

7th Heaven

Journal of the Aus7 Modellers Group Inc.
No 66

\$7.70 inc GST
Winter 2020

The Saga of 4010

Building a NSWGR Water Tank

Building The O Aust MHG

An ACM In Cardboard

Product Review: Dapol. GWR Home Signal

Showcase

Working Under the Layout

Aus7

Modellers Group Inc.

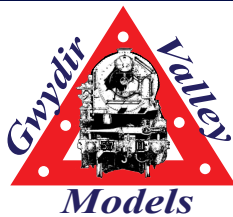
Gwydir Valley Models

EasyDCC The Easiest to use DCC system
Now with Zonemaster 7 Amp Boosters

FAST TRACKS Easy to build Turnouts

O Scale 7mm
sleepers &
point stock

Tsunami2 Digital Sound Decoders
WOW sound from TCS
DCC Accessories
Blackstone HOn3 Models
Hold & Fold Etch Tools
Irdot Infrared Detectors
Centreline Rail Cleaners
Micro-engineering HOn3 Track
Rail, Joiners & Points
Kadee Couplers



Ph: 02 6732 5711

PO Box 740 • Glen Innes
NSW • 2370

www.gwydirvalleymodels.com

Tsunami2™

Game Changer

Soundtraxx continues their legacy of innovative products with Tsunami2, a brand new line of digital sound decoders that have more sounds, smoother operation and some completely new ways to do more with your trains. The word is "operation" with three braking methods, the best ever Dynamic Digital Exhaust for both Steam and Diesel versions, and oodles (yes oodles) of amazing new sounds and effects. The first Functional Brake, Equalizer – and a whole lot more. Soundtraxx has been leading the way in sound for your railway for over 25 years.

Tsunami2 Features

- 32-Bit processor capable of 16 simultaneous sound channels
- Flex-Map technology allows mapping any function to any function key
- Hyperdrive2 motor control
- Adjustable Reverb
- Built in Equalizer
- 20+ Different Lighting Effects
- Steam Diesel and Electric versions with multiple selections in each decoder
- Over 60 whistles, over 40 horns, multiple prime movers, chuffs, bells and more.

Think you've heard it all?
Visit our
website
today.



From
SOUNDTRAXX®

CONTENTS

4. The Saga of 4010
9. Building a NSWGR Water Tank
10. Building The O Aust MHG
13. An ACM In Cardboard
15. Product Review: Dapol. GWR Home Signal
17. Showcase
18. Working Under the Layout

Membership of the Aus7 Modellers Group costs just \$AU40 per year or \$AU57 for overseas members. Memberships are due for renewal by June 30th no matter what time of year you joined. Please forward payment to the Treasurer, Anthony Furniss at PO Box 3404 Asquith NSW 2077. For renewal and new membership forms follow the link on the Aus7 Blog at <http://aus7.org/2014/10/12/welcome/>
If membership is not renewed this is the last issue you will receive. To receive all four issues per year you need to renew before September 30th.

Renewals can also be done through online banking, to the Aus7 account BSB 062-233 Account Number 1017 2076
Be sure to supply your name.

Commercial News

Trevor Hodges

ModelOKits

ModelOKits, PO Box 379, Sydney, NSW, 1700, (02) 97073390, 0404935663, <http://www.modelokits.com> & sales@modelokits.com, shop open most Fridays between 10am to 1pm at Unit 4/61-71 Rookwood Rd Yagoona NSW 2199, have passed on the following news:

ModelOKits next wagon project is the 40' bogie MLV using the E wagon chassis. Expected availability end of 2020.

MOK are working on a range of Australian style low relief terrace houses and shops. These could be adapted and arranged to suit any location across the country and are not region specific.

The following kits are now available: NSWGR Cream Shed (\$65), NSWGR Loco inspection pit (\$20) and NSWGR timber platform signal box (\$49) are now all in stock.

A new shipment of ESU products is expected by the time of publication. MOK stock the new speaker range along with a range of the V5 Lokpilot and Loksound decoders.

New stock of Peco products will probably arrive about September. UK major retailers are out of stock of the most sought after types of Peco points. Production appears to be behind due to the pandemic closure and the higher than normal demand from the lockdown period.

Straight Down the Line - Opinion

by Trevor Hodges

Covid-19 and the Upcoming Oct 2020 Forum

It is with regret that I pass on the news that the executive have made the decision to cancel the Oct Aus7 Modellers Group Forum. This decision was taken very reluctantly and I want to assure members that if we had felt certain we could hold the Forum safely and with only the normal level of risk to members and with a minimal chance that the event would have to be cancelled due to a new lock down then we would have gone ahead with planning. However, at the time of writing, the second wave of cases is occurring in Melbourne with outbreaks popping up around Sydney. With no clarity concerning what the situation will be like in 3 or 4 months time, planning for the Forum becomes almost impossible.

The AGM

Perhaps the biggest impact cancelling the Forum in Oct will have is that we will be unable to hold the AGM at our usual time of the year. In light of this I've done some checking and the Department of Fair Trading have granted an exemption in light of the pandemic to allow associations to hold their AGMs as soon as practical. At this stage this would be at the Forum in April 2021. However, we are required to prepare a financial statement and lodge this with the Department of Fair Trading even if no AGM is held. I've asked our Treasurer Anthony Furniss to prepare this return and he is working on this to be ready by the end of July, 2020. The plan is for him to forward this to the members of the Executive for checking and we will then vote on the return as being satisfactory. After the executive have approved the return, Anthony will lodge it with the Department of Fair Trading as he does every year. Any member who wishes to see a copy of the 2019/2020 financial return can do so by contacting Anthony via the email address included in every issue of 7th Heaven from October 1, 2020. We will publish the results of this process in the next issue of 7th Heaven however, at this stage, while we don't plan to publish the actual return in the pages of that issue we will include it as a separate sheet. If you make contact with Anthony could you quote your membership number and full name.

Memberships

It's a good time to remind members that all memberships have lapsed as of the 1st of July and if you wish to continue receiving 7th Heaven you will need to renew. Because there will be no Forum this year, where quite a few members take the opportunity to renew their memberships, can I strongly encourage members to renew by making contact the Treasurer. Please don't leave your renewal till the date of the next Forum in April 2021 because you will cease to be a financial member and stop receiving 7th Heaven long before this date. You can pay by cheque, money order or direct deposit.

OCTOBER FORUM
RELUCTANTLY
CANCELLED

Aus7 Modellers Group Inc

P.O. Box 3404 Asquith NSW 2077

Web Site

<https://aus7.org/>

Facebook

<https://www.facebook.com/groups/2201320806795440/>

Io group

[Aus7ModellersGroup@groups.io.home](https://groups.io/home)

President

Trevor Hodges

trevorchodges@gmail.com

Secretary

Chris Lord

chrislord4401@yahoo.com.au

Treasurer

Anthony Furniss

anthonyfurniss@rocketmail.com

Vice President

Lionel Pascoe

lpas5190@bigpond.net.au

7th Heaven Editor

Paul Chisholm

paulchisholm1948@gmail.com

Advertisements

Full Page: \$125 Half Page: \$65
Quarter Page: \$32 Eighth: \$15

Please contact the Secretary for for any membership, advertising or back issue enquiries. For matters related to the twice yearly Forum contact the President.

All advertisements must comply with the Trades Practices Act.

Bank Account

BSB 062 233

Acc # 1017 2076

Back Issues

Issues 34 onward only available at \$7.70 each plus \$2.00 p&h for one or two copies, \$4.00 p&h for three or more copies.

All opinions expressed are those of the respective authors only and do not represent any official view of the Aus7 Modellers Group Inc.

On The Cover

Phil Flynn's 4010 crosses the trestle. His conversion of an Atlas RSD 4/5 to a NSWGR 40 class is the lead article in this issue.

The Saga of 4010

By Phil Flynn



Part 1

Some years back I purchased a second-hand O Gauge Atlas Trainmaster RSD4/5. I was not sure whether I was going to modify it or what adjustments I was going to make to it. I just wanted an O gauge loco to pull some 7mm scale NSW wagons I had built from kits.

A short time after this a certain 7mm scale modeller who shall remain nameless moved into the district. He was interested in purchasing a conversion kit for the O Gauge Atlas Trainmaster RSD4/5 put out by Gary Spencer-Salt of Model Railroad Craftsman. This kit can be used to convert the above loco to a NSWGR 40 Class Diesel loco with the proper A1A-A1A wheel arrangement, unlike the Trainmaster RSD4/5 Loco. The Trainmaster loco wheel spacing was not A1A-A1A. He encouraged me to purchase the conversion kit. So I began working on the conversion, but not before getting together a few useful items.

These items included:

Some useful reference materials – Green Diesels by Ron Preston, the Train Hobby publication New South Wales Railways “40” Class (refer Photo 1), a 40 Class Data Sheet, photos from railway calendars, the 7th Heaven article, **Building a “near enough” O Scale NSWGR 40 Class** in 7th Heaven Edition 33, Autumn 2012 by John RB Parker.

Tools (refer Photo 2) – there are quite a few that are helpful. These include a 7mm scale rule, a sharp pencil, a marking pen, various size small files, masking tape, scalpels of various sizes, tweezers of various shapes, digital vernier callipers, long-nosed pliers, small diameter drill bits, hand pin vices, engineers square, a small saw and home-made gauges for coupler height and wheel gauge.

Also some thoughts before starting:

- Read the instructions carefully that come with the conversion kit from Gary Spencer-Salt, as they are helpful but not exhaustive.
- Re-read instructions if you are not absolutely sure of what to do; think over what needs to be done before rushing in.
- Check all parts are present (See Photo 3). There are lists of the items that are in the kit. They are found in the instructions near the drawings they relate to. The very good drawings will help you identify them.
- Etchings & castings are accurate and generally fit together well where appropriate on the Atlas RSD4/5 model.
- Gary Spencer-Salt, who produced the conversion kit, has been very helpful when I needed some advice (I emailed him).
- There are left & right sided items so check before fixing them in place.

This is not a blow by blow description of the conversion, but some comments and observations that may assist a modeller who wants to use the conversion kit. The conversion of the Atlas RSD4/5 to a NSWGR 40 Class A1A-A1A locomotive can be broken up into the following building sequence:

- Body
- Cab
- Metal chassis & Running Board
- Motor & Wheels
- Electronics

This may not be the best sequence for some modellers. I did it this way as I wanted to see a model of a NSWGR 40 Class take shape before I tackled the more difficult bogie conversion.

The Body

- The castings were generally very good and did not require too much filing and cleaning up.
- Some small spaces and mouldings on the body of the RSD4/5 need to be cut out for various filler mouldings and doors supplied with the conversion kit (refer Photo 4). Taping around these cutouts is worthwhile to protect the loco body surface when you are filing the small cutouts of the RSD4/5 body. Some mouldings on the RSD4/5 need to be filed off as well.
- Strip the body and running board – X55 paint stripper was used from Simply Glues (refer Photo 5).
- Some of the smaller parts and finer detail on the loco needed to be scrubbed using caustic soda in order to get all the paint from between the crevices on the RSD4/5 loco. There is a need to be very careful with this so I used long sleeves, gloves and eye protection. This is because the caustic soda may get on your skin and be splashed in your eyes causing irritation or burning.
- The running board needs drilling to give a key for gluing the brass etchings (refer Photos 6 and 7).
- Headlights – the headlight housing can be drilled out for the white Nanolights. Check they fit in the RSD4/5 body but do not glue them in before painting, but if you do you will need to mask them off for painting.
- Marker Lights – these are a little bit fiddly but persist and make sure to install these in the correct orientation; you need to get them around the correct way i.e. they are left and right sided (look at photos of the loco); locate, fit in dual colour LEDS but wind up cable and locate inside body (will have to cover them when painting – can use Blutac or you can thread them back into the light housing after painting).
- Carefully drill and locate other body items (refer Photos 8 and 9). Photo 8 shows one of the marker lights partly in place with a brass wire to assist in supporting the marker light and a red/white nanolight lead protruding waiting to be installed.
- Set aside body rungs and brake wheel for future use, or you can fit them in without gluing so you can take them out when decaling.

- Make sure all the holes are drilled for the door handles, but keep the handles until after decaling. I did not do this and this caused me some problems as I will explain later.

The Cab

- The Cab was the next item to be constructed. The old cab is not used.
- The moulded 40 Class cab in the conversion kit comes attached to a base, so that it keeps its shape during transport. The cab needs to be cut off the moulded base.
- Cab window spaces are now cut out – can do this by drilling inside the area marked for the windows, then carefully filing out the space for the window.
- Take care when filing out the larger front and rear windows as there is not a lot of space between the windows and the side of the cab.
- Fit the cab roof and fill any spaces/holes. The cab was undercoated at this stage with Rust-oleum 2X Ultracover Flat Grey Primer in order to pick up any imperfections. It was then sanded with wet and dry paper to smooth out the imperfections (refer Photo 10).
- Fit arm rests or window frames, door handles (refer Photo 10).
- Cut out clear window pieces but keep them until after painting.
- Use Micro Kristal Klear for gluing in windows (refer Photo 11) when the time comes to fit them after painting.



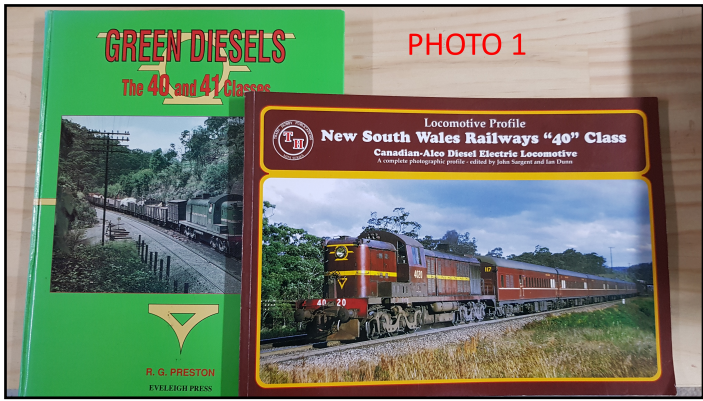


PHOTO 1



PHOTO 2



PHOTO 3

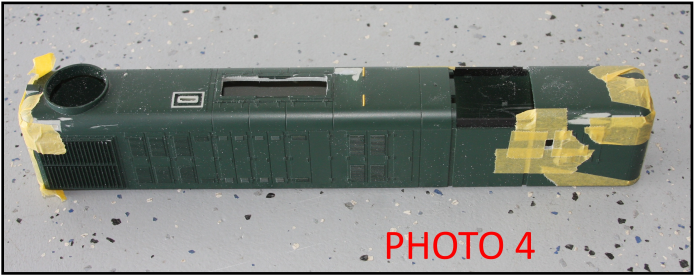


PHOTO 4



PHOTO 5

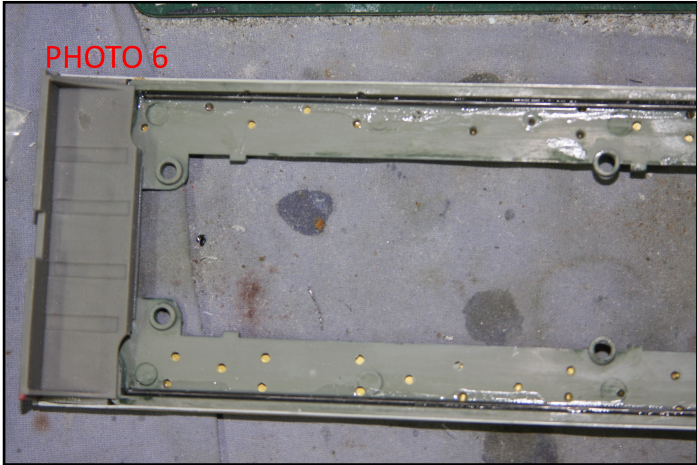


PHOTO 6

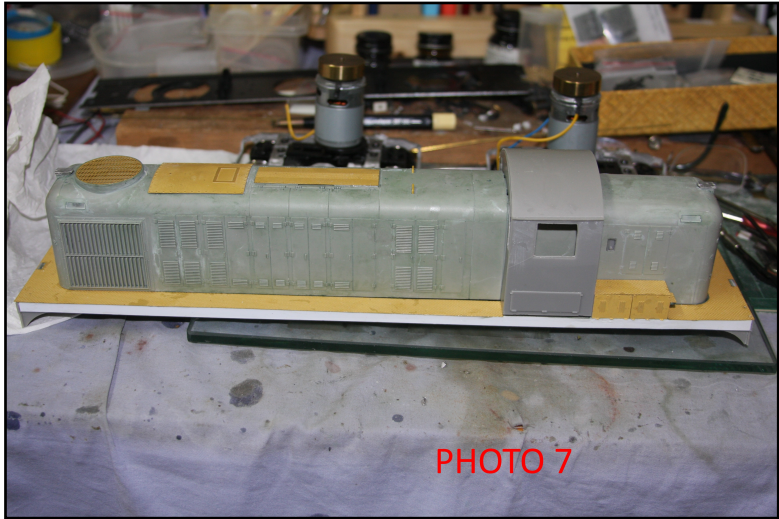


PHOTO 7

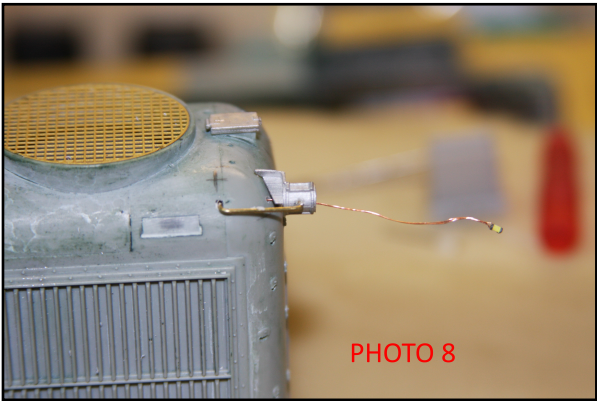


PHOTO 8

Part 2

The Metal Chassis

- Determine which will be the front and rear of the chassis and mark this for future reference when working on the loco.
- Reshape the chassis as per the instructions (refer Photo 12)

Motor and Wheels

The conversion kit made provision to adjust the wheel spacings to provide a correctly arranged A1A-A1A bogie, but I felt that making this conversion was beyond my skill set. Instead I opted to stick with the Atlas RSD 4/5 wheel arrangements. This means the loco is not accurate but I can live with the compromise and Gary helpfully provided a new set of bogie side frames to match the incorrect wheel spacing.

Electronics

I wanted sound, working headlights and marker lights. In order to achieve this, I followed John Parker's excellent article Building a "near enough" O Scale NSWGR 40 Class in 7th Heaven Edition 33, Autumn 2012.

I have used a Loksound XL 3.5 Decoder for the sound and lighting of the loco. The conversion kit came with a fuel tank and the speaker is housed in this. The kit provided parts to attach the fuel tank to the chassis frame.

The installation of the decoder, speaker, lights and wiring was implemented by first making up the printed circuit boards as described in the above article and attaching the various electronic components. I did have some problems soldering the thin enamel covered wires from the marker lights to the pins on the smaller boards at each end of the loco. I got in touch with John Parker and he emailed me a description of how best to solder these to the pins. This description helped out a great deal. I mounted the small boards with double-sided tape on a styrene scaffold I made up to be glued in each end of the loco noses. All other wiring was carried out as per the above article.

I wish to thank John Parker for his assistance and excellent article.

Painting and Decaling

Once I had completed the model it was time to paint it. Because of the rear vents the model needed to be painted either Royal Blue or Verdant Green. To be a Tuscan loco the rear vents would have to be changed to mesh and I decided not to do this. Thus my model would be Verdant Green.

The sideframes and chassis were painted with Mirrortone self-etch black. I find this a great paint for diesel underframes or black steam locos.

The body was undercoated with plastic compatible Rust-oleum 2X Ultracover Flat Grey Primer from a spray can. I have found that it is better to paint a light coloured loco in a lighter undercoat as it can take more paint to cover the self-etch black.

After letting the body dry completely, I then used Railey Paint Larch Green. This is not Verdant Green but I had used it before on a HO scale 40 Class green diesel and thought the colour looked quite satisfactory.

This is where I came a bit unstuck with the waist band on the loco. Many years ago I had painted and decaled the green HO scale 40 Class mentioned above and had used a light faded yellow colour for the waist band and decals. The yellow on the 40 Class locos faded over time (just look at some of the photos of the 40 class after being in service for a few years). I had an O scale faded yellow decal for the waistband and for the chevrons, but I had glued on all the door handles for the side service doors and the decal was not going to go on nicely over the door handles. I tried to find a faded yellow paint that I could spray on the model for the waist band but to no avail.

I did have some darker yellow decals so I then masked off the rest of the loco except the waist band and sprayed a coat of Humbrol Signal Yellow on the loco for the waistband. I then applied the chevron decals. The waistband would fade somewhat when the loco was weathered. The door handles were then painted black, the buffers painted red and numbers applied. (See Photo 13 and 14)

I installed the crew into the cabin of 4010 to help draw viewers away from the blank "wall" inside the cabin that is used to mask one of the Atlas motors. These are Andlan Models 7mm figures Seated Driver (Number 1126-043) and Seated Driver 'Big Jim' Left (Number 1101-043L), which I painted with Vallejo and Tamiya acrylics after the preparations noted below. I carefully removed the upper sprues from the figures and retained the lower sprues and base around the boots of the figures. This was to enable me to hold the figures or to place them on small plinths for painting. The figures were washed, allowed to dry before being undercoated with Rust-oleum 2X Ultracover Flat Grey Primer. The skin areas were painted first followed by the clothing. I used Springer Pinsel tri-handle synthetic sable brushes by AJ Leeman, which I find excellent. The figures were placed on styrene seats I had constructed on the inside of the cab below the windows.

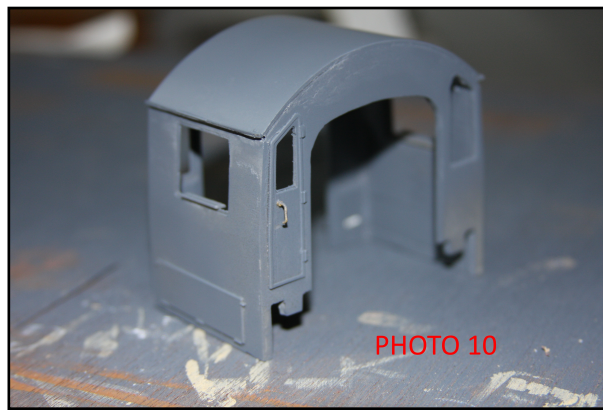
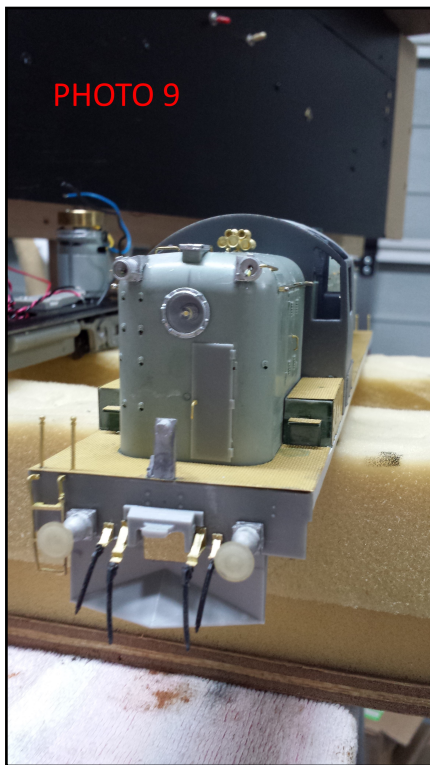
Weathering the 40 Class

It is a good idea to have a photo of the class of loco that you are weathering for reference. In this case the 40 Class Diesel and there are some great photos from the various books on the 40 Class and the calendars that have been published over the years.

The wheels and mechanism need to be masked off, but the bogies are left exposed.

The very lower edges of the body were dry brushed with Tamiya Nato Black XF69 where the body meets the footplate. This is an area that would not get a great cleaning during maintenance.

Fifty percent of the lower half of the body was dry brushed with Tamiya German Grey XF63. This represents the general build up of grime on the loco.



Parts of the body (approximately 10 percent) were then washed with Tamiya Hull Red XF9 or Flat Brown XF10. This represents the rust build up on the metal body.

Humbrol Enamel Dust Wash (available in a 28ml bottle) was brushed over the body and the bogies.

Humbrol Enamel Rust Wash was then used around the bolts and the seams of the loco body. It was also used around parts of the bogies where rust would appear.

The whole top of the body was then given a light spray with Floquil Weathered Black (I am lucky that I still have some) to simulate the exhaust from the diesel and steam locos still working at the time of these locos (See Photo 15). The lights had blutac over them while the loco was painted.

The conversion kit has come up really well and I am very happy with it. However, it has been a bit of a saga as it has taken a long time to get to this stage since the original purchase of the conversion kit. To get to this stage of completion I would like to acknowledge the help I have received from Gary Spencer-Salt, John Parker and Trevor Hodges.

A Note From Trevor Hodges

Phil is correct to call this the “Saga” of 4010 because the building, painting and DCC installation of 4010 has gone on for more years than I care to count. He first mentioned that he was thinking of converting an RSD 4/5 into a 40 something like 6 or 7 years ago and I enthusiastically agreed that this would be a good project and that I knew Gary Spencer Salt was putting out a conversion kit for just such a transformation. I even bought one of these kits myself and got my hands on an Atlas loco to do the same project. I haven’t touched

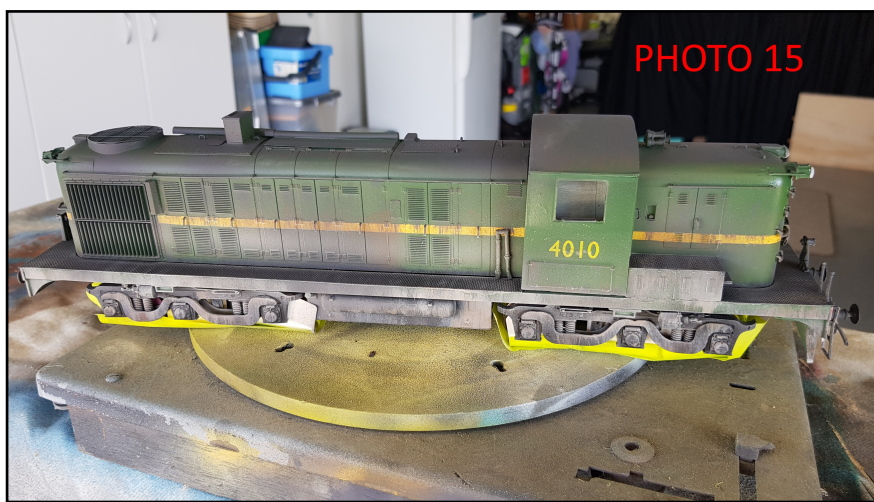
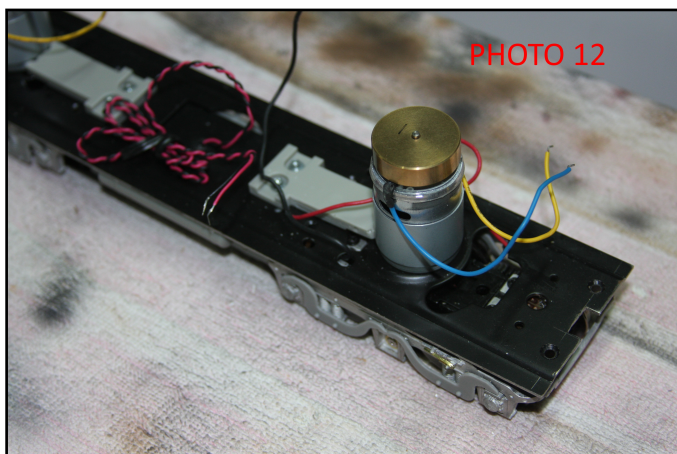
mine, whereas Phil now has an operating loco.

Roll forward something like 6 years and I watched as a painted and weathered 4010 was gingerly placed on the track of Saddlersfield, Peter Krause’s layout, but refused to move more than about 2cm before causing a short circuit. I could see how disappointed Phil was after such a long time working on the loco so I offered to take it home with me to see if I could work out what was wrong. It turned out to be a short caused by the backs of two of the wheels coming into contact with the pins that hold the gears in place. After sorting this out everything went swimmingly and the loco took a spin on Morpeth recently. I could see how pleased Phil was with the result.

I’d like to congratulate Phil on producing a fine model and I’d like to back up what he writes concerning Gary Spencer Salt: for his infinite patience in helping us to get this project finished, for offering to produce the extra castings needed so Phil could stick with the Atlas wheel spacings and for the help he offered Phil over the phone and via email.

Help Fill This Space

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



Building a NSWGR Water Tank Part 1- by Lionel Pascoe.



While browsing at Model O Kits I noticed several water tank kits by Waratah and picked some up to look at. One was a whole bag of individual pieces (a 6 x 6 panel it works out to be) and another was a 4 x 4 panel (10,000 gal) while a third was a 4 x 2 panel (5000 gal) and as I am modelling the transition from steam to early diesel in the 1950s and 60s era I will probably want a few.

I had been looking at an article in the Australian Model Railway Journal Issue 5 with plenty of reference photos so I brought a couple of kits. I also looked up the AMRM search site and checked it out from the discs and found quite an old article.

I settled on firstly building a 10,000gal 4 x 4 panel with wooden legs shown in photo 1. The kit has two 4 panel sides incorporating the curved ends and four intermediate 2 panels for the sides plus two floor sections but no instructions or wood for the stand. >>>>18

Introduction

I started operations on Morpeth in mid 2019 and, a Covid-19 hiatus for a few months notwithstanding, I plan to continue developing the layout and its operations potential using these sessions as a guide. After just one go at operating the layout with guest operators the flaws in my track laying and the holBuildinges in my rolling stock roster became very apparent. The item of rolling stock that was most needed was a new guards van. During the operating sessions we'd only run two goods trains but I only have one PHG running so one of the trains ran without a van.

You might ask why a guards van was such a high priority for me, especially when a train can still physically be run without one on the layout during operating sessions. Of course the Queens Wharf pick-up goods can be run without a van "literally" but prototypically it can't: no train in the era in which the layout is set would have been allowed to run without a van at the rear and this with a white disk being displayed. However for me, as the owner of the layout who is hosting these sessions, my need for a van actually goes slightly beyond just getting it correct prototypically for its own sake. I want things to operate prototypically just as much I want them to look prototypical. There is a subtle but important difference. Running a train without a van makes shunting a yard a lot easier because the driver and guard don't have to physically "deal" with the van: ie detach it and place it somewhere out of the way while they shunt the yard then pick it up again and make their way to the next destination. Working without a van makes shunting tasks a whole lot easier so if my crews don't have to deal with a pesky van at the end of

their trains the challenge becomes less demanding. I feel it's my job to provide those challenges. So a new brake van for me was the highest priority on my build list.

The O-Aust MHG

The reason I chose to build the O-Aust MHG van was quite simple: I'd purchased one of the kits when they were released about 2015 and I already had a PHG van running on the layout so this would provide a little variety. Of course the MHG is really just a steel version of the PHG but they are my favourite type of brake vans and beggars can't be choosers! Kits for both the PHG and MHG are now available from ModelOKits. I'd taken the kit out of the cupboard in the latter half of 2019 after the Borderline Operators second visit to my layout. One of my operators (Dave McPhee) was assigned the QW pick-up goods and he was out and back in record time. The crew on the Morpeth run were still struggling to work out how to shunt Morpeth yard when Dave turned to me with a big grin on his face and asked me if there was another job needed doing. I plan to wipe that smile off his face with the MHG next time because working the QW pick-up will be considerably more complicated with a van in tow. I'm also planning to add Raworth into the job list of the QW pick-up goods the next time the Borderline Operators visit so this should give the driver and guard on that train quite a few more tasks to carry out. However while I'd got the kit out of the cupboard I hadn't actually made a start on building it. It was still sitting where I'd set it down after getting it out of the cupboard several months prior to the Coronavirus striking. It seemed like a great modelling project to start my social distancing regime.

The kit (Photo 1) contents consist of the main body panels, two bags

of cast urethane parts including the body ends, a bag of details, a bag with the cast bogie parts, wheels, decals and an etch of brass steps or running boards. There is also a bag containing some clear plastic material for use in the windows and sheets of instructions. Perhaps it's just me but I still prefer a set of printed instructions to be included in a kit. I don't need over 100 pages of diagrams and words to build a simple kit; four or five A4 pages is more than adequate for a kit such as this and I can prop them up on my workbench as I work. I really don't want to have to fire up the computer just to check a detail. As is my usual practice I didn't bother reading the instructions and just went ahead and assembled the bogies.

The Bogies

I took the parts that will go together to make up the bogies out of their packaging (Photo2). The white metal bogie side frames and bolsters were very nicely cast and needed very little work to prepare them for assembly. I removed any minor flash on these castings with the edge of a Stanley knife blade and a fine jewelers file and worked on the bolster pocket and the cast block on the back of the side frames to ensure a firm fit without any slop. This was the work of a few moments.

Again it may just be me but I still find myself being surprised at just how corroded Slaters wheels can get inside their packaging (Photo 3). OK the wheels in my MHG kit were something like five years old and they *are* steel however, when they came out of the packaging they were very rusty. So the first order of business was to clean them up. I

spoke to Peter Krause (the previous owner of O-Aust Kits) about this issue recently and he told me that Slaters had told him that the corrosion problem was tied up with their old factory that was subject to damp and that this had been addressed in recent years as they've moved to more modern premises. However I find it interesting that the rust on these wheel sets was particularly bad on the axles, especially between the rear faces of the wheel centres, where they are kept in place by the use of cello tape. As far as I'm aware this type of common, clear sticky tape is not acid free and it wouldn't surprise me to hear that the rust on the wheels is partially due to a reaction between the steel wheels and the chemicals used in the tape. Well that's my theory.

There are probably a number of ways you can clean the surface rust off a set of Slaters wheels but the way I do it is cheap and efficient. You will need (in addition to the wheels and axles) a drill press (a cordless will suffice if you don't have a drill press), a small open topped container of tap water, some paper towels and three or four small squares (about the size of a postage stamp, if there's anyone left who still remembers what size a postage stamp is) of 600-1000 grit wet and dry paper. Remove one wheel from each axle and then one at a time chuck the wheel free end of the axle in the drill's chuck. The drill only needs to be spinning quite slowly so turn it on to check and then adjust the speed prior to the next step. It needs to be slow enough to be safe with your fingers near the spinning chuck. The speed of my little bench top drill press is adjusted by moving belts in the casing on top of the drill and I have it at its slowest setting for this operation. Chuck the axle firmly but not too tight for this job; you don't want to mark the axles with the jaws of the chuck so just snug it up with the chuck key. As the axle spins dunk one of the squares of w&d paper in the water and gently apply it to the surface of the wheel and remove the rust. You don't need to clean the axle at this stage, just the wheel, as this would bring your fingers too close

to the spinning chuck. When happy with the result remove the axle from the chuck and repeat three more times on the other wheel sets. Remove the now clean wheels from the axles, put the wheels that are yet to be cleaned back on their axles and repeat the same procedure. When these wheels are clean remove them from their axles and set them aside. Re-chuck an axle with no wheels in place and then remove the rust from one end of the axle. Reverse the axle in the chuck, remove the rust and then repeat with the other axles. Use the paper towel to dry the parts and the drill press as you go. Don't leave the wheel parts to air dry because they will rust again very quickly, like overnight. What you should end up with is four sets of wheels that are nice and shiny and ready for paint.

What I really like about the bogies in this kit is that they are designed to be bolted together rather than glued or soldered which makes it possible to disassemble them for cleaning or maintenance at some point in the future. For example if you start building the kit and then cease building it for a number of years only to find when you get back to it that the wheels have rusted up again. The bogies of course can be glued or solder if you choose but the kit comes supplied with four 2mm machine screws which make assembling them so they can come apart again very easy. The four side frame castings need the recesses cast into their rear sides for the turned brass bearings drilled out 1/8" (3.175mm). To carry out this operation you really need some way of holding the casting at ninety degrees to the drill bit. You also need to drill four 1.7mm holes into the cast blocks on the back side of the side frames that will be tapped 2mm for the machine screws that will allow these to retain the side frames in the bolsters. For this operation you will need to build a small jig (Photo 4) to hold the side

frames flat and level to the drill bit as you drill out the 1/8" holes. I made mine from plain white styrene: the base is a piece of 1.5mm thick sheet styrene with strips of .080 X .156" (Evergreen part #167) used as a form to hold the part securely and flat while the drilling takes place. This jig only required one size of styrene strip as it was quite flat on its outside face but I did have to remove a small amount in one spot to allow for a small projection on the face of the side frame. I always write on these jigs what particular wagon or bogie I made them for and retain them in a storage drawer so I can find them at some future time if I ever make the same wagon. I've built up quite a collection over the years.

While I was drilling out the bearing holes I also drilled the holes that will be tapped for the machine screws that were supplied with the kit. I cleaned out the cast holes in the bolster and placed each side frame casting in its designated position and marked the position of this hole on the cast block on the back of the side frames with a pencil. I centre punched the resulting pencil circles ready for drilling 1.7mm and marked the top of each side frame and the bolsters with pencil witness marks to ensure the same side frames went back into the same side of each bolster. I set the depth stop of my drill press and carefully drilled out the 1/8" holes ready for the brass bearings to be super-glued into position and then drilled out the 1.7mm holes into the cast blocks. I placed a tiny drop of light machine oil (I used Singer sewing machine oil but any similar light oil will do) into the centre punched dimple prior to drilling the holes to lubricate the drilling. White metal can be very "grabby" and these holes are quite deep and a 1.7mm drill bit is very easily snapped off during drilling. I was able to drill all four holes without incident although I did

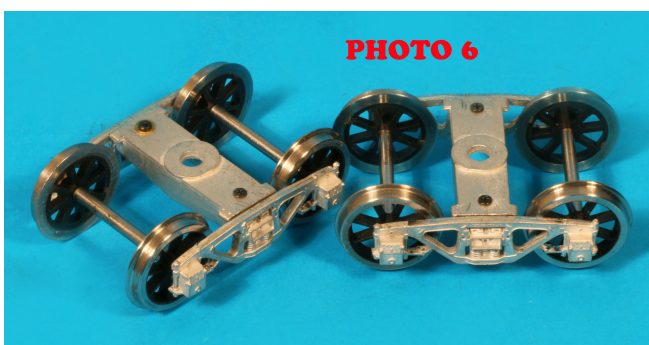
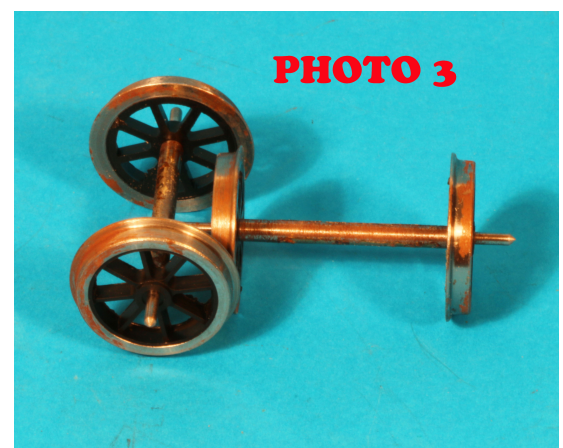
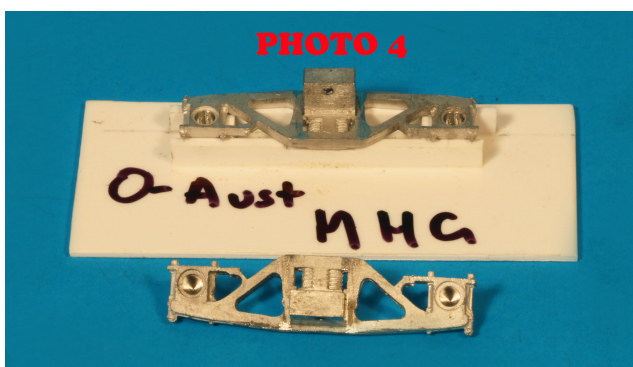
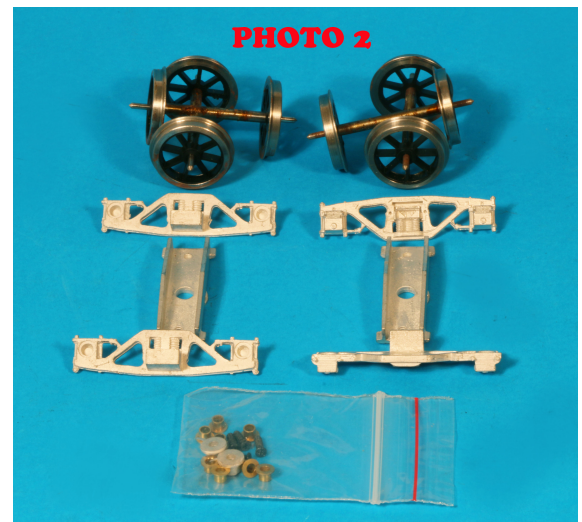
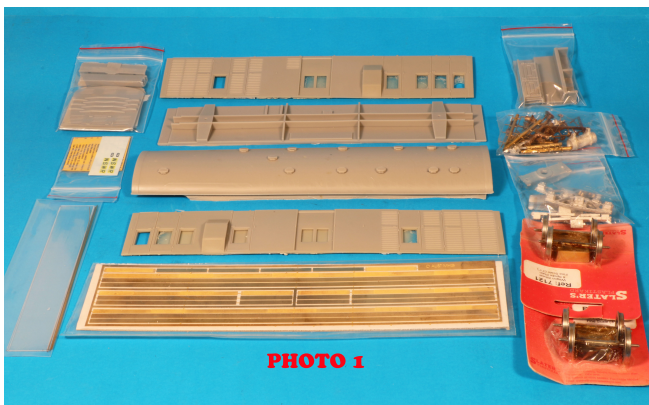
manage to drill one slightly off the mark so I enlarged the hole in the bolster and used a washer at on top to compensate for the over sized hole. I tapped these four holes to accept a 2mm machine screw and also used some oil while carrying out the tapping operation. I purchased my metric mini tap and die set <https://mcjing.com.au/mini-tap-die-1.html> from McJing tools in Sydney who have a great mail-order service. They also sell 8BA-12BA sized taps and dies separately so they are well worth checking out. They've recently upgraded their web site so they're well worth a visit. The showroom at Yagoona is a veritable Aladdin's cave so be warned, if you pay them a visit and you're a tool tragic like me you will not come out without buying something!

After the drilling and tapping operations I tried to assemble the bogies but found that the holes I'd drilled for the bearings weren't deep enough for the Slaters axles. I had used the North Yard through bearings supplied with the kit rather than the Slaters bearings supplied with their packaging. The Slaters bearing are a couple of millimeters deeper than the NY ones I used. I was very wary of the 1/8" drill bit breaking through the front face of the side frame as I drilled out for the bearings thus damaging the beautiful detail. I solved this problem by removing approximately 1.5mm from the ends of each Slaters axle using my bench grinder.

After this operation the axles projected 4.5mm from the outside face of the wheels and they spun freely in the assembled bogies.

As I wasn't using the Slater's bearings the pin point on the end of the axles were essentially superfluous anyway so nothing was lost by removing the ends of the axles. As I own two lathes I could easily have reinstated the pin points on the end of the axles but could see no point in doing so (excuse the pun). I cleaned and dressed the flattened ends of the axles and assembled the bogies using the supplied machine screws (Photo 6) and checked that the wheels span freely and that they sat level on a length of track.

In Part 2 we'll move onto building the body and fitting the bogies.



An ACM in Cardboard by R. Comerford



While my preferred medium is styrene I find card to be easier sometimes when cutting out multiple windows. My steel car sides were built this way.

Looking to build a suitable branch line carriage to run behind my 19 class I chose the ACM. I took the dimensions off a HO plan I had in stock. I doubled the measurements to transfer them to the cardboard with a pencil.

To make it hard for myself I decided to make the matchboard sided version with crownlights. I scored the planks onto the card using a biro that had run out of ink long ago. To reduce the number of strokes needed I made the scores long enough to cut out the sides and ends one above the other.

Perhaps the hardest bit with card was making the crownlights. However I found the use of scalpel type knife made making a curved cut possible. I erred on the side of caution and finished up to the line later with a small course file.

The sides were made in several pieces to allow the doors to be recessed. More layers of card were added inside and out to reproduce the windows and other details of the vehicle. Other strips of card were added where needed for strength. Windows were made from some clear plastic attached with Selleys waterbased Kwikgrip. The photos will show the methods used.

The roof was made from balsa strips glued together as I did not have a piece thick enough. Roof covering was made from strips of masking tape glued on. The guttering was made by allowing the interior card roof to overlap the sides.

Handrails were made from tie wire and some handrail knobs found in the spares box. They were probably sold as suitable for HO when originally purchased. Door handles are brass wire or phone wire (can't remember which).

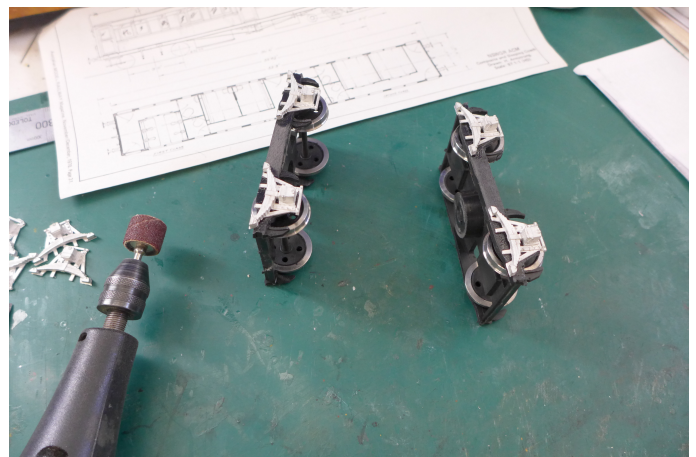
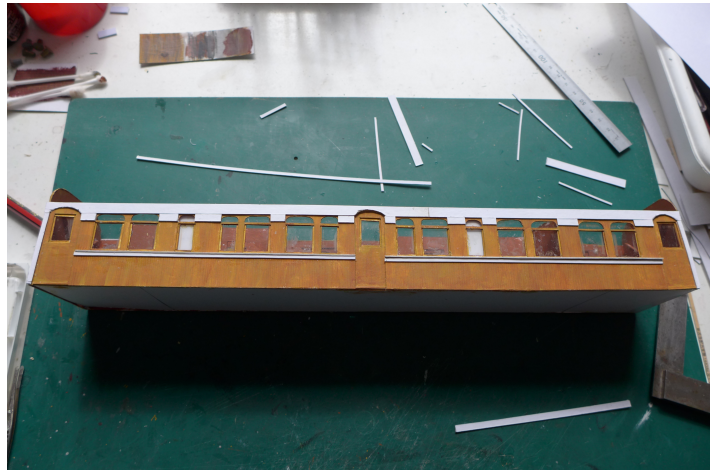
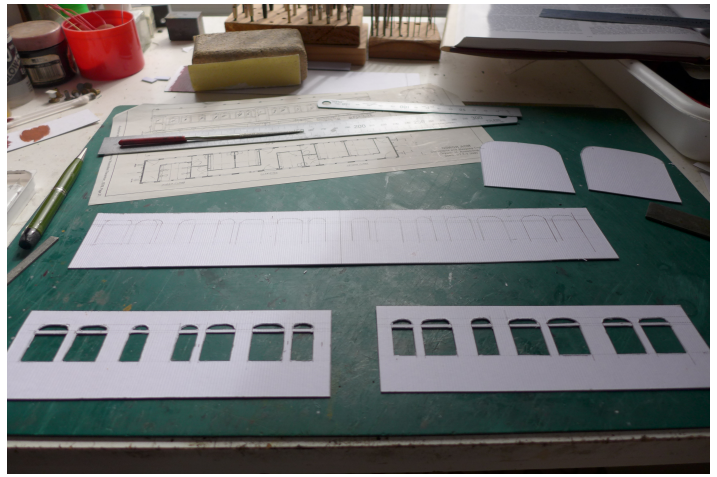
Underframe details are balsa overlaid with cardboard with wooden dowels, tie wire and my

usual card yard brakes. Steps are pop sticks and tie wire. Couplers are Kadee, buffers are made from styrene tube and sheet over some old brass leather work rivets. Brake hoses are covered wire.

A couple of strips of lead flashing were glued to the floor with epoxy to give the vehicle some needed weight. Pop sticks were glued inside where needed for strength such as the coupler and bogie mounts. Ventilators are my usual guitar string bracelets and track nails. Bogies were made from Lima passenger bogies with most of the detail removed and replaced with cut down white metal W irons from O-Aust, rivets applied with drops of Selleys waterbased Kwikgrip and leaf springs made from strips of card.

I normally coat with shellac before painting, this time I tried it without. Time will tell if this was a mistake. The model was however painted both inside and out. I decided to experiment with a natural wood finish. Paints used were PollyS Reefer Yellow and 70.818 red leather (body), Vallejo 70.877 gold brown (handrails and door handles), flat black, gloss black. I added some basic interior walls and a couple of passengers from China before glueing it all together. I have some nice decals made by Teditor for the carriage but have yet to add them as I am still not sure if I will repaint it in Indian Red first.

The pleasing thing is the total cost of this vehicle was less than \$40 using bits from the scrap box but even buying parts new should be less than \$80 depending on the price of a s/h pair of Lima bogies. As usual pictures speak better than words, enjoy!
cheers.
Bob



PRODUCT REVIEW

DAPOL 1:43.5 GWR HOME (SQUARE POST) SIGNAL

TREVOR HODGES

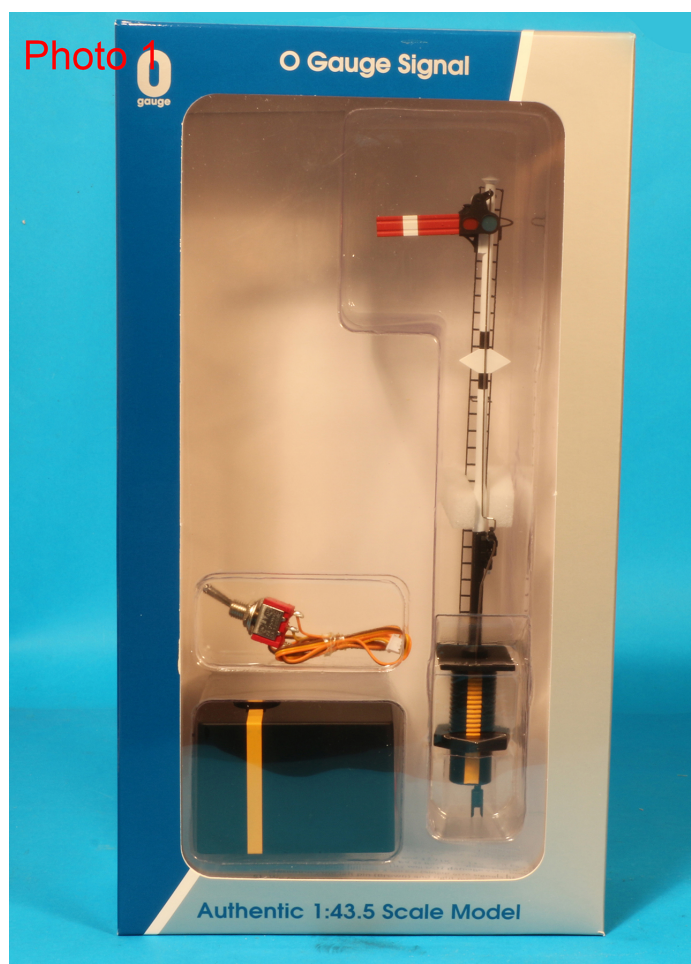
In the first half of 2020 I started assembling three KRM etched brass NSW home signal kits. Two of these were for a friend and one was for myself. I had put off assembling these kits for about two years because I have to admit that signals are not one of my passions and as such my reaction to making a start was a little like the child told that he won't be getting dessert until he finishes everything on his plate. I could think of half a dozen other models I'd rather be building. However Morpeth needs about fifteen signals so a start needed to be made. I was on the phone to Glenn Scott from ModelOKits during the construction phase and was probably talking to him about the kits when he told me about a new Dapol 7mm home signal that had come into the shop. I must admit that my immediate reaction was less than enthusiastic: if I was facing the prospect of having to assemble fifteen accurate signals why would I be interested in a kit for a GWR signal that would need modification? His reply was that these were r-t-r: they came assembled, painted and included a motorizing unit that simply plugged into the bottom of the signal. They were even supplied with a SPDT switch that could be plugged into the motorizing unit and mounted on the layout's fascia. He asked if I was interested in taking a look at one and offered to send me one to evaluate and possibly write a review. I was still unconvinced but agreed.

The GWR Square Post Home Signal

When the signal (Photo 1) arrived (Glenn ended up supplying both the GWR square post and LMS tubular post [pictured] signal for this review) I was pleasantly surprised by how superficially similar it looked to a NSW home signal. It is a bit on the short side at 20' tall (as opposed to the NSW standard of 25' for a home signal) but overall it very much has a MacKenzie and Holland family look about it. The balance weight on the Dapol signal is at the bottom of the post rather than being adjacent to the signal platform at the top end of the ladder on a NSW signal and this weight runs parallel to the track rather than at 90 degrees to it. There are also some variations from the paint scheme on a NSW signal but a little black and white model paint should allow a modeller to quickly alter these minor issues to make look a little more like a NSW signal. This Dapol model is clearly not a NSW wooden post home signal, and to be fair, it's not trying to be. However, to the casual observer, it bears a remarkable similarity to NSW signals and, with a little effort, could be modified to better reflect a local signal. Gary Spencer Salt wrote about converting a Peco home signal kit to more closely resemble a NSW signal in issue 37 of 7th Heaven and this might be a good place to start if one were thinking about doing something similar to the Dapol signal.

For me the great advantages of these Dapol signals over the various, and it must be said more accurate kit options available, is the fact that they are competitively priced and they come essentially ready to plant. As I will need something like fifteen signals on Morpeth (not all of them home signals) the saving in time alone is something that I balanced very carefully when deciding whether to purchase

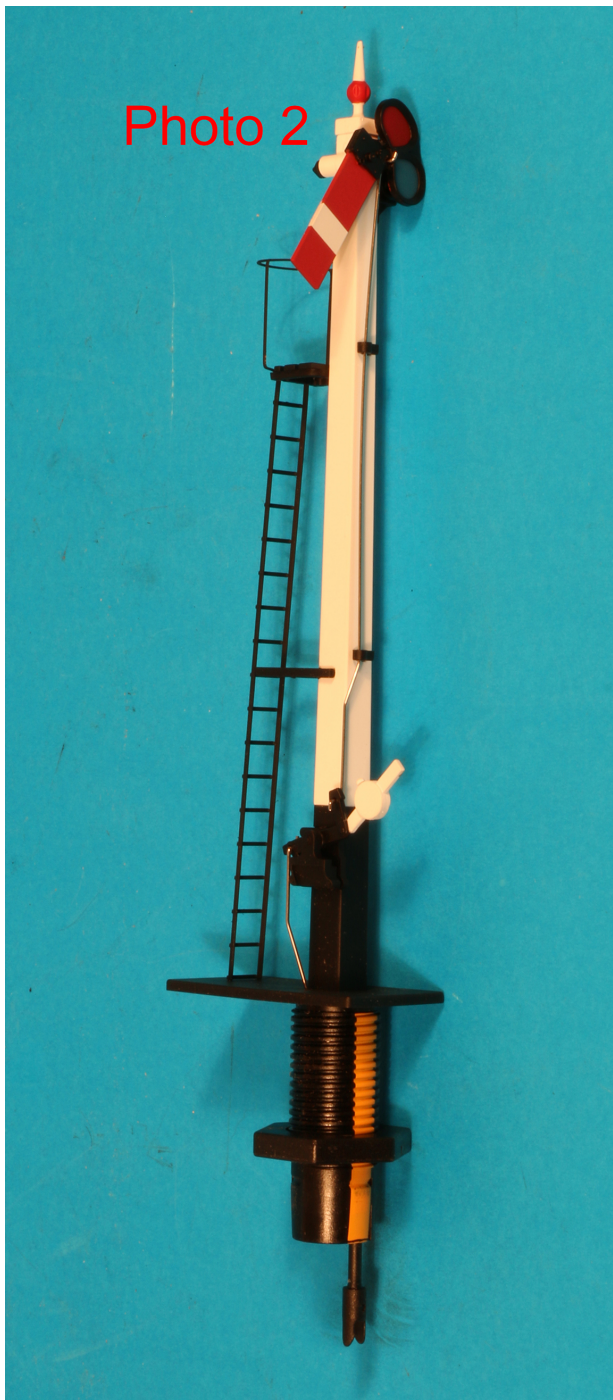
any more of them. The Dapol signal (Photo 2) is a supplied assembled, painted and with LEDs installed in the signal lamp so that when electricity is applied it operates as it should with red and green aspects showing correctly. To install the signal all one needs to do is drill a 15mm hole (a Forstner or speed bore bit would be appropriate for this task) adjacent to the track in the desired location. The signal's threaded plastic base can be fed through the hole. A large plastic nut is supplied with the signal (see photo) which is then tightened from below securely holding the signal in place. Be conscious of how tightly this nut is secured as it could quite easily be cracked if over tightened leading to the signal not being held firmly in position.



The motorizing unit is a large box in dark plastic (Photo 3) that simply plugs into the underside of the signal. The hole in this box into which the signal slides has a wide yellow line painted next to it that should line up with a similar line to be found on the base of the signal (see photo 2). All one needs to do is line these yellow markings up and gently slide the motorizing unit into place. After this operation a suitable 12v DC power source (not supplied) needs to be hooked up to the signal via the two wires that can be seen in Photo 3. The

supplied switch can then be plugged into the electrical box after which the signal is ready to use.

Photo 2



I built a small plywood box to mount the GWR single into which would allow me to test the way it operated. I made one small change to the supplied signal for this test: I swapped out the SPDT switch for a double pole variety to which I hooked up red and green LEDs. I used the extra switch terminals to route power to the LEDs to give me a way of remotely showing the signal's aspect (Photos 4). The signal moves when you flick the switch and even has a small "bump" programmed into the movement as the head drops: a very nice touch. The coloured aspects are bright enough to see from quite a distance in the layout room. It should be noted that the accompanying photos are a little deceptive as they were taken under extremely bright photo lights and as such the apparent brightness of the signal lamp is somewhat reduced.

Conclusion

For me there is no comparison between the accuracy of these Dapol signals and both the KRM and Signals Branch signals available to NSW modellers. If I were building a small layout or diorama that needed a few signals I wouldn't hesitate to populate it with signals made from these kits. However in this instance my search for a practical solution to my need for a large number of signals to allow me to institute operations on Morpeth has won out over absolute accuracy in this instance. If I'd set out to achieve the same thing using kits the likely result would have been a layout that would never have been fully signaled. There are rumours that Dapol is considering producing a bracket arm signal in 1:43.5, a type that are currently available in both OO and N. Such a release would allow me to complete the signaling on my layout in short order so I for one will be keeping my fingers crossed! The signals I purchased from ModelOKits following my evaluation were priced at \$99.

Photo 3

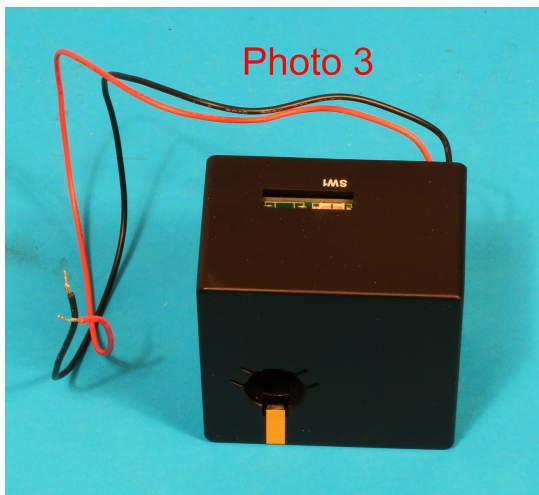
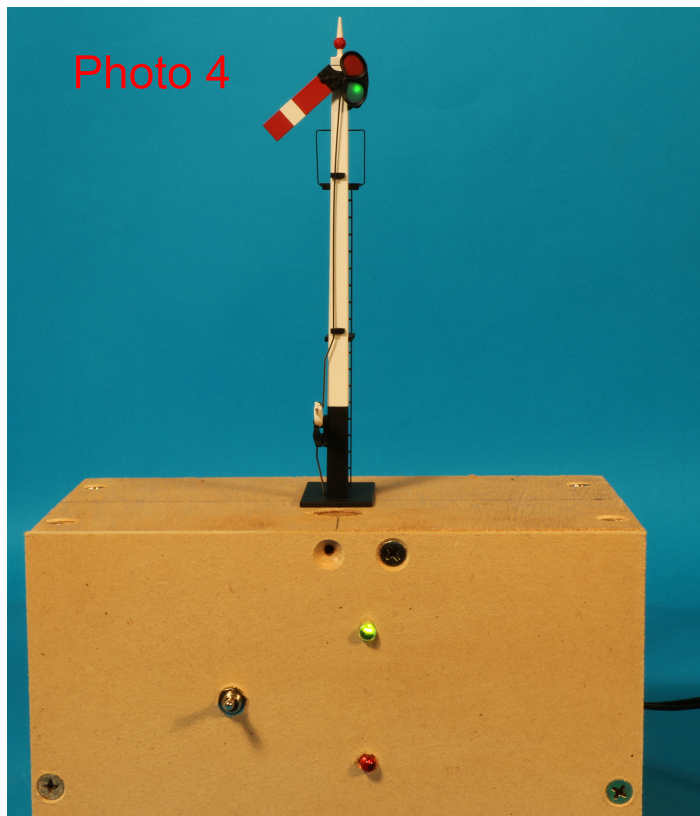


Photo 4



SHOWCASE



This nicely turned out loco belongs to Brodie Daley and is a model of 852 as it appeared under the ownership of AN Tasmania, in service around the late 1980's. It is a ModelOkits 830 class kit but has a milled brass chassis constructed by Bernard Snoodyk and has been gauged to 24.5mm to represent 3'6" in 7mm scale. It has dual Faulhaber motors and runs on a Deltang RC system. Construction of the body was done by Jurgen Engel. The plan is also to build locomotive 875 to create the pair which ran in log trains for the latter part of their life in Tasmania.

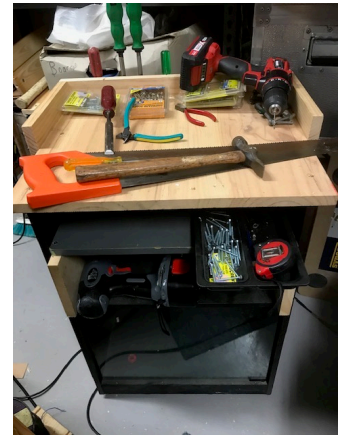
Doing Work Under the Layout the Easy Way. Lionel Pascoe

Arakoola is a very large 7mm display layout and is transported to exhibitions in two trailers, unpacked and set up and, after each exhibition it is dismantled and packed back into the trailers and moved back to storage. Occasionally we encounter problems and these are often tracked down to under the layout with the need to get under it and chase wires and inspect electronic modules because moving the sections in and out of the trailer can pull a wire out unseen from above, only to be discovered when starting to run trains.

Arakoola's track sits up at 1200mm running across the top of multiple sections covering over 11m long just for the main scene. The valance thickness of about 200mm gives a 1m headroom to get under to for access. This sounds a lot but when you have to crawl under and check wiring, plugs and electronic boards and chase the wiring between the sections above your head it can become very hard on ageing backs, knees and necks. For a long time we had just used an ordinary seat or even a milk crate but found it way to high and unable to be easily moved when chasing wires. One day while packing for a working day on Arakoola I thought about how this could be made easier and came up with a device which consists of a folding seat from my old Dad's car mounted on a movers dolly from Bunnings. It worked well and certainly helped with the wire chasing but I found the dolly rolled too easily and tended to tip over.

To overcome this I found some wheels with brakes on them and fitted them to a board wide enough not to tip over.. When you want to check something in one spot just reach down and flip the brakes on to lock the wheels to keep it in one place. It is a little jarring with those hard wheels but it so much easier to get under, roll around and inspect.

Even with a more comfortable situation under the layout you don't want to have to be getting up and down to get that screwdriver or pliers that you suddenly needed so I carried the rolling around idea one step further by making up this rolling tool caddy from an old cabinet that was going to be thrown away and now it rolls around to accompany the seat to wherever needed. Now I just have to remember to put the tools back into place.



<<<<9

This is where the research articles come useful, especially photos and the descriptions in the text, plans and hints.

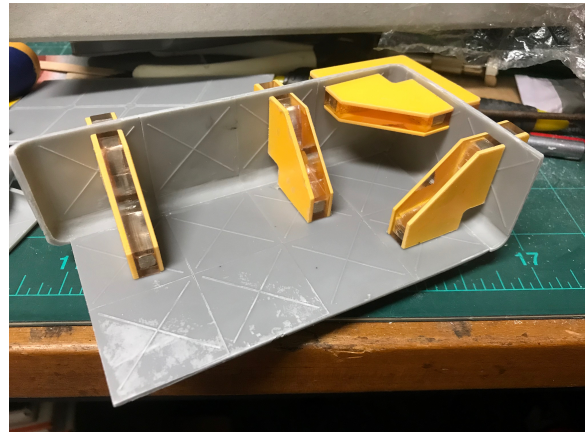
The Tank.

I started by cleaning and filing each panel section to size and then fitted them back together to check if it was straight with no high corners and that there were no gaps between pieces where the water could leak. I marked each section so it would go back together the same way, as I didn't want problems from mismatched parts.

I test fitted the sides to the base (I use magnetic clamps - photo 2) and checked that the diagonals were the same to ensure it was square and the sides at 90 degrees and made any fine adjustments.

Once happy that it fitted together nicely from the dry assembly I glued the parts together. I used Selly's Allfix Small Batch Solvent adhesive. Note that it's a solvent glue so fresh air or fan placed a little way away is advisable. Do a corner and one side by first by running a bead along one edge and then holding both pieces together. Wipe off excess and try to use a little bit of glue and not get it all over the place. Hold it in the magnetic clamps or whatever type you use and check for aligning.. Work each half and when dry bring together ensuring the sides are at 90 degrees to the base and its level on the mat as finished in photo 3.

Construction of the timber stand will come in the next instalment.

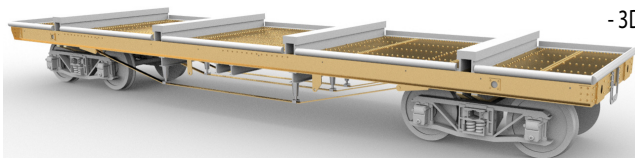




Fine Scale 1:43.5 (7mm) O Scale kits



E Flat Wagon 7mm Scale



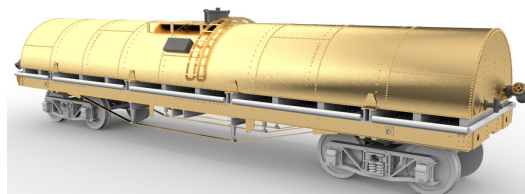
Available July 2020.

Kits Include:

- Etch Brass panels & detail components
- Laser cut acrylic chassis
- 3D printed bogies and detail components

(Prices TBA)

E Flat Wagon With Riveted Water Tank 7mm Scale



Dapol GWR Signal 7mm Scale

Newly arrived!

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

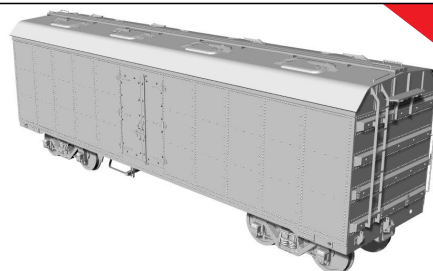


"TRC" WAGON KIT 7mm Scale

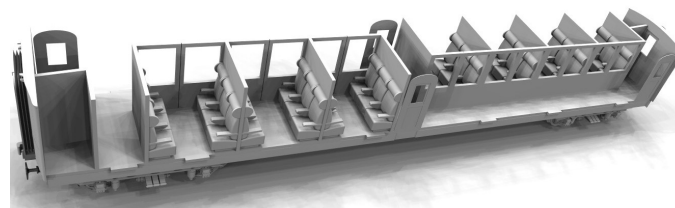
Kit Includes:

- Etch Brass sides/Roof/detail components.
- Laser cut acrylic chassis,
- White metal bogies,
- 3D printed ends and detail components.

Price: \$275 per kit.



NSWGR FS & BS CARRIAGE KITS 7mm Scale



Kits Include:

- Etch Brass sides & detail components
- Laser cut acrylic chassis
- Single piece styrene roof
- 3D printed ends, bogies and detail components

**Available Now
Price: \$425 each.**

**British O Scale
RTR**

dapol
Model Railway Company

**Dapol
Now in Stock**



**Heljan
Now in Stock**



**Minerva
Now in Stock**

We are now stocking in our Yagoona showroom a range of modelling products including:

- | | | |
|--|--------------------------------------|--|
| - Peco O Scale Track and Accessories | - Slaters Plastikard sheet and strip | - Proses tools, Jigs and rolling roads |
| - Micro Engineer Track and Accessories | - K&S Metal | - Range of Tools |
| - Testors & Tamiya paints, weathering products and materials | - Evergreen plastic profiles | - Noch and Faller Scenery Material |
| - MIG Paints and weathering products | - Zap-a-gap glues | - Badger Airbrushes |
| - Slaters Wheels, parts and Accessories. | - Mininatur Scenery Materials | - Woodlands Scenery Materials |
| - Xuron Tools | - Mount Albert lumber | - Kadee Couplers |
| - ESU | - Tortoise Switch Motors | |

Visit our shop at Unit 4/61-71 Rookwood Rd Yagoona NSW 2199. Shop Open Fridays from 10am - 2pm or by Appointment Monday to Thursday

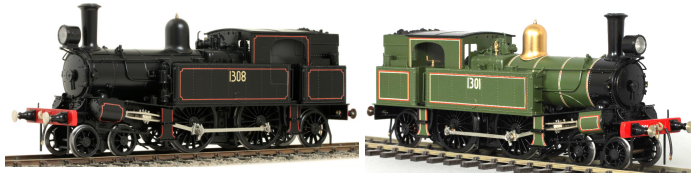
Visit our new website & online store at www.modelokits.com Telephone: 0404 935 663 Email: sales@modelokits.com

Now incorporating the full range of Waratah MRC, O-Aust Kits & Model O Kits products

**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.



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

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

Kit Price \$1799 RTR Price \$3700

**NOW
AVAILABLE**

Minerva Manning Wardle K Class



Versions available:

Black Lined Yellow/Red
Dark Red, lined Yellow
Deep Blue lined red/straw



These locos saw service on the NSWGR as engines 292 & 293 under P(127) class (Later 532 & 533) on the Camden Tramway, Clyde - Carlingford Line and Private Industrial Lines. If there is enough interest we may put together a conversion kit.



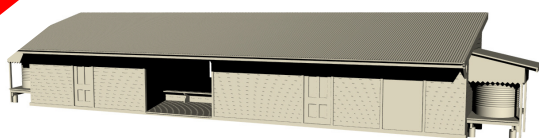
Prices: DC-\$495 DCC-\$595 DCC Sound-\$725

NEW

ModelOkits New 7mm Scale Releases!

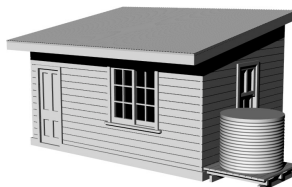
Quality Laser Model Cut Kits with Plastic Details

NSWGR A4 Station Building Kit



Kits Available Now Price \$129

NSWGR Timber Platform Signal Box Kit



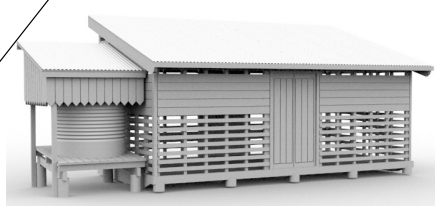
**Kits Available Now
Price \$49**

NSWGR Inspection Pit



Kits Available Now Price \$20

NSWGR Cream Shed



Kits Available Now Price \$65