with the showground venue, including restriction of the hall size and the major construction that is occurring around the site, coupled with the observed success of the Epping Model Railway Club's relocation to a bigger, more modern venue at Rosehill Racecourse, the club has resolved to relocate the exhibition to the Blacktown Leisure Centre (Stanhope Gardens).

This venue is modern, air-conditioned and better maintained than the previous location, as well as being fully accessible for both exhibitors and attendees and also has space to permit the exhibition to grow in the future. The extra space is already being utilised to allow an increase in the number of commercial stands that can be accommodated. Not only the venue is changing, but also the time the exhibition is being held. Traditionally held around the end of July/early August, a time that is becoming very congested with other activities, the exhibition will now be held in the latter part of May; this year it will be on the weekend of 18-19 May.

Despite the expense involved in the new, larger venue, there will not be an increase in entry fees. You can keep up with developments

and see the list of exhibitors, once it is finalised, on the club's website: www.hmrs.org.au and their Facebook page: www.facebook.com/HillsModelRailwaySociety.

Goods Wagons of the NSW Railways

The last (February 2019) issue's advertising section announced the publication by our

sister organisation, Eveleigh Press, of *Goods Wagons of the NSW Railways*, covering the goods vehicles placed into service by the NSW railways between 1855 and 1905, many of which were still prominent post-WW2 and some even lasting into the diesel era, mostly as Way and Works vehicles. With 368 pages of very useful information, penned by Ian Dunn

from research by himself, Bob Merchant and Don Estel, the volume also includes photos and scale drawings (by Greg Edwards) of almost every wagon type issued to traffic in this period, this publication should become the 'bible' for the modeller and enthusiast of NSW goods wagons, especially those interested in the 'early days'. Eveleigh Press is currently offering an attractive pre-publication deal for advance purchasers, which will close in early April, shortly before the expected mid-April delivery of the book.

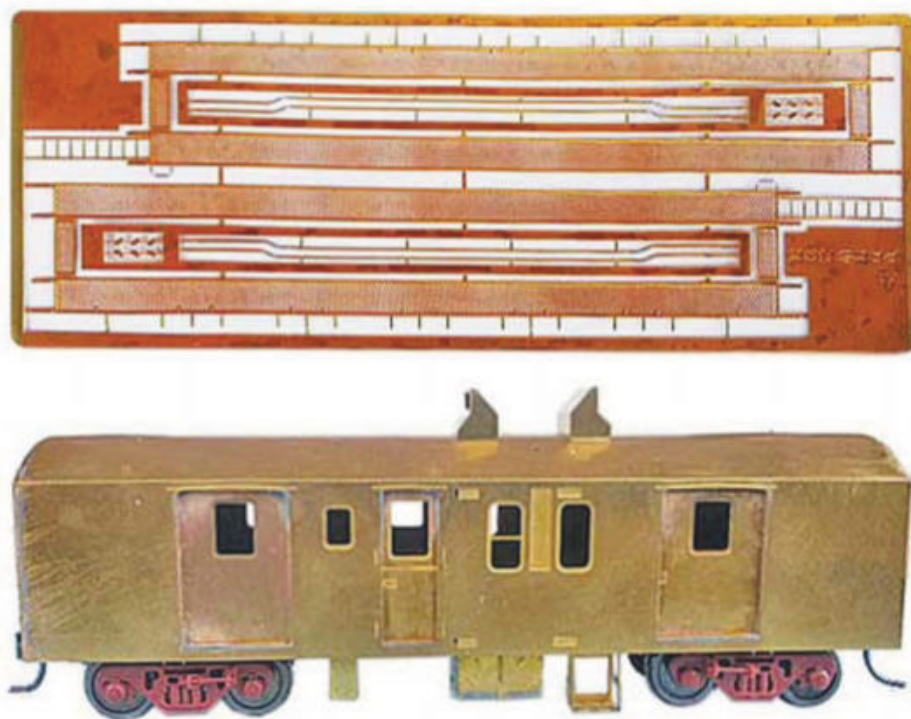
Modelling the Railways of NSW Convention 36

It appears we 'jumped the gun' a bit last issue with the (sponsored) advertisement for this event as, at that point, the date and location of the event had not yet been fully settled. However, we can now confirm that the date (Saturday 18 May 2019) and location (Loftus TAFE) were, in fact, correct and that this



Casula Hobbies have available locally assembled and painted versions of sets 100, 101 and 102 in varnished finish. These are retailed in six-car sets, with additional cars available, if required, and are made-to-order. These are not 'generic' sets, but are customised to represent the prototype, such as the sample shown here, the 'large toilet window' HR322 from Set 101 as it appeared in varnished finish prior to 1952.

Broad Gauge Models have taken over the Prestige Models range of HO scale VR kits and detail items, including etched brass ZF guard's van kit, VR shunters' steps and walkways for the SEM VHGY grain hopper kit shown here. While some parts are already available, work is in hand to source outstanding items, such as castings for the two gas bottles that hang underneath the van, to enable some of the items to be re-released as complete kits.



year's convention will occur 'as advertised'. As usual, the organisers have a lot of very interesting presentations on modelling the NSW railways planned and, with the Hills Model Railway Society's exhibition also happening at Blacktown on that weekend, a very full weekend of model railway activities can be had by those so inclined.

Barry Lloyd RIP

Barry Lloyd, author and owner of this issue's feature layout, *The Hills Line*, unexpectedly passed away on the 18 December 2018, after a short fight with cancer. Barry's layout had previously appeared in this magazine in Issue 302 (October 2013) and he has been a regular contributor of general articles since 1995. Our condolences go out to all Barry's family and friends and his contributions to AMRM will be sorely missed.

Ken Ames RIP

Sadly, we have to report the passing of yet another significant person in the hobby, Ken Ames, also on 18 December 2018, following a short illness. While not a modeller, Ken made a major contribution to the accurate modelling of the NSWGR system through the publication of two autobiographical volumes covering his long career on the NSWGR. The first, *Reflections of an Engineman* (NSWRTM 1993), covered his time on the footplate at Eveleigh, Parkes, Thirroul and Valley Heights from 1944 to 1951.

The second, *From Grease to Gold Braid* (ARHS NSW 2001), covered his career in Traffic from 1952 until his retirement in 1986. Both volumes are chock full of information and photographs that give a valuable insight into the activities of the railways of the time. Ken was also active in the railway preservation movement, having joined the (then) NSW Rail Transport Museum in 1974 and been active in many significant roles within that organisation up until the time of his death.

Noel Reed RIP

December 2018 was a very bad month for significant people in the hobby, with noted transport photographer, Noel Reed, passing on 19 December. While, as with Ken Ames, Noel was not a modeller, his long years of photography, particu-

larly his use of colour film during the early 1950s, has left a legacy of incredibly useful and informative images that contributed (and continue to contribute) to the accurate modelling of Australian railways and tramways.

Peter Ford RIP

It is with deep regret we advise that Peter Ford of Far North Hobbies passed away on 19 February 2019. Peter's contribution to the model railway hobby and steam preservation scene will be covered in a tribute in the June 2019 issue of *Australian Model Railway Magazine*.



Trainbuilder are expecting to have released their latest r-t-r VR brass HO scale models by the time you read this. Shown in these pages are the VR blue/gold version of the DERM and the W class shunting locomotive. Both models are all brass and are DCC-ready with lit headlights and marker lights. The DERM also has a fully lit interior. The DERM is available in a number of versions of VR blue and gold, as well as VR red with various striping schemes, as they appeared in both government service and as preserved. See the Trainbuilder site for full details of the versions available of both the DERM and W class.



Factory samples of the next release of r-t-r, HO scale, NSWGR goods wagons from Casula Hobbies. Shown here are the E bogie flat with bolsters, MLV/MLK milk van, as converted from the BCV closed vans of 1918, and bogie water gin (semi-circular water tank on an E wagon chassis). The MLK milk van will also be available coded MLV, as they were prior to 1965. At the time this caption was written, Casula Hobbies expected to be able to release the models at the Forestville model railway exhibition in March 2019 and they should be available by the time you read this. The arch bar and 2BJ bogies developed for this project will also be available separately; very useful as these bogies were used under a number of other types of NSWGR rolling stock as well.



A factory assembled sample of the upcoming Model O Kits NSWGR 13 class locomotive kit for 7mm scale. The kits are expected to start becoming available in April 2019 with production of the r-t-r versions due to start in June.

New Products

H0 Scale

Eureka Models have suffered once again from the usual Chinese New Year chaos with the re-run of the NSWGR 38 class 4-6-2 steam locomotive now expected to arrive no earlier than August 2019. The factory has assured Eureka that they will definitely be here in time for the AMRA (NSW) October long weekend exhibition at the new venue in Homebush. The NSWGR

four-wheeled, steel hopped LCH and the RH cement wagon projects were, at the time this item was prepared, expected to arrive in March 2019, around the time you read this.

The test shots of the NSW 72'6" twelve-wheel TAM sleeping and MCS composite carriages have also been delayed, but are still expected to arrive "soon". Assuming the test shots are OK, assembly should commence after

Chinese New Year, with delivery anticipated to occur before the AMRA (NSW) October exhibition.

A re-run of the NSW air-conditioned HUB sets is also underway, with delivery expected in the second half of 2019. The limited numbers re-run will be in the same format as the original run; the box will contain a five-car set, with extra two-car packs available to increase the formation to seven cars, and will be available painted in Tuscan and russet, post-1954 Indian red or 1980s-era 'Candy' colours. The only changes will be that the Tuscan and russet sets will have all red doors (as per prototype), there will be no interior lighting and the incorrect back-to-back problems that affected the original wheelsets will be corrected.

Phoenix Reproductions report that the VR E/SAR O bogie open wagons and VR S bogie flat wagons, being produced in conjunction with Eureka Models, are in the process of being assembled at the factory, with delivery expected some time in mid-2019. Once they are delivered production will commence on the ex-Eureka Models NSW NTAF Rail Tank Cars.

Trainorama report that, after a change of manufacturer in China, the re-run of their updated NSW 44/SA 930 class diesel electric locomotives (Alco World DL-500B) is currently in production, with delivery of the NSW variants expected in late April/early May 2019, with the SA version to follow with delivery expected to be in time for release at the Epping Model Railway Club's June long weekend exhibition at the Rosehill Racecourse. The models have been upgraded to include directional marker lights, factory-installed 21-pin DCC plug and a new, better motor. The 44 class will feature examples from all three series, with appropriate variations, and some of the locomotives will have single marker lights, as originally delivered. Most of the popular colour schemes will be offered. The 930 class will also be available in a variety of colour schemes and body variations, as appropriate to the locomotive being modelled.

The first test shots of upgraded NSWGR Pullman carriages (CBC, HX, CFX and ADX) have been received. The models feature significant upgrades over the original production run, including

reshaped crown-lights, etched brass end balustrades/handrails and metal buffing plates/buffers, plus interior detail is also being provided. Also received is a sample of the FVX, one of the vestibuled second class converted Pullman carriages that formed NCL set 89 of inter-war *Newcastle Express* fame. Samples of the other carriages that make up the set are expected to arrive soon (and may have already done so by the time you read this).



A sample of the ready-to-place, H0 scale, VR lattice mast somersault home signal that San Mateo Line are expecting to be able to release in April 2019, with examples available for over-the-counter sales at the Easter Model Train Expo over Easter (April 20-21) at the Community Bank Stadium, Diamond Creek. The signals are of all-brass construction, fully painted and have working marker lights. The signal arm is connected to an operating rod that protrudes through the base; this rod can be connected to a servo or slow-motion point motor.



The Trainbuilder W class Tulloch-built 0-6-0 diesel-hydraulic shunters are fitted with flywheels and, along with the standard VR version, a small run of the single NSWGR member of the class, 7101, has also been produced. The prototype was constructed as a demonstrator in the hope of generating sales to the NSW railways after the completion of delivery of the 26 broad gauge W class to the VR in 1960. Tulloch-owned 7101 operated on the NSW system from November 1960 until June 1961, after which it was returned to manufacturer, who sold it to the VR where it became W266. It was repainted in VR colours and used on the construction of the North East standard gauge line (the 'Gauge') between Albury and Melbourne.



O Scale

Model O Kits have advised that they will be distributing the r-t-r Manning Wardle K class 0-6-0T being produced by Minerva Models that was mentioned in last issue's *News* section, as Minerva are no longer shipping to Australia via their website. Australian pre-orders from Minerva will be distributed by Model O Kits and after release the model will also be available through the Model O Kits website and shop.

All Scales

Comrailmodels now have available 3D printed models of the consist of the entire Wegmann-era *Trans-Australian*, as well as all the vehi-

cles to make up the original narrow gauge *The Ghan* in both HO and N scales, available via Paul Grundy's i.materialise online shop.

Publications

Robert R Taaffe, well-known and respected NSW signalling expert, is arranging to self-publish a four-volume set of books covering the history of NSW railway and tramway signal boxes. Volume 1 covers the history of signal boxes in NSW, while Volumes 2-4 lists each known signal box, its location and a brief individual history, divided by the region of NSW in which it was (is) located. The volumes contain 1600 photos, many in colour,



Factory samples of the Minerva Models r-t-r O scale Manning Wardle K class 0-6-0T locomotives that are expected to be available soon from Minerva's sole Australian distributor, Model O Kits. The black locomotive, in particular, would make a very good basis for a model of the NSWGR 127 class locomotives.

and are supported by drawings by Greg Edwards (Data Sheets). This very limited four-volume edition is

only available direct from the author to prior order.

Compiled by James McInerney

DIARY

SCMRA ACTIVITIES

*For all activities contact Eastern Division representative
Graham Windmill on (02) 9626 0351.*

- | | |
|-----------|---|
| 13 April | SCMRA Seminar – <i>Modelling Southern NSW Railways</i> , Epping Creative Centre, 26 Stanley Rd Epping, 8.30am–5.00pm Registration Essential by 2 April. Cost \$45. Send cheque and details to PO Box 345, Matraville 2036 |
| 11 May | Running Session at home of Tim Stewart, HO NSW layout based on Mudgee in operation. |
| 8-10 June | Stand at the Epping Model Railway Exhibition, Rosehill Gardens Grand Pavilion, off Grand Parade Rosehill. |
| 13 July | Open Day by SCMRA and EMRCI at Epping Creative Centre, 26 Stanley Rd, Epping. 10am to 3.30pm. Layout operation. Getting Started clinic at 11.00am. Free sausage sizzle lunch. Details from Trevor Moore 9876 3522. |

EXHIBITIONS & EXPOS

BUNDABERG WEST – QLD. March 23-24, 2019. Bundaberg Model Train & Hobby Expo, Bundaberg Multiplex Sports & Convention Centre, Civic Ave, Bundaberg West. 9am-5pm (Sat), 9am-4pm (Sun). Adults \$10, Children 8-16 \$5, Family Pass \$25. Graham 0407 559 086.

KALEEN – ACT. March 30-31, 2019. Canberra Model Railway Expo, Canberra Model Railway Club Inc. UC Kaleen High School, 104 Baldwin Dr, Kaleen. 9am-5pm (Sat), 9am-4pm (Sun). Adults \$10, Child \$5, Conc. \$8, Family \$25. Chris 0400 116 016. cmrcexporeg@cmrci.info or www.cmrci.info

DIAMOND CREEK – VIC. April 20-21, 2019. Yarra Valley Model Railway Clubs. Easter Model Train Expo at Community Bank Stadium, Diamond Creek. 9.30am-5pm (Sat), 10am-4pm (Sun). www.yarravalleymrc.com

BRISBANE – QLD. May 4-5, 2019. AMRA Qld. Inc Brisbane Model Train Show, The Exhibition Building, 601 Gregory Terrace, Bowen Hills (cnr. Costin Street) RNA Exhibition grounds. 9am-5pm (Sat), 9am-4pm (Sun). Adults \$15, Concession \$10. amraqld1@gmail.com

HORNSBY HEIGHTS – NSW. May 4-5, 2019. 32nd Annual St Luke's Railway Modellers Exhibition. at St Luke's Anglican Church, 157 Galston Road, Hornsby Heights. 9am-5pm (Sat). 12pm-4pm (Sun). www.stlukeschurch.com.au/stlukes-railway-modellers-club/

ALBURY – NSW. May 18-19, 2019. Murray Railway Modellers Annual Show at Mirambeen Community Centre, 19 Martha Mews,

Lavington. 9am-5pm (Sat), 10am-4pm (Sun). Phone: 0417 538 700.

mrmshow@gmail.com

RICHMOND VALE – NSW. May 18-19, 2019. The annual Model Exhibition at Richmond Vale Railway Museum, 262 Leggetts Drive. 9.30am-4pm (Sat & Sun). Adults \$16, Concession \$11, Children 6-16 \$7.50. www.richmondvalerailwaymuseum.org

STANHOPE GARDENS – NSW. May 18-19, 2019. Hills Model Railway Society Exhibition. Blacktown Leisure Centre, Stanhope. Cnr Sentry Dr & Stanhope Pky, Stanhope Gardens. 9am-5pm (Sat), 9am-4pm (Sun). Adults \$12, Children \$6, Senior \$8, Family \$25. Secretary 0421 603 240. www.hmrs.org.au

ADELAIDE – SA. June 8-10, 2019. Adelaide Model Railway Exhibition, Cardigan Street, Angle Park (behind the OTR). 9.30am-5pm (Sat & Sun), 9.30am-4pm (Mon). Adults \$15, Concession \$12, Children \$7, Family \$32. president@sangs.asn.au

http://www.modelrailwayshow.org.au/

GLEN WAVERLEY – VIC. June 8-10, 2019. Waverley Model Railway Club Annual Exhibition, Brandon Park Community Centre, 649 Ferntree Gully Rd, Glen Waverley. 10am-6pm (Sat) 10am-5pm (Sun) 10am-4pm (Mon). Adults \$12, Children \$6, Family \$30. exhibitions@waverleymrc.org.au

MOE – VIC. June 8-10, 2019. Latrobe Valley Model Railway Assoc Exhibition, Kernot Hall Moe. 10am-5pm (Sat & Sun), 9am-4pm (Mon). Adult \$10, Child \$5, Family \$25.

ROSEHILL – NSW. June 8-10, 2019. Epping Model Railway Exhibition, Rosehill Gardens Grand Pavilion, off Grand Avenue, Rosehill. 9am-5pm (Sat & Sun), 9am-4pm (Mon). Adults \$15, senior \$11, child \$8, family \$40. Prepaid tickets available from April. David Dalzell 0423 362 324.

www.eppingmodelrailway.org.au

GOLD COAST – QLD. June 29-30, 2019. Miniature Trains on the Coast, Model Train and Hobby Show. Carrara Indoor Sports Complex, Nerang-Broadbeach Road, Carrara. 9am-3pm (Sat & Sun). Adults \$10, Concession \$8, Student \$7, Family \$25. Craig Thistlethwaite 0408 887 766.

STAWELL – VIC. July 13-14, 2019. Grampian Model Railroaders Inc Exhibition. SES Hall, Sloane St, Stawell. 9am-5pm (Sat), 9.30am-4pm (Sun). Stuart 0438 545 233. www.gmrinc.org.au

CANBERRA – ACT. August 3-4, 2019. 47th Model Railway & Scale Model Exhibition, Malkara Special School, Wisdon Street, Garran. 9.30am-5pm (Sat), 9.30am-4pm (Sun). ACT Model Railway Society Inc and Malkara Special School P&C Inc. Gavan Bennett 0401 308 926 or gavanbennett@iinet.net.au.

STRATHPINE – QLD. August 10-11, 2019. The Pine Rivers Model Train and Hobby Exhibition, Strathpine Community Centre, 199 Gympie Road, Strathpine. 9am to 4pm (Sat), 9am-4pm (Sun). Enter off Mecklem Street. show.coordinator@rmcq.org.au

SYDNEY – NSW. October 5-7, 2019. Sydney Model Railway Exhibition, Hall 5, Southee Pavilion, Sydney Showground, Sydney Olympic Park. 9am-5pm (Sat & Sun), 9am-4pm (Mon). \$18 Adults, \$10 Children, \$12 Concessions, \$45 Family, \$35 Multi Day. (02) 9153 5901. exhibition@amransw.asn.au

OPEN DAYS

MORTDALE – NSW. April 6, 2018. Australian Model Railway Association NSW Inc., AMRA NSW Clubroom, 48 Barry Ave, Mortdale. 10am-4pm. Admission donation. (02) 9153 5901. www.amransw.asn.au

BRENDALE – QLD. May, 19 and November, 3 2019. Buy and Sell, Open Day to be held at the Railway Modellers Club, Buckley Park, Terrence Road, Brendale. 10am-1pm (Sun).

SALE DAY

BRISBANE – QLD. March 19 & November 19, 2019. Buy and Sell Nights. Union Pacific

Model Railroad Club at our Clubrooms, rear of Holland Park Sports and Community Club, 49 Abbotsleigh St, Holland Park. Registrations from 6pm, Sale commences 8pm. 0439 435 366. sec_upmrc@bigpond.com

BRISBANE – QLD. April 6 & October 19, 2019. AMRA Qld. Inc., 20a Murphy Road, Zillmere. 9am-1pm (Sat). Layouts running. President Bruce Meiklejohn 0433 440 031. amraqld1@gmail.com

CALOUNDRA – QLD. April 27, 2019. The Sunshine Coast Model Rail Club, United Church Hall, 56C Queen Street, Caloundra. 8.30am-1pm (Sat). Sale table Bookings. (07) 5491 9213, (07) 5479 0339.

BRISBANE – QLD. September 8, 2019. At our Clubrooms, rear of Holland Park Sports and Community Club, 49 Abbotsleigh St, Holland Park. 9.00am-2.00pm (Sun). For table space and other enquiries 0439 435 366 or sec_upmrc@bigpond.com or

SEMINARS & CONVENTIONS

EPPING – NSW. April 13, 2019. SCMRA Seminar on NSW Main South II Modelling and the Prototype. 9am-5pm (Sat). Cost \$45 includes lunch. Registration by 1 April.

LOFTUS – NSW. May 18, 2019. Modelling the Railways of NSW Convention: 36, Loftus TAFE. Registration essential. info@MRNSW.org.au

EPPING – NSW. July, 27 2019. Modelling the Early Days of the NSW Railways Workshop at Dence Park Epping. Registration essential. Attendees for previous three years will be contacted directly. amrmagzn@tpg.com.au

ADELAIDE – SA. September 7, 2019. Modelling the Railways of South Australia 24, Flinders Medical Centre lecture theatres, Bedford Park. 8.30am registration. 9am-5pm (Sat). Registration forms: MRSAC, PO Box 356, Parkholm SA 5043; www.mrsac.com; or selected hobby shops. convention@mrsac.com

FESTIVAL DAY

GOULBURN – NSW. May 25-26, 2019. The Goulburn Loco Roundhouse Preservation Society Inc. (GLRPS) in conjunction with the Goulburn Mulwaree Council and NSW Trains are organizing a celebration for the anniversary of the arrival of the railway into Goulburn. 10am-4pm (Sat & Sun). Free entry at the railway station precinct but gold coin donation at the Roundhouse. Terence Carpenter, Secretary, GLRPS. Phone (02) 4822 1210. glrps12@optusnet.com.au

Populate or Perish!

I just would like to say what a great looking layout featured in AMRM Issue 334 (February 2019)! Chris Fehlberg should be congratulated for presenting an extremely realistic representation of the Goulburn and Crookwell stations areas and John Dennis's photographs really allow us readers to appreciate Chris's work!

I really liked the view over the yard with Garratt 6035 and the guard's van/goods wagons on p.26 and the low level shot of 3229 at Platform 3 on p.25 is very life-like! But, as with many other very fine layouts, there is a distinct lack of people. I know from experience that Goulburn station was very busy, especially when the *Riverina Express* was in!

I'm aware that painting people can be difficult in the smaller scales, but people are just as important when detailing a layout as anything else. Perhaps we should think of adding people to scenes as being just as important as any other detail. It would certainly give the perfect 'human' touch to many an otherwise great layout.

Michael Hunt
Melton 3337

NSWGR HG Brake Vans

Further to Ian Dunn's *Prototype File* on the NSWGR HG brake vans in AMRM Issue 334 (February 2019). During the 1960s a 20 class 2-6-4T steam locomotive from Campbelltown would regularly take an HG van to Liverpool to use with a shunting trip along the Anzac Rifle Range branch and the army base sidings. I managed to ride on this train with a fellow enthusiast in the

early 1960s. As we approached the gates to the army base the guard of the train told us to put our cameras away until we came back out of the base, no doubt in case we were mistaken for Russian spies!

Les Fordham
Sturt 5047

Hot Weather...

For the benefit of AMRM readers who do not read the *Richtown Daily News* a recent news item is reproduced here:

Camjong Train Services Suspended

All services on the Camjong line have been cancelled until further notice, since the recent hot weather caused movement of the track on the Shoalbury River Bridge. Railway Way & Works staff were building a new fence as part of the expansion of the riverside picnic area at the Camjong end of the bridge. During lunchtime 'smoko' one of the men, who had gone into Camjong to buy his lunch, took a short cut from the parking area by walking along the railway track. He was surprised and then alarmed to see that the railway track across the bridge had buckled (see adjacent photo), creating a hazardous situation for any train attempting to cross it. This was promptly reported to train control at Richtown and services were immediately suspended.

A consulting civil engineer has since inspected the track over the bridge and options for dealing with the problem are being considered. Option 1 involves forcing the track back into place and refastening it to the girders. This has been rejected as likely to place too much additional stress on the girders and hence result in damage to the latter. However, it might be feasible to do this on a cold winter's morning. Option 2 involves removing the fishplates at the far end of the bridge and cutting off the rail ends to provide expansion gaps.

I still don't know exactly when/how the buckle shown happened. We did have some unseasonable hot weather late last year. Luckily, the track was only displaced over the two centre piers; it is still properly attached to the riverbank piers. Equally mysteriously, it has corrected itself and is now straight again, even though the layout's location is going through a further extended period of hot weather!

For those readers requiring fur-



The track buckle on the author's HO scale model based on the road/railway bridge near Camden referred to in Michael Gourlay's adjacent letter.

ther technical information about the Shoalbury River Bridge and its construction the engineering consultant (the author) is preparing a technical report for eventual publication in AMRM.

Michael Gourlay
The Gap 4061

Beyond the Fence; Phone and Mail Boxes

I thought February's AMRM was a goody, with a variety of interesting articles. One in particular took my fancy, Phil Jeffery's 'Beyond the Fence' article *PMG Phone and Mail Boxes*. The reason for my interest was that, after looking at photos over past issues of some of the excellent layouts therein, with great provisions for passenger and freight transport for the inhabitants of the various communities modelled, I notice no communication with the outside world depicted, i.e. no letter boxes!

I was going to start an investigation of letter and phone boxes in the various states, but Phil has somewhat pre-empted me, at least for Victoria and South Australia. I

wondered whether, in the colonial days, when each colony had its own post and telegraph department, each one had their own design of letter box? I'm sure that I've seen, around Melbourne, some of the square, somewhat Romanesque, boxes as illustrated in Photo 1, but the local cylindrical boxes, similar to 2, were to my memory not quite as tall as that illustrated.

Did the colonial postal departments order standard British Royal Mail boxes from the UK, or perhaps drawings? The British government had a department, the Crown Agent for the Colonies, through which the various colonies could order anything from wheel barrows to railway rolling stock, so it would have been convenient for these boxes to have come from the UK initially. As Australia became more industrialised these boxes could have been made locally to the existing designs.

I believe that Australia Post has a museum somewhere, which might be able to answer this question.

MAILBAG

Australian MODEL RAILWAY Magazine welcomes letters on any pertinent model railway subject for inclusion in Mailbag. Letters should be sent to Mailbag, SCR Publications, PO Box 345, Matraville 2036, emailed to amrmagzn@tpg.com.au or faxed to (02) 9661 4323. All Mailbag contributions must include the writer's name, address and phone number to permit verification. Contributions without this information will not be considered for publication.

Editor

With regard to the phone boxes, these could have been easily made here to British patterns; they would of course come about much later than the letter boxes, likely well after Federation. [There were state and era variations in both phone and post boxes; see: www.redtelephone-box.net – Editor]

Back to the cast iron letter boxes. Their very ornate designs, with decorative mouldings, might make them difficult subjects to model, even in HO scale. Even the small post-mounted cast iron box has mouldings, although not so fancy. With

the cylindrical box, I was always taken by the knob on the door, represented by a clenched fist clutching a rod. I'm pretty sure that this form of knob also appeared on such things as money safes and strong boxes, an engaging piece of Victoriana.

Perhaps one should stick to modelling simpler boxes, such as the small timber ones that for a long time appeared on the outside wall of a station, adjacent to the entry. My local station, Kensington Vic, had one such box for many years.

Anyway, we should stick one or two letter boxes of some type on our layouts, at the very least to allow the townsfolk to send off their subscriptions to AMRM!

Bill Pearce,
Kensington 3031

Give-away Layout?

I would like to offer a suggestion which may be of some value and may give those model railway enthusiasts who worry about the future of this great hobby pause for thought.

Having been involved in model railways since my early school years, I have amassed a considerable collection of rolling stock, locomotives and other materials. When circumstances made it necessary to downsize my collection, I started building a series of small 'beginner' layouts, one of which went to my grandkids and others were sold at very charitable prices to various families in this region.

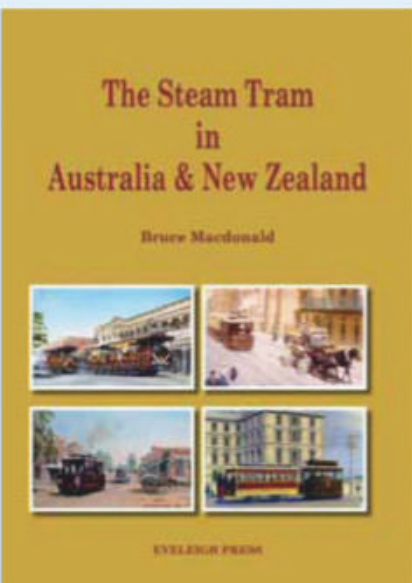
My suggestion is simply this: most of us long-time railway modellers have more stock than we may ever use, so why not hone your carpentry and modelling skills and build a 'beginner' layout or two and equip it with rolling stock items that are surplus to your current and future needs and plans?

MAILBAG continues on page 62



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Eveleigh Press, Australian MODEL RAILWAY Magazine's associate publisher, is releasing a book covering the steam trams that worked in Australasia.

As the cities in the British Colonies of Australia and New Zealand grew in the 19th century, there was a need for public transportation: people in outlying suburbs needed to get to work more quickly than walking. Horse-drawn omnibuses were introduced by private operators but the need was for something more expansive. Overseas, in Britain and America tramways were quite widespread by the 1860s and it was only a matter of time before this transport mode was extended to the colonies. In Sydney, the first tram, horse drawn, connected Circular Quay on the harbour with the railway station at Redfern in 1861. Although this was dismantled five years later, the die had been cast, tramways being the answer the city fathers were seeking. Although quite a few systems commenced with horse-drawn vehicles, steam-hauled 'motors' as the steam tram locomotives were to be known, became common at the front of a tram. This book is not a history of the various systems in the two countries but a coverage of the various motors that were found in service until the systems were electrified or shut down in favour of buses. Where known, every type of steam motor is shown in photographic or illustrative form, in some cases also showing the modifications applied. Photos have been drawn from many sources and restored trams are shown in colour. Most systems are accompanied by a map.

In the 1950s, the author took on the task of restoring the then last motor in steam in Sydney. The story, which includes the commencement of steam locomotive preservation in NSW, is described. Coverage includes specification forms from Baldwin and some work cards of the steam motors in Newcastle.

A4 in size, 184 pages with a coloured dust jacket

THE STEAM TRAM IN AUSTRALIA & NEW ZEALAND

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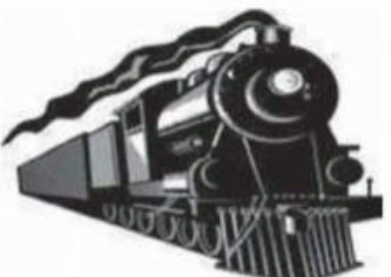
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Mailbag

Who knows the (young) recipient(s) of such a layout might well develop a continuing interest in model railways and grow to become members of the next generation of enthusiasts who will keep this great hobby alive!

You could even donate a small layout to your local charity shop or St Vinnies!

*Phil Crowther
Charbon 2448*

Multi-scale Layouts

I read with interest Trevor Hodges' *In the Loop* article *Contemplating Scale* in AMRM Issue 334 (February 2019) and I was reminded of a couple of layouts that I have either read about, or seen, that put a very different light on the issue of scale.

The first, which I read about, was a layout that had operating HO/ OO scale trains at the front of the layout, while at the rear were operating N scale trains. The scenery in between progressively reducing in scale to create a forced perspective (but only from the front). The downside of this scenario was that, when viewed from the end, or at an angle,

the forced perspective became unrealistic.

The other, which I have seen, was at the UK's National Railway Museum (York) and featured a non-operational diorama of the Ffestiniog Railway in Wales (UK). This diorama featured forced perspective from front to rear and from end to end. Standing in front of the 'layout' the double Fairlie-hauled slate train, standing on a track that was angled from the front left corner to the rear right corner, appeared to be fading away toward the background.

In fact, the model of the train, and the track that it was sitting on, were also reducing in scale the further they went toward the back-scene! Even the locomotive was in perspective, starting at a larger scale at the front and reducing in size to the rear of the engine, while each wagon was built the same way, no two wagons being identical in size! Obviously, this could never be an operational layout; nonetheless it was a very clever scale portrayal of a true perspective.

*Garry Kahler
Moss Vale 2577*

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Details of the programme to follow.

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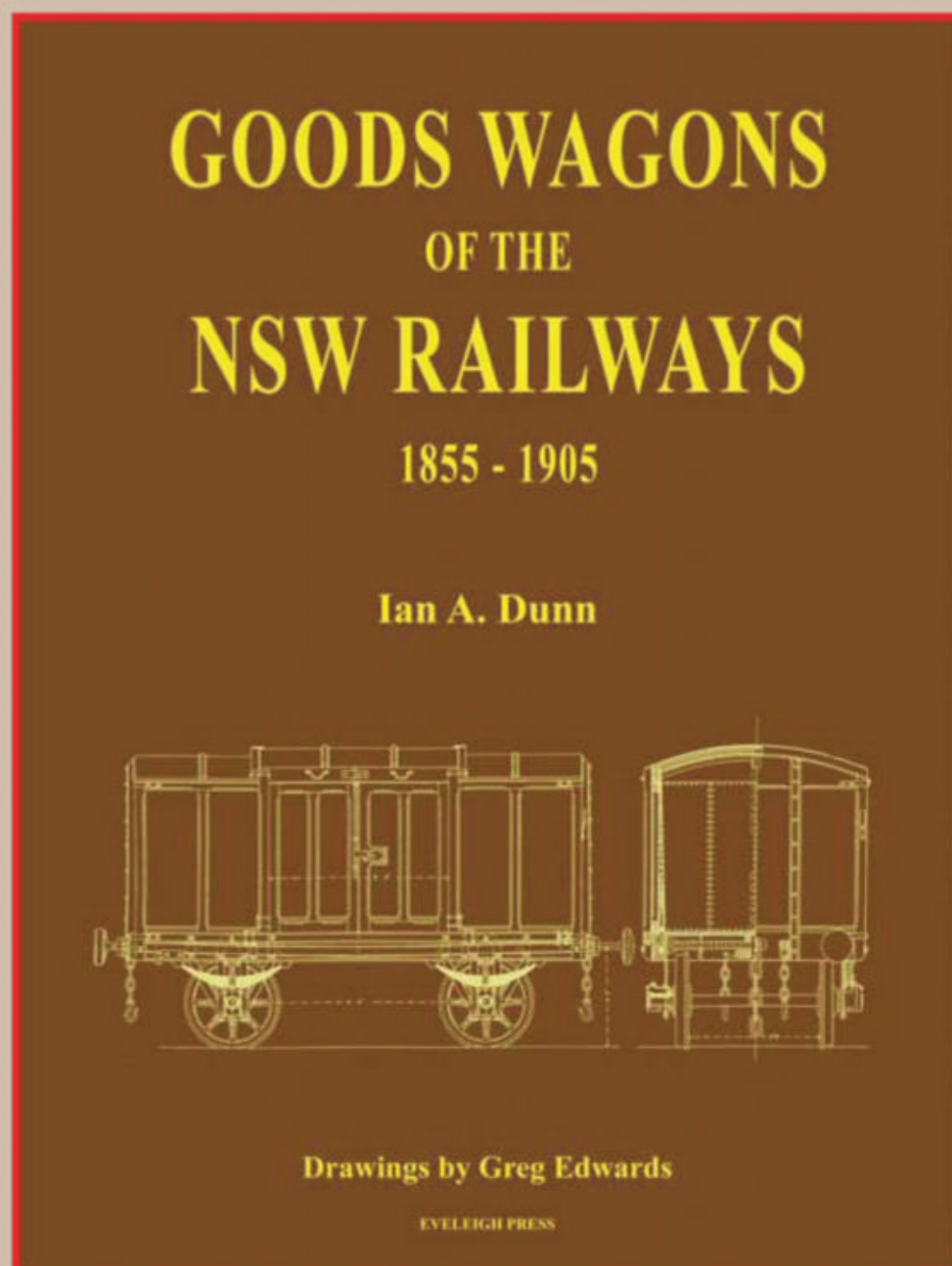


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It's here
at last!

Eveleigh Press are proud
to announce the pending
arrival of a mammoth production

Well,
due late April



Continuing its series on the rolling stock which has served the railways of New South Wales, Eveleigh Press now presents *Goods Wagons of the NSW Railways 1855-1905*, a 368 page volume which charts the growth of the NSWGR's wagon fleet over its first half century, from just 52 wagons at its inception to over 11,000 assorted vehicles in 1905. These varied from the humble A and E flat wagons and D open wagons of several types to exotica such as the "Tiffany's Summer and Winter Car" of 1881, refrigerator cars which floated around Sydney Harbour, wagons with underframe made up of gas pipe and imports from the USA made in dubious circumstances. Service vehicles are included, such as water tanks, gas reservoirs, breakdown cranes and workmen's vans. Wagons construction, engineering and paint schemes are given a chapter, and the various braking systems receive another. The personalities who directed the development of the system are outlined, shedding light on some curious episodes. There is a chapter on each type of wagon or van, photographs of each, generally illustrating a number of variations, and 85 superb scale drawings (at HO scale) of each type and most sub-variants, by master draughtsman Greg Edwards. This book supplies most of the answers for those seeking to understand the development of the NSWGR and its goods wagon fleet in the 19th century.

Expected arrival: Late April 2019

368 pages – \$110.00 rrp

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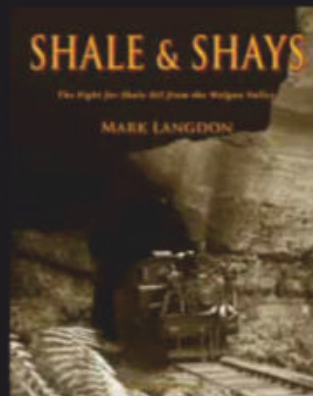
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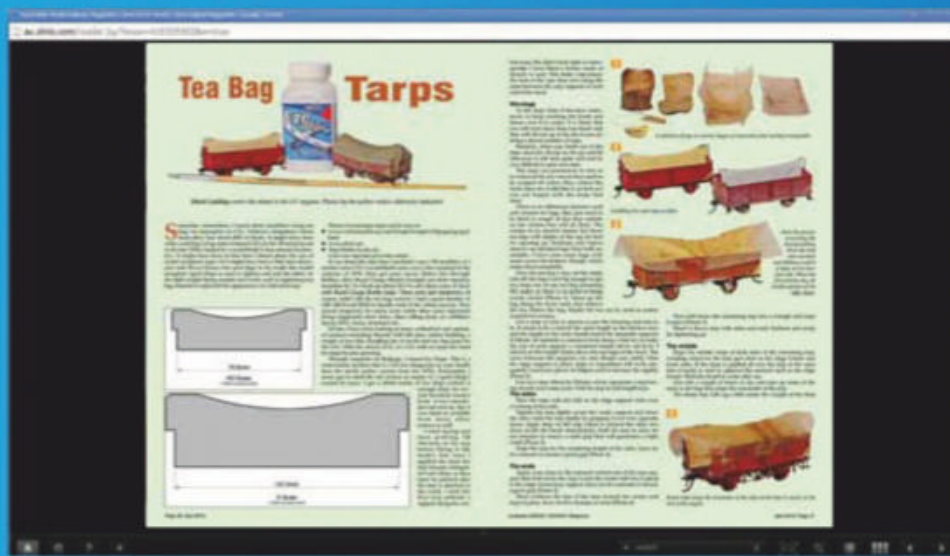
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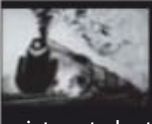


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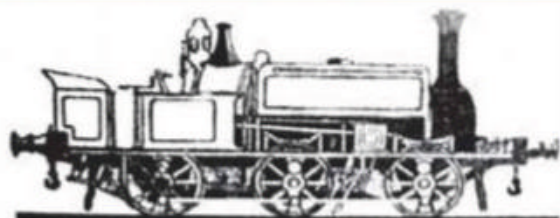
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- **Steam Locomotive Depots in NSW:** Wallerawang, Mudgee, Eskbank, Dunedoo and Coolah. In these essays, rail historian Ray Love covers the steam locomotive depot scene after the crossing of the Blue Mountains with the completion of the great Zig Zag into Lithgow. Commencing with the first depot opened, Wallerawang, Ray describes the history of the construction of the depot, the building of the infrastructure and the steam operations up until the time of closure. Interspersed throughout the detailed text are photographs and track diagrams.
- **Kenneth Thomas Groves.** Ken joined the Railways in 1943 and rose through the ranks of a steam engine crewman until he was a driver capable of handling the mighty 38, 57, 58 and AD60 classes. Stephen Halgren briefly describes Ken's career illustrating his work with photographs from Ken's collection.
- **An Eye for an 'I'.** Most rail historians have a favourite locomotive and author Ian Wallace unashamedly favours the Dübs-built, NSW I class, the 2-6-2 saddle tank engines, reclassified as the 26 class in 1924. Ian has dug deep in many photographic collections to cover this 20 strong class that saw sterling service in NSW.
- **Out Of Goulburn.** In 1954, a 24-year old Keith Brown commenced work on the NSW Railways at Goulburn depot. From his 'My Railway Life' story, the essay covers the many tasks performed in a large railway locomotive depot in the post WWII period, when steam was still king.

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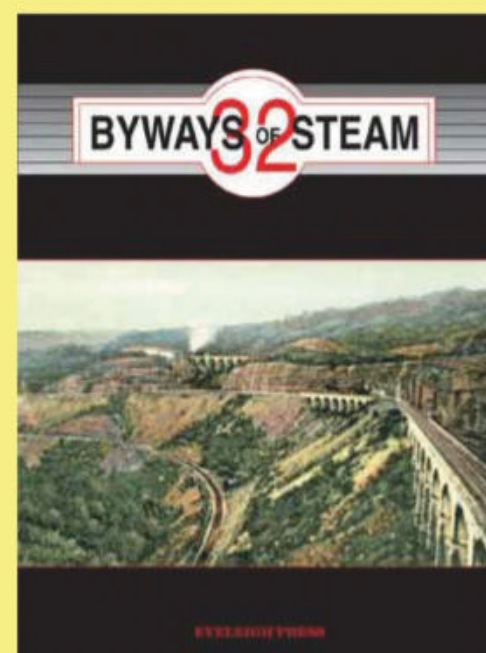
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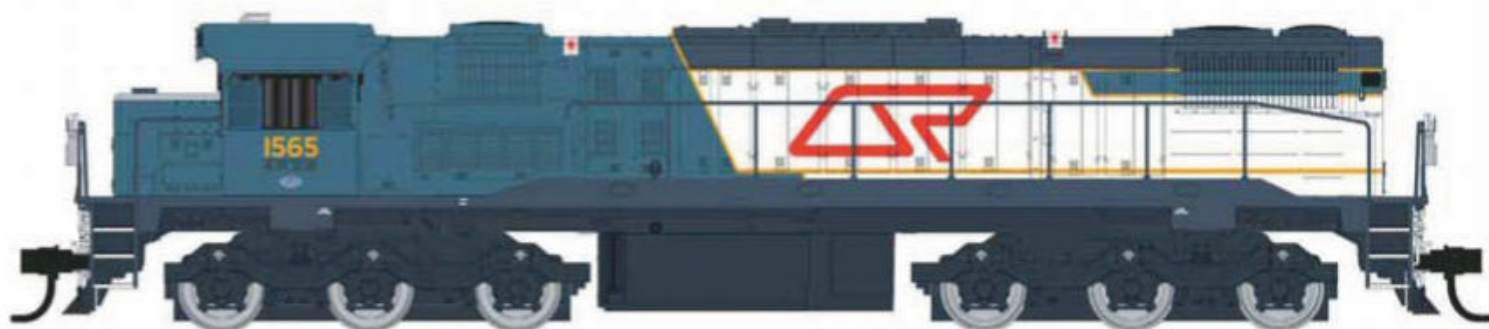
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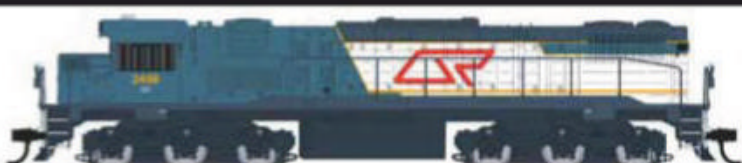
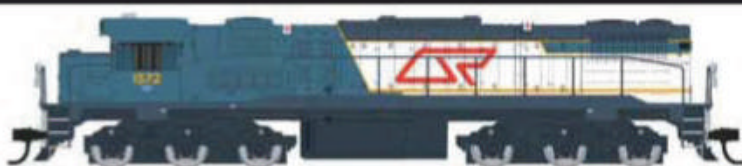
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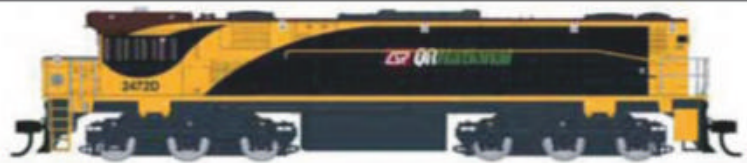


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PC-495B 212 BS (Economy)
PC-496A 222 BRS (Snack Bar)

N/A
N/A
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SRRP

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Quantity

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Sub-Total

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V/Line Passenger Corporation (maroon, blue with white) (1995-2006(July))

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PC-475B 216 BS
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