

7th Heaven



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Straight Down the Line - Opinion

by Trevor Hodges

Confessions Of A Tool Tragic

Ok I admit it, I'm addicted to tools. At model railway exhibitions, while the adherents of smaller scales are lining up to throw their money at purveyors of their most recent plastic offering, I'm normally to be seen lurking around the shrinking number of hobby tool stands. I'll be trying to decide whether I really need another gadget that chops, dices and slices styrene/brass/wood et. al. when I already have something similar at home. Psychologists would probably diagnose some childhood deprivation as the root cause for this addiction: I reckon it's because I'm a bloke and I like tools!

If truth be told I have a firmly held belief that having the correct tool for a job makes my hobby more fun: having the right tool normally means that I get more modelling done in the limited amount of time I have available. If I have a tool that takes some of the labour out of certain tasks then I can devote the time saved to other jobs. Well that's my excuse and I'm sticking with it. However I admit that there are certain tools that sit unused, gathering dust on shelves and at the bottom of drawers.

So here is my list of tools that fit into the "seemed like a good idea at the time" category:

- The Alps Printer – these printers hook up to a computer like any standard printer so that you can print your own decals. However they did a lousy job of printing yellow, the printer drivers kept going out of date (I blame Bill Gates) and then the company stopped making them. I got to the point where I avoided turning the printer on because I found it so frustrating to use.
- A resistance soldering iron – Perhaps I'm thick but I just can't seem to get mine to work. They rave about these in the English hobby magazines; perhaps you need the enforced confinement of a long winter to give you the time to learn how to use one!
- A CAD package – I decided that having a Computer Aided Drawing package would open up a new world of modelling possibilities for me. I took one look at the manual and realised that I'd need approximately twice the time I was devoting to modelling to learn how to get the program to do even the most basic tasks. I went to my modelling desk and put a couple of kits together to get over my disappointment!

And here are the tools that are on the "can't model without it" list;

- A NWSL chopper – one of my most consistently used tools when working with wood and styrene strip. The Mk II version is one of the few tools in my experience that is an actual improvement on the original!
- A 7mm scale rule – I have two of these, three if you count the AMRA one I have from my HO days. If you don't have a proper 7mm (1:43.5) scale rule then you need one, I kid you not!
- A Dial Calliper Rule – or a set of Vernier callipers to those of us who qualify as engineering neophytes (I include myself in this category). Except for my Stanley knife (knives really, I have three and about the same number of scalpels) and a steel rule (I have about 5 of these in differing lengths) I use this one tool more than anything else on the modelling bench.

Even a cursory glance at these two lists will point out a fairly obvious fact; the tools on the unused list are all fairly high tech and expensive, while those that I use all the time are simple hand tools. This might say something about the nature of our hobby but it probably also says a lot about me.

Happy Modelling

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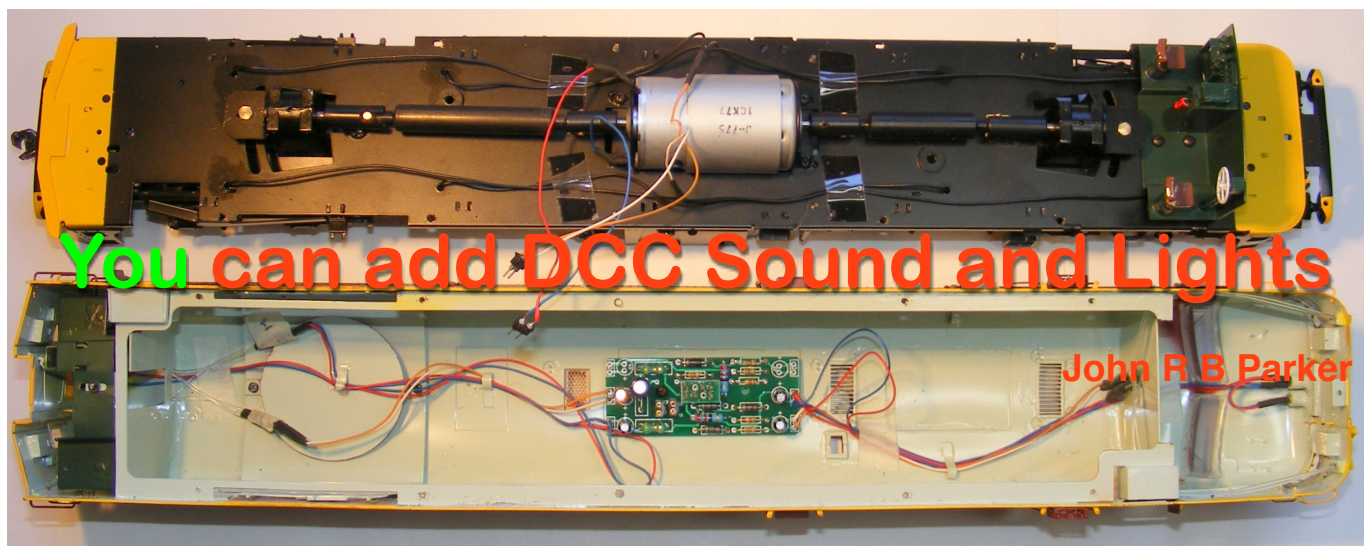
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On The Cover

Stephen Reynolds is a master with scenic detail and this small diorama featuring his LCL container amply demonstrates his skills. Find out how he achieved the neglected and well worn appearance of the container in the second part of his LCL article in this issue. In part three in the next issue he will describe the construction of his small revolving display stand and the finishing touches to the scene. Photo by Gerry Hopkins MMR

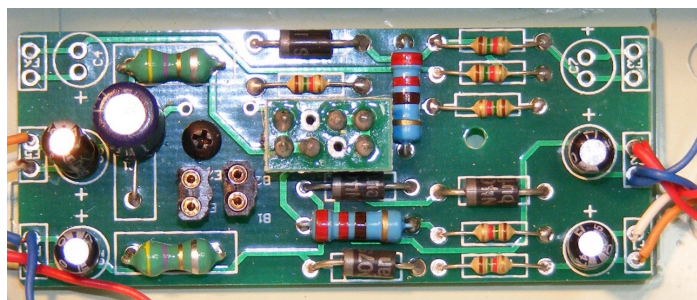


Whilst manning the Aus7 stand at the recent AMRA Liverpool Exhibition I became involved in a brief discussion on the difficulties perceived by many modellers in converting their new Ready-To-Run locomotives to DCC. I offered to carry out a KHIAC 44 class conversion for an Aus7 member on the condition that he would permit me to use his model as the basis for an article in 7th Heaven.

It is a simple matter to separate the chassis from the body of the locomotive by removing the appropriate screws, on this model there were only four, but if all the securing points are used there may be as many as eight. It is not necessary to remove the screws securing the fuel tank.

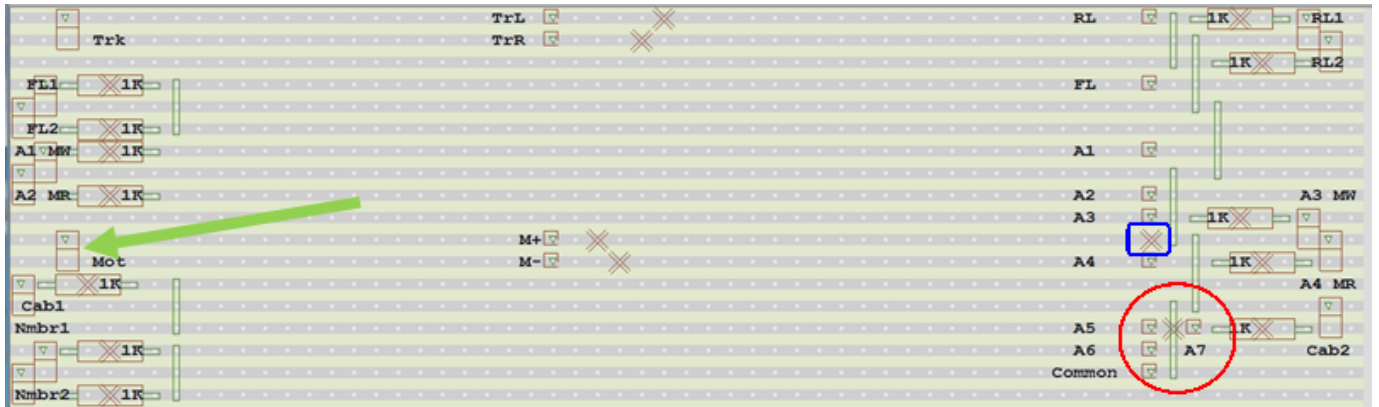
The motor included in this Ready-To-Run model was presumably selected with price as the major criteria and under normal circumstances I would replace it. However it does run, so in this case it was left in place, avoiding any additional cost. If necessary it could easily be replaced at a later date. Current consumption is a little under 1.7 amps if the model is operated with the wheels slipping, but normal operation is just under 1 amp. This higher current consumption does rule out the use of the smaller decoders which are often used in O scale steam locomotives with their more efficient motors.

The most obvious decoder choice for this model is the new Loksound XL 4.0¹ which includes a number of desirable features not included in the earlier Loksound XL 3.5. It is also rated at 4 amps providing a good safety margin for this motor.



At a recent O Scale Forum, Trevor Hodges demonstrated the techniques he used to bring his KHIAC NSWGR 44 class diesel to life with the addition of DCC and sound. Unfortunately many modellers feel that they just do not have the skill, or confidence to undertake such a project. This detailed article will hopefully convince you to have a go.





The key to this conversion is the replacement of the existing Printed Board Assembly with a new, larger assembly which contains both the decoder and the speaker². (Yes, it is my preferred speaker, but this time only one is required, mounted in a suitable enclosure). The new assembly uses the same threaded mount as the original board, although you do need to find a longer insulated screw.

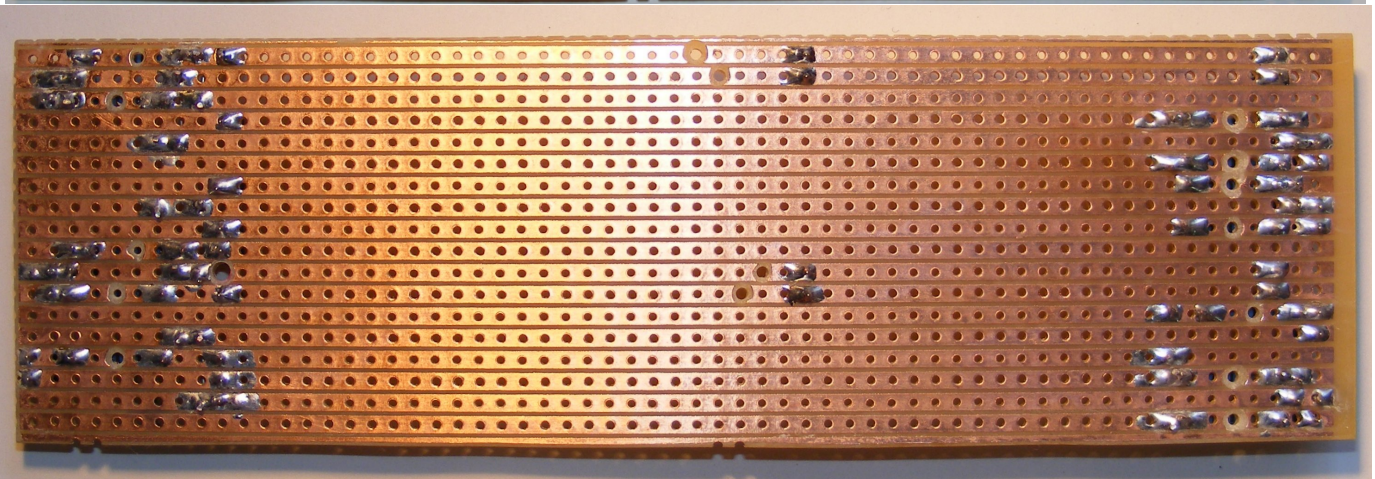
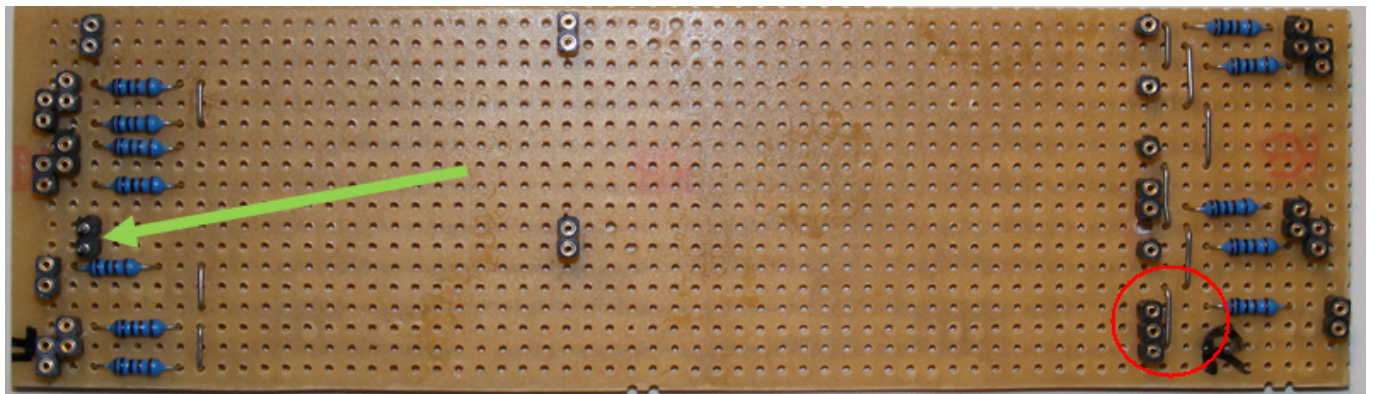
The heart of this conversion is a piece of matrix or Vero Board (Jaycar # HP-9544)³. This has parallel copper tracks and component mounting holes. As can be seen in the above drawing, viewed from the component side, the tracks run horizontally on the rear of the board which is approximately 160 mm x 50 mm. More precisely it is 61 holes wide and 18 holes deep.

Before adding the components it is necessary to cut some of the tracks at all the locations marked with the 'double X'. These cuts are of course on the reverse or copper side of the board. They are made by countersinking the board, with a drill bit held in the

fingers, to a depth which ensures that the track is cut. 18 cuts are required. Do not drill right through the board, except at the point marked with a blue square, where a clearance hole for the mounting screw is required. Jaycar stock a hand tool, (Spot Face Cutter #TD-2461)⁴, designed specifically for this purpose. Not essential, but it is easier on your fingers than using the drill bit.

If you are still following this you may have noticed that there is difference between the drawing and the two following photographs. The drawing is correct; it includes one additional track cut and an extra terminal in the area circled in red. The photographs were taken prior to this last minute modification which was implemented to permit the two cab lights to operate independently.

The wire links can now be soldered in place, make sure you place them in exactly the correct location using the drawing above or the wiring diagram as a guide. The links are easily made from tinned copper wire⁵ or even the off-cuts from resistor leads. (Not confident about



soldering? This will be addressed at Forum as part of a hands-on clinic.)

The twelve 1k ohm resistors⁶ can now be soldered in place, once again take care to ensure they are placed in the correct locations. These can be followed by the various sockets and connection points all cut from 32 way I.C. connection strips, (Jaycar # PI-6470)⁷. Do not be tempted to 'break' the strip; it does need to be cut with a razor saw. It is also a good idea to 'plug' another piece of strip into the piece being soldered to the board. This acts as a temporary 'heat sink', to avoid melting the plastic moulding. One of the two-way sockets is mounted upside down using two short pieces of wire to attach it to the board. The green arrow identifies the location, the reason for this different mounting, which provides a male socket in contrast to all the other female sockets is explained in a note on the wiring diagram.

This model is fitted with neat opening doors, with the addition of a servo motor, which this decoder can control, it would be possible modify a door so that it could be opened or closed with a function key, however as I was working to a deadline I chose not to include this feature, maybe next time?

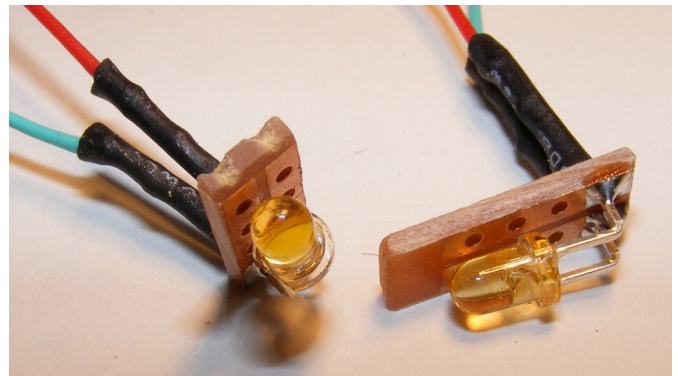
Although the model includes headlights as well as red and white marker lights, the number boards are not illuminated, the cabs also are without illumination, apart from the stray light emanating from the two pairs of headlights. Both of these shortcomings are easily rectified. The following photograph shows two simple assemblies made from scrap black styrene designed to enclose the front cab number panels. No special dimensions, they were just made to fit behind the curved panels to provide a light baffle. A number 33 drill was used to make the hole in the side; this gives a snug fit to the 3 mm Prototype White LED⁸. The light baffles were attached with acrylic contact glue, clamped in position and left to dry overnight.

The same LED's, which provide an ideal, slightly 'yellowish' light reminiscent of incandescent globes, were used to illuminate the cabs After bending the leads

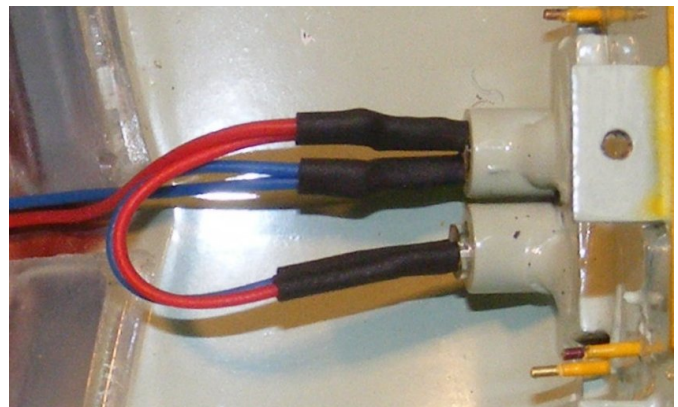


90 degrees the LED's were soldered to two small pieces of Vero board, (each 2 x 4 holes). Wires were then soldered in place and covered with heat-shrink tubing. The other ends of the wires are terminated on a male two pin plug made from the same I.C. connection strips used earlier. Note that the wire colours chosen do not follow the standard DCC colour code. Unfortunately the wiring colours used on the model are unique, so rather than confuse the issue further I chose to follow

the manufacturer's example using the colours already in the model. In this case the red wire is the anode or '+'. Under the DCC standard this would be blue in colour. A little confusing but I did not feel a complete rewiring was warranted.

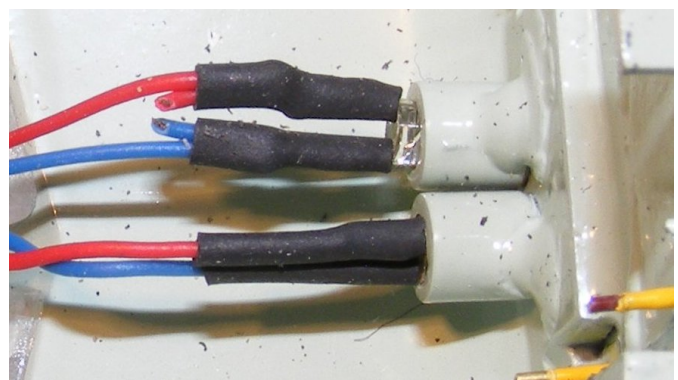


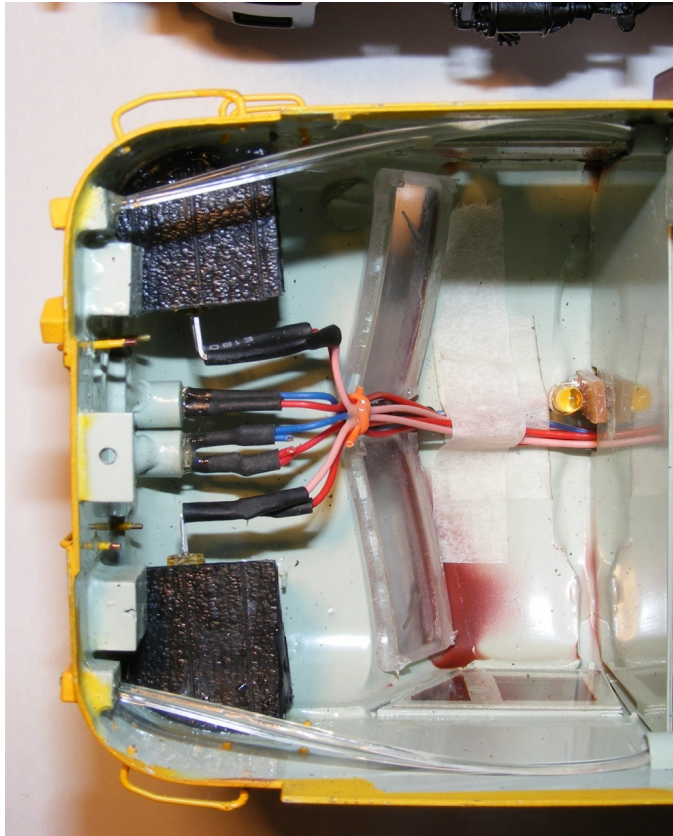
Another departure from common practice is in the wiring of the headlights. The twin LED's which are used for each headlight are wired in parallel with a single current limiting resistor for both LED's. This can be seen in the following photograph.



I chose to correct this, by separating the two LED's. Simply cut through the connection to the second LED and then reconnect with two new wires following the same colour scheme.

Of course the common '+' wire, in this case 'red' does not really need to be duplicated, but this is the easiest approach as both LED's are terminated with two pin male plugs, in a similar way to that described for the cab and number lights. The following photographs indicate the end result and also a view of the cab after completion of the various modifications.





Similar modifications to the headlights were made in the rear cab together with the installation of the second cab light. All the existing wiring in the model from the various LED's was then completed with by adding the two pin plugs, at the point where the wiring was separated from the original printed circuit. The detailed wiring diagram of the following page should permit this to be completed without error. The final photograph on this page shows the installation of the decoder soldered in place using short lengths of tinned copper wire. The method of mounting also holds the decoder firmly in place on the Printed Board Assembly without requiring mounting screws or adhesive.

The speaker enclosure for the speaker was made from 3 mm Craftwood (MDF). 3 mm MDF is ideal, due to its density, it is also easy to fabricate. It was secured to the main board assembly with acrylic contact adhesive. 2 mm thick styrene could be used but make sure the enclosure is airtight. The connecting wires from the speaker are connected directly to the appropriate screw terminals on the decoder.

I found a suitable retaining screw amongst my spare parts, the screw which secured the original PBA is a little too short. This was covered with heat-shrink tubing to prevent any possible contact with the tracks on the new board assembly. I also made up a couple of insulated washers from scrap styrene; these were inserted on both faces of the board. The completed assembly was then held in place inside the roof of the body with three layers of double-sided foam tape. The use of the screw is somewhat of a 'belt and braces' approach, just in case the tape should fail. Insert all the plug terminated LED leads into their appropriate sockets and your 44 class will be ready for test. Don't forget that the plugs must be inserted correctly; incorrect way around, the LED will not illuminate. When finally

assembled the decoder is above the motor with the speaker enclosure safely above the main drive facing downwards. With the decoder's 6-step volume control the sound levels are suitable for home or exhibition environments.

The results of this conversion can be viewed on YouTube at...

http://www.youtube.com/watch?v=i5dF3_R05MM

REQUIRED COMPONENTS

Model Railroad Craftsman:

¹1 x ESU Loksound XL 4.0 Decoder. (Based on Alco 251 Nathan K5 #74420 sound file.) MRC can supply the decoder complete with the program used in this article, including function allocations.

Jaycar:

²40mm 4 ohm Mylar Speaker # AS 3028

³Vero Type Strip HP-9544

⁴Spot Face Cutter #TD-2461

⁵Tinned Copper Wire # WW-4032

⁶12 x 1000 ohm ¼ watt resistors

⁷3 x 32way Socket strip # PI-6470

Cut to length to provide both plug and sockets.

DCC Concepts:

⁸1 x 6 pack

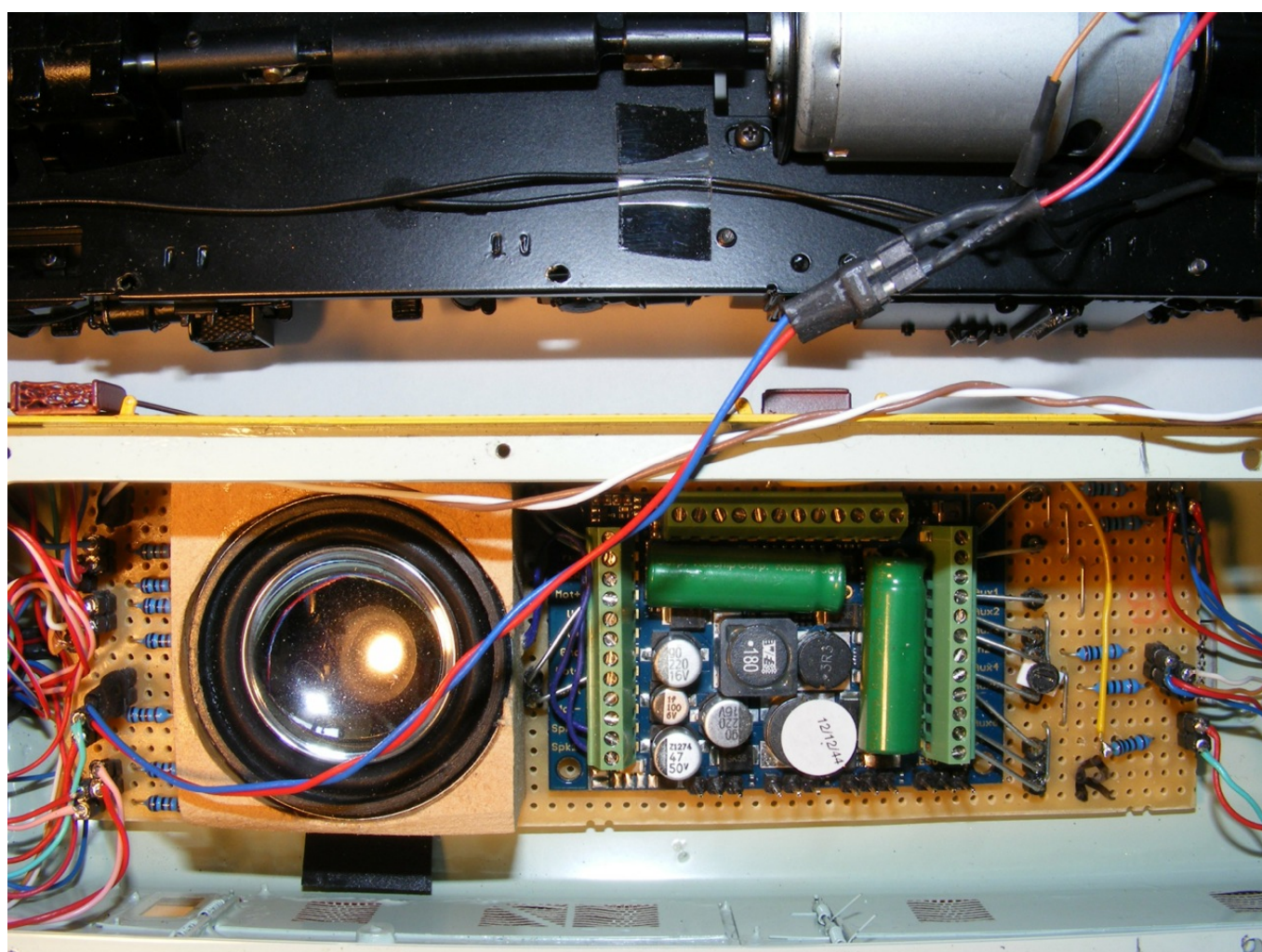
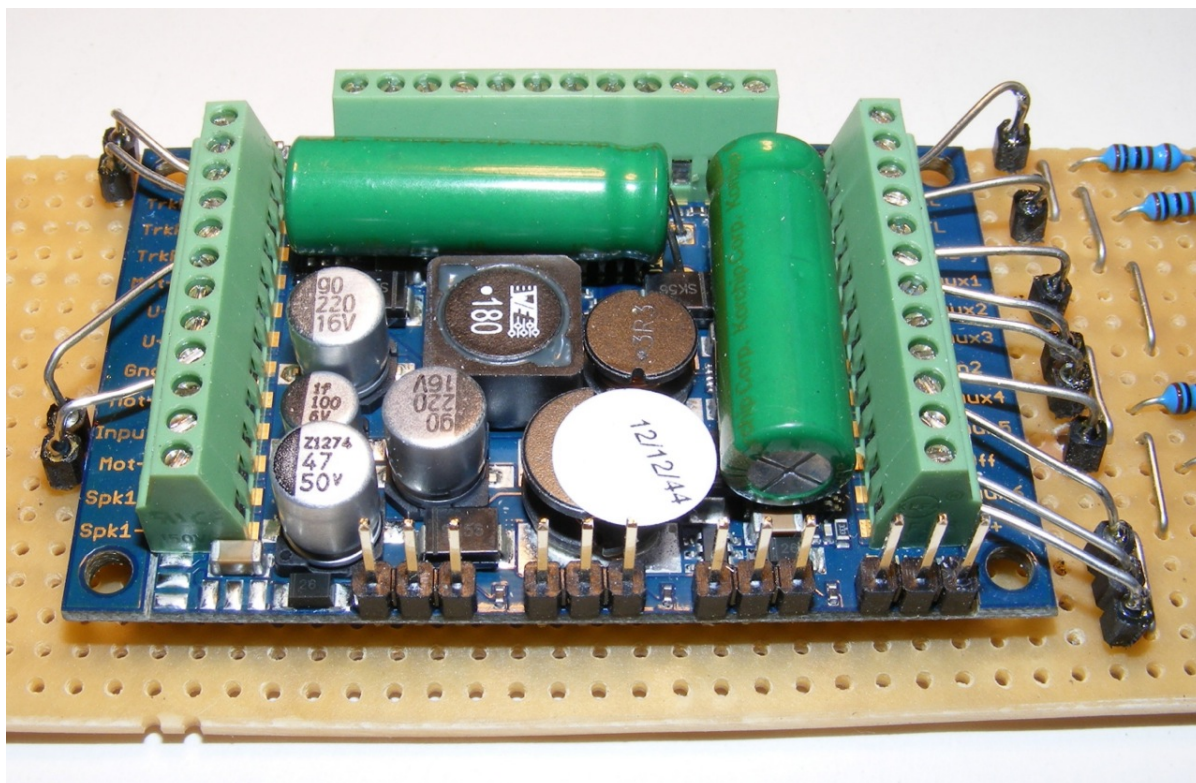
**Prototype white 3mm LED's
(4 required)**

You can of course purchase many of the required components from other suppliers.

You will also need some heat-shrink tubing 3-5 mm in diameter, and a small amount of resin-cored solder to

DCC FUNCTIONS

- | | |
|-------|-------------------------------------|
| ● F0 | Directional Headlights. |
| ● F1 | Sound start-up/run down. |
| ● F2 | Horn. |
| ● F3 | Short Horn. |
| ● F4 | Directional Marker lights. |
| ● F5 | Motor Notch up. |
| ● F6 | Motor Notch down. |
| ● F7 | Number lights. |
| ● F8 | Volume-six steps & mute. |
| ● F9 | Front Cab light. |
| ● F10 | Rear Cab light. |
| ● F11 | Dim Cab lights. |
| ● F12 | Air let-off sound. |
| ● F13 | Rail joint sound. |



LCL - More or Less

Part 2

Stephen Reynolds

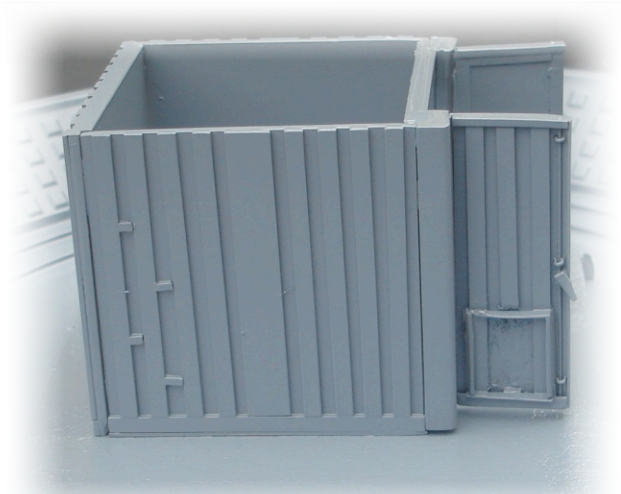


Once I had built the LCL container it was time to paint and weather the model. I had recently read an article in the English magazine *Narrow Gauge & Industrial Railway Modelling Review* by James Coldicott, "How to Create Realistic Rust Effects" and realised that the LCL project would be an ideal candidate on which to use this technique. The same or similar techniques are used by military modellers and translate very well to this and other railway models.

In this case the painting and weathering process are combined. It makes no sense going to a lot of trouble to achieve a pristine finish on a model then trying to reduce that finish to look old, faded and rusting away.

Your models will benefit if you introduce

weathering right from the start. I used Coldicott's article only as a guide and employed local products and materials; basically that just a nice way of saying I used what I had in my workshop at the time.



1. First the model was washed in warm soapy water and let dry completely.

2. Next gray undercoat was applied in several thin coats using a spray can. I used the inexpensive stuff, namely Australian Export Enamel sourced from the Supercheap Auto chain.

3. Once dry I applied 3 or 4 washes of Chromacryl acrylic paint, Raw Umber, Raw Sienna and Burnt Sienna along with a wash of Indian ink and Isocol Rubbing Alcohol. Capillary action carries the ink/alcohol washes into the joints and around bolts etc. to create 'relief' and help those details to pop out.

4. Referring to photos of the prototype I applied paint with a brush straight from the tube to intensify areas of rust.

5. I loaded my airbrush up with a mix of Testors Dullcote thinned 50/50 with turps. Once dry this acts as a barrier between the rust paint and the final top coat.

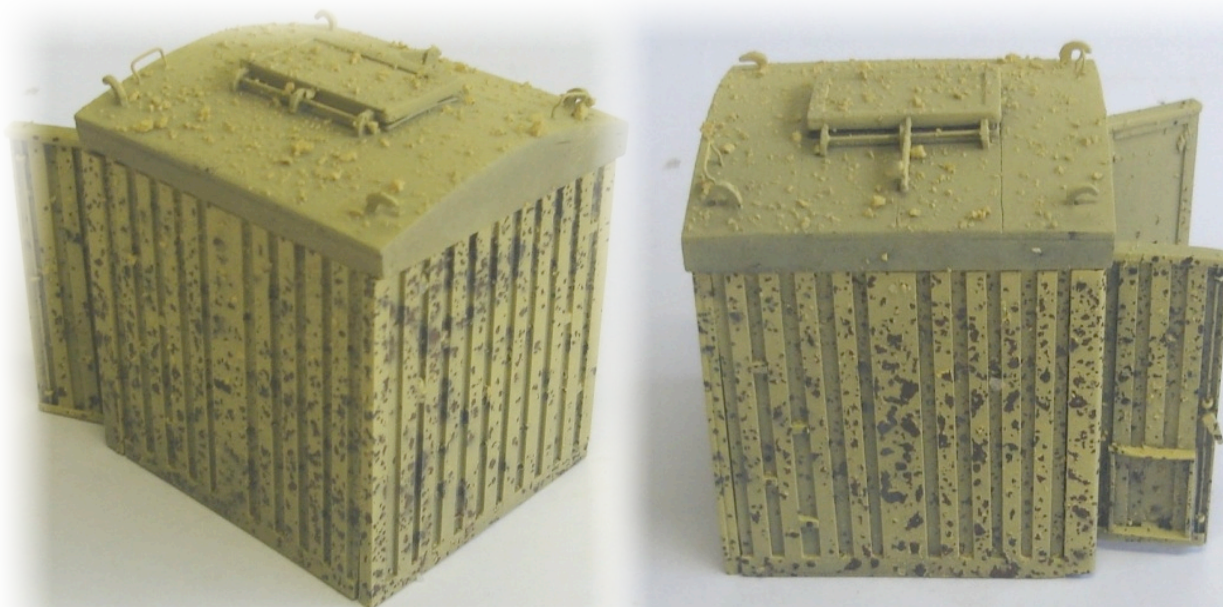


6. Now the fun begins, I sprayed the whole model with hair spray. Again I used the cheap and nasty stuff, and then while this was still tacky I applied sea salt using it direct from the container/grinder that it came in. I applied this to each side and roof one at a time, laid horizontal. Apply more hair spray if salt adhesion is a problem.



7. I moved the salt around with a dry paint brush until I was satisfied with the arrangement. The salt granules act as a paint mask and ultimately result in a very realistic appearance of flaking paint with rusting metal showing through.

8. Referring to the photos of the prototype for the closest tone I airbrushed the model with a coat of Humbrol # 74 (Linen) again thinned about 50/50 with turps. Allow the first coat time to thoroughly dry then airbrush it again making sure the model is completely covered. In the photos below the salt has been removed from the sides but not the roof



9. Once all the paint has completely dried I attacked the model with a dry stiff brush, gently removing all the salt and revealing the result I was after. Not only was the rust showing through but in some areas, on close inspection the top coat was lifted and blistering with the appearance of the rusting metal coming to the surface.

10. Lastly I applied dilute washes of white acrylic household ceiling paint to give a washed-out and faded appearance to the top coat. To speed the process along, at all stages a hair-dryer is very useful tool.



Years of use and abuse: the washed-out and rusty LCL

Now for a word of WARNING...I would be very selective on using the salt method on any model that is constructed of any metal, brass or white metal. So far this is the only model I have used this on. The method works fine on styrene, however I would make sure I removed all traces of salt, even wash the finished model in warm soapy water as the residue that is left will keep reacting with metal. To prove my point look at the door on the cover shot. The locking mechanism running down the front is a piece of brass wire, it is actual rusting away! Which I think is great but I would not be using this method on a new PSM 38 class.



Here is another shot of the small diorama that Stephen will describe in the next issue.

Photo by Gerry Hopkins MMR

The Tottenham Branch

Part Three

By Derick Cullen



Rolling Stock

The mainstays of the branch for many years were the CPH railmotor, and the 30Tclass 4-6-0's, standard NSW branchline power.

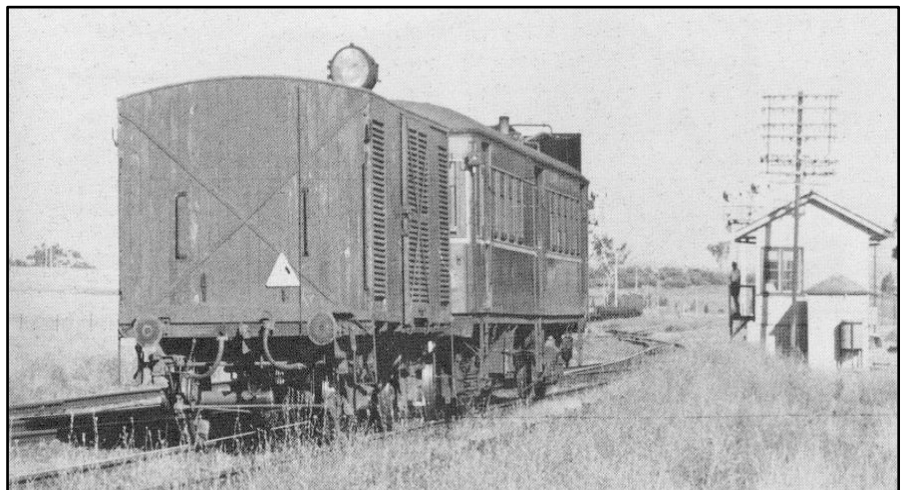
Parkes featured railcar services for many years, first with an allocation of CPH tin hares and later the Silver City Comet power van and carriage sets. A corner of the yard was devoted to shed facilities for them. The railmotor service on the branch commenced in the 1925-26 financial year and continued until the mass withdrawal of railmotor services from country branches on 27 November 1983. The CPH's turned out for number 3 and return services invariably hauled a lightweight four wheeled louvre van coded GT in which all manner of luxuries and necessities were carried for the branch.

Grain Storage

The little towns along the branch are dominated by the grain storages provided. Table 5 sets out the grain storage facilities provided on the branch. Wheat is the only traffic keeping the line open these days.

Note the dramatic increase in facilities from the late 1950s. This is the result of many complex factors including world markets, better farming, rail and road transport improvements, storage and handling techniques and "just in time" operational philosophies, particularly in loading export shipping.

Not mentioned are bunker storages, the modern day equivalent of the bag stack. The monster facilities at



CPH6 & GT No. 71 near the Goobang Junction signal box, December 1972.

(D. Cooke)

Tottenham reflect pushing the boundary of the "wheat belt" much further west.

With this huge amount of wheat traffic, the future of the branch seems secure, even if but a pale imitation of the common carrier which kept the little towns of the region connected with civilization.

Table 5: Grain Storage History

	Original	Upgrade
Bogan Gate	S054 1920	B067 1959, E270
Botfield
Trundle	S068 1920	C288 1969
The Trofts	S016 1932	B067 1959?
Kadungie	S016 1935	D150 1968
Gobonderry	S016 1933	E164
Tullamore	S024 1933	B067 1959
Yethera	D150 1969	..
Middlefield
Albert	D150 1969	..
Minemoorong
Tottenham	A191 1963	E270

Table 4. Running Times (mins)

		Daylight								Night
		Pass	Mixed	Mixed	Fast	Goods	Goods	Light Engine		
			Pass	Pass	Stock		(b)	Pass	Goods	
				25mph	(a)					
DOWN										
Bogan Gate	Trundle	35	40	47	..	53	56	34	40	66
Trundle	Tullamore	47	51	59	..	65	72	46	53	90
Tullamore	Albert	45	46	54	..	57	67	45	40	92
Albert	Tottenham	30	32	36	..	45	47	28	33	57
UP										
Tottenham	Albert	30	32	36	32	45	47	28	33	57
Albert	Tullamore	45	51	56	51	63	67	45	49	92
Tullamore	Trundle	47	51	59	51	65	72	46	53	90
Trundle	Bogan Gate	35	37	47	37	50	54	34	40	66

(a) 405 tons, 30 T engine

(b) 32, 50 and 60 class

Goods trains when at or below mixed loads can run at mixed speeds, except when hauled by 32 class.

O Gauge Railway Modelling for Australian Railway History

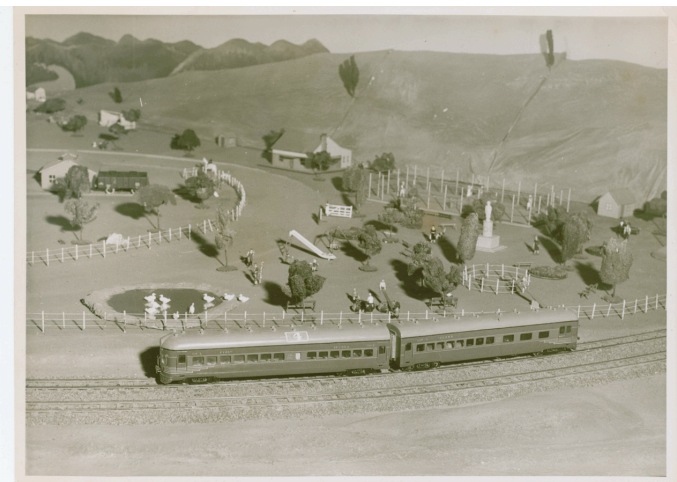
continued

Jim Longworth

Telling Railway History Through O Gauge Models

Authors and publishers of railway history are sometimes unable to access photographs or contemporaneous sketches to illustrate an historically significant railway item or event. Curatorial resources at railway museums are usually severely limited. Non-railway-specific generalist museums often have limited physical space for displaying railway items. Railway modelling, in various scales, offers potentials to address such issues.

Political imperatives aside, railways are an example of derived demand. Station infrastructure and train consists usually reflected types of local demand, geography, and economics. There were a variety of train consists run through time and across the network. Railway modelling can compress times-spans of days into minutes, through use of a fast-clock. Railway modelling can shrink the tyranny of distance from hundreds of kilometres to a few metres through geographic down-scaling.



This O gauge layout displayed at the Royal Easter Show during the 1950s used numbered model trains to illustrate typical train consists and different eras. B. Macdonald collection.

For example, at least one of the O gauge layouts displayed at the Royal Easter Show used numbered model trains to illustrate train consists from different eras. Seven trains were operated representing important steam and diesel hauled trains, including: 1. A representation of a passenger train from the 1850s, notionally the first to run between Sydney and Parramatta; 2. The Newcastle Express, a then modern air-conditioned train that provided speedy passenger service between Sydney and Newcastle; 3. The Melbourne Limited Express, a fast express train that ran between Sydney and Albury. The Brisbane Limited Express was a similar train; 4. 'The Fish' single-deck interurban electric train that was operated between Sydney and Mount Victoria; 5. A 'Silver City Comet' represented the diesel train operated between Parkes

and Broken Hill; 6. A then new two-car diesel set then in use on cross country and branch line services; and 7. A typical freight train hauled by a 57 Class locomotive. Later the train was hauled by a Beyer Garratt.

Modelling Government Ownership

Australian railways were relatively unusual in world-wide railway history in being primarily a government undertaking. Australian private railways were common; but quite specific in their purpose, or of a relatively short route length.

Only a few private-owner wagons were operated over the state-owned railway network. Such private owner wagons were restricted to carrying specific loads, or limited to travelling back-and-forth repeatedly along specific routes. Modelling gaily painted and prominently lettered private owner wagons allows the presenter to argue from the position of being the exception to the general rule.



Milk, chilled meat, and motor vehicle fuel were three of the very few products carried in privately owned wagons. These were all commodity-specific rather than general goods carriers. Colour photos by J. Parker.

Modelling to Provide Geographic Information

The NSW network of railways stretched from the coast to the western desert, from the tropical north coast to the alpine highlands. Lines ran from the centre of cities to the sparsely populated outback. Some lines were run primarily for passenger traffic; others for carrying primary produce or minerals. Most carried a range of goods and passenger traffics. Model railways can inform our understanding of the regional character of far-away places, once connected to the state-wide railway network, by their depiction of selected landscape elements.

The NSW government railway's first O gauge display model named its two stations 'Rural' and 'Civic', and scenicked the two station precincts appropriately. Railway administration saw the railway as linking together and combining these two disparate cultural groups into a single Australian nation.

The O gauge model *Binnabri* depicts a decrepit small timber railway station on a single track line, with a single siding to a grain silo. Passengers are few, if any, and there is no general goods business. The model

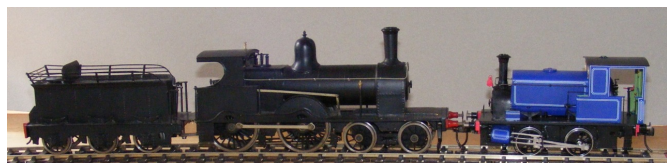
represents the landscape of a typical minor branchline in the wheat belt during its declining years.

The O gauge model *Queens Wharf* depicts a short timber platform on a single track line, a range of typical small town industries, and a large dairy processing factory. Passengers are catered for in a rudimentary fashion. There is a range of general goods business being transacted by rail. The model represents the landscape of a typical minor branchline on the coastal strip during the great days of rail.

The O gauge model *Newcastle* depicts a multi tracked and multi platform train terminus. Passengers are the dominant, if not exclusive, business. The model represents the landscape of a typical large city station.

Modelling the Subtly Obvious

To those imbued with railway knowledge many railway differences and similarities are obvious. However to the un-enculturated, much railway knowledge is subtle if not arcane. Railway terminology was a language unto itself. Yet there are also many railway idioms that have been integrated into the wider English language.



These two O gauge model locomotives have many subtle, but important, differences and similarities. The locomotives were designed to perform very different functions within the larger railway. One was designed to be a slow speed yard shunter; the other to haul high speed long distance express passenger trains. One has large diameter driving wheels; the other small diameter ones. One has a saddle tank; the other a tender. One has a leading 4-wheel bogie; the other is an 0-4-0. One has outside valve gear; the other inside valve gear. One is blue; the other ubiquitous black. Both ran on coal. Both have four driving wheels. Etc, etc, etc. They tell different stories within overall Australian railway history.



This O gauge model of a Beyer-Garratt scales out to two foot six inches (763mm) long. B. Macdonald collection.

Modelling the Excessively Large

Many items of railway infrastructure are large and built into, or solidly attached to, their place in the landscape. However, whole landscapes can be modelled at relatively small scale. Many items of railway rolling stock are large and heavy, making them hard to move, expensive to house, and difficult to interpret. The largest NSW locomotive, the 4-8-4+4-8-4 60 Class Beyer-Garratt, was 108ft 8in long and weighed 260tons in steam. Even the ubiquitous and small S wagon at

20ft 10in long, 7ft high, weighing 8tonnes tare, was bigger than an average car. Excessively large items can be represented in model form much easier than in their natural full scale size.

Modelling the Extinct

With the passage of time and evolution in function and form, many older types of rolling stock have all been destroyed, and much steam-era locomotive support infrastructure has been demolished.

The O gauge model *Valley Heights* depicts a medium sized locomotive depot during the steam locomotive era. There is a locomotive turntable, locomotive sector shed, timber trestle coal bunker, and ash disposal system. Turntables are rarely used to day. The most that can be shown are static tables, and more often only the remains of empty pits. Sector sheds and roundhouses are likewise rare items across the railway landscape. Timber trestle coaling bunkers have all been demolished. The requirement to dispose of locomotive ash is confined to a few railway museums and heritage train trips. The model represents all of these individual items.

Further *Valley Heights* brings them together, organises their interrelationships, and displays them in a single comprehensible scene. Individual locomotives can be followed as they pass from service to service and are prepared to return to the mainline in a fully serviced condition.

To be continued.



The next O Scale Modellers Forum will be held at North Sydney Leagues Club on Saturday April 6th. The program has not yet been finalised and will be advised closer to the day.

Stokers Siding

The Layout That Could Have Beenor A Prototype Worth Modelling?

Trevor Hodges

During 2012 a couple of friends and I had some initial discussions about building a layout to take to the Aus7 ExpO in March 2014. After swapping emails and a meeting to discuss possible prototypes, we settled upon Stokers Siding, just south of Murwillumbah, as suitable prototype to form the basis of the layout. While the Murwillumbah branch has been closed for a number of years, we made a site visit to look the location over, take some photos and discuss the possibilities and challenges.

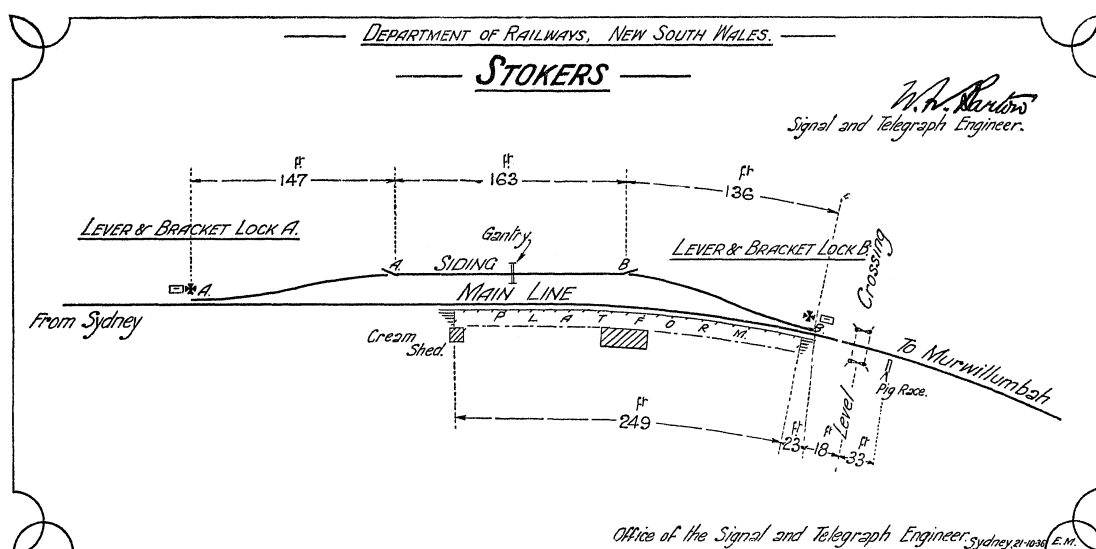
I've long believed that railway modellers suffer from a condition I call "gigantism": given a choice between a simple, easily modelled location and a sprawling, complex one, most of us will tend to pick the sprawling and complex every time. I understand the medical profession is yet to develop a cure for this condition. While sprawling, complex track formations can be a real challenge to fit into the space available to most railway modellers in N and HO, they become virtually impossible to work with in O. What's needed is a different approach and I feel modelling a location like Stokers Siding fits the bill.

On the surface the track formation of Stokers Siding might appear to be quite "boring", however the way this layout was to be utilized needs to be taken into consideration when judging it's "interest" level. The design considerations included, but weren't necessarily limited to, the following:

At the time we began planning this layout we only had about 20 months till it would be shown to the public at the Aus7 ExpO. As we planned on using hand built points modelling a location that required only two points was a definite plus.

This was to be an exhibition layout, not a permanent home layout. From long experience the three builders were well aware that one of the main criteria used to judge the success (or otherwise) of an exhibition layout is whether trains are moving. An oval of track to allow continuous running was a given for this layout, but we also wanted a single track line. This type of formation can present a problem. Experience had taught me that it can take quite a while for trains to exit the storage lines and emerge onto the scenic portion of the layout when the end curves are all single track. To overcome this I designed the end curves as double tracked right up to the entry points where trains enter the scenic sections of the layout. Using these double tracked curves trains could be held, just off stage "in the wings", ready to make their entrance as soon as the previous train, travelling in the opposite direction, had exited stage left (or right).

The main purpose of this layout was to display the locomotives and rolling stock owned by the builders of the layout moving through a scene: there wouldn't be much shunting. The rail facilities at Stokers Siding were minimalist in the extreme, even in the heyday of steam. The "loop" is not a passing loop where a train can be held off the main for passing moves, but merely a



The prototype track layout of Stokers Siding is fairly simple, however it is a typical example of a small North Coast station. The scenic centrepiece of this layout would be the bridge with the station surrounds providing a bucolic contrast to that imposing structure.

goods loop to allow for the loading and unloading of timber and other goods. Note that the pig race and cream shed are not on the loop but are located on the main line. Fewer facilities means fewer models to build, no small consideration when you only have 20 months to build a layout.

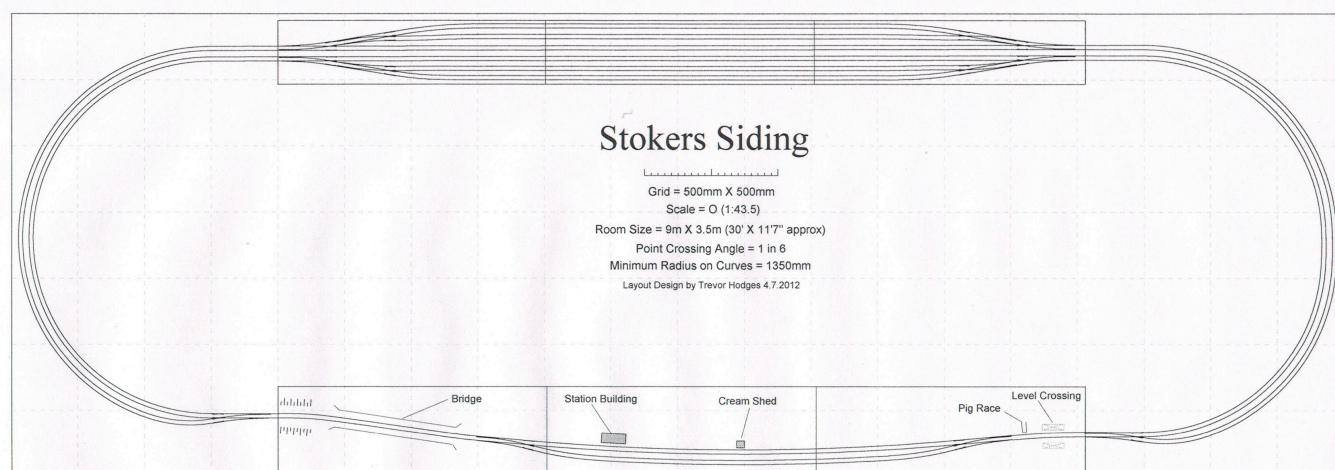
When I contemplated the possibility of constructing a layout based on a Northern NSW coastal location my mind concentrated on one thing: bridges! I was dying to build a nice, big bridge, preferably one constructed in steel on the prototype. What better place to find an example of this type of structure than the Murwillumbah branch? The line is choc-a-block with them and Stokers Siding is no exception. About one kilometre north of Stokers Siding is a lovely steel truss bridge that was crying out to be modelled and we spent a good deal of time walking over this structure, taking photos and making assessments of its viability as a model. While wandering around in modeller's heaven over the prospect of building a model of this bridge I was informed by one of the members of our party that there was another big bridge about the same distance south of the station. This bridge turned out to be a single span, plate girder bridge on massive concrete piers with a timber trestle approach at one end that crosses a side road. We were only going to be able to fit one of these bridges on the layout. What a dilemma! Which one to build?

Because this layout was to be built for exhibition use it needed to be transported and the only viable transport available was my layout trailer. As the trailer already has layout holding racks in place, this new layout would need to be able to fit into these racks, so the various module sizes and shapes were pretty much pre-determined. The main scenic modules would be approximately 600mmX2m with the storage boards being 500mmX2m. The end curves would be broken into 6, 30 degree segments and have a minimum profile to keep their volume down. In spite of constructing these layout segments to these minimalist dimensions this was still going to be a "big" layout. I felt pretty sure

that we would need two cars to transport the layout to a show.

Structures on the layout would be minimal. The station building has been moved from its original location but it still exists and is therefore available for checking dimensions and details. We turned up very few historic photos of Stokers Siding, however we did find a plan for the cream shed in the June, 2009 issue of the ARHS Australian Railway History. The pig race would be a fairly easy model to build and there was also a gantry crane on the goods loop used to load timber. The Model Railroad Craftsman has announced the release of a r-t-r model of one of these cranes, so this would be available if we decided to pool funds and buy one. The crane doesn't appear on the layout plan simply because we couldn't decide whether we wanted to spend the money. If we divided the jobs up across the three of us we felt that the structures were "doable" in the time available.

In the era before the dawning of the "Age of Aquarius" the main traffic on the Murwillumbah branch was timber, bananas, dairy and sugar, as opposed to hippies travelling north to drop out and (more recently) back packers. There is a comprehensive article on the Tweed Valley Railway in Byways of Steam #18 by Ian Dunn, where a great of detail can be gleaned about the traffic on the branch. Motive power in the form of (C)30T, (C)32, (D)50 and (D)53's would cover most needs for the post WWII period. Those interested in diesels would need to do a little research but I have photos of 48's on the branch and I'm pretty sure I've seen a photo of a 45 on the line as well. As there was no coal or wheat along the line the goods rolling stock would be an interesting mix of box vans, flat wagons and various refrigerated/iced vehicles rounding out the roster. Some louvered vans to park in front of the cream shed would be a must but this would necessitate moving the cream shed to the loop so that it didn't interrupt traffic flow. Passenger working was made up of an eclectic mix of what appears to be "hand me down" equipment that had previously seen service all over the state.



Except for the placement of the bridge model closer to the station than on the prototype the station, platform and other simple facilities would have been modelled almost exactly to prototype dimensions, even in 7mm. The short loop would have been modelled as a place for the loading of sawn timber and logs via a gantry crane, not as a passing siding for trains. The amount of shunting permitted by exhibition requirements would have been minimal but this was a compromise clearly understood by the builders.

The station building at Stokers Siding has been moved a few metres back from its original location and the platform appears to have been almost entirely flattened. The station has been converted into a cafe and the building does not appear to be of a standard NSW design. It looks like an A2 that has been extended and added to over the years, possibly with a waiting shed that may have been at another location further down the line.



As the plan evolved for this layout the plate girder bridge was developing as the favourite to become a model on the layout. The Waratah Model Railway co have announced a plate girder kit that would have simplified construction of this as a model and the prototype would have suited the size restrictions of the layout.



The steel truss bridge is about 1km north of the station. It would make an impressive model in 7mm but is probably a little too big for this layout plan. I began to suspect that it would have "crowded" the station scene.

In the end construction of the layout never got started: in spite of the siren call of that bridge as a modelling challenge I came to the conclusion that I could live without the pressure of building a layout from scratch in such a tight time frame. However I feel the design ideas and the use of a simple prototype location such as Stokers Siding as the basis of a layout remains valid. It may be worth a look.

Showcase

This handsome tank loco is the work of Ian Seers. It took him a little over a year to build from an O-Aust kit. The loco is finished in Tamiya paints, the weathering being a mixture of thinned greys of different sorts, buff and flat earth applied as washes with some air brushing. Ian says he has no real plan. He just does some and walks away for a while before coming back and applying some more until he is happy with the result. He likes the variation that this approach gives to his locos and wagons. If this subtle weathering job is an example it looks like his method works very well indeed.



Commercial News

Trevor Hodges

O-Aust

O-Aust Kits info@oaustkits.com.au, and via the web site at www.oaustkits.com.au, at PO Box 743, Albany Creek, Qld, 4035, mob 0419680584 or (07) 3298 6283 have indicated that there was a last minute hitch with the BSV kits. This is now resolved and the kits should be available for sale by the time you read this.

For 2013 O-Aust have a number of new projects in the pipeline.

For NSW modellers there will be the BSV, a re-tooled and upgraded BHG/SHG, a CX dogbox and an O-Aust Kits version of the 30T locomotive. Consideration is being given to producing an HCX to complement the CX.

Victorian modellers can expect to see a ZLP Guards Van, hopefully in time for the Hobsons Bay Train Show at Easter.

The long planned Queensland DH locomotive should also be available at the 2013 Brisbane Train Show. It is being produced in On3.5/On42 and On30 versions.

Waratah Model Railway Co

Waratah Model Railway Company, 149 Kyle Bay Rd, Kyle Bay, NSW, 2221 (02) 97851166 charris@nigelbowen.com.au and waratahmrc@optusnet.com.au have announced that they will produce another run of both the PHG guards van and the ICV wagon in 2013. These will be limited runs so anybody interested should contact Waratah to reserve a kit.

David Peterson Modelling Services

David Peterson Modelling Services, PO Box 644 St Ives, NSW 2075, Tel 61 2 9144 1521, Mob 0402 156 048, email dwpeterson@optusnet.com.au has advised, in spite of what was announced at the Oct, 2012 O-Scale Modellers' Forum, that the kit for the NSW (Z)12 will be produced during 2013. The most likely timing for the commencement of production will be March/April 2013. There are some technical/production matters currently being resolved but these should not jeopardize the kit going ahead. It would be helpful if potential customers for this kit were to contact David Peterson in order to confirm their order or to place an order. The 11 Class will not be produced concurrently with the 13 Class.



The ANR version of the Bergs/Haskell/O-Aust 44 class locomotive about to be released.



Does your train have that finishing touch. No, I don't mean a great paint job or weathering but a simple detail that I find is absent more often than not. I'm talking about a tail disc. These were simple metal plates attached to lamp irons on the last vehicle of the train, generally but not always the brake van, when trains had such things. Until the removal of brake vans all trains and light engines operating on running lines on the NSWGR were required to carry a tail disc on the last vehicle to inform signalmen, fettlers, shunters etc. that the train was complete and had not parted.

These discs were either round or triangular. The round discs were for trains travelling on single lines. The front was painted white but the back had a black cross which was used to indicate that a special train would be travelling in the opposite direction. The triangular disc (a contradiction in terms??) was used on double track lines. The front was white and the back red, being displayed when a special train was following.

In practice the single/double line distinction seems to have been rather loosely observed and most of the time the disc displayed was triangular regardless. I don't think I ever saw the back displayed.

These can be easily modelled from styrene, the round being produced with a leather hole punch. I can't give you any dimensions but reference to some photographs will get you close enough. Attachment methods depend on your model but if lamp irons are not fitted a small hole drilled in the end of the vehicle near the bottom will allow a fine wire attached to the back of the model disc to slide in. That way they can be easily removed when required.

Why not give your train the finishing touch?

Paul Chisholm

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