

Vol. 31. No. 4.  
November 2003.

## Running Day Reports.

### August.

For late winter the day was very good, cool out of the sun and the clouds a bit threatening at times. There was no rain and we had a reasonable crowd. There was a big rush at gate opening time with the party groups after their preferred spot to set up for the afternoon's activities. One such group were not just satisfied with our trains, they had a train running around the top of the cake, the party person must have really keen on trains! After the initial rush there was a lull, but the number coming in picked up at about 3.30pm. There had been some maintenance carried out before lunch with some attention to a couple of point motors and the signal that was vandalised a week or so earlier was fitted to a new stainless steel post and concreted in place and was in operation for the afternoon.

The elevated track was served by two trains for the afternoon. Jim Leishman, 4-6-2 Ps4 hauled three cars and a van while Mick Murray with petrol powered "Tinkerbelle" ran two cars and the other guards van.



Mick Murray and Tinkerbelle prepares for an afternoon's passenger hauling.



John Lyons at speed driving Jim Leishman's Ps4 on the elevated track.

Jim had to finish off early and Mick continued till very late.

On the ground level the outer track was run by Ray Lee with the VR S 300 class 4-6-2 and John Hurst's 4-8-2 mountain, with Johns L & B taking turns at the regulator. The inner main had a triple-header, Max Gay with "Bitza", John Tulloch J class and Barry Tulloch D5902. Driver Tulloch J. had a rather restful driving position, reclining on his riding truck leaning on the headlamp of D5902. That's how it looked any way.

The Allison V class pulled the second train on the inner with Scott



**Andrew Allison and V 1224 makes light work of this full load!**

queue but settled to a steady stream for the rest of the day. There were a number of party groups with a good number of visitors at the ground for the first time as Brian Hurst noticed that a lot of people did not know the “drill” at the stations.

Ken Baker, Simplex, double headed with Bernie Courtenay SMR 10 class and coupled up to six cars and a van. Later in the afternoon this was increased to seven cars and the two locomotives handled this load with ease. The train looked very impressive. We had to relay the guard’s signal to the drivers as there was not line of sight between drivers and the end of the train, it filled the length of the station. The guard on this train was experiencing something very different to his usual running day occupation. Henry was up off his locomotive and ground level running to riding the elevated. Once he was use to the increased elevation he seemed to cope well with his elevated position. He was

Murray at the regulator early in the afternoon relieved by Andrew Allison to run till sun set.

There was an added attraction, Black rabbit, White rabbit and White, black and brindle rabbit were about the place treating it as their own. They hopped around rather speedily at times to dodge the trains or just grazed quietly in the valley under the Hawkesbury bridge or the hill between the main lines. They certainly got a lot of the kids in. It may be necessary to issue instructions to the track superintendent to ensure that all lead locomotives be fitted with cowcatchers or rabbit deflecting devices. The level crossing attendant was Mark Gibbons with Bernie keeping an eye on the matter as well and there were no incidents at that location for the afternoon.

Don Jones had the partly constructed boilers for his C36 and D57 class locomotives. Both sets included barrel and outer firebox wrapper and inner fire box wrapper. All work is in 4mm Copper, TIG welded, very nice coppersmithing.

### **September.**

The first running day in spring promised moderate temperatures and wind. The wind came and went early and the afternoon was very pleasant but it was colder towards the end of the day. The last time Mick Murray had a turn on the gate he was very busy nearly all afternoon. This day started with a long



**Septembers train running was intense as this ground level scene shows!**

also impressed with his afternoon cup of tea delivered to the guards van. The second elevated train consisted of three cars and a van with Brian Rawlinson “Blowfly” and David Thomas B10 in control. The two locomotives ran this load with ease; I had a couple of laps on “Blowfly” and handed back to Brian. About two laps after this the left hand cross head gudgeon pin plate came loose allowing the connecting rod to drop, eventually pitching the locomotive off the track (to the outside). Fortunately Brian did not suffer any injury and the locomotive should be ready to run again by the time you are reading this Newsletter. David reduced his load by one car, the car made the seventh on the other train, and continued as best he could manage for the rest of the afternoon.



**David Thomas and B 10 in the elevated railway station.**

On the ground level we had two single locomotive trains one to each main line. Peter Shiels C3901, ran the outer while the Allison V class with Andrew at the regulator for most of the afternoon was on the inner. The V was coupled to five of the six foot cars plus another five foot car and van, Warwick counted twenty seven passengers on one run. The other train on the outer started the afternoon with three locomotives. C3142, Jeff Sorensen, “Bitza” Max Gay and C3112 Ray Lee leading. When Ray came off in the latter part of the afternoon Matt Lee with C3506 transferred from the inner to support the two smaller locomotives. On the inner track early in the day C3506 Matt



**Max, Jeff, and Robert, with Bitza, 3142 and 5903 ease a full load out of the outer main station.**

Lee was lead locomotive with John Tulloch “J” Z2904 and Robert Smithers D5903 as train engine. They hauled a seven car and van train most of the afternoon till Matt was allocated to the other track. John Hurst had the 4-8-2 Mountain in loco but was not required as there were no locomotive failures for the day.

The canteen was kept very busy all afternoon with Di, Liz, Mrs.Eyre and Bernadette doing a sterling service. We tallied 3040 rides for the day, Warwick reports that this is the best September result since he has been keeping records on his computer.

### **October.**

A fine day was forecast, some early cloud cleared and the sun was rather hot. A bit more cloud came in and this kept the temperature down; we had a pleasant afternoon. At packing up time there was light rain with some thunder but it was not a problem. Some of our regular people, the Tullochs, Eyres, Murrays and some of the Lees had family events, Henry was moving house and Jim Leishman still holidaying in Asia. The crowd was just about right, a bit above average for October,

and we had a result of 1956 rides.

We still managed to run four trains on the ground level. Matt Lee drove C3803 with one of the inner trains and the second was hauled by the 4-8-2 mountain of John Hurst. On the outer main the Allison V class started with the



**Bernie and Ken with the October version of that great elevated train as it heads out for the main line.**

Central West car set with additional cars for the expected extra loading. Mark Gibbons was at the regulator for the first hour and a half. Graeme Kirkby 4-6-2 2401 double headed with Max Gay "Bitza" for the second train. Later in the afternoon Graeme 2401 returned to loco and was replaced by Robert Smithers, D5903 and Jeff Sorensen C3142. When Matt and John both wished to call it a day the V was allotted to the inner and, after turning, ran the Pullman set till running finished.

On the elevated Ken and Bernie, Simplex and SMR 10 class, went out with seven cars and van. David Thomas B10, took two cars and the other van. I had the 19 ready to run again and said earlier to Bernie I would try banking his train. After a few laps light engine I was happy with the way the 19 was running so I decided to give the banking a go. Many years ago I had watched a D59 class chase an up goods out of Bathurst yard to assist on Raglan bank. I caught the seven car train at the start of the hill and eased on to the buffers, at the station Ken commented that he felt the load had lightened, so the 19 had made some difference. For the next three laps the train came to a stop at the foot of

the grade, waited for the 19 to catch up and the three locomotives moved the seven car train off from a standing start! It did sound rather good. For the rest of the afternoon I double headed with David Thomas and we ran successfully till the end of the day. Bernadette Lee was in charge in the canteen with her Mum, Tricia, Wendy, Jane and Jennifer. They did a great job keeping everything going smoothly. Thank you very much.

By way of interest Graeme Kirkby has fitted a bicycle odometer and speedo to his S truck. He has wheeled out each track, 280m for each of the GL tracks and 380m for the elevated.

### **Running Day Catering.**

A word of thanks from Diane Lee on behalf of the canteen ladies to Bryce Peak's wife who has sent a cake along each running day for ages, it has been much appreciated.

### **Whats Doing!**

#### **Christmas Party.**

In the afternoon and evening of 6 December 2003 everyone is welcome to invite their family and friends for a BYO BBQ tea. This is always a good time, so make a date of it! Please bring those locos for a run. If there is a fire ban, then we have a gas BBQ! And the show will go on!

#### **New Years Eve**

I suspect a number of members will also be frequenting the club this evening (which is a Wednesday night). BYO everything (sleeping bags as well if you are really keen!). We'll watch the fireworks on the tele and savour the aroma of freshly burnt coal!

## Loco & Rolling Stock News

Not much action over the last three months to report except that the first inspection of boiler plates for Andrew Allison's 21 class boiler and Warwick's 26 class boiler has occurred. These are both similar 5 inch boilers in 3mm copper. The main difference is that the 21 class has a narrow deep firebox that fits between the bar frames, while the 26 has a wider box because of the plate frames and a sloping bottom. Don Jones has had his TIG welded 36 and 57 class boiler barrels at the club. These are a reasonable size and quite impressive. Jack Grierson has had a steam test on his new 3 1/2 inch gauge NSWGR typical 2-6-0.



Andrew and Warwick Allison's 21 and 26 class boiler components. The barrels are similar, but the 21 class firebox is narrower and



Scott Murray driving V1224 on an inner main express slows for the level crossing check from Track Superintendent Mark Gibbons, as Bernie Courtenay supervises.

## Inner Main Level Crossing

Mark Gibbons has been regularly flagging this crossing for the last few running days and this has certainly helped the situation. It may not be possible to flag this crossing on every running day, and if crowd numbers are down, it may not really be necessary anyway. Drivers are urged to always approach this crossing with caution and prepared to stop. Kids can quickly decide to make a dash across despite the gates, so always be ready to stop and only proceed when you are very close, and it is obvious that it will remain clear for the movement.

## Membership News

It is regret that we report the passing of Dennis Mulholland and Bob Bowman. The Society extends its sympathy to the families. A number of members attended Dennis's funeral. A minutes silence was observed at the October members meeting in respect for Dennis and Bob.

## Elevated Track Train Operations

We have done very well ensuring that all our passenger cars are fully enclosed with no cavities for little legs or arms to get trapped in. Some of the driver's vehicles and guard's vans are not as well enclosed. This may be OK for us members whose arms and legs are bigger and our brains more in touch with the dangers, however we should not be placing the public (or relations) and especially little ones on such vehicles. It would, of course, be preferable that all such vehicles are also fully enclosed, so that the problem doesn't even exist, and this is commended for owner's attention.

## Interclub Activities

Members have made a number of visits to other clubs. This includes the interclub at Newcastle. A Friday night dinner attended by the Tullochs was the



Don Jones' 57 and 36 class boiler shells.

occasion for the launch of the LMLSLS anniversary book. Open days at Galston, Berry and Wagga were also attended by members.

For those members on the internet John Tulloch gave a run down of the LMLSLS function, but John will remember the event for other reasons. On the way home near the Caltex Service centre at Warnervale, on the F3 (as good as the middle of nowhere) John's vehicle had a water pump failure. Eventually he was able to get a friend to take Barry home to return the next morning with the necessary pump and rescue equipment. John mentioned that he will take the SLSLS member list in future so if he has problems on the road any one of us may get a call.

Barry M. Brian R. and Bill made the trip to Berry. Brian reported that the track, 7¼' gauge, is very well set out but rather flat.

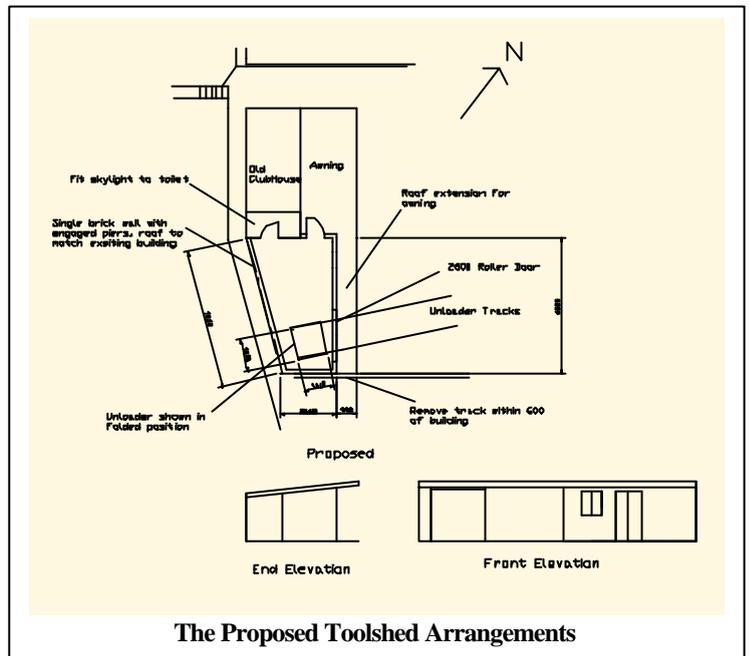
### Saturday Entertainment

We should mention the morning and afternoon teas at the grounds. These are entertainment fests in their own right! The morning sessions often have a feature film and we have seen in recent times an excellent video on steam in China. The photography was really superb to see these large steam locos pulling long trains in spectacular mountain scenery on a brand new concrete sleepers railway with mechanical lower quadrant signalling! We have also seen films on the restoration of the Beaudesert tourist railway, and on the building of the Sydney Harbour Bridge - a real eye opener. As an added bonus, we often have chocolate biscuits for afternoon tea!

### Works Reports

#### The Tool Shed

No work yet - just talk! There was discussion amongst those present at the October meeting as to the future of the tool shed. The need for a cover for the new unloader is one factor that could be solved by a new building designed to accommodate the device. The current building is on a sloping slab, thanks to our long gone Camphor Laurel tree, and a new building would increase storage space, hopefully eliminate the current outside storage and improve the presentation of the grounds. The current proposal is an extension of the existing old clubhouse, preferably in brick. A drawing showing the proposal is on the notice board. The main difficulty perceived is the relationship between the footings and the existing stormwater drain. When discussed there was no objection to replacing the tool shed!



#### Elevated Track

Work will be progressing soon on resleepering some of the elevated track. New pine sleepers have been cut and are just waiting for able-bodied workers to start the installation. Our painters Jack and crew have finished painting the elevated signals and they do look good! Mark Gibbons did some load tests with some elevated cars and discovered that with one of them, extra weight over the bogie puts the brakes on! We agreed to purchase 2 pairs of Sandberg bogies to replace unbraked bogies on elevated cars. (Because of the improved brake mechanisms less liable to damage in derailments, the new bogies will go on ground level cars, and the bogies displaced cycled to the elevated cars). We will also obtain 4 wheel sets to replace some cast iron wheels still on the elevated cars.

#### Ground Level Railway

Track upgrading on the ground level has been going on, on an as required basis. A one pine log retaining wall has been installed between the inner and outer mains near No.6 points. The track adjacent to this on both the inner main, outer main and the diamond has been resleepered with plastic sleepers. It not only rides

well, but it looks good too! The track has also had some sunken formation rectification on the inner main big curve near the clubhouse. 38 points received some attention in adjusting the gauge and rails using a specially built tool for the purpose.

David Lee has installed some checkrails near the new wheel sensors in an attempt to improve its reliability. As no trouble has been experienced by trains traversing the check rails, now all we have to do is to make sure it all works. A bent rail was affecting the adjustment on 10 points. The points were lifted in order to repair a weld and then successfully readjusted. A number of other point motors were cleaned and adjusted. This included the replacement of a heater in 44, and the reconnection of the heater wires to 10 points that had corroded and



Henry, Bernie and Andrew are demonstrating the technique for obtaining correct track alignment.



Rolling the rebuilt formation before the weed mat was laid and the resleepered track replaced on the outer main. Note the number of supervisors!

removed from the elevated loco depot. One is opposite the clubhouse, and the other is at the bottom of the grounds. Both gates are padlocked using main gate locks and certainly make access easier during maintenance of the grounds. Peter Shiels has laid down one rail on the concrete footings, and the other rails are on site for our new unloader. All have been galvanised. The components for the chassis have also been completed to the usual Shiels standard. It will be very smooth to roll on the ball race bushed nylon wheels. A copy of the design is on the notice board. Allan, Bryce and Jack have been hard at work fixing a couple of our seats where the timber members had suffered the effects of age and rot, and with Brian the continuing painting has been carried on with the switchboard now also looking good! Jack Grierson and Brian Hurst have painted the concrete floors in all the toilets. This will make them like the Ritz! David Thomas has put in some more new plants. It seems to be a couple of years have to go by to see the benefits of his work, but the flowering shrubs this spring certainly look lovely and all the work is starting to have an impact.

broken in the ground.

As well a defective LED in the signal box was replaced. The bogies from the Central West cars have had brake beam replacements where necessary. Bill was the principal worker and supervisor! One bogie has had its wheels reprofiled and the Tullochs have repaired a number of bogies from the green set.

Concern was expressed about trains travelling too fast and it is important that we keep safety upper most and restrain train speeds. It is one way of mitigating the effects of an incident.

We have started to fit weights to the 6ft cars to improve stability.

### Grounds Improvements

Jim Lieshman has re-installed the gates previously



Ken Baker lying down on the job, while Bernie and Henry tighten fishplates following track rehabilitation to achieve a better top, line and consistent superelevation on the inner main.

David also arranged some tree maintenance. We had the dead branches lopped and the large overhanging branches on the gum tree over the loco depot removed. The council also assisted and removed the dead flame tree near the bridge and a surplus to requirements Mulberry tree. The worth of all this work occurred when a couple of weeks later some wild blowing winds left us unaffected.

The official SLSLS fire bucket has been restored and is now on display in the clubhouse. Work has also been completed by Jack Grierson on the restoration of an upper quadrant signal arm which has been mounted on the wall in the clubhouse in the all clear position! This is still waiting on a couple of lenses to be installed. This supplements the wrong road arm previously installed.

**Pattern Board.**

Ray Lee would like to locate a pattern board he made some time back for D59 class driving wheels. There are four patterns on the one board. If you have it or know who has it Ray would like to hear from you. Phone 9533 5959.



**Wednesday Members Get Together**

Everyone knows about Wednesday mornings at the grounds! The first Wednesday of the month is now being used by a number of members for a run and BBQ lunch. Feel free to participate. There are no rules. Run forwards or backwards, inside or outside, as long as you enjoy yourself! Henry can provide details! I can highly recommend this, the first Wednesday in October coincided with the school holidays. I enjoyed the run for an hour or two and morning tea, thanks to Brian R. for your assistance. Ed.

**Diary.**

2 December	Members meeting
6 December	Members and Friends Christmas Evening BBQ
20 December	Public Running Day
31 December	(Wednesday) New Years Eve Run
6 January	Directors Meeting
17 January	Public Running Day
3 February	Members Meeting
21 February	Public Running Day and Next Newsletter!
28 February	Newcastle LMLSLS Birthday Run

**Gate Roster.**

<b>December:</b>	Brian Rawlinson
<b>January:</b>	P.Sayers
<b>February:</b>	P.Shiels
<b>March:</b>	Neil Sorensen

Would those on the gate please keep a watchout for improper footwear. It helps a great deal if patrons are advised on entry!

**Garden Roster.**

Dec. '03.	J.Hurst, J.B.Hurst, C.Bunnik, A.Cottrell, J.Lieshman, J.Lyons, B.Peake, M.Tyson, M.Yule.
Jan. '04.	B.Hurst, T.Eyre, M.Gibbons, G.Kirkby, M.Lee, R.Lee, B.Rawlinson, B.Tulloch, J.Tulloch.
Feb. '04.	H.Spencer, G.Croudace, W.Fletcher, M.Gay, D.Lee, B.Muston, J.Noller, P.Sayers, A.Allison.

**Editorial.**

As we get to the last Newsletter for 2003 I would like to wish everyone a very happy Christmas and a safe and enjoyable New Year.

I hope that you all are happy with the way this Newsletter has turned out and Warwick and myself have some other changes planned for the 2004 editions, all being well.

Now just an interesting thought, New Year Resolutions. How about putting something in for the newsletter, share something of interest with the rest of us, how to do something, how you got round some problem or just something of railway or model engineering interest. Give it a go. Please.

John Lyons.

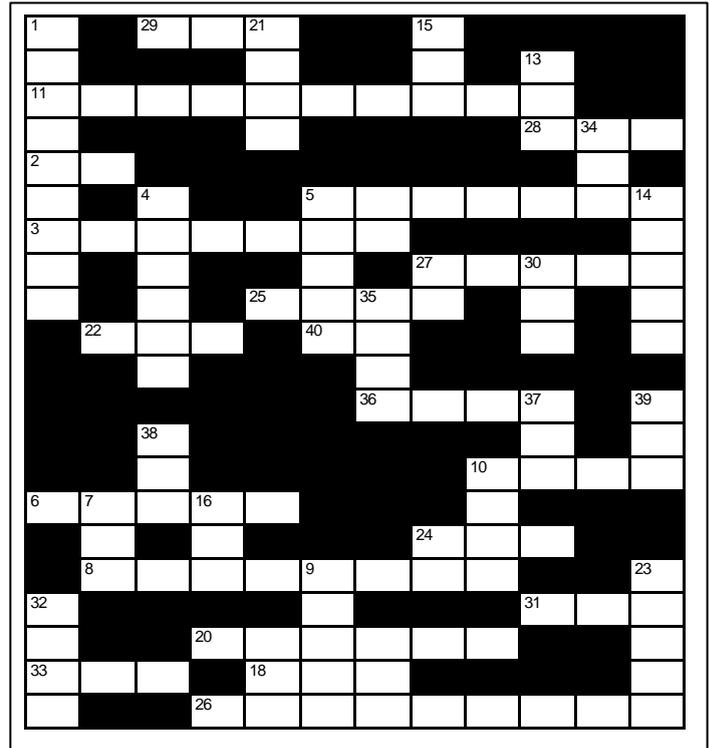
# The SLSLS Railway Crossword

## Across

- 3 We followed the English, to carry the load, in the US it was called a railroad,(7)
- 6 But what the trains run on, we all call the same, sleepers and rails make up the name (5)
- 8 Onto the sleepers, the steel is held By these devices, no need to weld (8)
- 11 Sometimes the track runs up in the air, supported on fill, its not really rare,(10)
- 5 The opposite case involves lots of digging it's a lot better than putting up rigging,(7)
- 10 More than a house, the place we all live also a signal, what more to give! (4)
- 18 Here's some more initials, its about train control centralised really, an American role (3)
- 20 But there on the wheel, the critical bit, makes sure the wheel knows where to sit! (6)
- 22 The place on the engine we all want to be, with a hand on the regulator, looking to see (3)
- 2 Not really not, the opposite to yes, an abbreviated number, it is nothing less! (2)
- 24 More initials, well known this time An English railway, the peak of the fine (3)
- 25 Often a board, it fits on a post, inform is its role, but never a boast! (4)
- 26 The signal engineer, his magic is wrought he puts it between levers, don't you get caught! (9)
- 27 Music to the ears, it works by steam a type of whistle, loved by the team! (5)
- 28 Initials again, its easy if said, to do with the wiring that is overhead.(3)
- 29 A small little plate that fits on a tender don't make a bet, it tells you the number, (3)
- 31 A type of return when there's nothing to say, they have to make sure, in a positive way!(3)
- 33 Usually a fire, the past tense of light, only three letters, you'll get it right! (3)
- 36 Found on a beach, its pretty grippy used on the engine if it gets slippery! (4)
- 40 A signalling term, its normal indication, If you know this one, it's a case for jubilation! (initials,2)

## Down

- 1 A colour that's mid way between white and black, not used again, thank heavens for that! During the war we made our pacific, the same in a hospital to be quite specific,(4,5)
- 4 Provided for safety, an ornament bright, it gave by the night, a shining bright light, (6)
- 5 In Queensland they were worked from a curious place, provided on ships is the usual case (5)
- 7 The colours the same all over the place, it's the one that you give when its to be safe, (3)
- 9 An American type that has made it to fame, famous for bridges, the truss is the name (5)



Answers Next Issue!

## Down (continued)

- 10 The opposite type its almost the same, this bridge type is usefully tame (4)
- 13 Its initials we want, this ones quite new, automatic train operation, is known to few (3)
- 14 This is proceed, we all want to know! a colour that gets us to where we're to go. (5)
- 15 Initials again, a branch has its head Mechanical things, are usually said (3)
- 16 Used on the Abt, a gear of a type, mates with the rack , its certainly not pipe!(3)
- 21 The place on the railway where its all hard work, money is relevant, this isn't a lurk! (4)
- 23 Seth Thomas is famous, but there are others as well, they hang on the wall, its easy to tell! (5)
- 27 A Canadian railway whose name was rational Something to do with it being National (Initials,2)
- 30 With nib and this stuff, they fill in the books thank heavens for progress, you'd think we're all sooks! (3)
- 32 Its where the wheat goes, concrete and tall don't get on the top, it's a long way to fall!(4)
- 34 Never a rooster it could be a chook Tasty as well if you know how to cook!(3)
- 35 Water they carry, there's more than one , Could be alcoholic, there's probably tons! (4)
- 37 Driver Only Operation is the present fad If you go for the initials, it can't be too bad.(3)
- 38 The rail authority in the state initials again, its not too late! (3)
- 39 Frozen water we all know, This German train flies pretty low! (3)

**The Z 1915 Story.** John Lyons.

I have always fancied the 19 class. Growing up in Stanmore we would often go into Sydney by bus. If the 459 came first the trip to York St was via Pymont Bridge Rd which gave the opportunity to see what was shunting at Pymont or Darling Harbour, usually a 19. Much later, during my Industrial Arts Diploma days, I was travelling from Rooty Hill High School to Sydney Technical College at Ultimo four afternoons per week. Often as my train passed through Redfern a 19 class would be scampering back to Eveleigh Depot for rest and refreshment after its day on the docks.

Before I got started in live steam I was given the LBSC book describing the construction of 0-6-2 "Mona" in 1¾ and 3½ gauge, but, from my limited knowledge at the time could not see how



**1915 on its trial run. Plenty of steam in evidence!**

this could be adapted to a 19 class. I had now started collecting the English M.E. magazine and was learning a bit about locomotive design. I was given a loan of the Henry Greenly publication on Miniature Steam Locomotives and so a few more ideas were planted.

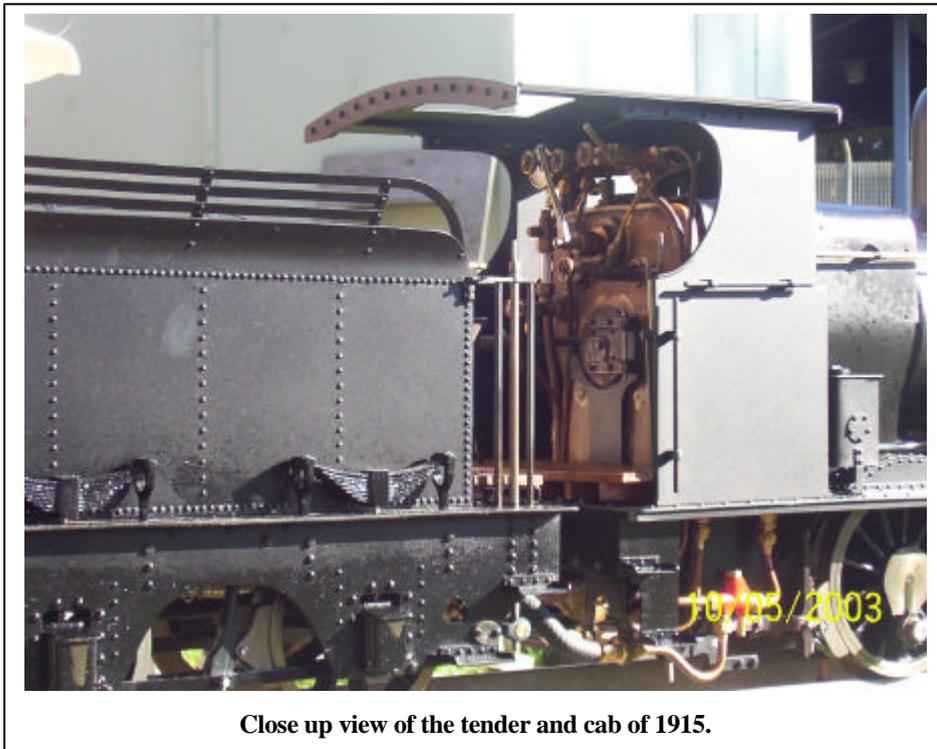
Not long after this I visited the grounds at West Ryde on a public running day and met Barry Potter. He was driving his 3½ gauge Z24 class, based on Martin Evans' "Rob Roy". As I had some detailed photos of Z2535 at South Bulli Colliery I then decided that a Z25 in 3½ gauge would be the way to get started. A couple of months passed and I contacted Barry again and very soon after that joined the SLSLS.

As work progressed on the 25 planning started for a 5" gauge 19. A frame outline drawing was prepared and the collection of material began. It is amazing how much scrap has finished up in the locomotive. When I was about half way through the 25 the Martin Evans designed 5" gauge "Super Claud" 4-4-0 was published in the M.E. and there was the cylinder and valve gear layout that I had considered using. We had some TAFE teachers teaching part time at school at that time and one of them said machining a cylinder block like what would be needed would be no trouble at all. A pattern was produced, my first venture into pattern making and the casting was produced courtesy of my father in law and the John Heine foundry at Bankstown. The casting was handed over on a Wednesday with a rough sketch and returned on the Friday machined. It kept a fourth year apprentice busy for part of his day at Tech. The steam chest pattern was a simple affair but I had some advice from the John Heine Pattern Maker before the driving wheel patterns were attempted. These were cast at the same foundry.

I had a trip or two to the RTM at Enfield for some photos of their Z1905, but the best research was in the late 1970's when I was able to spend some time at Rhonda Colliery to photograph, climb over and measure Z 1923 which is now part of the collection at Dorrigo.

With all this information things should have progressed much better but there were a lot of diversions. Moving house, restoring the HQ station wagon, building a 4.7m sailing boat, making a new boat trailer, maintaining the little 25, family matters, some 5" gauge rolling stock, a second set of 19 class frames (turning into a 20 class), some research and parts for a 5" gauge Z25, a lot of Newsletters, and of course school work. All that probably does not excuse the twenty five plus years that it took. On the day of its first run I heard Peter say to an onlooker, "its good to see it finally run, it has been in the workshop as long as I can remember."

The locomotive has the full Stephenson valve gear with the slide valves on top of the cylinders. The cylinders are 1 ½ dia. by 2" stroke. The valves are driven through a rocker mechanism. The reversing screw was cut on the lathe 5/16" BSW left hand. I bought a left hand tap for threading the nut. The crank axle was built up with the pieces loctited and pinned. The eccentric sheaves were located and pinned as a pair to their respective cranks. The main axle boxes are split, leading and trailing are solid, all cast iron. Lubrication for



Close up view of the tender and cab of 1915.

the main bearings is by an oil way down the centre of the axle. The locomotive is fitted with the full brake gear, hand operated.

The boiler was made from 12 gauge copper pipe, 5" dia. The plates, but for the front tube plate and back head which were 10 gauge plate, were produced from the flattened out pipe. The new house came with an open fireplace. All the formers were made from hard wood and the flanging was carried out on winter evenings when we used the fire. It was a simple procedure, build the fire up, heat the plate, carry very carefully to the kitchen sink, quench, then out to the workshop, belt it about

then back to the fire. The throat plate was double flanged, it really took a lot of reheating. There are twelve  $\frac{7}{8}$  dia. fire tubes and three  $\frac{3}{4}$  dia. superheater flues. The sides of the firebox have  $\frac{1}{4}$ " water spaces, the fire box is nice and deep and the boiler steams well. I made all the backhead fittings and the screw down regulator is per "Blowfly" design. The boiler is fitted with three safety valves, two above the firebox and the other on the dome, they are set for 80 p.s.i. Water feed is by two injectors and an axle pump on the riding truck. The mechanical lubricator hides in the right hand sandbox and is ratchet driven by way of a rocking arm connected to the valve spindle.

When the patterns for the tender wheels were prepared they were cast by Jackson's Foundry at Granville, the best grey iron I had machined in some time. The tender has working brakes, it would have looked very bare without them.

Many of the parts were fabricated at school and were often used as class demonstration pieces. The buffer stocks were such items being roughed out on a small CNC lathe that circulated the Met.West schools for a time (described Newsletter Vol. 14. No.1 February 1986). It took about twenty minutes to rough out the shape that then only needed a bit of file work to finish off.

The riding truck is fitted with an axle pump (mentioned earlier) and hand operated brakes. It is only set up for elevated running at the moment. Eventually I will set it up to get to the lower level running.

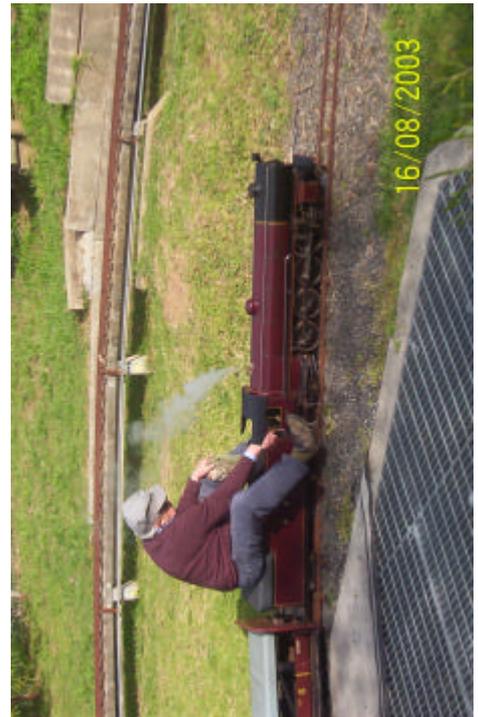
2003 has been a good year for Z19's. Mine is finally in steam and full size Z1919 is back in steam with the group at Glenerahg at the foot of the Dorrigo line.



JohnTulloch's J class and Robert Smither's 5903 starting the up hill pull on the inner



Bernie with the 10 class and Ken with Simplex on the 7 car train that ran on the elevated on the September and October running days. The guard's van is just out of the picture!



**Left:** John Hurst on the outer main. **Right:** Here is the November Board meeting, From Left: Jim Leishman (Director), John Hurst (Treasurer), Warwick Allison. (President), Henry Spencer (Secretary), Bernie Courtenay (Vice President), and Mark Gibbons (Director). Apologies: Ken Baker (Director).

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Track location is Anthony Rd, West Ryde adjacent to the car park behind West Ryde shopping centre. Telephone (02) 9874 8696 Postal Address: The Secretary, PO Box 124 West Ryde NSW 2114 Web Page Address:

<http://www.pnc.com.au/~wallis/onslsls.htm>

Public Running Day is the THIRD Saturday in each

month from 1.30pm. Entry is \$2 adults, \$1 children.

Rides are 50c each

