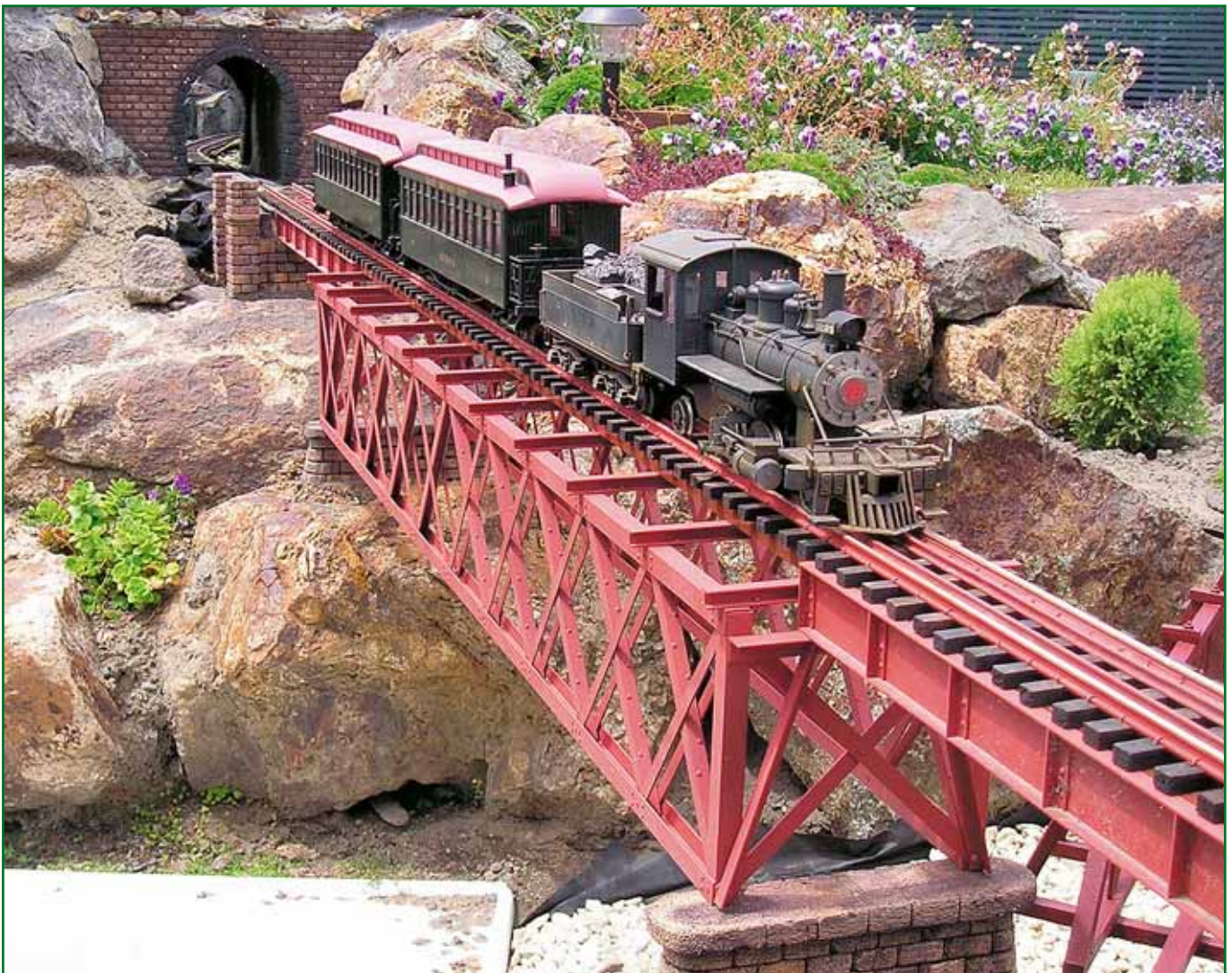


New Zealand G-SCALE News

THE NEWSLETTER OF THE 45MM GAUGE MODEL RAILWAY GROUPS

1st
Issue
New National Newsletter

The Five Mile Creek Viaduct



▲ A short passenger train crosses the finished bridge. Glen filed a few small V-grooves in the surface of the rail to give a “click-click” sound as the train passes.

Glen Anthony is a member of the Christchurch Garden Railway Society and the former editor of their Garden Whistle Newsletter.

One of the things I wanted to achieve when building my new railway was a decent-sized viaduct. The type I envisaged was one similar to the Makatote and Makohine on the North Island Main trunk, with the long metal piers and the under-hanging metal

trusses (that’s not a technical- term by the way, but it’s the best way I can think of describing it!).

I had seen a photo of a curved one in the book “Miniature Steam in the Garden”, the story of Frank Roberts’ railway, so I knew it could be done. But



▲ The real 5 Mile Creek Viaduct in Central Otago, taken during the last few months that it still had a railway line on it. The track demolition train locos are crossing it (June 1991).

I didn't want the complexity of a curve.

After surveying the massive pile of dirt and the 10 tons of rocks hurriedly placed by the digger as the hire time ran out, I reluctantly came to the conclusion that that type of viaduct was not going to fit anywhere and look convincing. So instead I tried to imagine myself as an early engineer and decide what would have been the most economical way of building a bridge across the gap.

Given the current terrain, a large single span could be anchored on the rocky outcrops on each side, reducing the need for high piers.

Smaller spans could link in at either end. To add to the complexity, the lower level track passed under the viaduct at one end so the span at the end would have to allow clearance for the trains on the lower track underneath it.

I decided that a Lattice Girder viaduct similar to those on the Otago Central Branch Line would look great. So I looked through some photos and found that bridge 50 (now part of the cycle trail) was just the example I was looking for. It also had the necessary smaller plate girder beams at each end.

Choice of Materials:

Looking at the metal shapes which would be required to build the viaduct, there was only three materials in contention — steel, galvanised iron or aluminium. The smallest size steel bar available was far too thick, so that was quickly ruled out. I didn't own any bending tools for working with sheet metal, so that was not a highly favoured option. But there were plenty of small aluminium extrusions readily available in Christchurch so the decision to go with aluminium was made!

Ullrich Aluminium have an excellent website (<http://www.ullrich-aluminium.co.nz/extruded.htm>) which lists all of their products and the dimensions of all sides.

I settled on 1.6 mm thickness (the smallest available) and worked out a range of flat bar, angle, channel and box sections which would complement each other. With the over 50 lineal metres of aluminium on the floor of the garage in May, I was ready to start!

Cutting:

Cutting at the factory is done with a diamond saw blade. Price enquiries soon revealed that was out of my

budget! I was told that a traditional metal-cutting disk in an angle grinder would be no good either, as the aluminium tends to melt and clog it up. I was given the suggestion to try a concrete-cutting disk, but that had limited success. In the end I found the good old hacksaw and file made the best job.

Although the channel and angle



▲ A piece of perspex clamped to the bottom of the jig saw, with a hole just big enough for the saw blade, overcame the problem of holding down narrow (12mm) aluminium bar and cutting 2 mm off it.



▲ A Tr loco with a work train on the finished viaduct. The truss bridge in the foreground has not been completed, and will have a central pier added later.

come in 10 mm widths, the smallest flat bar was 12 mm wide. So to make that blend in I had to cut 2 mm off the edge for 10 lineal metres. I did not want to attempt that with a hand saw!

I made a holding attachment for my jigsaw and used a coarse metal cutting jigsaw blade to do it. It became blunt very quickly (by 2.5 metres it was useless), and the rough edge still needed to be filed by hand but it was faster than the hacksaw!

The main span is made using 15 mm angle around the outside. The cross-sections have one piece of 10 x 10 mm channel running in one direction, and a piece of 10 mm bar on each side running in the other direction.

Once they are riveted to the angle at the top and bottom it becomes very strong. The small spans at the ends are made from large box section cut down the middle (so what you see is the inside of the box).

Small angle section is then cut down and fastened to make the vertical ribs.

Rivets:

My father managed to find a little bag of very small aluminium rivets that were surplus from a job. Unfortunately

I don't know who made them because they are great and I would love to get some more. I used over 250 of them as decorative rivets.

Each one required a hole to be drilled, and then the end to be hammered over, so that occupied a number of hours!

There are also about 100 small (3.2 mm) pop rivets which hold the structure together. The rivet gun was really appreciated after the hammer method!

Painting:

Originally I was considering having it powder-coated. However, after spending an enormous amount of time putting in all those small rivets, I was worried that the powder coating would cover them all up. I also had reservations about how the powder would be able to be sprayed into some difficult areas. So I decided to spray paint sections myself before assembly. I gave them another touch up after assembly.

Track:

The track is brass rail laid on wooden sleepers cut from trellis. The rail was

sprayed a rust colour before assembly as bright yellow rail wasn't really the look I was aiming for! I used 12 mm nails nailed through from the bottom of the sleeper and then I bent the tip of the nail over the foot of the rail to hold the rail in place. I picked up this tip from Greg Hunter's website.

Having seen the damage that hail does to unsupported plastic sleepers on Roger's track, I'd rather take the risk of the wood warping than having no sleepers! I was going to anchor the sleepers to wooden beams on top of the deck of the viaduct as this would have been prototypically correct.

I found what I thought was the perfect hardwood which was several years old. However, after cutting it down to size and nailing all the sleepers on, the wood started to warp and twist.

So, instead I used aluminium box section and put screws up through the box section into the bottom of the sleepers to anchor them in a few places.

To finish off the viaduct, and complete the Central Otago style, I made some look-alike stone piers from Hebel concrete, but that will be the subject of another article....

From the Editor

Well here it is - the first of the new newsletters incorporating the *Crossed Ties* newsletter from Auckland and the *Garden Whistle* from Christchurch.

I'd like to acknowledge the help given by Glen Anthony who has been editing the *Garden Railway Society's "Garden Whistle"* newsletter and Dan Hughes, who has been instrumental in getting the new Wellington group off the ground in 2005. Their support for the national newsletter and their steady stream of photos and articles have been a major help in getting the newsletter to press!

In my travels I've met an enormous amount of goodwill and enthusiasm for the concept of a national newsletter. The consensus was that all the G-Scale modellers would like to be in contact with each other, and having a national newsletter incorporating all the local news from each group was an opportunity for this to happen.

The corollary is that, not only does it give us a bigger pool of readers, it gives us a bigger pool of contributors for articles and news that everyone wants to read.

In addition, hopefully, it will help bring more of the 45mm gauge modellers of all ilks, who are not yet part of any group, into contact with the various groups.

To this end, there will also be some promotional material produced for the retail shops and for exhibitions etc.

The associated website, www.gscales.org.nz, is under way but still in its embryonic stage as yet. It will eventually carry some past articles from the newsletters as well as a small photo-library that will be updated, probably monthly, for members and the public.

Hopefully this will also help bring more modellers into the fold and expand our fraternity. IL.

ADK Refurbishment

Henrik Dorbek



Henrik was the editor of the Crossed Ties newsletter for several years until the new job driving with Connex came up. This restricted his spare time somewhat with study and certification requirements in the early stages, but now he has taken the time to contribute this article for us.

Over the past 12 months a lot has happened. I was officially certified by Connex (for my wife and kids it is just confirming what they already knew). I have been out driving units for nine months, and Santa has been.

For us as drivers, reliability of the units is important as well as their comfort — not just for us but for our Guards, passenger operators and for the paying passengers. Whilst the old rattlers (ADK/ADB units) are lovely to drive they suffer from old-age related reliability problems.

Recently moves have been afoot to refurbish them and make them paired units. By saying paired units I mean permanently coupling two of them together and running them as such. This effectively cuts the available running fleet in half (we currently own nine of them) which in itself causes

problems in that we are short of stock to maintain even current services.

Here is a short potted history of the "Perth" units currently in service with us in Auckland in service.

The nineteen 2-car diesel railcars were bought from Perth when that city electrified its suburban rail services. They are in two classes, the more modern ADL motorized car with its ADC non motorized trailer and the earlier ADK motorized car with its ADB non motorized trailer.

The ADL/ADC cars are semi-permanently coupled together as the ADL power car cannot be operated without the accompanying ADC to provide the 415 volts AC electrical power from a subsidiary diesel generator under the car. This operates the engine radiator cooling fans and compressed air for the brakes.

These cars were built by Goninans of Australia in two series. The first series of five two car units, ADL801/ADC851 to ADL805/ADC855, entered service during 1982 and the second series, ADL806/ADC856 to ADL810/ADC860 entered service in 1985. The cars are of Monocoque

ADK/ADB Railcar Units.

The ADK railcars were built by Commonwealth Engineering Co. (NSW) from 1968 to 1969. They are of stainless steel construction based on the American Budd railcar design. Each car is fitted with two Cummins turbo-charged diesel engines giving an output of 190 BHP per engine.

The ADK power cars are semi-permanently coupled to the ADB trailer cars, each car only having one driving compartment at the outer ends (as is the case for the ADL/ADC units). These can also be operated in 1,2 or 3 car pairs.

The ADB cars were built by Westrail (Western Australian Government Railways) in their own workshops and are identical to the ADK power cars above the underframe.

The railcars are numbered ADK681/ADB771 to ADK690/ADB780, with ADK689 being retained by Westrail to convert to a rail inspection car. Its companion car is in Auckland to be used as a source of spares for the other units. Auckland therefore has nine operable units in service.

- A = Passenger Vehicle
- D = Diesel Powered Vehicle
- L & K = Power Car Classes
- B & C = Trailer Car Classes

One of these double car units can carry 132 people seated and 264 standing passengers. Cars using the motorway have an average occupancy of 1.5 people so that one railcar is able to replace 264 cars. Two railcars operating in multiple could replace 528 cars. At peak times if four such trains were run per hour over 2000 cars would be removed from the motorway system.

Other Units Not Purchased By Auckland.

Left in Perth at the beginning of Electrification were 16 ADG's, 3 ADH's, 5 ADX motor cars and 17 ADA trailer cars. These were over 37 years old and most were scrapped although some did find their way into



▲ The passenger cars as refurbished.

stainless steel construction with structural design input from Pullman, America.

The ADL cars are fitted with two Cummins turbo-charged engines rated at 280 BHP each. All axles on the ADLs are driven. The engine transmission cooling radiators are roof mounted with a radiator fan driven from the 415 volt AC 3 phase supply.

Fuel capacity of the ADL car is 800 litres and the ADC carries 1100 litres to give an operational range of about 1000 kilometers for a two-car set before it has to refuel.

The ADC is identical to the ADL above the underframe. Under this car

is a diesel alternator/generator set which supplies power to the radiator cooling fans, air conditioning units, air compressor and lighting sets.

More ADL/ADC unit sets would have been built had Perth not decided to electrify their system.

The passenger saloons are air conditioned by two 25kW refrigerator sets and 10kW of electric element heaters per car. These railcars can be operated in 2, 3 or four car sets. In Auckland the governing factor is the length of the platforms and the Newmarket backshunt.



▲ The passenger seating.

they are screw type and dangerous whereas on the ADL they are air operated.

- e. In the passenger cabin, the seats are all the same as ADLs now to provide better passenger comfort. With the enlarged generator capacity comes better lighting for the passengers also.
- f. Under the frames the engines were refurbished and the turbo removed (It now sounds really meaty). An enlarged fuel tank has been fitted to alleviate the need to refuel them in the middle of the day at Papakura. New wheelsets were fitted to all bogies along with new Voith power transfer transmissions.

All in all it is a step in the right direction. There have been teething problems with the new units as there is always with new systems.

While they look nice, they do not alleviate the need for new modern units and this is the direction I believe we need to follow rather than the sows ear and silk purse syndrome that seems to pervade our society.

If we want a world class rail and rapid transport system then it will cost us and we need to step up to the plate and take a shot at it.

preservation.

Well what a mouthfull.

On to the new ADK/ADB set that has been coupled to an un-refurbished set.

This unit was sent to Hutt Workshops in Wellington to provide a prototype model for other planned refurbishments. The main differences are as follows:

- a. New-look outer appearance to conform with the SA/SD and ADL/ADC unit sets.
- b. Generator removed from under the B unit frames and replaced in the B cab with a Perking Diesel generator. The cab was soundproofed and enlarged. This means air conditioning can and has been installed along with an ADL screw type compressor providing almost unlimited air for brakes.
- c. A redesigned and refurbished cab — this was strengthened and totally rebuilt. Included in this was the installation of new dials and control panel, new ADL type drivers chair and a Tranzlog event recorder (black box). The passenger's seat was turned around to provide forward view travel and adequate heating and

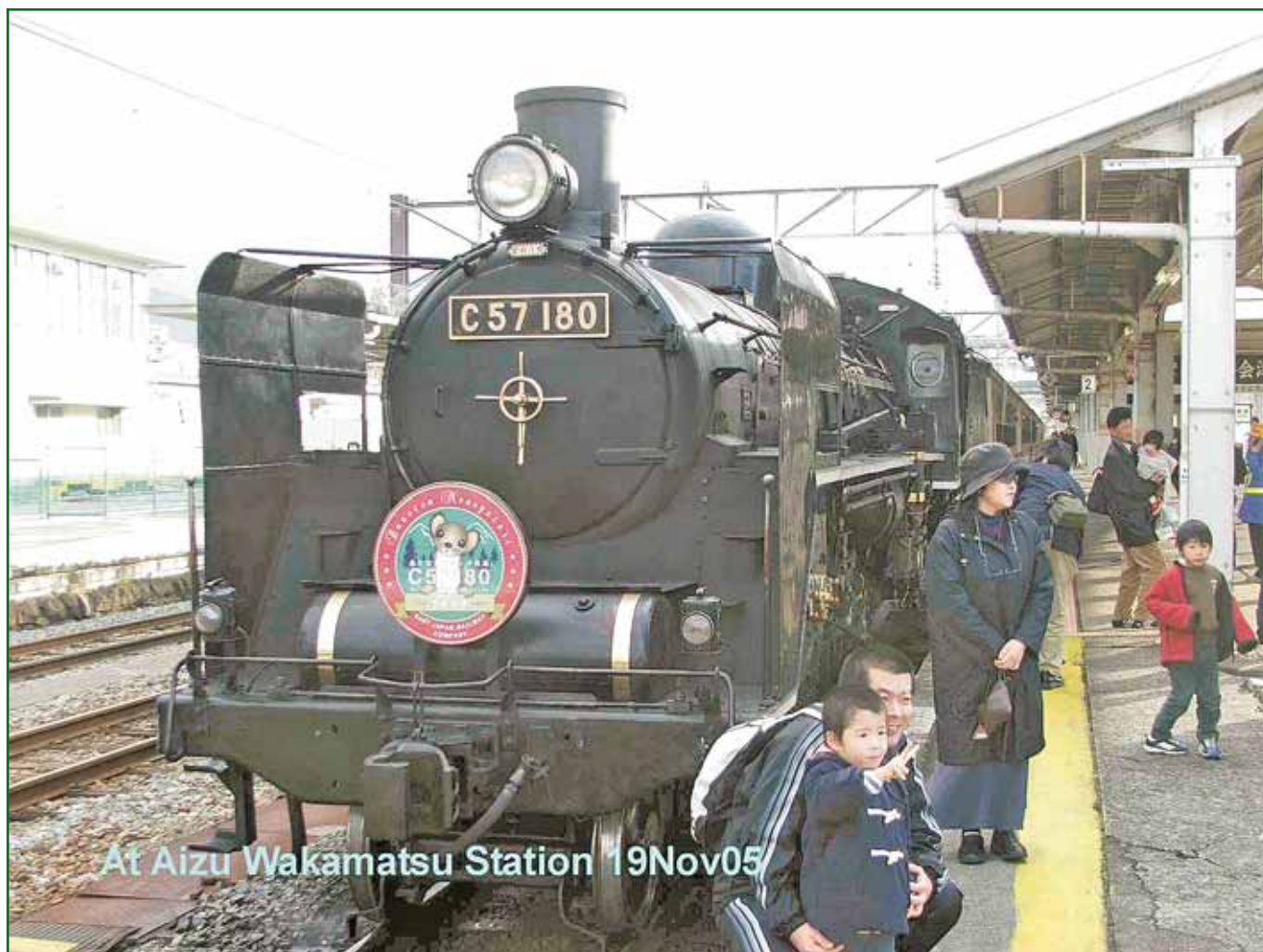
air-conditioning with windscreen wipers on all windows were fitted. Foot operated horn/ whistle, high power lights with halogen bulbs for night driving were added.

- d. This unit is now compatible to run with an ADL or an ADK by the selection of a switch. The door controls for the guard is the same as an ADL, along with the pistons for the door closers. In an ADK



▲ The newly refurbished driver's panel.

What! Derek Lane in Japan again!



Derek, from the Auckland group, has been travelling again!

Although a two-week trip to Japan in November was to attend a convention at the Tokyo Convention Centre at Kaihin Makuhari, the real objective was to use a 7-day Rail Pass for a number of rail trips.

Makuhari is between 30 and 40 minutes from Tokyo Central station. The signs in the main Tokyo station concourse advise that the platform for the train to Makuhari is 550metres away – and the transfer involves several long escalators, 3 moving walkways and a bit of walking. They like to keep the commuters fit.

As with most longer commuter lines

in Japan, there are several types of train – a local that stops everywhere, a “rapid” that stops at major stations and the limited express that stops at regional centres. All these services happily co-exist on the same pair of tracks.

The other Rail Pass excursions included day trips to Shizuoka, Kofu and Yamagata.

Shizuoka

Shizuoka is an hour and 3 minutes from Tokyo by Shinkansen on the way to Osaka.

A couple of the photos show the bilingual destination boards on the Tokyo station platforms.

I sat on the platform at Shizuoka

for about 20mins while waiting for a “Hikari” train back to Tokyo – to do a bit of train-spotting.

Shizuoka is an intermediate station and many of the Shinkansen trains pass through non-stop. This is quite impressive for a couple of reasons – firstly there’s a through train about every 5 or 6 mins and secondly it takes no more than 10secs for a 16-car train to pass. They are doing at least 200km/hr so if you thought you could collect any detailed information about the trains – forget it.

A few other observations:

a) A 16-car train has two pantographs so that makes for an interesting power distribution system along the train given that all wheel sets



interesting to see the various stages. It's going to take a while.

Buffet cars have gone from Shinkansen and express trains but a catering trolley is still wheeled through the train selling lunch boxes, drinks (tea, coffee, soft drinks and some alcohol). The selection is a bit limited so the better and cheaper option is to stock up at one of the many convenience stores at the stations.

Yamagata

Yamagata is a small city in central Japan to the north of Tokyo. The Yamagata Shinkansen leaves Tokyo coupled to a Tohoku Shinkansen making a 16-car train. It runs at normal Shinkansen speeds for the first 270km as far as Fukushima (1hr 38mins) where the train splits with half going to Yamagata and the other half continuing on to Sendai.

From Fukushima to Yamagata (87km, 1hr 11mins), the line is much less Shinkansen-ish and the speed significantly slower. Some of it is single track and it's also up-hill. The interesting bit about this line is that it is all standard gauge so at the first station we stopped; there were some local trains that looked like regular JR regional commuter trains. But the Yamagata system from Fukushima is all standard gauge so the local trains have been equipped with standard gauge under-carriage.

This is in contrast to the Akita Shinkansen where much of the system

are powered and the catenary voltage is 25Kv.

b) A 16-car train has a basic capacity for about 1,500 passengers so they are moving lots of people. A 16-car train has the capacity of about 3 747 aircraft. With the train, the latest check-in time on the platform is about 30 seconds (just to be safe) but if the doors are open you can still get on.

c) The non-smoking cars are usually full but there are plenty of seats in the smoking cars but these cars are not a place to be if you are a non-smoker. There has been a significant reduction in the number of smoking cars.

d) There are about 106 Shinkansen trains from Tokyo to Osaka each day. Most of these are 16 car trains with a capacity for about 1500 passengers each so the system moves a lot of people.

Of course between Tokyo and Osaka, there's a population at the Tokyo end of 10million plus and at the Osaka end 6 million plus. Never the less, the statistics still amaze.

Kofu

Trains to Kofu and beyond are regular Chuo Line Limited Express trains on 3'6" track. One of these is the Super Azusa. They leave from

Shinjuku station – one of the most complex and busy stations in Tokyo. The first part of the trip is predictably through suburban Tokyo. Serious construction work is being done to elevate a significant part of this line to eliminate a large number of level crossings. In some cases, the crossing barriers were down for more than 55mins in the hour. The construction technique was to put in a new temporary track with the new support columns going on the original land. This line is overhead electric as well.

A similar, although smaller scale, process has been done on the Airport Keisei Line for the same reasons.

Chuo Line construction is going on over a significant distance and it is



▲ The scrolling noticeboard in Tokyo Station.

is dual gauge.

Aizu Wakamatsu and a steam train

This friend of ours in Japan – Barry Mouat by name for those who may know him – convinced me to take a trip on the regular Saturday steam train trip from Aizu Wakamatsu to Niigata. As it turned out, the Rail Pass gave me a reservation at no extra cost so the trip was on.

Barry is a very serious train photography enthusiast and spends large amounts of time driving to remote bits of Japan to take photos of trains.

Being a creature of comfort I chose not to join him on the drive from Tokyo starting at 10pm. My enthusiasm for trains does have some limits.

I took the easier way of catching a Shinkansen at 10.22 (gentleman's hours) on Saturday morning for Koriyama, followed by a one hour local train to Aizu Wakamatsu.

There's some tourist and visitor things around this area but needed a bit more time than I had available. Still, the station area had some interesting features and although the rail traffic was light, provided enough interest to fill in the time.

The steam train trip to Niigata is about three and a half hours. It runs most weekends except during winter. Basically it's a scheduled JR service. The diesel railcars during the week take



about two and a half hours.

Part of the problem of doing this trip in November is that it gets dark about 4.30pm so for a service that starts from Aizu Wakamatsu at 15:06, there's only a limited opportunity for sightseeing and cheap digital photography.

The loco was a C57 number 180 – a Pacific type and coal fired. The train consists of seven refurbished, air-

conditioned carriages – the middle one being a sort of buffet/shop/lounge car.

Reached Niigata about 18.40 – time for a meal and then onto the Joetsu Shinkansen for a two hours and 3mins trip back to Tokyo – 330kms.

All up the day involved 750km of rail travel and took 12 hours of which 8 hours was on trains.

Other Things of Passing Interest

1) Apparently the third Thursday in November (17 Nov in 2005) is the day for worldwide release of Beaujolais Nouveau. The Japanese import over 1 million cases of the stuff and it all comes in by air. How many 747 freighters are needed to move this much wine? And most of the weight is in the glass and packaging. And further, it's not even very good wine. It sells for about \$NZ32 a bottle.

2) The Tokyo Stock Exchange computer crashed a few weeks ago and it has been reported that the



▲ The noticeboard's multi-lingual repertoire scrolling includes English!



Yamagata Station buildings

salaries of the President and 8 other executives would be cut by up to 50% for 6 months as punishment. It's an interesting view of corporate responsibility.

Imagine any NZ executive getting that treatment and goodness knows some deserve it. They would probably get a bonus at the end of the year.

Another major scandal surfaced while I was there. Buildings had been erected that seriously short-changed the earthquake resistance code. More people falling on their swords. And the first of the faulty buildings is about to be demolished.

Makes the leaky building issue here look a bit tame.

However, this sort of "punishment" for Corporate "misdemeanours" is reported almost daily so the next thought is – "Is it an effective measure to stop corporate misbehaviour?" The impression one gains is that sometimes it's a wet bus ticket slap on the wrist.

3) Loyalty cards are big business in

Japan with most major retailers having a system. Known there as "point cards".

The way one that I have works, is a purchase attracts anything from 5% to 30% in value as points that are accumulated by the store. You have the option at each purchase of using the accumulated points or continuing to save them. They have a 2 year validity. Basically each point has a value of 1yen, so at the common level of 10%, a 5,000yen purchase creates a 500yen bonus which can be applied to the next purchase. It's an interesting system because it can generate instant discounts.

Public Transport fares

I had an interesting discussion with an NZer, resident of Tokyo.

He was asking about public transport fares in NZ compared with Japan. I had not considered this very seriously but it makes interesting reading. Of course when these fares are converted to NZD there is a whole

raft of conditions. A trip on the Tokyo Yamanote line (basically the circle line and a one hour circuit) costs between ¥130 and ¥190 (\$NZ1.65 to 2.37 @ ¥80 to the NZD).

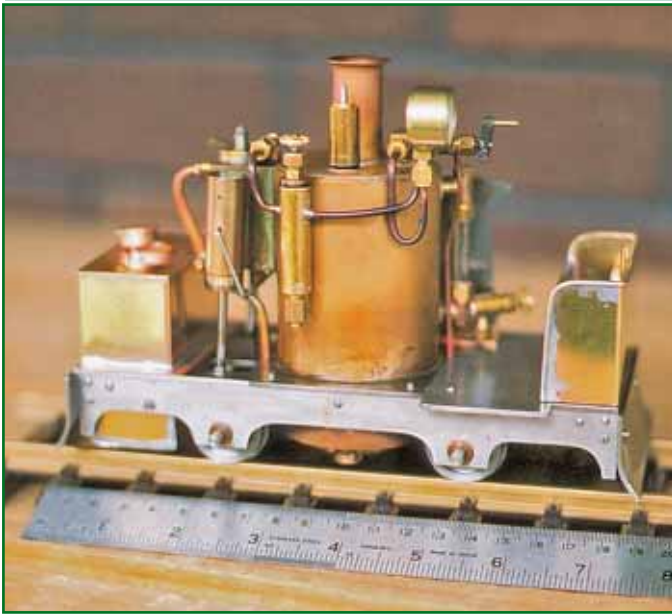
The trip from the International Airport at Narita to the city is about 60km, and by Keisei Railway (a private line) takes between 60 and 77mins depending on which train type is selected and costs either ¥1,000 (\$12.50) for the limited express 77min trip or ¥1,920 (\$24.15) for the non-stop 60 min trip.

As a comparison, taxis from Narita usually cost around ¥20,000 (\$250!!!) so taxis are not really an option.

The JR Airport Express is more expensive at about ¥2,500(\$31). Whether one uses Keisei or JR depends a bit on the city destination and where (or if) it is necessary to change trains.

A cab from Auckland airport to the North shore runs at about \$78-\$80 for a 35min 33km trip.

ANOTHER OILER FOR THE RAILS



David Bousfield wrote about his previous live steamer in the August 2005 issue of the *Crossed Ties* newsletter

I've nearly finished my second 45mm gauge version of Dave Watkins' 16mm scale live steam de Winton "Idris".

The loco differs from Dave's plans in a few areas following ideas I had from

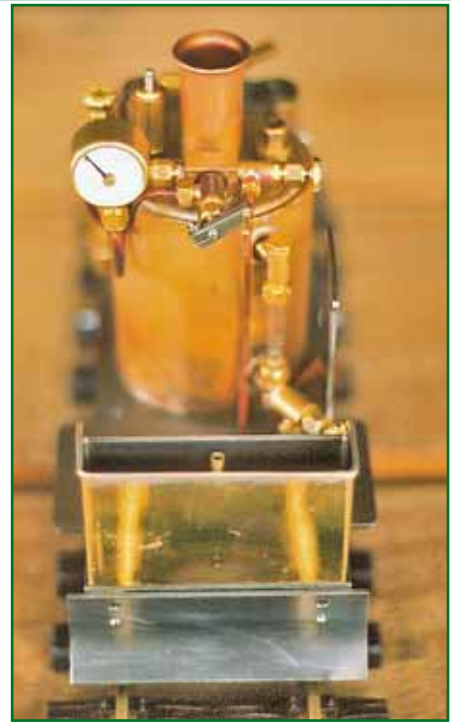


running Albus. Rubeus is the name of the new loco, and is the same external dimensions as Albus, and also features the same size meths-fired boiler, although I replaced the flue with a slightly larger diameter tube thinking it will help steaming. The cylinders have been raised higher up and

are in a more prototypical position. I also soldered the cylinder block direct to the boiler as Albus runs wet with lots of condensation. Rubeus has no condensation problems at all, everything gets wonderfully hot now.


The meths tank is located under the water tank and now feeds a four-wick burner. I added a steam blower to aid in getting up steam, I don't know how effective it is but it's another control to fiddle with. A control valve is also fitted to the lubricator as Albus likes to spray excess oil out the funnel a bit - along with boiling water (ouch).

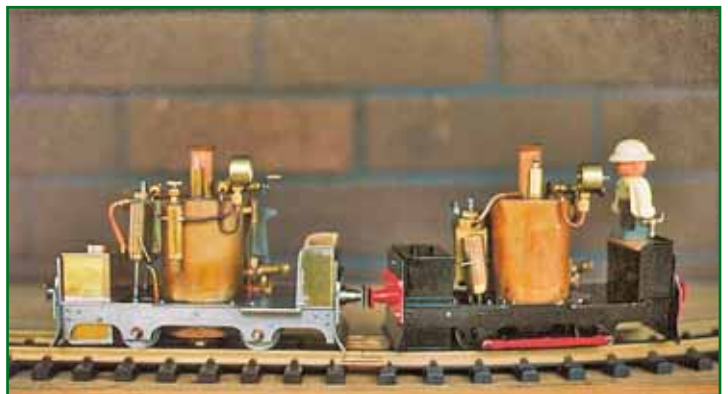
The exhaust exits at the base of the flue in the flames, the idea was that any condensate and oil would evaporate. Oil is certainly being burnt off as those puffs of "steam" that my family see aren't steam at all - Rubeus is quite a stinker running indoors. Neither loco has any visible exhaust steam as the flue



gases are too hot. By making Rubeus's exhaust pipe so long, I've cunningly eliminated all the chuff, he is almost silent.

Having longer piston rods Rubeus is less speedy and is not so affected by the tight R1 curves as Albus is. Rubeus is more of a grunter although his cylinders are smaller at 3/8" bore where as Albus' are 7/16" bore, the stroke is the same.

I must say that this has been a very enjoyable project which took a lot longer than anticipated. To quote my co-worker Wally, I had no problems, only issues, opportunities, and valuable learning experiences. 



The Hautere Railway



▲ The site with the trial layout.



▲ The kwila trestle bridge.

David Clarke has been extending his railway and has offered to host the Wellington Group's first onsite meeting.

After the builder finished some extensions, David was left with a patch of front garden 25 metres long,

6 metres wide with a drop of 1.2 metres. Inspiration demanded that the area be set out as railway, to contrast the already established garden and entertaining areas.

Having cleared the rocks and rubble, the area was first covered in pebbles for

weed control, carefully working around the juvenile camellia hedge remaining from the builder's efforts to decimate it!

Some of the builder's rubble came in handy for the trial layout, shown here supporting the back straight for establishment of the levels.

Then it was back to the workshop to develop the trestles for supporting the railway.

The trial concepts led to the smaller, simpler trestles pictured here, with support for the track, all made from Kwila bath mats, clearing out the stock at Bunnings on more than one occasion!

These mats seemed ideal, being made of materials for exposure to water and weather, 150 mm thick, and in lengths of 760 mm. Each slat of the bathmat was cut in three to give the approx scale and strength over the distance.

For a bit of side interest, David took some of the materials to make a few structures for the Railway, including this scratch built bridge, modelled on a



▲ The "Model Railroader" bridge - too narrow for the Dash-9's!

picture from Model Railroader.

When he bought a new loco that was wider than standard, the bridge ended up on a mine siding, rather than the main trunk line!

The cabin was scratch built patterned on a mining shed that came with a Bachman Ore wagon and the two storey saloon followed a picture in Model Railroader.

When rural American trains are running on the line, the cabin is endearingly known as “Amish” and the obscured outhouse as “A-men”!

The tie holes in the bath mats make an interesting pattern when used for construction of buildings! The roof moulding was taken from a strip of rusted barrel ring and fits the character of the structure!

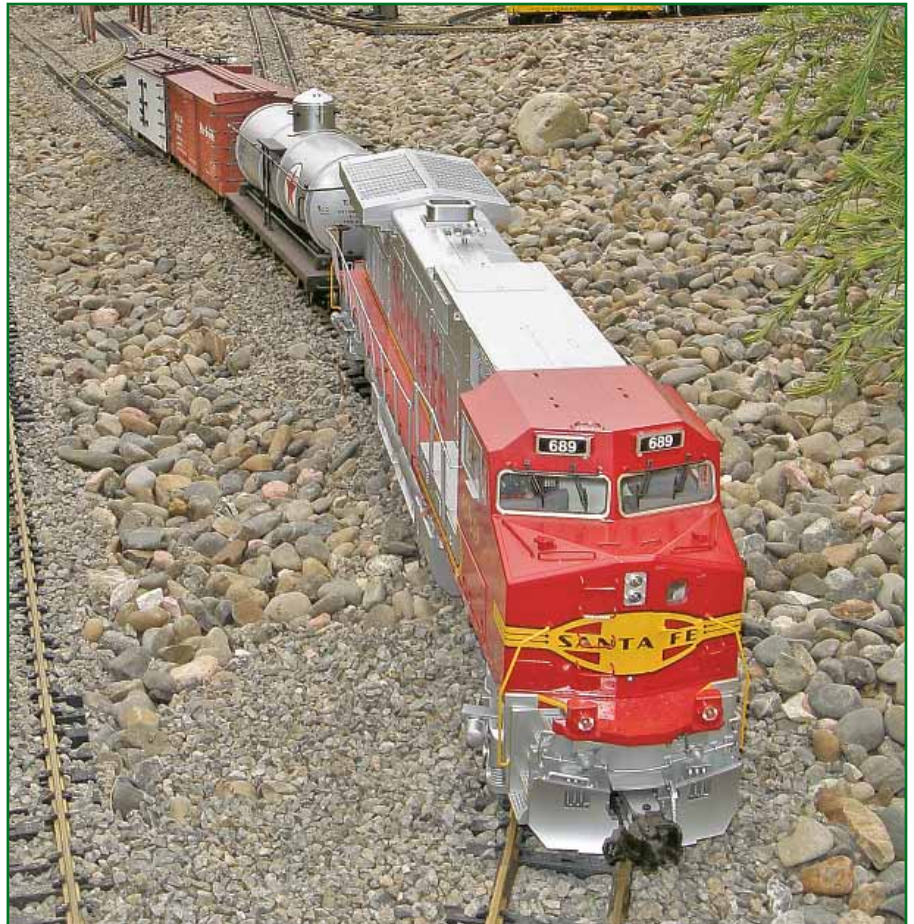
The year had many distractions so the full project of laying the rails spanned two Christmas breaks. However, to be fair to David, the initial layout just showed the scope for extension and development, so the simple outside loop has been infilled with switches and two more loops!

Current configuration runs three separate trains on cab control. Introduction of DCC control, the next stage in the development, could lift that to four or, with care, even five working locos at one time.

In the last shot (below left) you can see some of the trestles on the inner loops, as the General Electric 45 Ton Side-Rod Diesel pulls a few general freight cars on the middle loop with a “jerried” LGB forestry engine pulling a gold wagon on the inner loop. In the distance are the freight wagons pulled by the Dash-9 in the previous picture.

The “long” straight is beyond the camellia hedge to the left of this pic.

There has been trouble free running during a couple of “muggles” BBQ afternoons, and now David is hoping that it all stays in good running order for a G-scale BBQ in the quietness of Kapiti rural country one afternoon soon!



▲ The SF Dash-9 with the track floating on pebble ballast.

▼ The Amish (and A-Men) houses



▲ An overview of the inner loops.

21st NATIONAL GARDEN RAILWAY CONVENTION

CHICAGO, ILLINOIS, U.S.A.

26 – 31 July 2005



Roger Alexander, from the Christchurch Garden Railway Society, continues his report on the trip that he and his wife Sandra made to the convention.

Part Two: **29 July**

Visited 4 layouts including the Illinois Live Steamers with lots of potential for rides. 12,000 feet of

track in 7.5", 4.75" and 3.5" gauge plus extensive loco storage facilities make for a very impressive site.

Attended Lewis Polks Clinic on the new live steam Mikado. Then they took the loco into the Exhibition Hall where they ran it on a test track. A lot of interest and a lot of guys there pre-ordered the loco.

The Banquet - the main social event of the Convention was a feature of the evening.

30 July

Not such an early start as the Farewell Continental Breakfast was being held at the Inn.

That was the final function of a very well run Convention.

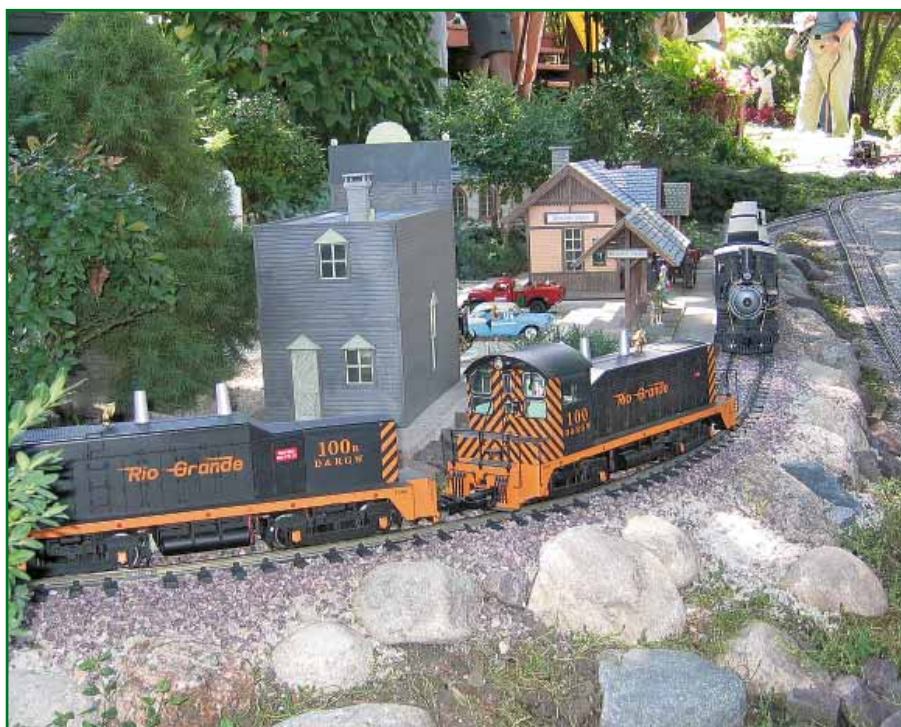
After the breakfast went to visit the Reid Brothers N scale layout which I had admired from afar and my expectations were realized when I saw it "in person".

1 August

Back to O'Hare Airport by taxi and it only cost \$US50. It was off to Philadelphia, Pennsylvania. No extra security search this time. Philly is a centre of early settlement and synonymous with the Declaration of Independence and the United States Constitution (but as some of you will realize that is not my main reason for visiting this area).

2 August

Into the Information Centre. Found our way to the Morris Arboretum by suburban train to Germantown (a suburb of Philly, attractive small town feel with cobbled street) then by bus to the nearest stop to the Arboretum then we walked and walked and walked down the road to the gardens (in 95 degree heat, who was complaining????) Found the Garden Railway in amongst an impressive collection of trees and well maintained gardens on the side of a large hill. The Railway had multiple



circuits at various levels with water features, buildings again by Paul Busse – public and nursery rhyme buildings. The Committee own some of the buildings but each summer decide on a theme for part of the layout and hires relevant buildings from Paul Busse – this year it was the nursery rhyme theme.

Good views of the city, main line rail and local industry from the suburban rail line.

3 August

Taxi to 30th Street Penn Station – a very grand building in the old style. Police with dogs and Amtrak Police on duty. Asked about taking photos – they basically said no, but I took some anyway. Boarded the Keystone and headed west to Lancaster. Picked up a rental car in Lancaster because there was no public transport to Strasburg. Found our way to Strasburg and motel on the main street of the small German style town. Rang Joe and Leslie Moyer, a G Scaler who lives just outside Strasburg and we had been in contact with them before leaving home. We arranged to visit their home late in the afternoon because it was still very hot. We managed to find their house which was about 20 miles away in the country. They have several acres of land and Joe has a well established ground level railway with water feature and tunnels. He has just made a larger extension towards the house with a large passenger station adjacent to the house. He was running a recently purchased USA Trains Hudson and Passenger train. We went to a local eatery for a meal. After we left them we were driving cautiously (as it was dark and the road undulating) on the right hand side of the road and on looking in the rear vision mirror I could see some flashing lights. I pulled over and a tow truck passed and the driver came back – he wanted to know if we were lost !!!!!

4 August

Railroad Day : 2 miles down the road to the Strasburg Railroad and the



Railroad Museum of Pennsylvania – they are directly opposite one another on a small country type road. Had a look around the Strasburg Railroad but as it was early they were just setting up for the day so we went across the road to the Pennsy Railroad Museum. The Museum was opened in 1975 and has a large collection of locos, rolling stock, memorabilia and art, a large Education

Centre with a large G scale layout set up to be operated prototypically as well as tinsplate pushbutton operated layouts. This centre is well supported by major manufacturers. Also there is a state of the art restoration shop and large outdoor display area on the roadside with larger freight steamers on display. Joe Moyer is a volunteer at the Museum.





Montreal, Ottawa and Toronto. Quebec, the most eastern was very French but the population became more English the further west you went. We saw many magnificent stone buildings, statues and the St Lawrence Seaway. We went up the CN Tower in Toronto and had dinner in the revolving restaurant – wonderful views of the city and Lake Ontario. Then it was onto Niagara Falls and back into the USA – across Pennsylvania to Strasburg to the Amish style of life (people without electricity, motor vehicles, etc). Then to Washington DC where we saw the Whitehouse, wonderful War Memorials and statues, and then back to New York. We then had a few days on our own and managed to see a lot of the major tourist sights. Of course we had to visit Brooklyn on the subway and visit TrainWorld. Most of their business is mail order but still had a reasonable showroom. Then it was the final day in New York, so some last minute shopping including a small suitcase, then a flight to Los Angeles for the night then on a direct flight back to Christchurch arriving at 5 a.m. We were home after being away for a month.

Where did that time go?

It was then back across the road to the Strasburg Railroad to take the 45 minute round trip to Paradise pulled by a nice little steamer. Just adjacent to the station is a motel where you are accommodated in Caboosees sitting on track – very photogenic. The ride terminates right beside the Amtrak main line where the loco is run around the train. There was an Amtrak work train operating there when we arrived.

5 August

Heading for New York today - Drove back to Lancaster and onto Amtrak. Saw Ground Staff handing up train orders. When we arrived in Philadelphia we changed loco's as diesels cannot run underground into New York, so changed loco to an Electric. Got talking to Engineer and got a look in the cab of the electric loco. Also talked to him about trainer order at Lancaster – it was giving him permission to run on the "wrong road" around some track repairs. I asked if he needed the train order and he said no – so I scored it as a souvenir. We arrived into New York through heavy industrial southern area, stayed at the Sheraton Hotel and Towers right in the city. We walked around Times

Square, Theatre District, Central Park – all GO, full of tourists.

The next morning we met our travelling companions for the next 15 days when we boarded a COSMOS tour coach which was to take us into Canada and back into the USA.

Our first day was through New England and stayed the night in Boston, then it was across the border into Canada. We visited all the major eastern Canadian cities – Quebec,



Around the Yards

I haven't been touring over the last month, but that hasn't stopped anyone from getting on with their projects. A few phonecalls provided a bit of an opportunity to catch-up and even elicit some photos of their models and full-size tasks!



▲ Recently out-shopped from Dennis Lindsay's workshop is this 1.20.3 D&RGW wheel and tie car that was used in a breakdown train. This car and the flat car with it have been scratch-built from scale-sized timber with a number of white metal and brass castings.



▲ Progress on Dan Hughes's Morepork Railway engine sheds — the shed lighting is in, shed cladding is well underway, the water tower is finished, the ashpit is in (hidden under the loco) and the coal staithe is under construction



▲ Pistons in reality!
 ► DX 5016 in for traction motor repairs. Rear bogie removed.
 ▼ DX5425 with straightened chassis (collision repairs!) and upgrade to DXR status underway



OPERATION MANUAL 101

For the Instruction of Locomotive and Shunting staff on 22 January 2006, and thereafter
at

SAVOY HOLZBLASER IDIOTENSICHEN TEUFELEI EISENBAHN

Ken has obviously been somewhat bedazzled by Henrik's Connex Rulebook. We hope that Henrik is able to be present for the requisite translations!!!

- 1 INTRODUCTION:- The Savoy holzblaser idiotensichen teufelei layout follows roughly a figure of eight shape (the "main line") with an extension (the "lower branch") to a terminal marshalling yard.
- 1.1 Grades on the Savoy holzblaser idiotensichen teufelei eisenbahn are limited to 3% on other than two 5% areas which will become obvious to all observers.
- 1.2 Curves on the Savoy holzblaser idiotensichen teufelei eisenbahn have a minimum radius of 1.2 metres.
- 2 LOCOMOTIVE OPERATION: -
- 2.1 Locomotives may be operated either by analogue or digital command control conventions, but not by both at once.
- 2.11 In either case operation is entirely by radio control.
- 2.12 Analogue shall be by means of the Aristocraft Train Engineer on frequency 2 for the 0-4-0 Orenstein & Koppel locomotive and on frequency 1 for all other locos. These two out of ten frequencies are located at the top of the radio transmitter handpiece and chosen by means of left or right buttons, the operation of which is confirmed by the alternately red or green flashing light emitting diodes. Acceleration, directional and braking controls are as labeled, but will be found

to operate fairly slowly.

- 2.121 The above control allows the battery powered O & K to be run independently albeit on the same control handpiece. This locomotive is powered from a series of AA nickel metal hydride batteries delivering 16 volts dc, and recharged by means of a model aircraft high capacity charger.
- 2.13 Digital shall be by means of the LGB system, configured on computer software WHERE NECESSARY.
- 2.131 Operators unfamiliar with DCC MUST refer to the District Mechanical Engineer for instruction.
- 2.132 Locomotives equipped with decoders to NMRA convention may be reconfigured to any address at the wish of the operator and returned to original or to default at the end of the session.
- 3 ROUTE OPERATION: -
- 3.1 Routes on the Savoy holzblaser idiotensichen teufelei eisenbahn are set entirely by compressed air operation.
- 3.11 CAUTION: - Participants are warned that the compressor may commence at any time, thus startling the unwary.
- 3.2 Routes are controlled by EITHER BUT NOT BOTH the internal or the external control panels of which there are two in each locale - one for the terminal marshalling yard, and the other for the main lines, loops, and double crossover.
- 3.21 Routes are portrayed on control panels by diagrammatic representation, and require that

an operator first familiarize her or himself by walking the track. The diagrams will then become clear.

- 3.211 Control over internal or external panels is selected by means of the wire-operated toggle extending through the wall to one side of the control panels.
- 3.22 Routes are chosen and points (turnouts) changed by the operation of toggle levers placed on the diagrams in relevant positions. A toggle should be turned in the direction in which it is desired that the locomotive should proceed through the turnout(s) in relation to the diagram.
- 3.221 One of the advantages of compressed air operation is that controls may be mounted in series, so that, for example if the toggle at a main line board is thrown, a remote toggle may then be used for the same resulting action at a position from which the movement of the turnout(s) may be observed. Thus, the toggles for the changeover turnouts leading respectively to the spiral, and to the loop at the top of the layout can both be operated from the toggles on the wall of the house under the lounge window handy to the sausage rolls.
- 3.23 DOUBLE CROSSOVER: - The complexities of two-rail live frog operation dictate that movements through the double crossover are limited, or short circuits will occur. The control toggles therefore point to on the diagram, and control: -



- (a) Travel straight through either "main line", or "lower branch".
- 3.231 The locking toggle limits travel through the double crossover to either:-
- (b) Travel up or down from "main line" to "lower branch".
- (c) Travel up or down from "lower branch" to "main line"
- 3.232 The two air operated semaphore home signals allow or refuse travel up or down the "main line" or the "lower branch" respectively when points are set to move over the cross.
- 4. SIGNALS
- 4.1 Signals may be distant semaphore, home semaphore, or home colour light, which is shorter in stature. (This is because a home semaphore in this position would have been decapitated by the lawnmower).
- 4.2 Signals are changed by means of reed switches excited by magnets stuck to the bottoms of selected locomotives.
- 4.21 If your loco hasn't got a magnet affixed thereunto it will not change the signal.
- 4,211 Notwithstanding, if a loco under your control passes a red you will immediately be removed from the track,,,,preferably in pieces.....
- 4.2111 If in doubt ask Henrick. He can tell you how it happens.
- 5. YARD OPERATIONS
- 5.1 Yard turnouts are controlled from the diagrammatic panels.

- 5.2 Uncoupling. Just to confuse workers, the uncoupling tracks are controlled by DCC. It's really quite simple - on the DCC transmitter punch F and 1 and then the number of the uncoupler required. (Number one is closest to the walkway) Then press the righthand button to raise the uncouple ramp or the lefthand one to lower it. The skill lies in aligning the couplings over the ramps..
- 5.3 Turntable - still requires some tweaking and at the time of writing was not operable. When finally it is it will be controlled from its own cheap plastic box on the wall inside above the yard diagrams.
- 6. REFRESHMENTS
- 6.1 The design of the Savoy holzblaser idiotensichen teufelei eisenbahn and the peculiarities of the hosts combine to ensure that the afternoon of January 22 will be an "open house".
- 6.12 Notwithstanding any domestic instructions they may have been received to the contrary, genuine workers will find something to their advantage - cold - and to suit all tastes (except Dennis who drinks whisky) in the refrigerator in the railway workshops.
- 6.13 Tea, coffee and the usual ginger nuts will be available in the lounge from the various windows of which the immature activities of the workers will be observable.

For Sale

NZ Railscene videos number 1 - 10, 11 and 14, \$5.00 each or all 12 for \$50. These are all in as new condition and make good watching.

English Steam Railway magazines from the 1980's 50 cents each.

I have some LGB European standing station staff figures that I would like to swap for some seated passengers.

**Phone Robert Graham
09 836 0900.**

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Diary Dates

Auckland

January 22
Ken & Liz McDiarmid
Glen Eden

(See the notes on p18)
*The address is 10 Savoy Rd. — off West
Coast Rd. into Pleasant Rd., then second
right into Savoy Rd.*

February 26

John & Anna Vogels and Alan Smith
Paeroa & Waihi

*In addition, we can have a guided tour
of the Waikino Gold Battery site, which
includes a 35 minute 2ft gauge tramway
ride. Cost is \$8.00 a head — we will need
to know numbers closer to the date.*

March 26

Ian Lewis
Warkworth

Wellington

Check with Dan Hughes
04 9778210

Christchurch

January 22
Don Ellis

*Directions: Travel along Shands Road.
Approx 7km from Hornby, turn right into
Selwyn Road (where Shands road veers to
the left). Travel 6km along Selwyn Road.
Cross Waterholes Rd, Weedons Rd and
Lincoln Rolleston Rd. Look for the blue
letterbox on the right before Springston
Rolleston Rd.*

February 19

Weka Pass Railway day trip
*Bring a picnic lunch (or you can buy
some food from the tearooms at Waipara
or Waikari). This is a public running day,
so invite any family or friends to come along
too. If we have more than 20 people we will
get a 10% group discount.*

*We need to meet at Waipara at 11am to
arrange tickets etc. More details at the next
meeting.*

March 19

Karl Arneson

New Zealand G-Scale News

The national newsletter of New Zealand's 45mm gauge model railway groups
(incorporating the former Christchurch *Garden Whistle*
and Auckland *Crossed Ties* newsletters).

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