

7th Heaven

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Warramine

Building The O Aust MHG - Part 2

Showcase

The Saga of the CIL Turntable

Building The Hunslet - Part 2

Underpass At Fassie

Aus7

Modellers Group Inc.

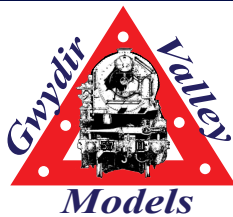
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Please forward payment to the Treasurer, Anthony Furniss at PO Box 179 Budgewoi NSW 2262. You must be a financial member to vote at the next AGM.

For renewal and new membership forms follow the link on the Aus7 Blog at <http://aus7.org/2014/10/12/welcome/>

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Straight Down the Line - Opinion

by Trevor Hodges

2021

With 2020 well on the way to being concluded, the executive have been looking to 2021 and whether planning for the Forums is a viable proposition. A few people have made suggestions about whether we could hold a virtual Forum in 2020 along the lines of what the GOG in the UK has run this year. The general consensus among the executive was that virtual events, while technically possible, simply laid a further organizational task on the executive for a very uncertain outcome. On this basis we concluded that organizing a virtual event wasn't viable.

At the time of writing (mid Oct, 2020) it is the executive's intention to hold some type of event at the Carnarvon Golf Club, Nottingham Rd, Lidcombe in early April, 2021. This was the new venue we'd booked for the 2020 Forums which were cancelled. Also at the time of writing, while this venue can book events that will more than accommodate our likely number of attendees based on floor space, all those attending must remain seated and there can be no "mingling". So you can see the dilemma: we can book a venue but who really knows what the restrictions are likely to be six months from now and whether these will make a Forum unviable? So I'm holding off calling our first event for 2021 a Forum because it may turn out to be a gathering that none of us would recognize as an Aus7 Modellers Group Forum.

At this stage I'm prepared to say that we *will* be holding an AGM at this venue on 3 April, 2021 (full details will appear in the next issue of 7th Heaven). You should find a 2019/2020 financial statement for the group included with this issue. As previously announced, as an interim measure till a full AGM can be held, this statement has been sighted by the executive and approved as true and accurate of the group's financial standing as of July 2020. This statement will be presented at the next AGM by the Treasurer.

While the current restrictions allow us to hold an AGM where everyone can remain seated with the required 1.5 meters distance between those attending, it's my hope that before this date restrictions will be eased to a degree that we can viably hold a Forum very similar to the model many of you would be familiar with. However I really do need to emphasize that whether this is possible is in not in the hands of the Aus7 Executive. These restrictions are in place across all licensed venues so this would apply whether or not we were using Norths Leagues club and in fact I'm pretty sure the Norths venue would not have had sufficient floor space to allow us to hold even an AGM.

So where does this leave us for 2021? What I can say is that I plan to be at the Carnarvon Golf Club on the 3rd of April 2021 from about 9am where we'll hold an AGM. I hope many of you also come along on the day and that circumstances allow us to run something approaching a fully fledged Forum. I have my fingers crossed that this will be the case and I look forward to getting the opportunity of catching up with those of you who are able to attend.

Remember that all memberships lapsed at the end of June 2020. Please renew ASAP so you will continue to receive 7th Heaven.

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On The Cover
4501 as fitted with decoder and weathered by Trevor Hodges features in Showcase this. Issue.

Warramine

A layout for simply running trains - Roger Porter

The earliest memories that I have of model railways and "O" scale are of the exhibition at the Sydney Town Hall which featured the well known "O" scale layout. This layout left a lasting impression on me, and has shaped my modelling activities to this day.

I can still clearly visualise a lovely green round-boilered 36 class locomotive lapping the layout at speed with an eight or ten car varnished "R" set of cars obediently following behind. I'm sure that the floor shook as the locomotive thundered past followed by the clickety-clack of the cars. I believe that this loco and car set still exist..... somewhere.

Some decades later saw me with a nice continuous run HO layout, the planning of which was influenced by that memorable Town Hall layout and the fact that I had no interest at all in attempting to replicate a prototypical location, no interest in timetable running or "fast clock" operation and no interest in shunting or moving a wagon from point "A" to point "B". When a train is made up, it generally stays made up.

The reason that I build a layout is so that I can run trains. I derive a great deal of pleasure from sitting at the workbench and having a train choof past every two minutes or so. So very relaxing.. Unashamedly I've modelled the sometimes criticized "tail chaser" layout, still influenced by that Town Hall layout.

Retirement and a house move ten years ago required that the HO layout be broken up, and I became involved in 7 mm modelling which resulted in this layout which adhered to my views noted above.

Locomotives seem to be the focal point in my 7mm activities, so the current layout has a double track continuous main line and a loco shed with a couple of sidings. No stations. The scenery is very basic and unfinished, but the layout, now named "WARRAMINE" provides me with a credible platform on which to run locomotives and trains, and it suits me just fine!

Warramine was built as a free standing portable layout, not attached to any walls. It was built primarily as a home layout to suit my needs, but nothing was done to preclude it from being exhibited should that ever come about. With that in mind, the layout can be operated from either inside, or outside the layout. To achieve that, the control panel operating the pointwork can be mounted on either of two sets of brackets, one inside, and one outside the layout. When operating inside, the panel is inverted to maintain the visual orientation of the trackwork.

The front scenicked section is 4400 mm x 800 mm on three boards. The rear storage road boards are also 4400 mm x 550 mm, and fan out to provide six storage roads. There are four corner modules at each end which provide radii of 1800 mm and 1650 mm.

The overall length of the layout is 9300 mm, and front-to-back is 4050 mm, the height to top surface being 1090 mm. The main boards have 6 mm ply tops, with 3 mm skirts to the 150 mm sides. The corner modules are all 6 mm ply, with 105 mm sides which project 25 mm above the top surface to provide some protection for derailments.

It's critical to use the best quality ply, because some of these sizes have been criticised for being a bit light. One can pay anywhere from \$30 to \$140 for a sheet of 2400 x 1200 ply. I paid about in the middle, it sits flat, saws nicely, and doesn't splinter (as much). The Mister Plywood stores are very helpful. The legs are all 30 x 30 mm dressed maple or pine, and have a hinge bracket at the top, and a height adjustable foot at the bottom. The hinge locks the leg in the up or down position. The hinge and the foot are supplied by STATION ROAD BASEBOARDS in the U.K. When folded, I wanted the legs to fit within the 150 mm height of the main boards, and still allow room for 80 mm of diagonal bracing. To do this, the legs needed to be mounted off-set to fold past each other.

All of the boards and corner modules are held in alignment with brass disc type of pattern makers dowels, also from Station Road Baseboards. These dowels work perfectly with precise and repeatable alignment, such that I use them to provide electrical continuity for the bus wires between the total of fourteen boards without problems. Connection is made automatically, no jumpers, no bending on knees. All boards are held tightly together by decent sized adjustable over-centre toggle catches.

A disadvantage of a free standing layout, as opposed to a layout attached to the walls, is that some time is taken in setting up and dismantling the layout that could otherwise be used for the running of trains. This could involve several men over some hours. So from the very beginning, when planning and constructing Warramine, an emphasis was placed on ease of setting up and packing away, at times at the expense of quality of presentation. So I coined the catchphrase of ONE MAN- ONE HOUR, which was achieved for each of setting up, and packing away. Particular attention was paid to lightness of construction, ease of electrical connections, joining of boards, type of backscene, flexibility of operation, and other short cuts as they presented themselves.

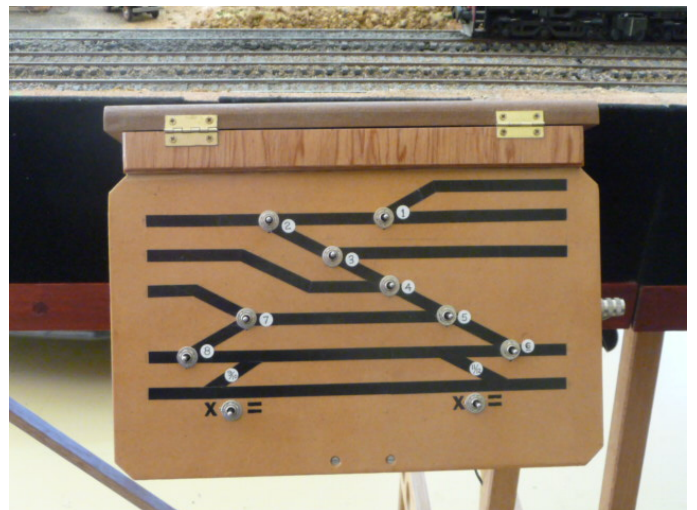
All track on the front visible sections of the layout is OLD PULLMAN code 125 flex track, which is very good, but I understand difficult to find nowadays. All pointwork and crossovers on the front of the layout is hand made, using MICRO ENGINEERING code 125 rail and timber sleepers. All turnouts are operated with TORTOISE

point motors. All track and turnouts on the corner modules and storage roads is from PECO.

The main scenicked and operating section of Warramine could fit along one wall of some single garages, maybe even hinged against that wall. This could provide an opportunity for some end-to-end running. To convert that to continuous running, a double garage or more is ideal, and in the case of Warramine when the cars are backed out of the garage ample space is available for the corner modules and storage roads. Depending on layout configuration, part of the corner modules may need to be outside so rain may be a problem. But with some limitations, you can now run trains.

The main front boards of Warramine are more-or-less permanently erected along part of the garage, and the conversion from that to the complete continuous running layout is ONE MAN, HALF HOUR.

So if rain threatens, you'll have 30 mins to bring all of the boards inside, and they'll stack in that corner previously occupied by things that provide less pleasure than running trains.





The main task in building a fairly straight-forward kit like the O-Aust MHG is in getting the bogies assembled and running freely. As we've already covered this in Part 1 (7th Heaven Issue 66) the tasks left to complete are assembling the chassis and body, pairing these up with the bogies and painting/decaling the model. I skimmed through the instructions before I commenced construction of the chassis and body and the construction steps read as fairly clear and logical so I set to work cleaning up the urethane roof, body and floor castings. I scraped along the edges of these large castings with the edge of a Stanley blade to remove any flash and used fine files and wet and dry paper to get them true and fitting together in a dry form neatly. I was very careful not to overdo the removal of material as the urethane castings are fairly soft and it's easy to take off too much. I cleaned up the white metal and urethane underbody detail castings and then glued these in place with green Zap-A-Gap as well as gluing the body sides together, which I then set aside (Photos 1&2).

I've been assembling rolling stock kits for about 35 years in a couple of different scales and I've yet to

come up with a method of gauging the height of a coupler until the wheels are attached to the body/floor of the wagon and you can place the model on a length of track. I use a short length of Peco track attached to a rectangle of plywood for this job which has a small square of packing at one end set at the same height as the railhead to provide a platform I can sit a height gauge on. I use the prototype's (scale) height of 20.3mm above the rail head at the centre of the coupler's knuckle as the height I set my couplers but that's a personal choice. Just about any material can be used as a height gauge: brass, styrene or wood could all be shaped and used for this task as long as the gauge sits flat at the rail head and there is a fine point at the required height which can be offered up to the face of the knuckle on the coupler. The

height recommended by KD is approximately 3mm too low if one is working in 1:43.5 and I've spent quite a bit of time adjusting for this on my stock due to some manufacturers following KDs recommendation on coupler heights.

The first task I undertook after I had the floor cleaned up and the bogies attached was to check the height the couplers would ride at. On this model the coupler sits hard up against the underside of the buffer beam so after gluing

Photo 1

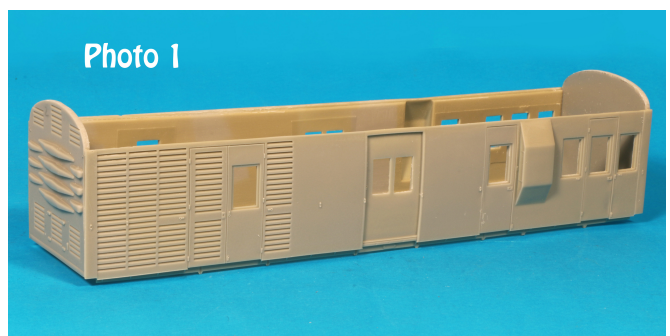
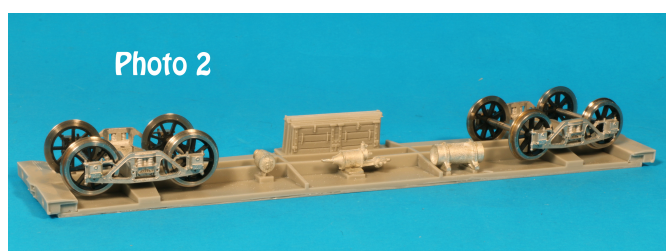
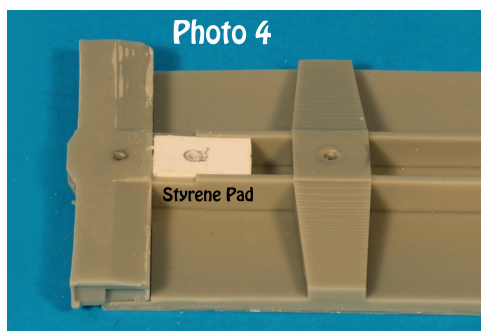
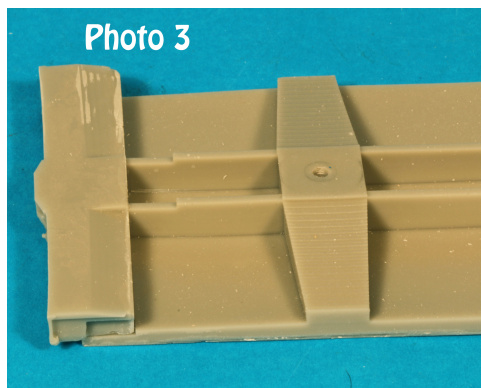


Photo 2

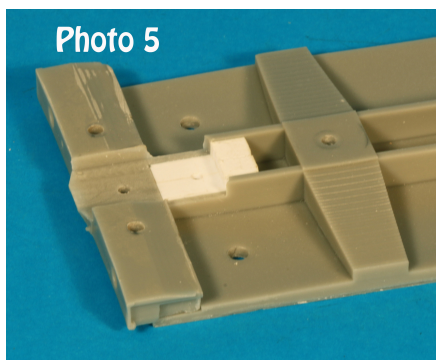


these into position on the floor I attached some couplers into position temporarily so I could carry out the height test (Photo 3). My couplers require two screws to retain them in position and there was insufficient material on the underside of the buffer beam to allow both to be used as a platform for the coupler housing. I glued in a small pad of styrene between the centre beams and drilled holes to secure the coupler (Photo 4).



If a model is too high getting the coupler to the correct height is a relatively easy task because all one needs to do is pack the coupler pocket with some scrap styrene till the correct height is achieved. However in my experience a wagon or loco being too high is rare and raising a coupler is considerably more challenging. I don't like packing the bogie bolsters to raise the body because this often leads to a wobbly wagon. My check against the height gauge revealed that the couplers were riding approximately 2mm too low and because I wanted to avoid packing the bogie bolsters 2mm I chose to remove the required 2mm from the underside of the coupler pocket. I imagine it would be possible to remove this material from the model using a file however I have a small mill in my workshop so I removed the bogies from the floor, clamped the floor upside down in the mill and removed the 2mm worth of material from both the underside of the floor

casting and the styrene pad (Photo 5) with a 3mm end mill. When I checked the height of the couplers with my height gauge they were now sitting at the correct height.

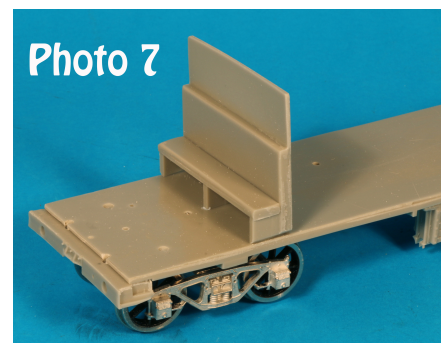


Once I had the couplers attached to the floor at the correct height I test fitted the body to the floor and offered up the roof to this assembly to check the fit of this component. There were some gaps around the ends of the roof where it mated with the top (Photo 6), curved edge of the body ends however, about twenty minutes of scraping and filing saw these fit quite neatly and I was in a position where the roof could be glued to the body when this was required. Before gluing the roof into position there were several other steps I wanted to complete so I set the roof aside.



Perhaps the most time consuming job of the whole assembly was to cut and glue the .5mm brass wire into position to represent the numerous hand rails present on the MHG however this went quite smoothly. After this job was completed I ensured that none of this wire was intruding into the body cavity where it would interfere with later attaching the window material. The only internal body detail provided with the kit is

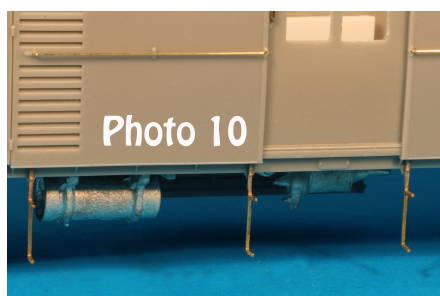
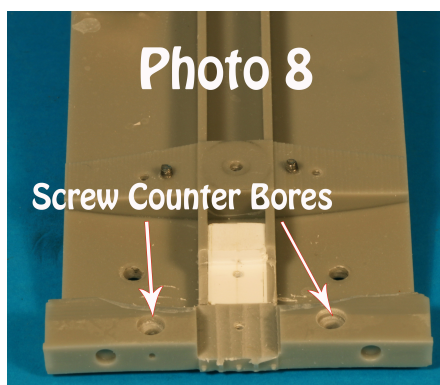
a wall/seat casting that is glued into position where the passenger compartment is dived off from the guard's compartment. I checked the fit of this part, glued it to the floor and set this aside to set. (Photo 7)



It was at this point I needed to decide how I was going to attach the floor to the body. I prefer not to glue the body to the floor if this can be avoided and prefer the use of screws to allow access to the interior if this becomes necessary. I chose to use four screws, driven up through the underside of the buffer beam into two blocks of body mounted 6mmx6mm styrene to retain the body. I used epoxy to glue the styrene blocks into position at floor height on the end walls. You need to be careful to avoid any gaps between the bottom of the styrene blocks and the floor as it's very easy to over-tighten the screws and crack the glue where it attaches to the walls. I drilled and counter-bored (Photo 8) four holes (two at each end) in the buffer-beams to allow the screws to retain the body but allow the heads of the screws to sit below the surface of the buffer beams to prevent them fouling the bogies. I built a seat around the styrene block in the passenger compartment end to match the provided seat casting and help disguise the block as it would be visible through the windows at this end (Photo 9).

After I was happy with way the body was held in position by the four self tapping screws (these are not supplied with the kit), I removed the body from the floor and glued the roof into position. In this step I was careful not to force the body and roof together as I

was trying to avoid introducing a twist into the model. Urethane does have a tendency to warp however I'd been careful to ensure the body was square and level when I'd glued it together. There was no discernable warping or twisting in the roof or the four body panels. I find if you force warped components together and glue them this tends to telegraph itself into the floor and leads to the wheels not sitting flat and level on the track. I wrapped some rubber bands around the body and roof assembly and put this aside to set after gluing. I didn't need to use any filler along the seam where the roof meets the body. When the body and roof had set I commenced gluing (I used medium, green Zap-A-Gap for this) the brass running board brackets down the side of the body, ensuring that these didn't interfere with the fitting of the floor (Photo 10). I



cleaned up the brass etch that forms the running boards so these were shiny and ready to solder before removing the parts from the etch and then soldered these up as per the instructions. This step is fiddly and one needs plenty of solder and flux. I kept the laminations together with some small weights while I soldered the resulting running boards together and then washed them in soapy water and gave them a scrub with Jif cream cleanser. I positioned the running boards (starting with the shorter ones) and retained them temporarily with some small clamps (ladies hair clamps I got from a hairdresser's) and touched the underside of these with a very hot soldering iron for a fraction of a second to avoid loosening the superglue holding the running board brackets in position (Photo 11). I'd worried about this step prior to commencing to assemble this model but everything went really well. When this step was complete I gave all the body components a thorough washing and another scrub with Jif and warm soapy water.

Painting and Decals

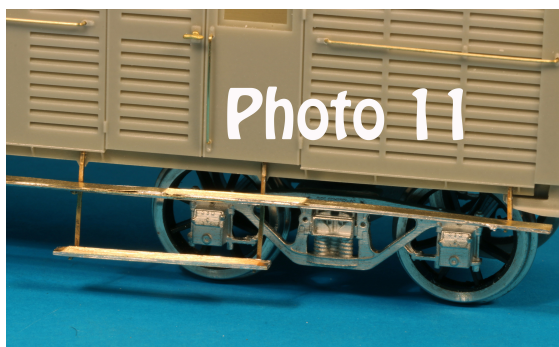
Since the demise of Floquil paint my standard choice for NSW "grey" rolling stock, Weathered Black, is no longer available, so I've recently been looking around for an alternative, preferably in a rattle can. I've tried a few different greys available from hardware paint departments but nothing I've tried so far is dark enough. For the MHG I settled on Tamiya German Grey TS-4 in one of their 100ml rattle cans which isn't quite as dark as Weathered Black but is a reasonable alternative. My reasons for preferring a rattle can for this type of application is that I can apply a coat of base colour quickly over a large area without the hassle of cleaning up an air brush.

I broke the model down into sub-assemblies and masked off the wheel faces with thin strips of masking tape to save myself the job of cleaning them off later. The

time invested in doing this is about the same as cleaning the wheels later but I find this a much more pleasant task than scraping paint and this tends to produce a neater result. After masking I applied a base coat of a Rustoleum grey, etch primer over the whole model in two thin passes. This model didn't require any filler but I did give it a close inspection after priming just to make sure there were no areas that would benefit from some filler and a light sand. This wasn't necessary so I applied a couple of coats of silver to the roof from a rattle can that was on the shelf in my shed. The exact type of silver used for this isn't terribly important as it will get a couple of layers of dirty weathering in later steps which tones the silver down considerably. I then masked off the body from the roof and applied two coats of Tamiya German Grey to the body, floor and bogies. The German Grey produces a nice low sheen finish which was perfect for applying decals. I let the parts dry for two days and then applied the decals following the instructions and some photos I had found in my library which I'd studied prior to commencing the build.

For a range of reasons the weathering applied to the model was carried out about two months after the decals were applied. I started by giving the whole model a coat of Testors Dullcoat, again from a rattle can, and then applied a light air-brushed "wash" of Floquil Weathered Black to the undercarriage, along the footboards and over the roof. I do have a small supply of Weathered Black but I reserve this for weathering these days because I use less of it in this application than for a full base coat. I particularly like the grimy colour this gives a model and I find that the Grimy Black alternative that is now available from Testors since they stopped producing Floquil paint, doesn't produce the dry, dusty grime effect I'm after. Eventually I'll have to find a replacement for this application too when my supply finally runs out. I then ran a wash of Floquil Dust along the

footboards and ends and over the bogies. I then dusted the bogies lightly with some black and rust colour Carr's weathering powders and glued the clear acetate into position for the windows.



Showcase



The photos of 4501 in this issue mark the end of a fairly lengthy saga that started when I purchased a NSW 45 Class loco from Auscision in 2017. Some months after the model was released Peter Krause asked me if I'd be willing to install a DCC sound decoder into his model and I agreed to carry out this work following John Parker's article in the Issue #53 of 7th Heaven. Most of the installation work went fairly smoothly however I did manage to damage two ESU decoders in the course of installing them. These were eventually sent back to Germany and ESU thankfully agreed to replace the decoders. I carried out the installation on Peter's loco at the same time I worked on my own so while I had both locos disassembled I installed decent crew figures in the cabs (from Andian) and carried out a weathering job on both. This work was completed and Peter's loco was handed back to him late 2019. For some reason I never completed the final stages of the installation of the DCC decoder on my own loco and it sat for over six months waiting for the work to be completed. When I finally got around to completing the work the job went fairly swiftly and the loco entered service on the 9th of October, 2020. I should thank John Parker and Glenn Scott for their help and assistance in a fairly drawn out installation. Trevor Hodges

THE SAGA OF THE CIL TURNTABLE

Peter Krause

I purchased a CIL turntable at the Liverpool Model Train Exhibition in October 2007. Like a number of other modellers that I have become aware of, I was never able to get what I considered to be reliable service from it. The problems all related to the electrical control and indexing system that the turntable came equipped with.

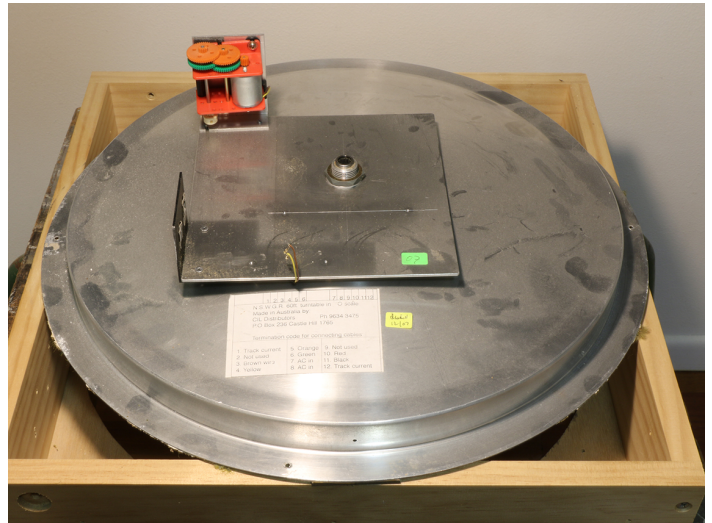
For a long time I left the problem in the “too hard basket” as I had other more pressing issues to deal with over the ensuing years.

As the layout that I am currently building (Saddlersfield) approaches the point where it appears to be completed (in reality model train layouts are never finished but always a work in progress) the need to get the turntable working or replaced seemed to be getting higher up on the “to do” list.

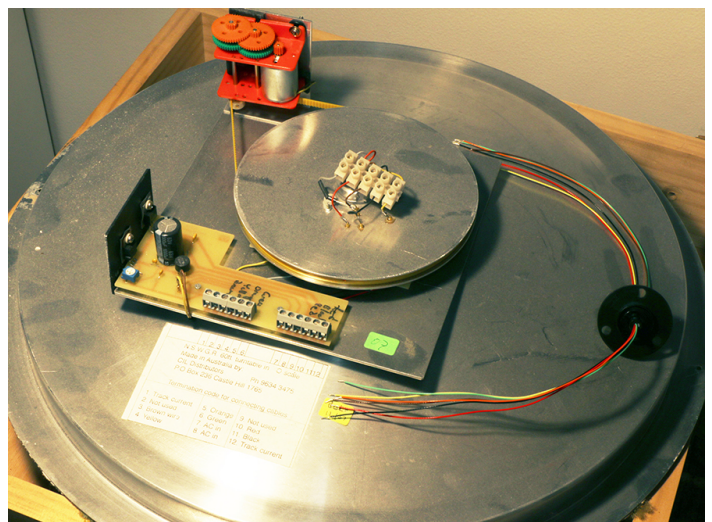
In 2015 I located a turntable operating system including indexing marketed as the “Chatham” turntable which was available through Model Railway Developments in England. After some research I thought it would be the answer to my dilemma so I ordered and paid for one and have been waiting ever since. Still, it has been only five years, not thirteen I suppose, but somehow, I do not expect to see my “hard earned” again. I understand the problem is the manufacturer rather than Model Railway Developments.

In more recent times I have become involved with a group of HO modellers who meet on Saturdays about a 55 minute drive from where I live (no they are not brainwashing me or trying to convert me and so I don't need to wash my mouth out with soap yet) . They are building a rather large HO layout (NSW and Qld prototype) in an 8 metre X 9 metre room. One of the highlights of the layout is a 360 degree roundhouse with a scratch built 105 foot turntable. It is operated using DCC controllers and I was impressed with the way they were able to line the bridge up with the tracks with very little error due to being able to control the speed. Even I was able to operate it successfully. I eventually came to the conclusion that I could use the same method to improve the operation of my CIL turntable.

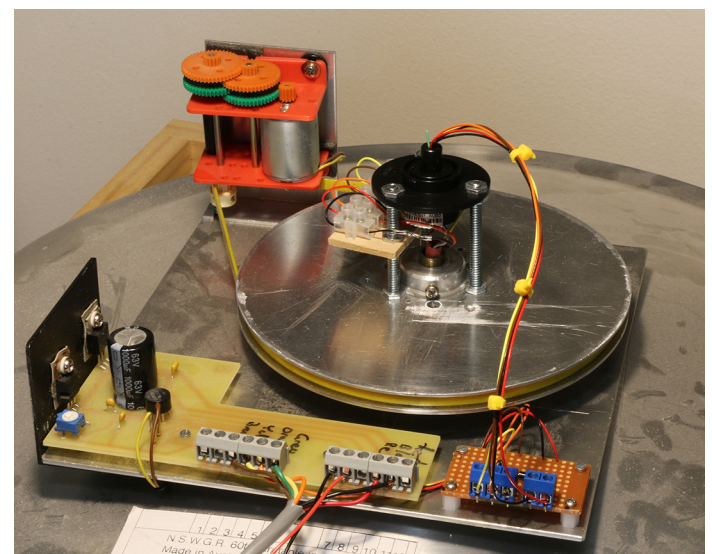
I decided initially to give the CIL mechanism one last chance by installing a slip ring in place of the electrical system supplied with the original turntable. While this resolved the issues with the flow of current within the turntable mechanism the problems with the indexing system continued to plague its operation. At that point I decided that enough was enough and I would install an



the base of the turntable after removing the original mechanism



the slip ring being installed



the slip ring as originally installed.

operating system similar to the HO one referred to earlier.

The first step was to determine what parts were needed. The list was:-

MRC AD520 Auto Reverse Module (from Micro Mark)
Lenz LE4024B 4 amp Decoder (from my spares drawer, although a 1.5 amp one should be adequate)
Core Electronics ADA736 Slip Ring with Flange 22mm.
ABC Gears Worm & Wheel Turntable Drive Unit.
Terminal strips and hook up wire (from existing resources)

I began by removing all the original components of the CIL turntable including the relay switch inside the bridge that operated the indexing system I only retained the bridge, the well, the pulley (with the electrical contact plate removed) and the belt. The slip ring installed earlier on the pulley was left in place. While I had it all apart, I took the opportunity to do some maintenance to the bridge and repainted it as well.

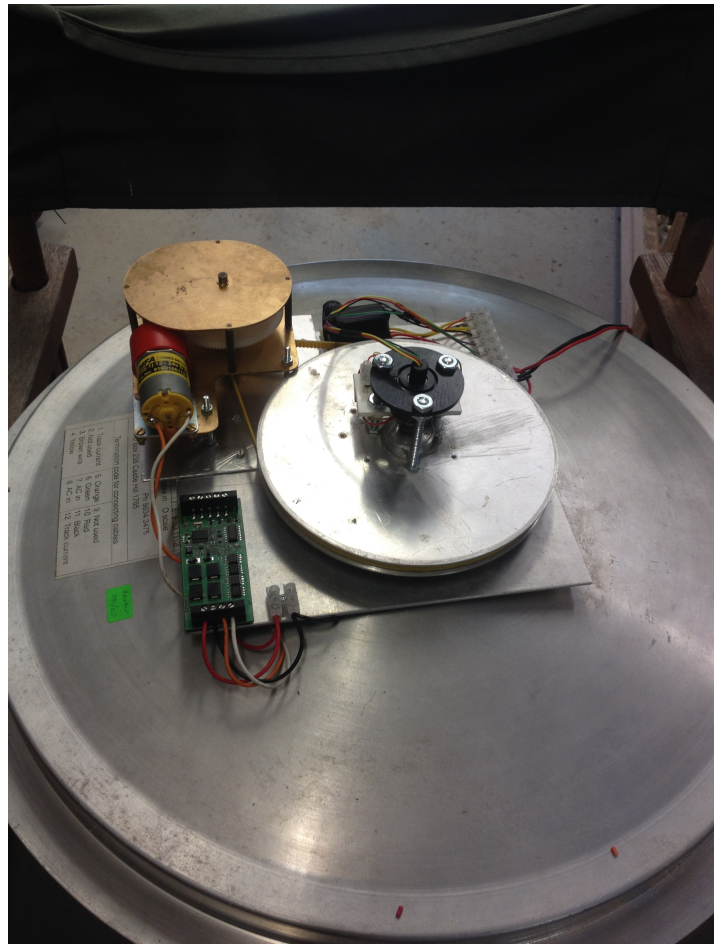
Next, I re-assembled the bridge, well, under plate (including slip ring) and pulley. I had retained the slip ring from the modification attempt referred to earlier, however I now required only two wires to link to the bridge but left all six in place in case I find a future use for them. I then worked out the best location for the ABC Gears Worm & Wheel Turntable Drive Unit. As this could not be located fully within the area of the under plate I then used a spare piece of aluminium plate as a base for the drive unit, attaching it to the plate. Using the belt I then determined the best location for the drive unit and once happy attached it to the under plate.

At this point I test ran it using a DC controller that I have. I also test ran it with a 48 (which is the heaviest locomotive that I have) on the bridge.

Once satisfied, I then wired it up for DCC operation including the DCC chip and the auto reverse module.

Another test run and it was then ready to install on my layout.

Once installed, testing threw up some new problems. The belt as originally supplied was slipping and the operation was sooooo slow that I almost had time to go and make a cuppa and drink it while the turntable rotated the necessary 180 degrees. The ABC Gears drive unit was so low geared that it was essentially not compatible with the CIL Turntable setup. The drive unit is an excellent product, it just needs to be connected directly to the turntable, not via further speed reduction devices. Then after a relatively short period of operating the Lenz DCC 4-amp chip and the MRC reversing module decided it was all too hard and ceased to operate. Back to the "drawing board".



with the ABC drive unit, MRC auto reverse and Lenz DCC installed



the MFA / Como Drills motor

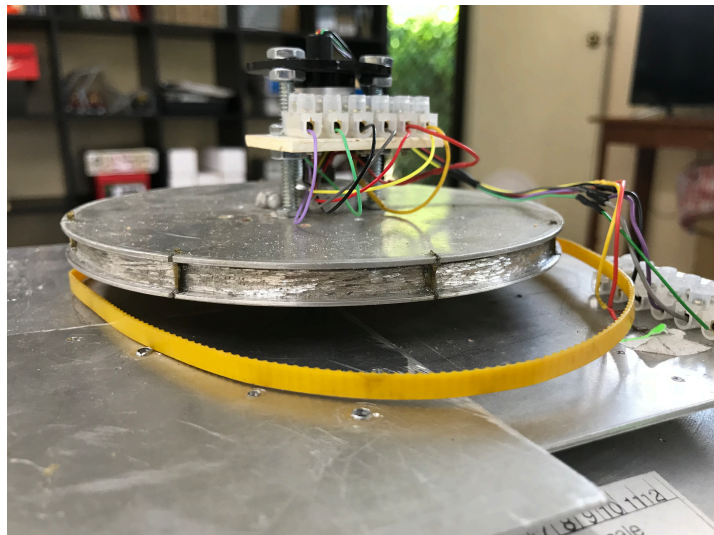
While discussing my turntable problems with a friend he suggested that I should simplify the operation and just use a DC controller rather than DCC. On this basis I decided to purchase a CDA 211 DC controller to operate the turntable. I also decided to replace the defunct reversing module with a TAM Valley dual frog juicer.

I was never happy with what I considered to be a “toy” motor and gearbox as originally supplied with the turntable. I noted the motor used on the ABC Gears drive unit was an MFA / Como Drills unit that was already geared down 100:1. I was able to purchase one online from a supplier in England.

That left the slipping problem to resolve. Trevor Hodges came to my rescue on this one. Trevor advised me that he thought he had a solution to the slipping problem and kindly offered to test his theory using the drive pulley from my turntable. This involved inserting some “teeth” at strategic intervals around the pulley. The solution appears to be successful.

I then assembled the turntable and tested it. It appears to be successfully working but I guess the real test will be when I hold an operating session on the layout in about 4 weeks from the time of writing this article. There is nothing like having a group of your peers looking on to ensure that if something is to go wrong it will go wrong.

Fingers crossed I now have a working turntable at Saddlersfield. Also, if anyone is contemplating scratch building an operating turntable, I have an ABC Gears Worm & Wheel Turntable Drive Unit which we could do a deal on.



the pulley with the “teeth” installed.



with the MFA motor and TAM Valley juicer fitted



turntable on the layout.

Building the Hunslet - Pt. 2 Or Don't Burn the Fingers

by Lionel Pascoe

Part one was in issue 65 and we were lastly talking about the cab. Lets take a while to knock in the rivet detail trying not to deform. Practice on a piece of scrap, a flat sheet is easy to handle. Read the instructions and remember that any soldering is done from the inside allowing nice clean corners to be on the outside. How you may ask? First pre apply a fine solder bead along the inside edges that need to be soldered together and wipe off excess solder on each one as this ensures it doesn't have lumps that hold the body pieces apart. So after soldering we wipe the irons tip and holding both body and iron almost flat on work, we draw the iron down over the solder so the excess is taken away. Wipe tip regularly.

Now hold together front plate and one side, keeping in alignment and at 90degrees with floor plate as template, wipe a little bit of flux along it and then run the soldering iron with a little solder on the tip and spot tack two spots on edges, check alignment, add a little solder and run the point of the soldering iron along the edges. It is just enough to run the solder from the two edges together but not flow everywhere. Photo 1. Don't do the whole side as there will be no support and will fall apart, do about a third at a go after it cools. Do the other side and then do the rear.

Photo 2 shows the inside of the cab, sides and ends together. Now add the tool box as shown with some pegs holding it and solder in place. You can do the other pieces of the floor supports since both of these are surrounds and this gives us access through the bottom to solder in the roof after bending and curving.

The Engine Hood.

Again we need to build the box with clean solder-less edges on the outside,

Start by cleaning up the rear plate and do rivet details, then gently bend and roll the hood around to get the same radius shape over the rear plate, check along the length of the hood as you go. Sit on floor plate to see if low enough. After fitting solder the rear plate on. Then we can do the front plate. Roll and bend it so that it fits inside the hood and measure so it's the same width. Photo 3 shows after ensuring fit it in place for soldering from the inside. If it's too wide use a piece of dowel and a block of wood to gently get it to fit.

Next is too put doors on and then the door handles with photo 4 showing how I held these in place to solder. Push against cardboard and then handles can be rotated gently and once aligned solder in place.

Carry on installing radiator cover remembering that it's flat, then hood hand rails and other details. Finish with the company name plate and make sure square and evenly spaced on hood. Don't forget the aligning pieces soldered into the rear wall for support.

Solder the nuts as instructed onto the hood plate for securing the body.

The Levers and Brake Rod.

I made up the knobs for the gear and throttle levers plus brake screw by cutting up some rod as shown and use a peg to hold it in place for soldering onto the lever. A light file and the driver can grab the knob to operate the lever.

In Part 3 will be frames and wheels.



Photo 1 – cab with clean corners.



Photo 2 shows another peg hold.



Photo 3 - Holding in the curved front plate.



Photo 4 – Hood doors and handles.



Photo 5 - Hood with handrail and sign.



Photo 6 - Making the levers.

Help Fill This Space

Write an article or at the least send in a photo of your latest project. New authors particularly welcome.

Farewell Mark

Those who knew him will be saddened to hear of the death of long time member Mark Fisher in early October after a long illness.

I met Mark through Aus7 when he was a regular volunteer on the Aus7 stand at the AMRA exhibition. His modelling interest was mainly British prototype and he had grand plans for a layout to run his collection of locomotives and rolling stock. Sadly this never came to fruition.

Mark was also a talented woodworker and was known throughout Australia for his ability to build and repair pipe organs. Such was his skill that he was regularly called upon to work on the organ at the Sydney Opera house as well as other large instruments throughout the state.

He was always willing to use his skills to help fellow modellers and he formed a number of wooden roofs for me when I was scratch building carriages. It was amazing to see how he could take a piece of timber and deftly transform it into the required shape.

Unfortunately Mark suffered a number of health issues which culminated in the closing of his business and admission to a nursing home and sadly the sale of his model collection.

Despite these setbacks he remained interested in O scale developments and at our occasional visits or phone conversations always wanted to know the latest news. He particularly looked forward to receiving 7th Heaven in the mail.

He will be missed.

Paul Chisholm



As the Toronto line branches off Fassifern Station it swings a hard left to start its 4K trundle towards the picturesque terminus. No sooner has it left Fassifern station it crosses a concrete underpass, the subject of this article.

Originally it was constructed for two way traffic but I assume as roads got busier and cars got wider the powers that be changed it to the single lane thoroughfare that it still remains today.

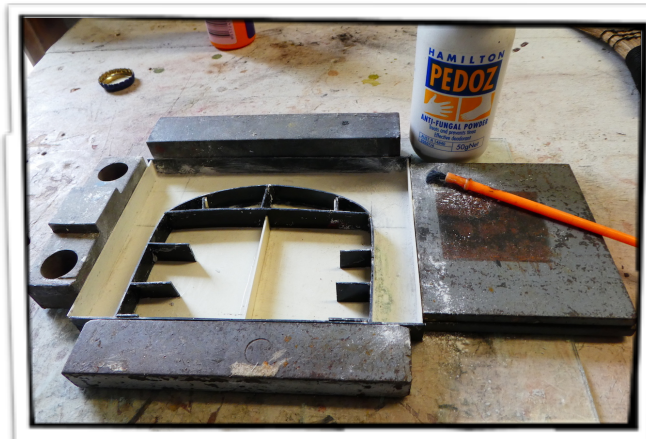


I started construction by first obtaining historical photos of the site, as well as my own reference photos taken of the prototype on site visits. The road is too busy to run a measuring tape over it so I reverted to the old standby of approximating, estimating and guessternating. I came up with 30 feet for the length. I actually could confirm this by stepping it out on a site visit. For the width, I put two 7mm model cars side by side and added 2 feet each side resulting in 18 feet wide. The base of the model ended up 22 feet wide allowing for the abutments.

The height of the arch was easy as the height was posted on a warning clearance sign in the old prototype photos. Interestingly the prototype photos I sourced from the net show two different measurements on their caution size. One 3.3 metres and the other one 2.8 metres. The height above the arch I guessternated. I transferred these measurements of the width and the height of the arch on to a sheet of styrene that I was going to use as a base for a mould.

I used a compass with a stylus instead of a pencil and once the it had made its mark I drew over the top with a black Texta to bring out the rim of the arch. I made another mark 1 ft wider to achieve the rim.

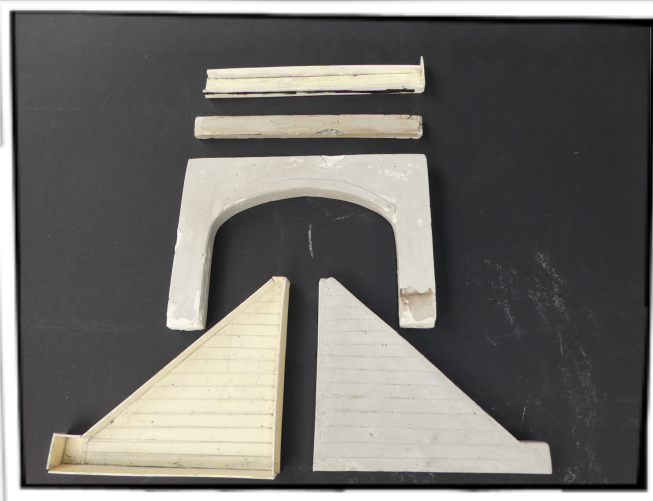




This 1ft wide rim was then cut out. Attention was then focused on constructing the abutments walls and the concrete beam over the top of the portal. These were all poured as separate units. This would have been an ideal project to make the outside wall dam out of Lego blocks but the Grandson (he is 19) would not give up any of his.

To prevent any bulging of the sides I reinforced them with suitable weights. The moulds were placed on a sheet of glass and given a dusting of talcum powder to act as a mould release. The casting plaster was prepared. This plaster is some 10 years old but has been stored in an air tight container. I put the plaster through a flour sieve, adding a pinch of black ochre to the mix. Following a suggestion from a fellow modeller I added diluted PVA to the mix, the same strength as I would mix up when gluing down scenic material. I have heard of this process before but have never tried it! I was very pleased with the outcome. It gave the castings a porcelain look and seemed very strong. Thanks Lionel.

This process was repeated for the 4 wing walls and the 2 beams over the top of the portal. Once dry the castings were easily removed from their moulds. The talcum powder doing its job!



Once dry and hard the castings were assembled on a piece of 16 inch X 6 inch MDF that would become the base of the model, using PVA glue. Timber, half inch square, was used for strength and bracing. This timber also supported the base for the upper right of way as well as the two side profile boards.



The track was hand laid using sleepers cut from cedar, the rail is rather light for 7mm but Toronto was laid in 90 pound rail. The fence is a Peco product painted and weathered. The ballast I don't know where that came from. Part of the ground cover is a natural plant that is growing between my pavers; I think it could be duck wart.

The roadway is card that dips in the middle. I achieved this by putting coffee stirrers one on top of the other then midway along of this half only one and then bottom out. I also tried to create potholes, alla Gordon Gravatt. His are a lot better than mine. The man hole covers are from an English company, Diorama Debary and come as a rubber mould in 1 in 35 scale. I used DAS instead of plaster and was pleased with the result. There was no need to do a lot of weathering as the small amount of black ochre in the mix gave me a pleasing result. I did give it a wash of black ink and alcohol.

The idea of just taking a small slice of the area you may wish to model was both exciting and achievable. I enjoyed this build.



Commercial News

Rawbelle County Workshops

Rawbelle County Workshops, phone - 04 08 348 656, email - rallim56@bigpond.com, are looking for anyone interested in placing an order for one of their recently released CHG brake van kits to evaluate whether a second run is viable. The kit is supplied complete with wheels and couplers and is all etched brass construction and priced at \$249.99 (+\$9.99 if the stove is required and supplied as a separate detail casting). For those wishing to order you can find an order form on the Aus7 Groups IO web site or you should ring or email Brian at the above contacts.



Balance Sheet As of June 2020		
	FY2020	FY2019
Assets		
CBA – 2076	\$6,124.61	\$4,085.43
Accounts receivable	\$0.00	\$0.00
Inventory		
Caps	\$0.00	\$24.20
7th Heaven @ cost	\$309.60	\$345.96
Total Inventory	\$370.16	\$370.16
Total Assets	\$4,455.59	\$4,455.59
Liabilities	\$0.00	\$0.00
Net Assets	\$4,455.59	\$4,455.59

Profit & Loss As of 30th June 2020		
	FY2020	FY2019
Income		
7th Heaven sales	\$264.80	\$225.00
Advertising 7th Heaven	\$2,575.00	\$325.00
Membership	\$3,290.00	\$3,130.00
Forum entrance fee	\$1,350.00	\$2,280.00
Donations	\$0.00	\$5.00
Total Income	\$7,479.80	\$5,965.00
Expenses		
7th Heaven		
7th Heaven – Printing	\$3,929.65	\$3,137.00
7th Heaven – Postage & Envelopes	\$1,184.50	\$1,015.85
Forum		
Room Hire & Coffee	\$754.10	\$944.90
Administration		
AGM	0.00	0.00
Stationery, envelopes & postage	\$0.00	\$0.00
Department of Fair Trading	\$0.00	\$0.00
Public Liability Insurance	\$0.00	\$704.55
Awards	\$108.90	\$108.90
Web Site	\$175.87	\$142.96
Total Expenses	\$6,153.02	\$6,054.16
Net Profit (Loss)	\$1,326.78	-\$89.16

Notes:-**1. Membership**

- 88 members were current for 2019/2020 (92 members 2018/2019)
- As at 26/10/2020 - 61 members have renewed for 2020/21

2. Inventory

- All inventory is recorded at cost
- There is no guarantee back copies of the 7th Heaven magazines will be sold.

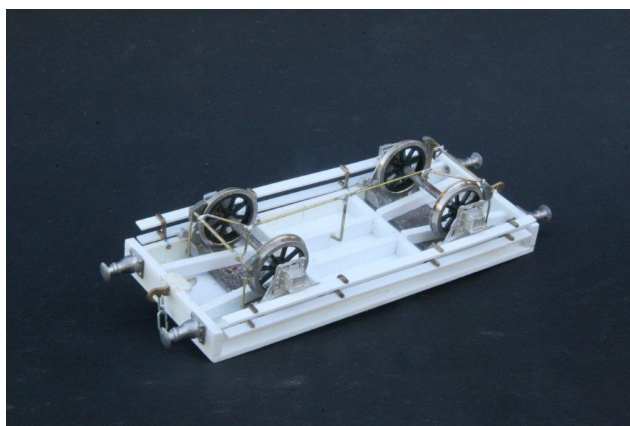
3. Income

- Forum income is down on previous year as only one was held in this financial year.

4. Expenses

- Printing and postage costs continue to rise. Fewer copies are now been printed previously 150 down to 120 to combat the rise.
- Public Insurance was not renewed this year due to the impact Covid-19 preventing gatherings. It will be renewed when Aus7 events commence.

The saying “as soon as you scratch build it someone will bring out a kit” is proven correct by this part built CHG by Roger Porter and the Commercial News.



**NOW
AVAILABLE**

NSWGR Z13 Class Tank Locomotive

In fine scale 7mm kits and Batch Build Ready-to-run by DJH.



- RTR locomotives are fully built/running/tested, Includes number plates, decals, standard paint (black), working lights, 8 pin DCC interface (plug-in).
- Detail includes: slow running, real coal, detailed back head. Specific paint requests will incur additional charges. - Minimum radius: 6"

Kits Available Now \$1500

RTR Available Now in Black \$2750 or Preserved Green \$2900

**COMING
SOON**

NSWGR Z12 Class Locomotive

In fine scale 7mm kits and Batch Build Ready-to-run by DJH.

- **RTR locomotives** are fully built/running/tested, Includes number plates, decals, standard paint (black), working lights, 8 pin DCC interface (plug-in).
- **Tender options:** C Class 6 wheel or Baldwin L Class Bogie Tender
- **Detail includes:** slow running, real coal, detailed back head. Specific paint requests will incur additional charges.
- **Minimum radius:** 6"



Available in 2021 Prices to be confirmed

**NOW
AVAILABLE**

NSWGR D59 Class Locomotives

In fine scale 7mm kits and Batch Build Ready-to-run by DJH.



Kit Price \$1799

RTR Price \$3700

Kits and RTR loco available in either Oil Burning or Coal Burning formats.



Minerva Manning Wardle K Class

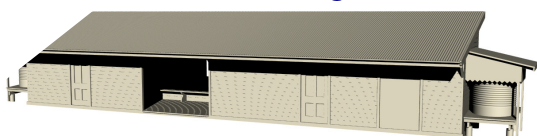


Prices: DC-\$495 DCC-\$595 DCC Sound-\$725

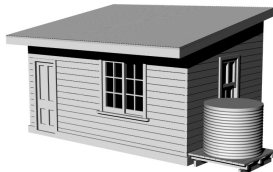
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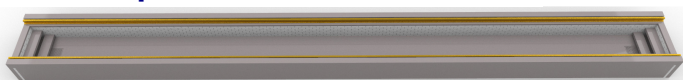
NSWGR A4 Station Building Kit Price \$129



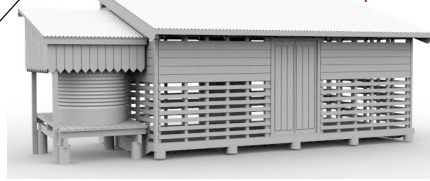
NSWGR Timber Platform Signal Box Kit Price \$49



NSWGR Inspection Pit Price \$20



NSWGR Cream Shed Price \$65



**COMING
SOON**

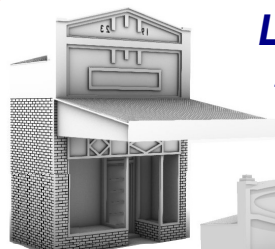
Low-Relief Terrace Houses, Shops & Corner Shop Kits

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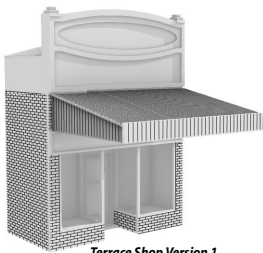
Prices TBA



Terrace Shop Version 2



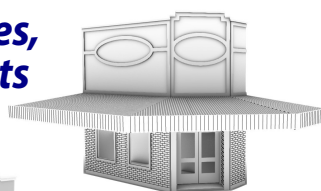
Terrace Shop Version 3



Terrace Shop Version 1



Corner Shop Version 3



Corner Shop Version 1



Corner Shop Version 2



Terrace House Version 1

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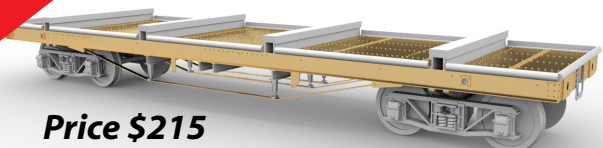


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Kits Include:

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- Laser cut acrylic chassis
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E Flat Wagon With Riveted Water Tank (7mm Scale)



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Dapol GWR Signal 7mm Scale

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Can be modified to a close to NSWGR home signal. Fully operational, comes with servo motor and fitted LEDs. Ready to install with toggle switch.

Prices \$98

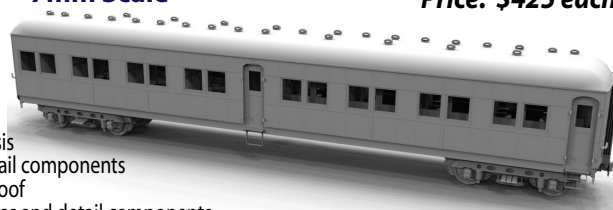


NSWGR FS & BS CARRIAGE KITS 7mm Scale

Available Now
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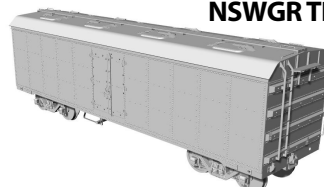
U Wagons Price \$130



K Wagons Price \$95



NSWGR TRC Wagon Price \$275



NSWGR BWF Wagon Price \$215



NSWGR RU Wagon Price \$165



NSWGR HG GUARDS VAN Price \$259



KF Wagons Price \$125



NSWGR ICV Wagon Price \$210



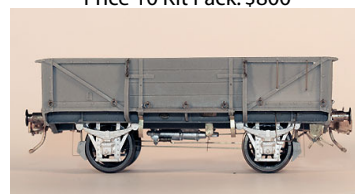
PHG Guards Van Price \$449



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ULTIMATE "S" WAGON KIT Price \$85 per kit Price 10 Kit Pack: \$800



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