TOOWOOMBA MODEL RAILWAY CLUB INC.

Produced by Enthusiasts
for Enthusiasts

TRAIN TALK

January 2019 Volume 30 No 07 Issue 331
A 100% NMRA Affiliated Club

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TABLE OF CONTENTS

ADVERTISER INDEX:

ON THE COVER: Bundaberg Steam Tramway Preservation Society Inc (BSTPS). Invicta is an 0-6-2T built in 1907. ***Arthur Hayes***
More photos on page


Southern Rail
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NEW LOCOMOTIVE RELEASE FROM WUISKE/HASKELL

Wuiske Models, again in partnership with Haskell Co of Taiwan, are proud to announce the release of the fifth mass produced Ready To Run locomotive for the Queensland Modeller.

The 2470 class are the most common of all the 90 tonne locomotives built to this design.

The 38 members of the 2470 class were introduced from 1980 to 1983. The majority of these units were held in coal traffic throughout the 1980s with only a handful being released to general traffic. By the early 1990s however, all members were in general traffic and could be seen in all areas of the state.

We are still awaiting the arrival of some models through customs but have (at the very least) a small number of each running number in both gauges in stock and available right now.

As ever with us, we have kept the price the same at $295.00 per locomotive.

We have released eight different running numbers in three versions to ensure everyone is catered for. The numbers are as follows,

The high nose units are:
2472, 2486, 2495

The Driver Only (low nose) units are:
2474D, 2491D, 2471D , 2484D, 2497D

All available in HOn3½ or HO (Standard Gauge 16.5mm)


HONEY! WAKE UP... IT SOUNDS LIKE SOMEONE BROKE INTO THE HOUSE!
IT'S PROBABLY JUST THE CAT.
oNo
NOW IT SOUNDS LIKE THEY'RE NEAR YOUR TRAIN ROOM.

TEDITORIAL

Still running late, but getting there, I haven't troubled Brent for Presidents Reports as it is a bit unfair to expect people to recollect what has happened in the past while attempting to discuss the future in the past.

Received the following from one of my American Decal customers - Robert Lampe;

Ted,

In reading the latest Train Talk I noted that the NSW prototype grain hopper looks very much like what we have in the states. it is called a cylindrical hopper. I have 4 models made by Lionel/American Flyer in S scale. the trucks (bogies) are incorrect for the Butte Anaconda & Pacific but I have remedied that problem in short order. I purchased 4 pair of 100 ton roller bearing trucks (bogies) with rotating end caps to look more prototypical. in addition I have removed the truck mounted couplers and am installing Kadee 802 S scale US style couplers. lastly with the use of Microscale's micro-Sol I am removing the Burlington Northern lettering, logo and reporting marks and leaving the car data intact as it will be the same and am adding BA&P lettering and numbers. that is the easy part. Removing the old lettering and logo and reporting marks is not that bad just time consuming is all.

Robert has also contributed a story relating to the Butte Anaconda & Pacific which you can read in the February Train Talk.

As 2019 gets underway, there are a lot of projects occurring at the club with an aim to have everything up and running by the Toowoomba Swap Meet. The basic name of this event creates some confusion where people read into it that it is "Our Swap Meet", it's NOT.

The Toowoomba Swap Meet is one of the largest Automotive Swap Meets in Australia, filling up the Toowoomba Showgrounds with hundreds of vendors and companies plying for trade, we open our club to attendees as a support event that assists us through exposure and Gold Coin Donations.

There will be a couple of announcements in the February Train Talk that will come as a bit of a shock.

2018 TOOWOOMBA CARNIVAL of TRAINS

Toowoomba Showgrounds 22nd - 30th January 2019

ON THE FOOTPLATE

Club Shirts: If you wish to obtain a club shirt of the Chambray type, purchase direct from Totally Workwear Toowoomba, 1/37 Prescott St.

There is a policy at the TMRC Inc. You **"MUST HAVE FUN"**, say g'day to everyone and invite them to 'get involved', we are all in this hobby for the same reason - "To have fun" **Model Railroading 'IS' The World's Greatest Hobby.**

Member participation is an important part of the clubs success, become involved and reap the benefits.

There are many projects underway to suit any interests.

The production of Train Talk and Construction of the Showgrounds Museum & Display Centre has been made possible through the generosity of the

Gambling Community Benefit Fund
Queensland Government

Beyer-Garratt

Percy Forrester

CONTINUED FROM THE DECEMBER TRAIN TALK.

In the book "Anatomy of a Garratt", it is pointed out that in the mining reserves on the West Coast of Tasmania: "…there was (sic) a number of unique forms of transport in the area. There was steam, electric and horse-drawn trains as well as cable-hauled lines. A variety of steam locomotive types were employed such as: Mallets; Shays; the Abt Rack System; and Hagan's Patent. In such an environment the arrival of yet another 'unique' engine in the shape of the first 'Garratt', became a novelty amongst novelties, and a late comer at that."

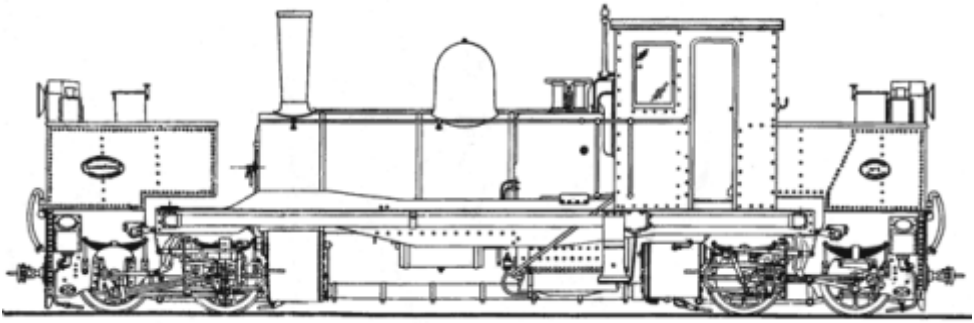


Diagram of the world's first Garratt – the TGR K1 locomotive.
Source: www.whrsoc.org.uk/index.php/activities-2/k1-the-original-garratt

Zeehan, which was the third largest town in Tasmania at the time, was the centre of much of this activity. It boasted a main street over 3km long which reflected a hard-working, hard-drinking mining culture with its 27 hotels. The thriving centre's Gaiety Theatre, with seating for 1,000 people, was the largest concert hall in Australia at the beginning of Federation.

Zeehan was an entrepreneur's delight with innovative approaches adopted all round in a challenging landscape and start-up companies chasing precious metals and quick riches. The railway operators reflected this 'can do' culture and willingness to take risks – and the unproven Garratt concept was a risk.

With a population of 10,000, Zeehan was frequently referred to as 'Silver City', from one of the ores, plus lead, extracted there. The ore was found over such a wide area it was thought to be another Broken Hill and required a range of narrow gauge railways to access it in the challenging topography.

They certainly weren't short of a diversity of railway solutions in those parts. By the early 20th century Zeehan possessed three 3-foot 6-inch gauge lines – two private and one Government-owned.

There were also three two-foot gauge lines – two Government and one private. Over the years four smelting works were serviced by these connections.

continued on page 10

 continued from page 9

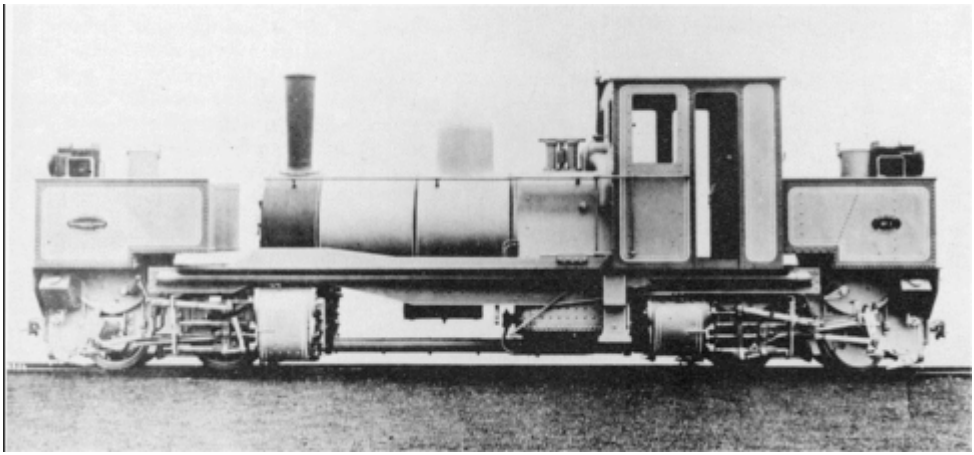
Zeehan's spectacular valley and mountains once the home of many railways.
Source: Discover Tasmania.

Fortunately, for Beyer Peacock and Herbert Garratt, the earlier commercial investment in capturing the intellectual property and developing the proposal for the NSWGR was not wasted.

In 1909, two Beyer Garratt's were built for the Tasmanian Government Railways which were slightly heavier than the earlier NSWGR-focussed proposal. They were designated the Tasmanian K-class.

With tight design parameters, the class had to cope with 99-foot radius curves and 1 in 25 gradients.

The K class was unique, as it was the only Garratt design to have the cylinders placed on the inner ends of the power units, which made the cab very hot to work in. Like some other articulated designs, it used compounding principles. Steam was used at high pressure in the rear unit cylinders and then the exhaust re-used in the forward unit low pressure cylinders.



The K1 Beyer Garratt when rolled out of the workshop.
Source: Bing Images.

 continued on page 11

continued from page 10

In subsequent decades, Zeehan's mining activity and population declined, so the design of the Garratt was refined, with the K-Class locomotives not only being used for freight and mixed traffic but also faster passenger trains.
In fact, an Algerian Garratt holds the world speed record for an articulated steam locomotive. In total, there were eventually 1,115 Garratts built by all makers.

There is a 14-minute video of K1 running on the Welsh Highland Railway in 2013 at: **https://www.youtube.com/watch?v=Bibz3yl2-SU**

The Spread of the Garratt

After being launched in Tasmania, Garratts were used in other parts of Australia, and in Asia, Europe, South America and especially Africa. However, no Garratts were used on North American railroads, as U.S. railway companies were thinking even bigger and considered the Garratt's coal and water capacities insufficient for their requirements.

Nevertheless, Garratts had several advantages when used on light and narrow-gauge railways. As they are essentially tank locomotives, they can be easily run bunker-first. This minimises the need for expensive turntables and triangles. In particular, Garratts can run over sections of line that might not be able to support conventional or Mallet locomotives of a similar weight. This benefit is secured by the engine units being separated by the boiler unit, resulting in the weight of the locomotive being split over the two units, decreasing the axle-load.

Interestingly, while at the end of the steam era most conventional steam locomotives had reached their maximum in "critical dimensions", the Garratt still had some way to go, with larger driving wheels, larger boilers and greater output still achievable.

Every once-in-a-while somebody comes up with a new steam engine design for the modern age, and they are usually Garratts. Conceptually, they are really no different to diesel-electrics with an engine sitting over two power bogies.

While the final Garratts using a Beyer Peacock design were built in 1967–1968 for the South African Railways, in 1994, a new designer, Livio Dante Porta, refined Herbert Garratt's design concepts to produce a locomotive for Argentina's's Southern Fuergian Railway. He used larger cross-section tubing, insulation of the boiler and an improved front end smokebox. It was reported that the enhancements not only vastly improved the economy of operation but enabled the doubling of train lengths. Even further improvements on the design were made on this refined design in the workshops of Girdlestone Rail in South Africa by adding superheating. This new Garratt entered service in Argentina's in 2006.

So… why didn't the Garratt's take over the locomotive world? Well, they did have some disadvantages shared with other tank designs.

The major disadvantage of a Garratt is that the adhesive weight decreases as the water is used from the front and rear tanks and coal from the rear bunker. As the weight on the wheels decreases, slipping occurs. To reduce wheel-slip, often a wagon containing water was attached behind the Garratt, transferring liquid to the loco's tanks as the journey progresses.

continued on page 12

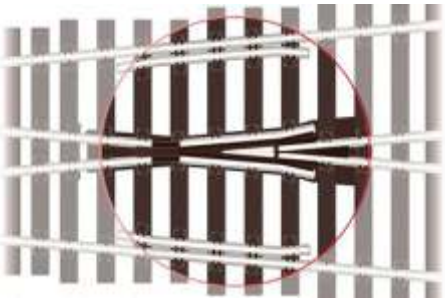
 continued from page 11

This practice also permitted the engine to operate over longer distances between water stops, as occurred at Canberra Railway Museum with Beyer Garratt 6029.

Ex-South African Railways class NGG16 Garratt 143 on the preserved Welsh Highland Railway. This railway uses articulated locos because of the tight curves on the line. Source: Bing Images.

NSWGR's Restored 6029 at the 2018 Maitland Steam Fest

PECO Unifrog



The PECO UNIFROG is a new turnout design from PECO. Right out of the package it will behave like a PECO Insulfrog turnout.

PECO plans to replace the Electrofrog and Insulfrog products with their Unifrog. This will happen over time. Doing this allows PECO to eliminate two products and replace them with one. As of 2018 only a limited selection of Unifrog turnouts are available, but this is expected to expand with time.

Unifrog Description

For ease of identification, the PECO part number has a U to indicate Unifrog in the part number on the packaging. Example: ST-U750 is a Unifrog RH turnout, O Scale.

As shown in the picture above, the Uniform has a metal frog, like the Electrofrog. The difference is that the frog is constructed with gaps, filled with plastic, to isolate it from the rest of the turnout.

Out of the package you will see a wire wrapped around the turnout near the toe of the frog. This wire is connected underneath the frog to the frog rails themselves. You can choose to connect it or not, so you have a powered or unpowered frog.

If you flip the Unifrog over, you will see that they have wires connecting the closure rails to the appropriate stock rail, eliminating the potential of a short should a wheel bridge the gap between the switch and stock rails. Perfect for DCC operations. This also eliminates a failure point, as a mechanical connection using the switch rail isn't needed for power.

The point rails are also connected to their matching stock rails.

Advantages of the Unifrog Design

- DCC Ready, right out of the package
- No mechanical connections needed between switch and stock rails
- Dead or Live Frog operation
- Switch rails do not change phase depending on the frog's state
- Insulated rail joiners not required on the point rails to prevent a short caused by power routing
- Can be converted to Live or Dead frog without removal, by simply connecting or disconnecting the wire feeding the frog
- Only the stock rails need to be connected to the power bus

Disadvantages of the Unifrog Design

- The frog is dead unless powered
- No power routing as in the Insulfrog, should you want to run analog DC
- Possible mechanical short at the point rails (wheel tread bridging point rails)Conversion to Insulfrog Operation

If you want the Unifrog to behave like an Insulfrog, you simply need to snip the wires underneath connecting the stock rails to the closure rails. This isn't required for DCC operation, but can be done in seconds prior to installation.

continued on page 14

 continued from page 13

What is the Difference between Unifrog and Previous PECO Turnouts?

The revolutionary aspect of the Unifrog is that you can change your mind. You can install them in them as they come (a dead frog as in the Insulfrog), then later decide to switch over to a live frog (Electrofrog). With the Unifrog this can be done without having to buy new turnouts. In fact, you do not even have to lift the track to re-wire the turnout.

Unifrog Availability

Currently the PECO Unifrog turnouts are limited in selection. PECO has released an N Scale "medium radius" SL-U395F and SL-U396F turnouts, and for HO the SL-U7061 and SL-U7062 #5 turnouts. For 00, they have released Bullhead rail products in the form of a Double Slip, Single Slip and Long Crossing.

As tooling is replaced, more Unifrog turnouts will come on the market.

Wiring the PECO Unifrog

There are two options

Install it directly from the package. The frog remains insulated from the closure and point rails and requires no extra wiring

Use the pre-attached wire to connect the stock rails to the frog using an electrical switch

Wiring for DCC

Wiring the PECO Unifrog for DCC is not much different than wiring any other turnout. Connect the appropriate stock rail to the appropriate wire on your power bus

Power Routing of the Frog:

Attach the supplied wire to a Frog Juicer, toggle switch, Tortoise motor or other device with can switch connections to the power bus

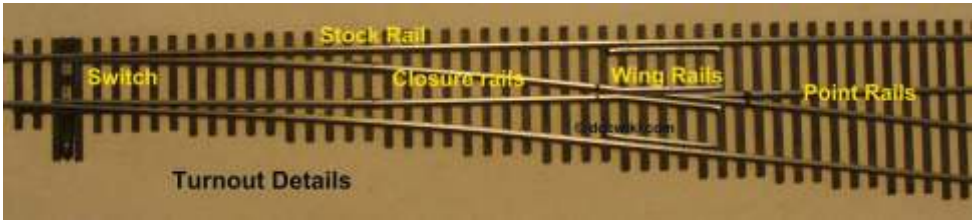
If you don't plan on doing that right away, but may in the future, attaching a short length of wire to the pigtail provided may make life easier later

Optional: For reliability, connecting the switch and closure rails with a small jumper (Competency at soldering is a must here)

Power Routing

The PECO Unifrog is not power routing.

From the factory, the point and closure rails are wired accordingly for proper operation. The closure rail is also wired to the adjacent stock rail. As such, insulated rail joiners are not required on the point rails.



The wiring of these new turnouts is a development of both the Insulfrog and Electrofrog designs. For current users of the Electrofrog or Insulfrog versions of our turnouts the new Unifrog gives modellers the best of both worlds. As supplied, the turnout is wired completely “live”, except for the frog tip and wing rails, and can be used straight out of the packet without any further modification (and so behaves like an Insulfrog).

Bundaberg Steam Tramway

Arthur Hayes

Saturday night at the Bundy RSL with a few other modellers from Brisbane I received an invite to the light up on Sunday morning in the Botanic Gardens. The home of the Bundaberg Steam Tramway Preservation Society Inc (BSTPS).

Other arrangements prevented me from arriving at the appointed time, but was able to arrive before the train left the depot.

The railway is a credit to the group, now carrying about 40,000 passengers a year. In 2013 during the Bundy floods all went under water. The water mark is in the main shed just under the rafters.

Great bunch of friendly blokes, most enjoyable morning.

Well worth a visit if in the area, mainly runs on a Sunday, some school holidays and special events.

Invicta was built by John Fowler & Co in Leeds and delivered new to the Invicta Mill, which was originally located on the Kolan River in the Bundaberg area. In 1918 the Invicta Mill was dismantled and moved to Giru in the north of the state, while Invicta and other railway assets stayed in the Bundaberg area after being sold to Bingera Mill. Invicta worked at Bingera for 40 plus years until the early 1960s, and which stage it was sold to a third owner, the Millaquin Sugar Company for use at their Qunaba Mill near Mon Repos.

continued on page 16

 continued from page 15

Invicta remained in revenue service at Qunaba Mill until as late as 1978. In 1981 it entered preservation when donated to the HMAS Nirimba Navy Training College at Quakers Hill Sydney. (The Australian Navy operated some steam turbine warships at this period and perhaps Invicta was considered useful for training purposes; I'd be interested to hear .more on this aspect.) I understand some restoration work was undertaken while at HMAS Nirimba and it appears to have been well cared for; the photo below gives an indication of the loco's condition during in this period.

A return to the Bundaberg area came in 1993 when the Bundaberg Steam Tramway Preservation Society (BSTPS) approached the Australian Navy seeking custody of Invicta. The Australian Navy agreed to this approach with official handover occurring on 20th November 1993.

Upon return to Bundaberg, Invicta was stored within the BSTPS running shed in the Bundaberg Botanical Gardens for 10 years until restoration started in 2003. It was stripped for complete overhaul, including manufacture of new side tanks to the original design and repairs to the boiler, with the aim of having Invicta returned to operation for its 100th birthday in 2007.

The BSTPS achieved their goal with Invicta was recommissioned on Saturday 17 November 2007 with a suitable 100th birthday celebration. On the next day, Sunday 18 November 2007, Invicta entered service on their tourist tramway located within the Bundaberg Botanical Gardens.

Contributed by Mike Prowse

/***What's the Maximum Climbing Gradient for Model Trains?***

Model trains will usually operate faster on long straight flat stretches of track, but that can be boring after a while, not to mention the amount of space required to run a long mainline. There's nothing wrong with having flat level areas of track, but changing the elevations by including gradients (slope of railroad track) can add considerable interest to a layout. Adding grades to a model railroad can increase the option of including tunnels, bridges etc as the trains meander through the countryside or mountain ranges.

However, railroad grades need careful consideration if you are to avoid operational problems such as derailments or stalling locomotives. It's not just the loco that will need to safely navigate up or down the raised track, it is also the fully laden cars carrying coal, timber, metal, refrigerated foods, fuels, vehicles, livestock, or even people (well, plastic models of people). A long train can be very heavy and this needs to be taken into consideration when going up or down a gradient of a real railroad, or on a scaled down model railroad.

Consider Train Weight and Wheel Traction

Let's look at a real life example: A loaded train might have 135 coal wagons, with each one weighing 22 tons (empty) or 143 tons (loaded with coal). 135 cars x 143 tons equates to 19305 tons with the 3 locomotives moving the train (approx. 630 tons). Add that up and the weight could be up to 20,000 tons (40 million pounds).

Those are staggering figures, and the same rules of physics apply on a model layout.

A model train locomotive will need enough power to safely pull its cars up (or down) a grade without slowing to a stop or a derailment happening. A "gutless" engine won't haul many cars up a steep grade, so if you want steep grades, you'll require strong locomotives.

In general, more weight means greater wheel traction. A heavier loco might be able to climb a steep grade, whereas the wheels on a lighter weight loco might slip. Following this logic; a larger scale loco might cope better on steeper grades than would a smaller scale loco.

Multiple Unit Loco Consists

These days it's often more cost efficient for a railroad to operate longer trains with multiple locomotives. With more pulling (or pushing) power a train can climb a steeper grade and/or have more cars attached. It is not uncommon to see multiple locos on smaller N scale layouts. They are typically at the front of the train, but sometimes there's a loco positioned in the middle to add more pulling/pushing power.

Using extra locomotives is nothing new. In the days of steam engines the railroads often had "helper" engines standing by to help haul trains up the steeper gradients.

Another method is to use a 'ghost car' (sometimes called a cheater car) on your model railroad. This is basically a motorized boxcar or freight car that can be positioned somewhere towards the centre of a long train. If the model train is really long, then more than one 'ghost car' can be used. They just need to be evenly spaced along the train.

continued on page 18

 continued from page 17

How Steep Should The Track Grade Be?

A track gradient is measured as a percentage of rise over the length of the track. So if the model train track stretches for 100 inches, and over that distance the train climbs by one inch, then the gradient would be 1%. That's a comfortable gradient for most model trains to navigate. Compare that to a short 25 inches of model train track with the same 1 inch rise – that would be really steep and equate to a 4% rise. A steep 4 percent rise could be problematic and likely cause a lot of frustration.

Track grades on real railroads fall into there categories; light grade is 0.8% – 1%, heavy grade 1% – 1.8%, and above 1.8% is classified as mountain grade. Real railroads need to make money, so having trains stall or derail can prove costly.

Broken down trains can block the line (upsetting schedules), derailed trains can be expensive to get back on the tracks, damaged goods (or passengers) is bad for business, and damaged trains or track can run into big money to replace or repair. That's why real railroads choose to minimize operating costs and minimize risks, by avoiding overly steep gradients. They avoid anything that could have an adverse effect on operations.

The same goes for model railroads; keeping track gradients 2% or below is a good rule of thumb. It can also look more realistic (as long as you have the space) than a really steep grade. As I mentioned earlier, a 1 percent grade poses few problems on most layouts.

As with life-size railroads, the grades on a model railroad will be determined by the weight and length of trains. Other factors will be the number (and type) of locos being operated and the track speed limit. That's not to say model trains can't or don't operate on grades of 4%, 5%, or even 6% – they do. But the steeper grades are more likely to operate short trains, geared locos, and at slow speeds. A good example might be a train hauling logs or coal from a mountain region. So, grades of 4% or higher are manageable on some layouts.

How Track Length and Grades Impact Operations

Helper locos are often used when trains need to haul heavy loads especially above grades of 1.5%. Mainline grades are generally below 2%.

The thing to remember is that on real railroads the trains gain considerable momentum on long straight level sections of track. If the track runs level for several miles and then has a small ½ mile run of steeper 2 percent grade, then the power of the train will take it up the grade without too much effort. So, from a railroad management view point, the 2% grade is unlikely to disrupt schedules or add greatly to the running costs. The same can't be said for a 1.5% to 2% grade that stretches several miles. A lot more pulling power would be required to haul the same train.

M***ore info on model train grades, realistic scale speeds***

Curves and bends also influence operations on level ground as well as on gradients. An easement for a curve needs to be gradual, as does the transition into a gradient. A sudden change to track slope or angle is a recipe for disaster, posing a higher risk of unplanned uncoupling or even derailments. Special care needs to be taken when constructing curves within a gradient. This is because curves increase the wheel and rail friction making it more difficult to haul a train up a curving gradient, and less troublesome taking it down.

 continued on page 19

continued from page 18

However, a including curves on grades can give a longer run where space is limited on a model railroad. This can reduce the grade percentage needed. Gradients can add considerable interest to a scale railroad, especially where one track passes over another on trestles or bridges. However height is needed for an over/under configuration, so there needs to be sufficient space for the train to climb and turn.

Including grades is good; including curves is good; but the mix of curves and grades needs to right. Too many, or overly tight, curves can cause problems. The same goes for 'S' curves – care needs to be taken when planning the configuration. As long as there are no track or wheel faults, a train will generally run along a straight section of track without difficulties. Add a tight curve, an 'S' bend, or steep gradient, and train speed and operation changes.

Curves and Grades Need Space

To achieve continuous running, a layout will need 180 degree curves so the train can turn around without stopping. Due to space limitations, this is not possible on every layout, especially on narrow railroads. The minimum radius of curves will also vary depending on the scale.

SCALE	CLEARANCE	2% RUN	3% RUN	4% RUN
Z	1.5" (40mm)	75" (2000mm)	50" (1333mm)	37.5" (1000mm)
N	2" (50mm)	100" (2500mm)	66.67" (1666mm)	50" (1250mm)
TT	2.5" (65mm)	125" (3250mm)	83.33" (2167mm)	62.6" (1625mm)
HO	3.5" (90mm)	175" (4500mm)	116.67" (3000mm)	87.5" (2250mm)
OO	3.75" (95mm)	187.5" (4750mm)	125" (3167mm)	93.75" (2375mm)
S	5.5" (140mm)	275" (7000mm)	183.33" (4667mm)	137.5" (3500mm)
O	6.5" (165mm)	325" (8250mm)	216.67" (5500mm)	162.5" (4125mm)

The run distance pertains to just one grade.
For an over-crossing, two runs of the distance is needed for the train to rise and descend.

The above chart shows various scale clearances needed when planning tunnels and bridges. Remember that when a track rises it generally needs to come back down again, so the length of the grade will need to be doubled to allow for both the rise and descent.

When constructing a layout it is always best to try and avoid potential problems, rather than try to fix problems after they have happened. Simply things can save a lot of frustration, like testing the trains on your layout BEFORE gluing down the track and grade foam. The trains need to comfortably navigate the track without mishaps. They need to be able to take the curves without derailing and climb the grades without coming to a standstill. Obviously you will need to decide how many cars each train is likely to have to conclude whether the track configuration is adequate for your needs. There's no point in having a fancy layout that isn't practical to operate.

RAILWAY PICS

Further photos from Steamrail 2018 by Graeme Daniel.

continued on page 21

continued from page 20

WUISKE'S WUNDA WORLD

Well, we've done another Modelling The Railways Of Queensland Convention and yet again, it was brilliant!

This was Bridget's first convention and she had a brilliant time. As ever, there was lots of great info and some simply stunning models to get inspired by.

One of the great ones for me was Ken Edge William's (I am pretty sure) overhead bridge that was under construction and completely built from styrene. I'm pretty sure I need to make one for our layout now don't I?

Of particular note was Anthony Vaness' layout "Dagun". This small layout is based on the tiny town of Dagun in the Mary Valley (near Gympie). This is Anthony's first QR layout and it is simply stunning.

The entire layout is designed around a 24 inch radius curve and is essentially, a circle. The radius was chosen because the

outer radius of a Peco curved point is 24 inch. The layout is extremely lightweight. It was interesting watching Anthony at pack up time as he just picked the layout up in two pieces and took them to his car… How simple is that!

continued on page 23

continued from page 22

The majority of the structures on the layout are scratch built. He began by adding cardboard mock ups into the scenes to test how they would look and then built the structures from styrene.

Anthony gave a talk about his layout at the convention and went into great detail about how he constructed it. Even down to using dirt from the actual location!

One of the real stand out things for me was the trees, Anthony told me he managed to walk into his local Riot Art store… That's one of those hippy places where people whom have seen an ad on TV for British paints that featured a paintbrush have decided they are now an "artist" and as such they need to find an establishment that can furnish them with $2 items for the bargain basement price of $37.50. That aside, they had a small quantity of trees available, so he bought them at a surprisingly good price.

For me, the small details and the scenery are the stand outs and this layout has given me many ideas for our own layout.

Whilst the entire layout is very simple in it's design, it's the details that make this layout simply spectacular.

The only thing we can hope for now is that Anthony brings "Dagun" along to many, many shows so the rest of us can be inspired.

continued on page 24

 continued from page 23

As most of you will be aware, we said goodbye to our beautiful dog and long time companion Connie recently. On our return trip from the Convention, we stopped in to the RSPCA office in Toowoomba… JUST to have a look mind you.

It was whilst "just having a look" that we met Scout… Scout managed to lure us in under the guise of appearing to be a dog… A big dog but a dog nonetheless. He regaled us with tales of his excellent training, obedience skills and sitting abilities… In other words he wagged his tail and licked us… A LOT!

So now we had another dog… It wasn't until we got home that we worked out that in fact Scout was actually only part puppy and mostly a mixture of dragon and wilder beast. He has an interesting loathing of all things shrub related and has a grand plan to rid the world of ALL shrubs. He similarly is in the process of actually eating our balcony, let's pause and think about this for a minute shall we? HE SNACKS ON HARDWOOD!

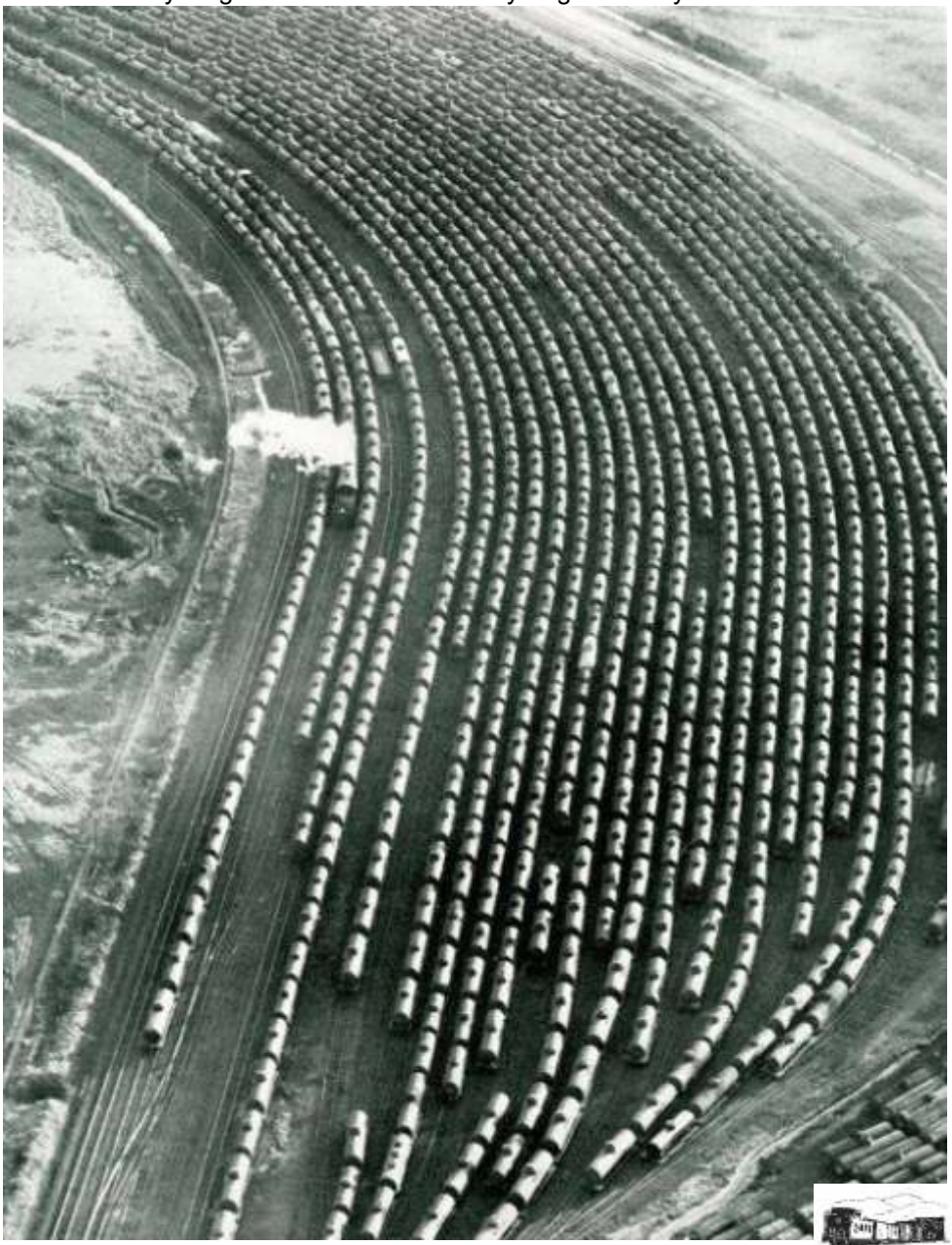
Add to this that Scout is actually stupid. I don't mean a little boof headed, I mean he makes a glass of water look like a computer! Most of his actions seem to resemble something from a cartoon. That being said, we love our new boof headed cartoon dog and he has worked his way into being a proper member of the Wuiske Asylum.

So now we're simply getting ready for a fast approaching Christmas, we may have an interesting announcement for the Christmas Adam's Corner. But as always, we shall see how we go.

New Layout

Contributed by Benjamin Martin

Is this our new project layout, even 'T' Scale would be pushing to fit in the clubhouse, even with everything removed and oh so many wagons to buy!



JAMESTOWN NEWS

by Gary Sardoni

Most of this month's column relates to "Jamestown" as it has received the most attention over the last month. However, I will mention one thing about "Drayton Harbour" before talking about "Jamestown". Last month I mentioned that the station area that I am building on "Drayton Harbour" has yet to be named, and I requested suggestions for the name. This request still stands as I won't make a decision until I have finished all the building work and I'm not there yet. The island platform buildings and subways are still works in progress, so there's still time to suggest a name. Please pass your suggestions to me at the clubhouse or send them electronically to Ted, who will forward them to me.

With the rebuilding of certain parts of "Jamestown", there was always a critical timeline involved: getting the layout up and running again for the open days of the Toowoomba Showgrounds Swap Meet in early February. This has been achieved with the station precinct trackwork and pointwork fixed in place and some temporary trackwork in place on the grades to the south of the station.

The medium-term plan is to complete the buildings and scenery in the station precinct and then rebuild the track on the grades which will also include constructing a deviation to eliminate the sharp S-bend near the centre of the "U" part of the layout as well as improving access to the fuel depot and mine sidings.

As the accompanying pictures show, the station precinct has three separate parts. From the back of the layout to the front, these are respectively as follows. Firstly, there is a passing loop with the 'back' track serving the platform with the main station buildings, and the 'front' track serving the island platform. (This is essentially the same as before, except that the baseboard underneath has been rebuilt.

The rest of the track layout is different from the original.) Next, there is another passing loop with its 'back' track serving the other side of the island platform and its 'front' track serving a new island platform yet to be built. Finally, there is a dead end siding serving the other (front) side of the planned new island platform, and this siding has a run-around loop to add variations to the operational possibilities.

continued on page 27

continued from page 26

Building new trackwork is something that I am familiar with, as I feel confident about laying straight track without 'wiggles', getting the curves smooth without kinks, and cutting the track in the right places to fit the points. However, part of the rewiring of the points was a new experience for me. The original points were a mixture of dead-frog and live-frog all operated by tortoise motors. With the tortoise motors, the only connections used were the two wires that switch the motor and throw the points. This type of operation relies on the point blades making contact with the rails for electrical conductivity and this was problematical at times.

The decision was made to use live frog points only in the rebuild, and to use the inbuilt switches in the tortoise motors to change the frog polarity when the points are thrown. Doing this was all new to me. In my small home layout, the points are operated by 'switchmaster' motors, which (like Tortoise motors) are a good quality 'stall' motor (the motor is designed to stop when it encounters physical resistance at the end of its travel), but, unlike Tortoise motors, they don't have provision for changing frog polarity. Dealing with the occasional loss of electrical contact at the point blades is a minor issue only on my home layout, but with the club layouts in a dusty shed, it's a different proposition.

So, with assistance from Ted, I learned how to modify live frog points to allow for changing frog polarity. Hopefully, the essential modifications will be visible in the accompanying picture. Firstly the two closure rails (to the left of the frog) are cut. This electrically separates the frog from the closure rails (which remain electrically linked to the point blades). Then wires are soldered underneath the point to link each closure rail to its adjacent stock (outside) rail. Finally there are three other wires soldered onto the track. One is soldered to the frog (underneath the point and not visible in the picture) and each of the other two wires is soldered to the outside of a check rail (toward the left side of the picture). There are connections on the tortoise motor that each of the three wires are soldered to. When the points are thrown, the inbuilt switch in the tortoise motor ensures that the frog and the closure rail/point blade in use are the same polarity. Because the closure rail/point blade is permanently connected to the stock rail, the closure rail and point blade are always live and not relying on physical contact between the point blade and stock rail. (Simple, ain't it!)

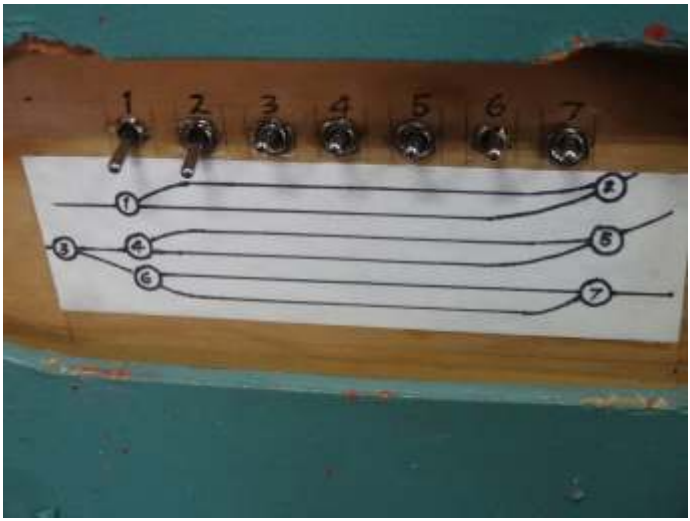
When I was on the learning curve with this, to 'get' exactly what was 'going on' with this wiring, I needed to find some diagrams and explanations on-line and then study them carefully, so if my 'potted' explanation above is confusing, don't worry. A bit of research will reveal that it's not one of the dark arts.

Despite the fact that there is some extra work involved in wiring up live frog points like this, it is well worth the effort, due to the significant improvement in reliability when running trains through the points.

continued on page 28

 continued from page 27

The accompanying pictures show one of the modified points (already mentioned), the 'control panel' of switches (with the points renumbered in a more logical sequence than before), the trackwork in the station precinct viewed from the north, and a three-quarter view of a train at one of the platforms. This train is composed entirely of club stock and is entirely LMS, with the loco a streamlined Hornby "Duchess" class loco, and a 5 coach train including a Hornby LMS mail coach, a Hornby LMS brake/composite coach, a Lima LMS restaurant coach, a Lima LMS composite coach and a Lima LMS brake composite coach. These items came from three separate donations, which shows that in this case we were fortunate enough to be able to create a 'coherent' train from collecting 'random' donated items over time.



HEARD ON THE LONDON UNDERGROUND TUBE

Contributed by Bob Claydon

'Please move all baggage away from the doors.' (Pause..) 'Please move ALL belongings away from the doors.' (Pause...) 'This is a personal message to the man in the brown suit wearing glasses at the rear of the train: Put the pie down, Four-eyes, and move your bloody golf clubs away from the door before I come down there and shove them up your @ rse sideways!'

FEEDBACK

Ian Venables

I liked the bit about the Newcastle Flyer having had one horrible experience on it in late October 1946, a few years back! On a family holiday we had visited relations on Lake Macquarie for abut a week then the man of the house, asked us to ride to Sydney on Thursday morning with him as he made a weekly visit for his business, a chain of lingerie shops called “Cheeries”.

The Flyer still painted black after the war restrictions on colour, left Newcastle, early morning about 20 minutes late and the valiant crew got to Sydney on time with their now fart-less passengers hardly believing that they had survived what was a scary ride. My Dad had a watch which incorporated a stop watch and we timed the train between mileposts regularly in the mid nineties. Then during one particularly wild episode, the watch was stopped at 34 seconds, about 104mph! As kids, me and my brother were well versed in using stopwatches. For some reason we timed everything that moved having got the bug from regular attendance at the Speedway.

I suppose you have seen that video clip of the French train that did about 570kph. When it came to a stop and they put the sign board on the platform stating what it had done, the driver got out and he looked rather pale and bloody relieved that his ordeal was over. I never went that fast again until I had a ride down to Yeppoon and back on the demo Vincent HRD motorbike that my cousin had in his motor-bike shop in Rockhampton. The stomach reaction might have been the same too.

Patrick Kron, chairman and chief executive of Alstom, poses in front of the special V150 French TGV high-speed train after it set a world speed record at 574.8 km (357 miles) per hour in France's Champagne region at Bezannes, eastern France April 3, 2007.

MODELLERS CORNER

John Aldrick (England)

Here are some pictures of some coaches I built last year, and entered in the 2mm Association competition, for which I won an award. Plus some earlier ones that needed Royal Mail and Restaurant Car decals added. ***All N Scale.***

exLNWR W9 Dining Car

GWR Collett C77 3rd

GWR 57' Toplight 3rd

GWR 70' Toplight Bk 3rd

continued from page 30

Collett Bk 3rd

GWR L21 TPO

GWR 70' H26 Restaurant Car

Restored Dinky Toys Models by Richard Stracey

Dinky Studebaker tanker "Ampol" Code3

OOPS!

www.

This is the collision between a Dublin bus and a Dublin tram.

A classic follow-up next month

EDITOR'S TALES

Ted Freeman

The Eveleigh locomotive depot serviced a large contingent of steam locomotives in its heyday, during my period working from the depot, steam was no longer king, but still held on strongly with not only shunt engines to be looked after, but also the ubiquitous 32's, 36's and of course the famous 38's.

It takes coal to fuel a steam loco, and Eveleigh had a fairly substantial coal trestle. Unlike the American coal stages, the NSWGR's favoured trestles where open wagons of coal were shoved up an incline and dumped into hoppers ready for distribution into hungry tenders.

The honour of keeping the trestles hoppers filled went to the depot shunting crew, the guys that moved the engines around as needed for access and service, locomotives were filled with water on arrival at the depot and topped up as they left, but coal (unless desperately low) was replenished only at departure.

With your locomotive carefully spotted under the appropriate chute as directed by the fuel man, you would huddle back in the cab (or detrain) as tons of black, sooty diamonds poured into and all over the tender, and if the chute was reluctant to close, into the cab.

As traumatic an experience this could be at times, it was nothing compared to the job the depot crew faced during the process of filling the bins.

Memory is a bit vague on some aspects of this job, although I do recall having the "pleasure?" Of doing it several times. Usually a 19 class, or 30T would be the assigned engine to the task.

I don't recall the exact procedure for getting to the mainline, but with two or three BCH's or some such, we would have to make our way to platform 16 at Redfern and wait in a siding ready for the opportunity to make a run for it in between the constant stream of local electrics.

With an allocated opening, we would make our way out onto the curving platform track, easing in to the platform just far enough to clear the shunting signal. With the shunting signal cleared, the driver would "get up it!" As a short, twisting approach was made as fast as possible towards the steep grade up onto the coal trestle.

If this part wasn't scary enough, the sheer thought of being on the steam loco with no visible means of support under you at an alarming height only made the situation feel worse. At the appropriate time, the driver would have to close the throttle and grab the brake so as not to spear off the end of the trestle. At the same time, momentum could not be lost, or slipping to a stand on the grade was a real possibility. The relief of a successful spotting of the wagons was always welcome.

This procedure would be repeated as often as required, subject to the amount of coal being used.

continued on page 34

 continued from page 33

The other aspect of the job was to pull the empty's, not quite as daunting, but eerie nonetheless.

On the receiving end of the coal, once fuelled up and ready to go you would wet down the fresh load to keep the dust down as you completed the next element of your journey. If heading to Sydney or Darling Harbour, the next adventure would be a trip through the "Dive".

The Dive was a single track tunnel that did as its name indicated, it 'dived' down under the suburban and mainline tracks as it took you from the loco depot to the opposite side of all the tracks to gain access to the main line to Sydney. This steep incline in, twisting narrow tunnel under and steep climb out to daylight again was another hair raising adventure.

Gaining entry to the Dive was by permission granted by a semaphore signal that guarded the entry to the tunnel, a single yellow light with a 45 degree slant on the blade allowed a light engine to enter.

At the other end was a very unfriendly 'derail' that prevented exit onto the mainline unless the signal was cleared, more often than not, you would be brought to a stand and have to await an opening in traffic before being able to proceed. The grade here was very steep indeed, so keeping an eye on the water level was imperative and more often than not, screwing on the handbrake wasn't such a bad idea either, just to assist in holding the engine on the grade.

Starting the locomotive was another challenge, as you would inevitably be running tender first, there was no sand to be had and the chance of slipping the drivers and sliding back into the hole was all to prevalent, especially when conditions were less than dry. Locomotives like the 38 class could be an extreme handful under less than perfect conditions.

Diesels, on the other hand, just took it all in their stride, instead of plunging into a black hole, you had a nice bright headlight to take in the view of the beautiful soot covered tunnel walls and roof. You could trundle through at a relaxed pace, knowing full well that to stop and restart was no problem.

 continued on page 35

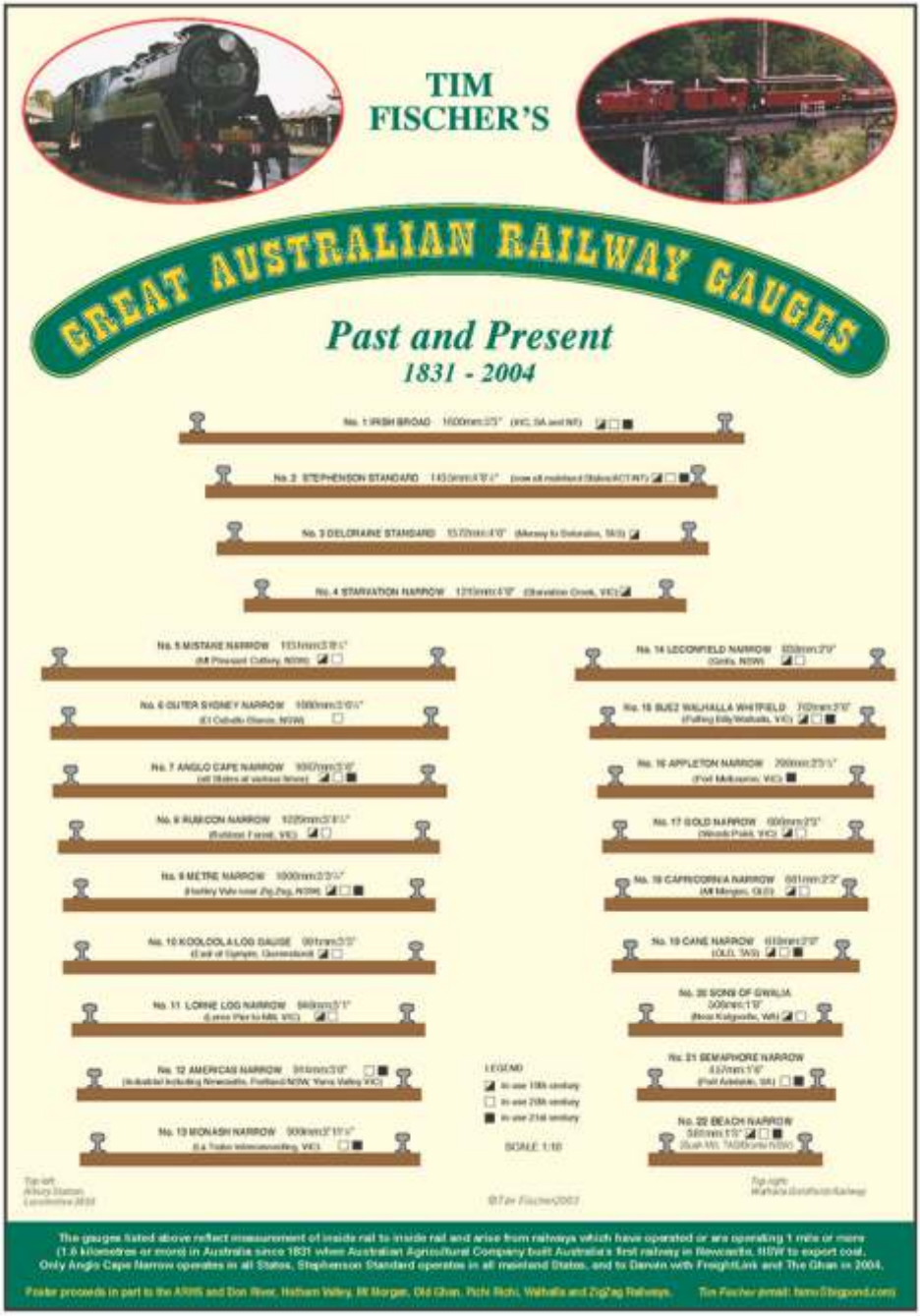
continued from page 34

When the Southern Aurora and Spirit of Progress moved into the new ACDEP servicing facility within the Eveleigh complex, then yet another hand was added. In this instance, you would pull up at the signal protecting the 'Dive' and inform the signalman that you had either the Aurora or the Spirit in tow. Reasoning behind this was, that until you received an all clear green signal, you stayed put, once the green was shown, you had to make your move and fit into the available window, else the signalman take the road back off you.

First problem, get the train moving, second problem - NOT TOO FAST - as swinging the long passenger trains down through the tight confines of the hole was indeed a delicate balancing act. Of course, the exit was then a FULL THROTTLE affair to lift the heavy train out of the deep ravine whence you came, having the confidence that you entered the tunnel on a green, ensured you would have at least a yellow to exit. WOULDN'T IT?

The southern aurora was the most prestigous train I worked on, with the Spirit of progress a close second, on the previous page, the Sydney end of the Loco Dive was a daunting prospect with these heavy trains, you HAD TO have a clear run as there was no way to start the trains on the steep exit from the Dive.

Contributed by DavidCook



TAREE XPT

37

Arthur Hayes

January 2019

Railway Timetable

THIS COMING EVENTS LISTING IS PRESENTED AS ACCURATELY AS KNOWN AT THE TIME OF PRINTING, IF YOU WISH TO CONFIRM ANY DETAILS AND/OR HAVE ANY OTHER EVENTS FOR LISTING, PLEASE SEND THE INFORMATION TO THE CLUB EMAIL ADDRESS **- info-ddmrc@ddmrc.com.au**

PLEASE ADVISE ANY ERRORS.

NOTE: Saturday afternoons at the showgrounds from 2pm, unless notified otherwise. Wednesday afternoons from 1pm till 4pm.

ALL EVENTS SUBJECT TO CONFIRMATION

**** Indicates limited access at the Showgrounds****

January
2nd Running Day, all layouts proposed to be available for running.
4th Social Night, activities of your own choice, Start 6.30pm
5th Running Day, all layouts proposed to be available for running.
7th Committee Meeting. McDonald's Margaret Street, 7.30pm.

February
1st Social Night, activities of your own choice, Start 6.30pm
2nd/3rd Toowoomba Swap Meet
4th Committee Meeting. McDonald's Margaret Street, 7.30pm.
6th Running Day, all layouts proposed to be available for running.

March
1st Social Night, activities of your own choice, Start 6.30pm
4th Committee Meeting. McDonald's Margaret Street, 7.30pm.
6th Running Day, all layouts proposed to be available for running.
9th Clifton Historical Society QLD Rail 150th Anniversary.
28-29-30 Toowoomba Heritage Royal Show

40 Maitland Steamfest 2018

Andy Warren