THE NEW PINEWOOD EXPRESS

Pinewood (Wokingham) Miniature Railway

ISSUE 30 September 2011

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Cover Photo

Councillor Turtle cutting the ribbon to officially open the new station.

Photo: Colin Gross, June 2011

EDITORIAL

Recent circumstances have made me think about why I want to drive a steam train for public running. I've been making things all my life; initially radio controlled boats, cars and submarines and more recently full size 4x4 "off road" vehicles. So involvement in engineering is part of the attraction, but all the previous activities had involved competition. However I soon found out that when you became good enough to consistently win you a) became unpopular ("He's here again so we don't have a chance") and b) had to spend vastly more if you wanted to move up to the next level. So model engineering not being competitive is a reason. Now for over 40 years my only machine tool was a Unimat SL which meant that I could never build anything very large. So I purchased a 2" Minnie traction engine, and as steaming it at home wasn't much fun I took it to some rallies. There I was apparently almost invisible to other traction engine owners (that's not a "real" model and "you didn't build it"). Also most rally fields were too rough for the little engine. Still I enjoyed "steam" and when the chance came I upgraded to a 4" Tasker. At the rallies I was more visible (at least only about 30% of people ignored me when I admitted to not building it), so another consideration was that some model engineers don't want to know you if you aren't a builder (shades of competition again maybe). The main lessons learnt with the Tasker were that just driving quietly around rally fields was a bit boring, that I hated "road runs" (you feel even more vulnerable than a cyclist) and that the real fun was on the rare occasions that I gave rides behind the engine at the village fete.

Photo Colin Gross

My Stafford double heading at the Hollycombe 40th Anniversary event.

So now I think I have the answer to the question "why do I want to drive a steam train for public running" ? It's not competitive, the public don't care if you built the loco or bought it, you're giving enjoyment to other people; and most of all it's a challenge to drive a steam loco for public service. You have to keep the fire, water, and multiple controls just right to always have the loco ready for the service. The answer is that it's a useful non competitive challenge.

Unfortunately my last five runs have all been brought to a halt by injector clack valves getting stuck open (and the consequent loss of boiler water); which is why I kept asking myself "why do I want to drive a steam train for public running" ? Now I know the answer; it's all part of "The Challenge".

SUBMISSION OF MATERIAL

Contributions for the future issues of the Newsletter are warmly invited. Contributions can be in any man- or machine-readable form. Original material should be marked for return, if required. All material, including text and photographs, must be the submitter's own work or the copyright holder must have given written permission for publication. Submission of material implies conformance to this. Submission also implies agreement that materials may be reproduced in relevant other Model Engineering and Railway publications.

CHAIRMAN'S REPORT

First I would like to thank all the members for the effort that was put in to get the new station ready for the grand opening. We all know that it takes twice the effort to finish the final bits and pieces than it does for the initial build, but it was done and I for one am proud of the final result.

Unfortunately the day chosen for the station opening was to say the least damp, but we were not deterred. Combining our family day and the celebration of the 25th anniversary of the society's first public running with the opening of the station made for a busy day. The official opening of the new station was performed by the Chairman of Wokingham Without Parish Council, Councillor Turtle, who then drove Colin's "Gentoo" around our track. Despite the weather it ended up being a great day, with plenty of food and cakes. On behalf of our members I would like to thank the ladies for all their help with the catering.

Photo Colin Gross

Councillor Turtle sets off on a lap of the track.

Then what an excellent day the Pinewood Festival turned out to be. With a display of classic cars on the Station Parade,

the ferret racing, and the tug of war on the grass; it certainly brought the Railway to the notice of the general public which must be to our advantage. A large number of families told us that they were enjoying a ride for the first time, so we hope to see some of them again soon.

After such a high, two days later came the low, when as you may know we once again attracted the attention of the vandals. This time they had a go at the point motors so we are now making some alteration to the motor housing to try and make them more secure. Thankfully the point motors and mechanisms that the vandals ripped out were recovered from the undergrowth by a dog being walked through the woods, and John Keane has once again managed the impossible by repairing and reinstating them to working order. Following our incidents of vandalism and a number of others on-site, the Parish Council are now keeping a log. Additional site visits by the Police have also been promised. Members should report any incidents to the Police and obtain a crime number. Paul Archer will then inform the Council.

SECRETARY'S REPORT

I would like to start once again by welcoming a new member, Matthew Johnson. Matthew has already undertaken long stints as a guard on public running days and is proving a competent handler of the club Class 20 locomotive. Welcoming new members is becoming a habit that I hope continues, and with a further renewal the membership now stands at 38. With four potential members in the background and 6 junior members, we are in the healthiest position for a number of years.

Photo Colin Gross
The cake celebrating the 25th anniversary of Public Running at Pinewood.

We have just completed a very busy schedule with the Fawley Railway visit, the Brooklands/CSMA car rally, our 25th anniversary/station opening and the Pinewood Festival and I would like to thank all of the members who have ensured that the events have been resounding successes. Talking of major successes, birthday parties are booked solid for 2011 and 2012 and only a few places remain for 2013. I have already taken bookings for 2014.

With summer well under way our attention now turns to the Santa Specials. I have already had enquiries about ticket availability so watch this space. Tell family and friends to book early to avoid disappointment.

A NOTE OF THANKS

Following the official opening of the new station by Councillor Turtle the society received the following note.

I'd wager I had the more fun than anyone else!! I was grinning like a Cheshire cat for days and am still talking about it to anyone that will listen.
Seona Turtle.

Judith Moore, Clerk to the Council, also wrote to us after the Pinewood Festival.

I am writing on behalf of the Parish Council to thank you formally for all the effort and hard work you put into the organisation of the Pinewood Festival, both in advance of the event and on the day itself.
I think everyone will agree that the Festival was a roaring success and certainly everyone present seemed to be walking around with smiles on their faces; we may even have broken even financially !

CHIEF ENGINEER'S REPORT

You will all know by now of the vandalism to various elements of the signalling equipment, in particular the loss of one point motor which cannot be replaced. However "Ride on Railways" do import from China a motor which we hope will overcome replacement problems. I have ordered a point motor from them for testing


Photo Colin Gross
The first of the new concrete point motor bunkers during installation.

purposes but delivery from China will take two to three weeks. In the mean time the damaged points, P1 and P2 will have to be manually operated.

There is no doubt the point and signalling equipment is very exposed as demonstrated by the vandals who also ripped a very heavy concrete signal base out of the ground and smashed the signal assembly on the bridge. It is my intention to reconstruct the point manholes with concrete segments and provide screw down lids. In the interim the timber manhole lids have been screwed down, hopefully this will act as a deterrent and not a challenge.

Photo Colin Gross

Our other vandals, the wasps in the chalet roof have terrorised a few members recently.

On a more positive note the 'Top Loop' level crossing gates have been repaired after a post rusted through and collapsed, the ticket office door is being converted to stable doors, and the signal box mimic board is being progressed.

Finally, the new passenger trucks are now consistently performing well and are a welcomed addition to our rolling stock.

JUNIOR SECTION

A report by Paul Archer, Pinewood's Junior Section Coordinator.

Junior members have been active in all aspects of club life and played a leading role with Peter Downes in welcoming children into the yard on the Pinewood Festival day. The children (and some parents), "drove" Peter's Class 73 battery electric locomotive in one of the sidings with the help of the juniors, contributing greatly to the success of the day.

The juniors, having completed their school exams, are now revising hard for the 7¼ Inch Gauge Society's Bronze Proficiency Award, the tests for which are now being arranged. Watch this space for the results.

Photo Paul Archer

William practicing his driving skills on Paul Archers somewhat temperamental Polly II.

The society has also ordered a Titan 7 electric locomotive kit from Phoenix Locomotive's which will be assembled by the juniors under the supervision of senior engineers. This activity will commence in September after the holidays and will give the junior members a chance to construct their own locomotive. Once complete they will be able to operate and maintain it themselves, and hopefully gain additional experience as they design, manufacture, and install "extras" such as buffers, lights etc.

This group of lads has been a major asset to the club helping out in all aspects of club activities from sweeping up to the construction of the new station. They also take a major role in getting the railway ready for public running and then in performing duties as ticket collectors. All are keen and very professional in the way they conduct themselves and bring something extra to our running days. I feel that a great many clubs associated with model engineering would benefit from such an initiative.

Photo Paul Archer

Jamie and David removing rubble resulting from the rebuilding of the station.

SAFETY OFFICER'S REPORT

Following discussion on health and safety at the last committee meeting it was agreed that persons on duty should refrain from using mobile telephones or other handheld devices. Similarly, Guards should be aware of the increasing use of mobile phones and integral cameras by members of the public during their ride and any potential resulting hazards that may thus occur.

In addition, it has been agreed that smoking should be banned in all public areas on public running days and in the picnic area on members running days. Signs to this effect will be displayed, and members are requested to advise the public (and club members if necessary) of this requirement.

REPORT ON RECENT EVENTS

Briefly mentioned in several of the committee reports were the visit to the Fawley Hill Railway and the Brooklands / CSMA Car Rally. This report hopefully provides some information about these events for those members who were unable to attend.

The Fawley Hill Railway was an "invitation only" event organised for us by Nigel Jaques. The "garden railway" is managed and run by volunteers of the Fawley Museum Society for the Hon. Sir William McAlpine Bt. FRSE. Not only does the standard gauge railway have the steepest adhesion worked gradient in the UK (1 in 13 !) but the railway surroundings in the valley are landscaped with historic railway and industrial artefacts. There is also a very large and interesting museum packed with large scale model railways, railway themed paintings and posters, and a huge collection of railway memorabilia covering almost the entire history of railways. The four hours of our visit were not enough to really look at everything on display.

Photo Colin Gross

The Hudswell Clarke & Co Ltd 0-6-0 Saddle Tank at the top of the 1 in 13 gradient that climbs from the valley up to the restored Somersham Station.

The Brooklands / CSMA Car Rally was not actually a PMRS event, but we do operate train services to entertain the rally competitors after their lunch halt at Pinewood. We seemed to have an initial rush of visitors and then their number tailed off as those with slower vehicles departed to make their way back to historic Brooklands for the evening meal. Thankfully while they had their lunch we had time to look around the vehicles displayed in the Pinewood car park.

Photos Colin Gross

Some of the cars taking part in the Brooklands / CSMA rally arriving at Pinewood for the mid rally break and lunch in the Pinewood Cafe.

COAL

By Anthony Weeden B.Sc(Eng), C.Eng. M.I.Mech.E.

Probably the most important issues associated with the operation of the model steam locomotive and traction engine is the type of coal we burn. Coal has played a pivotal role in the progress of the Industrial Revolution. Without coal there would be no iron and steel and the development of the steam engine and steam turbine for electricity generation would have been delayed until the discovery of an alternative fuel. It is believed that the UK would have run out of water power by 1840. Coal saved the day.

Coal is a fossil fuel, the product of when the planet was warm and humid and covered in tropical rain forest some 100 to 400 million years ago. Immense pressure caused by the folding of the earth's surface compressed the decaying vegetable matter into coal.

Coal is found widely throughout the planet. There are rich deposits under Greenland and Siberia. They mine coal in Spitsbergen and the German battleship Scharnhorst shelled Spitsbergen in 1942 setting fire to a coal mine that continued to burn until the early 1990s. It is interesting to note that those regions today enjoy an Arctic climate whereas in the geological past they were tropical rain forest.

The USA has 25% of the world's reserves of coal and under the UK there are deep reserves that could hold enough coal for around 200 years supply. So for us model engineers there is no shortage of coal in the foreseeable future the problem is finding the variety of coal best suited to the combustion conditions in our boilers.

The quality and variety of coal varies widely from the low grade lignite with a carbon content of 60-75% and volatiles of 45-65% to the high quality anthracites with a carbon content greater than 92% and low volatiles of 7-12%. Coal is broadly grouped into three categories; anthracite, bituminous, and lignite. "Steam coal" is a bituminous coal.

The best anthracites come from the USA with carbon content as high as 97% and volatiles less than 6%. The higher the carbon content the greater the calorific value (CV) or heat content per unit volume and the lower the volatiles the less smoke and soot they produce.

Bituminous coal covers a wide range of coal varieties. At the low carbon end of the range the coal has a carbon content of greater than 75% up to the "steam coals" with a maximum carbon content of nearly 90%. The CV increases with

increasing carbon content. Steam coal burns with a long yellow flame and, depending on the volatiles content, considerable amounts of smoke.

Bituminous coals are used for a wide range of applications ranging from coke production, iron ore smelting, the production of chemical by-products (phenol, bitumen etc), pulverised coal firing of power station boilers, towns gas, main line steam locomotives and household fires. When burnt, bituminous coals have a caking characteristic whereby the coal fuses into larger lumps. If the caking is not frequently broken up insufficient air can pass through the fire bed resulting in a reduction in steam generation. Also, the caking combined with a higher ash content and mineral impurity content in the high temperatures generated in a model locomotive fire box can lead to excessive clinker formation.

The name "steam coal" is misleading since it gives the impression that it is the best coal for steam raising. That is incorrect. The reason for the title "steam coal" comes from the early part of the Industrial Revolution, when it was found that the coal from certain pits burnt freely in natural draught boilers with lesser amounts of smoke and soot than lower grade bituminous coals and had good heat characteristics because their carbon content was at the upper end of the bituminous range. The Royal Navy favoured these coals for coal fired

Photo Colin Gross

Anthracite is hard and often has almost glass like surfaces.

Steam Coal is crumbly with a matt dusty surface.

warships and thus they became known as "steam coal". These coals come mainly from the Rhonda Valley in South Wales. There is no clear specification for steam coal, at the low end they are close to household coal with high volatiles and ash and they clinker easily due to their low ash fusion temperature. They also contain significant quantities or mineral impurities. At the upper end of the range they are close to anthracites.

The quality and availability of coal had a major effect on the development of the steam locomotive. The Great Western had access to the "steam coal" of

South Wales whilst the other companies had to contend with lower grade coal from the Midlands, Yorkshire, Kent, Northumberland, Durham and Scotland. It was Ivatt on the Great Northern that pioneered the use of the wide firebox on his Atlantics and continued by Gresley on his Pacifics. Stanier quickly realised, when he became the CME of the LMS, that he could only achieve the combustion rate needed for his Princess Royal and Coronation Pacifics burning lower grade coals by employing a wide firebox. Bullied (ex Gresley assistant) CME of the SR, who had to rely on poor grade coal from the Kent coal field, designed a wide firebox boiler for his Merchant Navy, West Country, and Battle of Britain classes that would burn almost anything and still maintain a high steaming rate. The Great Western, because of the availability of good coal, stayed with the narrow firebox even with the Kings which had a tractive effort equal to any of the locomotives subsequently designed by all the other CMEs. When Peppercorn designed the A1s in 1947 he increased the size of the Gresley firebox to burn the poor grade coals which had become even poorer on the post war LNER.

Under nationalisation in 1948 when Riddles (ex LMS) became the CME of BR, the trend towards the wide firebox continued and all locomotives with a power classification higher than five sensibly had wide fireboxes and were, therefore, less sensitive to coal quality.

Anthracite is quite different from "steam coal". It is high in carbon, low in volatiles, ash and mineral impurities and has a high ash fusion temperature. It is sometimes difficult to ignite, it requires a strong draught to burn, it burns with a bluish short flame, it produces little or no smoke and has the highest CV of all the coals. It has a bright shiny appearance and can be handled without making your hands dirty. The best anthracite mined in the UK by Celtic Energy is known as "black diamond". In the UK anthracite is exclusive to West Wales, the further west the higher the quality.

Our small steam locomotives are sensitive to the type of coal we burn and the way in which we manage the fire. Clinkered grates will soon reduce the boiler steaming rate. High ash content requires frequent ash pan and smoke box emptying and excessive smoke and soot is unpleasant for the passengers. However the model steam locomotive has strong draughting characteristics both moving and stationary and this together with the higher calorific value favours the burning of anthracite.

The way in which we manage our fire also has a significant effect upon the boilers ability to steam freely. All bituminous coals (they contain bitumen) have a "caking" characteristic. The "cake" needs to be frequently broken up and the fire regularly raked. Anthracite burns differently. It does not "cake". As the coal burns the lumps of coal disintegrate into smaller and smaller pieces

until, due to their low ash content, there is little residue. Fires burning anthracite require very little raking and just an occasional pricking to break up any slight clinkering.

Fire bar spacing also has an effect on how the fire burns. Generally, spacing (or air gap) is between 6mm to 8mm. My C19 is spaced at 6mm because I normally burn anthracite. If burning "steam coal" a wider spacing is preferred due to the higher ash and clinker formation.

Photo Colin Gross

Pieces of clinker, which will form a solid layer over the grate and stifle the fire if not raked out.

A hypothetical specification for a coal to be burnt in a model steam locomotive would be: highest possible calorific value (heat per unit volume), low smoke and soot, lowest possible ash, minimum clinker and clean handling with minimum dust. So, matching the fuel to the locomotive comes out strongly in favour of anthracite.

It is important that we know the source of the coal we burn so that we can maintain stocks of the right coal. Despite large reserves of coal under the UK a large proportion of coal sold in the UK is imported in bulk and then bagged in the UK. Invariably, its country of origin and quality remains a mystery.

Workshop Tips

Useful workshop ideas from toolmaker Peter Downes.

Setting up a lathe for the beginner

A lathe is a very basic machine; it is just a spinning chuck and a moveable tool post. This is why it takes a lot of skill to use one to its full potential. The modern machines with all the machining aids and throw away tooling take a lot of the skill out of using one, but you still need to set it up correctly to get good results.

When you get a lathe, new or old, the first thing you have to do is level the machine on its feet as if it is not level it is possible to twist the bed on the longer machines. The next step is to set up the machine so that it cuts parallel.

Put a piece of 1"dia bar in the chuck with about 3" protruding from the chuck jaws. Take a very light cut along the diameter of the bar up to the chuck jaws using the saddle longitudinal feed. If you now measure the diameter at each end they should be the same. If not on some machines you can adjust the head until it cuts parallel.

Photo Peter Downes

Turning a centre in the chuck.

Once this is done, face and centre both ends of a piece of 1" bar about 5" long. Next move the compound slide round to 30 degree and turn a 60 degree point on a piece of 1/2" bar as close to the chuck as possible. Put the 1" bar between this centre and the tail stock centre with a drive clamp attached to the chuck end. Take a light cut along the bar and measure the diameter at each end. They should be the same, but if not there should be two adjusting screws on the tail stock. Keep adjusting the tail stock and taking another cut along the bar until the lathe is turning the bar parallel. Once you have done all this and are satisfied that the lathe is as good as you can get it, the lathe is set up and ready to go.

Photo Peter Downes

Turning a bar between centres to check that the tailstock is centred.

A lathe is designed as a machine to make one offs and is not a lot of use as it comes out of the box. To get to a point where it becomes a useful tool you will have to make some extra parts to go with the lathe.

The first thing to do is to make all the cutting tools and make sure they are sharp. Once this is done you must set them at the correct height. Turning tools are set just below the centre height and boring tools just above the centre height. To do this you will need to make a height gauge to set the tools. This is a block that sits on the saddle with a plate set at the centre height so that you can pass it over the tool to set the height.

The next thing you will need to make is a back stop that will fit into the throat of the lathe behind the chuck. This is a block fitted with an adjustable rod for the stop and the whole thing held in place with a taper or a draw bar. Once you have a back stop set up you have a datum so you can take the component out of the chuck and put it back in the same place.

The next thing to make is an adjustable stop for the saddle. This is a block bolted to the lathe with a sliding 1/2"dia bar and locking screw. Position the block so that the 1/2"dia bar lines up with a machined flat surface on the side of the saddle. If you are machining big items you will be able measure them with standard measuring tools. As the work gets smaller it gets harder to get the measuring tool onto the work piece. Using the stop as the datum face you can then put measured blocks or drill shanks in between the stop and saddle to produce the correct shoulder length.

With these three made and set up you should be able to make any component accurately on your lathe. You will only be limited by your ability to grind and set the tools; which will take time and practice. To grind a tool or a drill you must have an 8" bench grinder with a light over it and a dressing stick to sharpen the wheel. The reason you will need an 8" grinder is that you need the room around the wheel so that you can get your hand in. If you get a 6" grinder you will find that you will not be able to get in onto the wheel to put all the shapes on the tools. It will also make grinding a drill properly very near impossible.

VACUUM BRAKING AT PINEWOOD

Paul Konig provides an update on the progress of introducing vacuum braking to the Pinewood passenger coaching stock.

An article on vacuum braking was published in NPE Issue 23, setting out the principles of operation and detailing Pinewoods prototype system. As explained in that article, with the requirement to run longer trains the

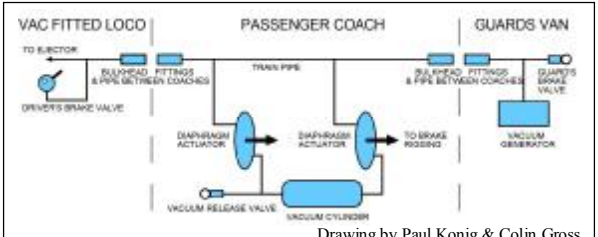
effectiveness of the mechanical braking systems on locos and driving trucks can be reduced. Vacuum brakes are therefore being developed to mitigate this.

Principles of Operation (recap)

A vacuum braking system comprises a method of evacuating the air from a pipe running the length of the train, the 'train pipe' (either using a steam locomotive's "ejector" or an electrically driven vacuum pump) to create a vacuum, and a method of destroying this vacuum. When the vacuum is created the brakes are pulled off, when it is destroyed the brakes are applied. This has the advantage of being fail-safe, i.e. in the unlikely event that a pipe did break (for example if the coach comes away from the loco) the air introduced to the system would apply the coach's brake automatically, bringing the coach to a controlled stop.

Pinewood's system

The schematic below shows the system as being developed for our new passenger stock. It is also being retrofitted on existing coaches fitted with the



Drawing by Paul Konig & Colin Gross

Schematic drawing of the Pinewood Vacuum Braking System.

'standard' design bogie. Where existing coach bogies preclude the fitting of brakes, the rolling stock are 'through piped' to maximise the flexibility of rake formation. The main pipe running through the system is referred to as the 'train pipe'.

Passenger Coach Equipment

Both bogies on the coach are fitted with diaphragms and brake rigging to maximise the braking force and reduce the risk of the wheels locking up under braking. A central vacuum reservoir, to reduce the impact of small leaks on the overall braking system is installed, as is a vacuum relief valve, which allows the coaches to be used when the vacuum systems are not in operation. Proprietary equipment from PNP Railways is used where possible.

Loco Equipment

If the loco is fitted with a vacuum ejector (typically steam locos), this is operated to draw air out of the system to create, and maintain, the vacuum at about 15 inches. The loco will typically be fitted with a vacuum pressure gauge and brake valve.

Where no vacuum ejector equipment is fitted (typically petrol or electric locos), the vacuum will be produced by a mechanical vacuum generator mounted in the guard's van (see below). Brake actuation will be via the guard's van mounted valve, and further developments may include a standard vacuum brake box for use with non-vacuum fitted locomotives.

Members wanting to fit equipment to their locos should refer to the earlier article.

Guards Van Equipment

The guard will have a control valve which can be used to apply the brakes or attract the attention of the driver by bringing the vacuum level down in short bursts. A procedure for this will be developed.

Two guard vans are fitted with mechanical vacuum generators for use with non-vacuum fitted locomotives. These are fitted with regulators to maintain a vacuum, currently set at 15" Hg.

Testing and Training

The vacuum equipment described above has now undergone initial testing and found to be effective in bringing a laden train to a stand. Further testing and trials are required to prove robustness and reliability before entering service on public running days, but initial results are favourable.

The training of both guards and drivers on the system (both in terms of mechanical components and general operation) will be undertaken prior to the system being operated on trains involved in Public Running.

Photo Paul Konig

A brake diaphragm and linkage fitted to a coach bogie.

PROBLEMS WITH A TWO TONE HORN

Colin Gross describes how the Club's Class 20 horn evolved.

The Club's Class 20 was purchased with an electronic module that would create the characteristic two tone horn sound, so we all thought that the horn system was complete. However, as soon as the wiring was completed and under test it became obvious that the horn was too quiet for operational use on the track (the signal box operator would never have heard the horn being used at the whistle board). That could have been fixed by using a bigger speaker and an amplifier, but the actual sound was nothing like a real two tone horn. Perhaps foolishly I offered to change the system to use two car style horns.

The problem was that the hand controller only had one wire available for the horn system, so I had to design an electronic module to operate the high and low tone horns sequentially.

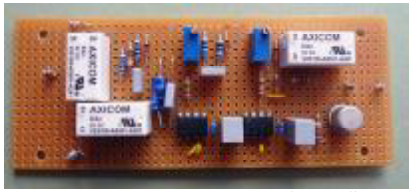


Photo Colin Gross

The Class 20 electronic horn control module.

The tricky part of the design was to ensure that if the horn button was operated momentarily, only the first horn would operate while the button was pressed. This would enable the driver to give a short toot to acknowledge the guards whistle to start, or a full two tone blast at the level crossing.

Photo Colin Gross

The flexible horn brackets.

This electronic system worked perfectly on the test bench, but once installed into the loco the horns sounded dreadful. After a lot of head scratching the problem was traced to the horn mounting brackets. I had used a chunk of 1/4" thick aluminium angle to mount both horns rigidly. The simple solution that solved the problem was to mount the horns on flimsy flexible brackets. Lesson learnt - **horn mountings must be flexible**.

PUBLIC RUNNING DUTY ROSTER 2011

Date	Officer in Charge	Assistant
September 18th	Ray Grace	Roger Marney
October 16th	John Keane	Peter Starr
December 4th and11th	Keith Briault	

Please note: If you are unable to attend on the date shown in the roster, or would like to volunteer for a role, please let Keith Briault know as early as possible.

DIARY DATES 2011 & 2012

External events are in **bold** text. Please check dates before travelling.

DATE		EVENT	
September 2011	Sunday 4th	Members' Running.	10:00 - 16:00
	Sunday 18th	Birthday Party, Public Running,	11:00 - 13:00 13:30 - 16:00
October 2011	Sunday 2nd	Members' Running.	10:00 - 16:00
	Sunday 16th	Birthday Party, Public Running,	11:00 - 13:00 13:30 - 16:00
December 2011	Sunday 4th and 11th	Santa Specials Please come along to help	08:30 - 17:00
December 2011	**9th to the 11th**	**Sandown Park Model Exhibition**	
January 2012	**20th to 22nd**	**Alexandra Palace Model Exhibition**	