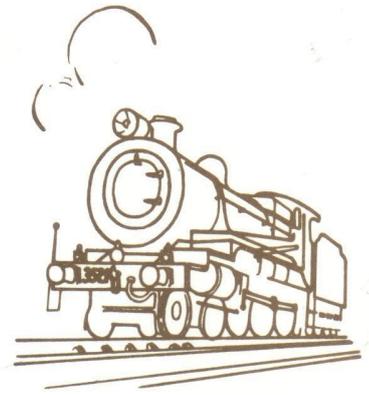


# Sydney Live Steam Locomotive Society

Anthony Road, West Ryde, N.S.W.

## 'Newsletter'

Volume 47. No. 3.  
August 2019



David Judex has recently called his HG guards van complete and here it poses for its builders photo. Photo: David Judex

### May Running Day

This was our last autumn running day for 2019 and we were fortunate that it was a very pleasant sunny day with an expected temperature of 21C. Setting up began early with John H unloading 2-8-0 "Nigel Gresley" not long after 8.30am. Barry M, Mike D and Graeme K attended to other matters such as the flag raising, blowing the tracks clear of leaf litter and putting out the signage. John L trimmed the vegetation around the perimeter of the elevated track and checked that the track itself was clear of any obstructions. David J and Barry M checked the brakes for the ground level carriages. Mike D had re-installed the red discs on the GL level crossing gates, these were repainted by Mike during the week and smarten up the place.

Early in the day Ross B unloaded Fowler 0-6-2 "Toneya"

for a boiler hydrostatic test followed by a steam test. Both tests were successful, they were supervised by Bernie C. At morning tea the May Newsletters were handed out and we saw the first of eight steel tyres for John H's Mountain class. These have been CNC machined by Wayne F with a very nice finish.

Before running was officially underway we had a local family group called DadsNBubs. They enjoyed a ride or two on the trains that were ready to run and saw how the engines were prepared for the afternoons run.

There were two trains running on the elevated track. Ken Baker with his "Simplex" was pilot for Tony K and the ten wheeler as train engine on a five car train and ran well all afternoon. John L was the initial guard with John H taking over when John L went to prepare afternoon tea. David J had taken over driving the ten wheeler after a few laps and continued till the end of the day. Our sec-



**3901 and the Fowler pass on the Bottom Curve. May Running Day. Photo: David Judex**

ond train, the four car blue set was another double header. Simon and his 0-6-0 "Simplex" ran in front of Wayne F's 2-6-0 Baldwin mogul as train engine. Guard on this train was Geoff H. This loco combination ran well till late in the afternoon when Simon had steaming problems. On dropping the fire there was no sign of clinking so Simon had a problem to solve! The elevated station was attended to by Brad W and later by Paul T and Mike D.

On the outer main we had Garry and C3807 pilot engine with Graeme K and 4-6-2 2401 train engine on the blue car set with Deven as guard. The second outer train was made up of the Central West set hauled by The Mulholland's 4-8-2 "Green Machine" 3901. Jim and Dom were sharing the driving with Martin Y as guard. When 3901 started having water feed troubles it returned to loco and was replaced by David L and his double GM units with a reduced loading. Late in the afternoon 3901 replaced C3807 and 2401 when they returned to loco to get packed up. Outer station staff were Carol L, Paul B and Peter D.

On the inner main Ray L drove C3803 hauling the green car set. Tony E was guard. The carriage set developed a problem during the afternoon. The train was stabled in the siding and examined by David L, Mark G and track super Neal B. It was discovered that a bogie on the fifth carriage when pushed down by the weight of the passengers

was causing the brakes to lock on. The carriage was removed from the train to be attended to at a later date. It was later noted that Tony E was at the regulator of the C38 and Carol L was guard. The second inner train had Ross and the Fowler 0-6-2 on the red set. Graham T was guard and this train ran problem free for its entire running time. Ian T was station master for the inner track. Peter W and David L set up the warning bells for the inner pedestrian crossing. This seemed to work well, the bells were loud enough but not too loud to be annoying. We think it made people more cautious using the crossing.

In the later afternoon there were a couple of point and signalling problems. Number 44 trailing points and number 6 points had troubles and these were attended to by Mark G. The trigger trip for signal number 9 was too close to the rail and with vibration from the oncoming train would short out with the rail. David L sorted this out by bending the trip wire away from the rail.

The signal box today was attended to by Barry M and Martin D early on, later joined by Mark G and Steve Border. Our kiosk was run by Elizabeth, Diane, Margo and Lee, they were kept busy all afternoon. Our gate keeper was Nigel Woolley assisted by Jo-Anne T. Peter W was our ticket seller assisted later in the afternoon by Margo. The total of tickets sold for the afternoon was 2065 which was a very good effort for the day. Thank you to all members who participated in the day's operation.



**Ken Baker and the Simplex pilot Tony and the Ten Wheeler with a long train. May Running Day. Photo: David Judex**

## June Running Day.

We started the winter running season with a cool sunny day that later turned cloudy. This is usually a very busy time of the year for the SLSLS. There was plenty of activity getting the grounds set up for the afternoon's operation. John H sorted small and large lumps of the Welsh dry coal into separate buckets, Barry M was testing the brakes for the GL carriages while Dennis O'B washed down the seats on all the passenger cars. Mike D and Bernie set out all the signage that goes around the ground and Graham T cleaned out the toilets. Graeme K was busy with the blower, as usual, clearing the leaf litter from the running tracks, a big job at this time of the year! Martin D and Mark G checked and oiled the points. Special attention was needed by the motors of number 44 points as they had been soaked by some recent wet weather.

At morning time we saw one set of driving wheels from John H's mountain class now fitted with the new tyres. The set of tyres have been CNC machined by Wayne F. Geoff H showed off some more components for the "Speedy" he is building. This time we saw the front tube plate, the firebox tube plate and the regulator, all very well finished off. Before lunch time Brian Carter, Editor of the AME, made a presentation to David Judex for the U25 AME Encouragement Award for his NSWGR HG brake van. This makes the fifth HG van in the SLSLS membership (others, Graeme K, Warwick, Mick and John L) and is by far the most detailed. David, a well deserved award!

On the outer ground level track we had a great variety of locomotive combinations. On the blue set we saw Graeme K with 4-6-2 2401 coupled to the carriage set and Neil Mackellar with the Arthur Sherwood built Baltimore & Ohio 0-6-0 switcher was pilot loco. Bernie was the initial guard later relieved by Paul B. This locomotive set ran well all the afternoon. The second train on the outer was the Central West set with John T and J class 2904 and some visiting locomotives. These were Victorian locomotives, a VR S class belonging to Danny and a VR A2 run by Anthony. They were from the Wandong and Taralga clubs. Running started with John and the J class and the VR S class. The S derailed at a track joint with a bit of a dip just at the foot of the grade. This track problem was quickly fixed by Peter D, Paul B and Bernie while the S class was replaced by the VR A2. Later the S class replaced the A2 and later still they were seen as a triple header. The station masters were Tony K, Peter D and occasionally Paul B.

The inner main saw the red set hauled by Ross with 0-6-2 "Toneya", Geoff H was guard and this train ran very well all afternoon. The second train was the green set with Mick and the Shay. The green set was plagued by problems early on, similar to what happened last running day.



**S Class and 2904 on the June Running Day. Photo: David Judex**

The troublesome car had the bogies replaced and the train returned to service. The inner station was attended to by Carol L, Dennis and later Neal B and Jo-Anne.

Ray Lee has C3112 in loco but it was not steamed.

Today on the elevated we had a seven car with Garry and 4-6-0 "Impala" running with Wayne's 2-6-0 Baldwin Mogul. They were then joined by John H with the "Nigel Gresley" 2-8-0 all running well till the end of the afternoon. John L started as guard replaced later by David T. The second train saw Nick and his Blow fly running with Simon and the Simplex. Later Nick changed to attached banker. Simon had some steaming difficulties so Nick continued with a two car train. Towards the end of running Simon replaced the Blowfly to see out the afternoon. Guards were Brian K and later David T. Stationmasters were David T, Paul T and Brian K.

The gate keeper today was Martin Y and he was very busy with the queue extending well over the bridge for a long time. The signal box was attended to by Barry M, Martin D and Mark G with Steve B acting as track superintendent. The kiosk was looked after by Elizabeth, Gai, Diane, Terrie, Margo and Joy. The Ticket office was staffed by Peter W. Peter had set the inner crossing gate signal bells again, they worked well. We gave 2553 rides today. There were long queues for all stations even still at 4.30pm.

This was another very busy day, a big thank you to all members who were able to be at the grounds and assist the operation.

## July Running Day

Our mid winter running day. The forecast for the day was fine and sunny and the temperature better suited to early spring than mid winter. Add to this the end of the school holidays so we had a rather large crowd.

Setting up for the day started fairly early as usual. Graeme K was busy with the blower, there were lots of



**Simon and Simplex with Nick and Banker Blowfly almost out of view at the rear! June Running Day. Photo David Judex**

leaves to clear. Barry M and Deven tested the brakes on all the cars. Dennis O'B washed the car seats and some of the signs, Mike D was also cleaning some of the ground signage. Mark G and Martin D were checking and preparing the point mechanisms for the day with no. 6 points needing special attention as they were switching too slow. John L trimmed around the elevated track making sure there were no things close to entice little hands to reach out.

At morning tea time, on the club house apron we saw the John H designed and built concrete beam carrier that will allow the safe movement of the elevated beams once the elevated track renewal gets underway. It is even fitted with a set of bogies so it can be stored in the elevated carriage shed. On the tables inside we had David's HG van now with all the details completed. David later moved "The Old Girl" and its train out of the shed on to the siding and with the LNER van removed and replaced by his HG van for some official photos. We saw as well work from James S, a Sydney steam tram chassis with slip eccentric valve gear, some boiler plates for the tram and a rolling chassis for a gauge 1 Z26 class.

We had our friends from the Orange society visiting for the day with locomotives to join the running roster. Roger Kershaw C3290, Greg and Les Bird C3239 and Ben De Gabriel, Barry Potter was unable to join them. James Sanders was here from Yeoval with Z2604.

On the inner track Arthur had coupled the Hurst 4-8-2 mountain class to the green set with John H and later Martin Y as guard. This was the mountain's first running day after having the driving wheels re-tyred and ran very well all afternoon. The second inner train was the red carriage set with Andrew and C3609 as train engine and James and Z2604 running pilot. It was disappointing that the Z26 had to retire with a blown superheater leaving

Andrew and the 36 to carry on with a reduced loading. Considering the patronage we had Mick M steamed the Wolgan Valley Shay and replaced Andrew so as to get back to full passenger capacity for the afternoon.

On the outer ground level hauling the blue car set we had a rather special locomotive combination of triple headed C32 class locomotives, C3290, C3239 and C3281. Of special interest was C3290, this was Ray Lee's first 5" gauge 32 class built in 1963 and has now been re-built by Roger Kershaw. So we had Ray's first and latest C32 class running on the same train. This train ran well with a variety of drivers on C3290 and C3239, Neal was guard and later Jo-Anne.

The second outer train was the Central West set with Graeme

K and 4-6-2 2401 bas train engine and Neil Mac leading with the B&O 0-6-0 switcher. Guard duties were covered by Graham T. The station master duties were carried out on the inner by Carol L, Mick M (before steaming the Shay) and Martin Y with some help from Barry M at times. Tony K and Peter D were on the outer station.

There was another triple header this time on the elevated. We had a six car train with Wayne's 2-6-0 Baldwin as train engine, Simon and his "Simplex" with Garry and the B1 "Impala" 4-6-0 in the lead. John L was guard till mid afternoon. Garry had some steaming issues and came off for some time. The train was reduced by two cars and continued well for the afternoon till Garry came back on with the B1. The second train on the elevated was the blue set with Arthur and the heritage Mikado and Evan with his "Simplex". David J spent most of the afternoon driving the 2-8-2. John H was guard but there was swapping with Arthur during the day. The station was attended to by David T and Paul T. James S was also noted driving one of the locomotives and as well assisting on the station.

We had a very big crowd for the afternoon, there were a couple of party groups and long queues were the order of the day. At times the queues blended together but sorted themselves out. Peter W sold the tickets and we gave 2751 rides for the afternoon. The gate keeper was Ian T filling in for Andrew so he could be on the locomotive roster. The queue extended to Anthony Rd for a very long time from 1.30pm.

The kiosk was looked after by Elizabeth, Gai, Terrie, Joy and Margo. In the signal box we had Martin D, Mike D and Mark G. Track superintendant was David L. It was a big day and a special thank you to all who worked so hard to make the day a success.

### Duty Roster.

**September** D. Thomas, B. Courtenay, G.Croudace, S.Larkin, L.Pascoe, S.Sorensen, D.Lee, B.Wilkinson, G.Hague, M.Dewhurst.

**October**-John Hurst, J. Leishman, J.Lyons, M Lee, J Mulholland, M.Yule, W. Allison, A.Kidson, N.Woolley, B.Perrins.

**November**-R Bishop, N Bates, J A Topp, R Lee, P Wagner, P Taffa, J Tulloch, Z Lee, N Kane, D Judex.

**December**- M. Murray, A. Allison, M. Gibbons, W. Fletcher, G Kirkby, J. Noller, I.Tomlinson, G. Scott, B. Hartwell.

### Gate Roster

**September** N.Bates; **October** R. Bishop; **November** S.Border; **December** P. Brotchie;

### City of Ryde Guided Walks

These took place on Tuesday 16<sup>th</sup>. July during the recent school holidays. The SLSLS provided train rides at the beginning of one walk and at the end for the other group. We had two locomotives John H and the Mountain and Garry and C3807. It was a chance to check out each locomotive. The Mountain was ready for load trials after the fitting of the new tyres on the drivers and a new ash pan. Garry's C38 had been fitted with new piston valves made by Simon. Both locomotives performed their duties well so the work on them had been successful! Martin D and Barry M checked the point mechanisms and then ran the signal box, David J assisted Barry checking the brake systems. Dennis washed down the car seats. Ian T cleared the tracks of leaves. Garry ran the Central West set with the first group with Tony K as guard on the outer. On the inner we had the green set hauled by the Mountain with John H driving and David J acting as guard. Station staff were Carol L, Peter D, Tony E and Joy. Ross and his daughter were present for a short time. For the second group Garry continued with his train while David J drove the Mountain with John H on guard duty.

There were no problems with either locomotives or their trains so it was an enjoyable and relaxing day for all who were present.

### Works Reports

With the winter season some of the growth has slowed but there have been lots of times when the leaf litter has needed clearing. Recently Simon gave the rose bushes their severe pruning and soon they will be as colourful as ever. David T is always busy with plantings, weed control and general tending to the gardening requirements. Post script to the Box Elder. You would remember in the last Newsletter we reported that following a large branch falling off the tree the Ryde Council removed it completely. The trunk ended up at John H's place and Christine was able to find someone to cut it up into planks. The planks are now stacked for seasoning and will eventually be turned into some fine pieces of wood work.

Paul B and Peter D with help from other members as available have worked on the refurbishing of the ground level track replacing the corroded



**The Mountain and 3807 on Ryde guided walk day., both locos performed well after their respective tone ups. Photo: David Judex**

### Diary

- |              |   |
|--------------|---|
| 1 September  | (Sunday) Family Day   |
| 3 September  | Directors meeting   |
| 7 September  | Members Meeting 9am   |
| 21 September | Public Running Day  |
| 19 October   | Public Running Day  |
| 2,3 November | Small Gauge Festival  |
| 4 November   | Directors Meeting   |
| 16 November  | Public Running Day & newsletter                                   |
| 30 November  | Special General Meeting, 9am                                      |
| 7 December   | WRNCC Christmas party (lunch) and SLSLS Christmas Party (evening) |
| 21 December  | Public Running Day  |
| 31 December  | (Tuesday) New Year Eves Run                                       |
| 7 January    | Directors Meeting   |
| 18 January   | Public Running Day  |
| 15 February  | Public Running Day & newsletter                                   |

**Please see AME for other events.**



**Mike D has been doing an outstanding job cleaning, repairing and repainting lots of the items around the grounds and it shows! Here Mike re-attached the refreshed red discs to the crossing gates. Photo: David Judex**

sleepers with stainless ones. Some of the track sections have been more in need of care than others. The track jig has had a lot of use lately with the GL work and also the start of track making for the elevated. Peter provided a word of warning when moving the jig. The spine of the jig is a piece of 7" X 4" RSJ with an interesting history. Originally supplied to Dorman Long, for Harbour Bridge construction, what was left over on completion of the bridge found its way to the NSWGR Chullora workshops. In the late 1970's the piece for the jig found its way to the SLSLS. It is a high silica steel not the best for welding but well suited for riveting or bolting. The cross pieces that form the jig are basically tacked into place and do not take any major load. When moving the jig it should be noted that the RSJ should be supported NOT the gauge pieces.

### **New Elevated Track**

The 22<sup>nd</sup> June was an important day as this was when the work on this project began making components. There had been considerable design work completed over a number of months and detailed plans prepared by Andrew A. We were very fortunate to have a thorough professional engineering assessment completed on the design before materials for the initial stage were ordered. Since that date the beams have been completed, track sections welded and plastic sleepers attached. A number of concrete piers have been poured in the renewable moulds that have been prepared. Consideration has been given for what will be needed for the interface between new and old track. We would like to be able to maintain running day continuity.



**Above: Peter W supervises David L programming the PLC for the level crossing bell operation. Meanwhile below, the existing signalling is largely looked after and maintained by Mark and Martin. Photos: David Judex**

### **Western Retaining Wall**

The posts for this project were delivered by Neal B on the first Saturday in August and are currently stored under the northern end of the foot bridge.

### **Other Works**

The low fence between the outer station loop and the main line is being replaced as it was starting to show its age and signs of rotting. Neal B has sourced new hard wood rails for this project and has fitted two of the sections already.



The crossing signal bells for the inner ground level track have been operating now for a couple of running days. This work was in the hands of David L, Peter W and Martin D. This has been a great project and apart from the heavy work of trenching, running the cables etc., the completion of all the electrical connections has taken a great amount of patience, a job well done.

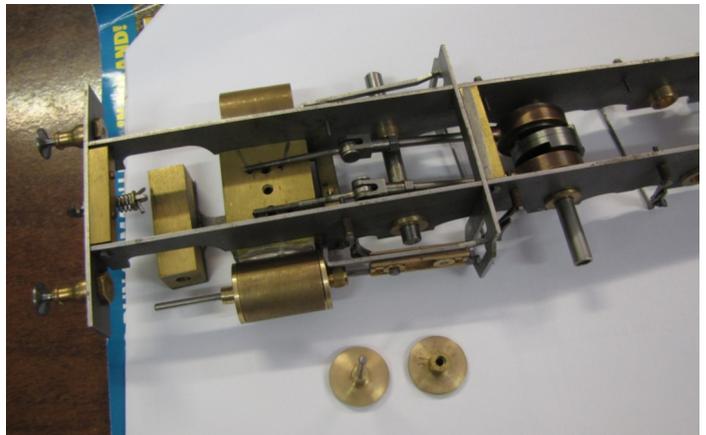
**Model Engineering**

David J has completed the fitting of all the detail on his HG van, a very nice piece of work. David's Manning Wardle chassis is progressing very well and will soon be running on air. There are a couple of gauge 1 Z26 class locomotives under construction. James S has his running on air and Andrew's will not be far behind. They have a great amount of detail for a small locomotive. Geoff H continues to show us some very well made components for his Speedy, seen lately have been boiler plates, some sample silver soldering and the regulator.

John H has completed the major work on the Mountain with new tyres fitted on all driving wheels and a new ash pan. The locomotive has had successful trials and been back in revenue service.



**A selection of model engineering activities on the morning tea table: Geoff Hague's Speedy Boiler bits, Andrew's Z26 Chassis , CNC Mountain Tyres machined by Wayne, 16mm scale NTU wagon, Sydney Steam Tram and HG from James and David. Photos David Judex and John Lyons.**



**Editorial**

We are about to embark on two major projects within the Society. The one that will take the longest time will be the replacement, for the second time, of the elevated track. The second project will be the replacement of the retaining wall on the western side of the elevated track. The retaining wall work will enable a better track alignment for the elevated track on that side of the grounds. To complete these projects we will need a big input from our membership. Careful planning has taken place and when the call is made it is hoped that we will have a very good roll up of willing helpers to see the projects completed.

John Lyons  
Fill in Editor.

## Chairman's Report-2018/2019

### 1. Running Days & Events

Passenger figures for the year to the end of April totalled 23,220 compared to 30,151 for the previous year and 24,707 the year before. There were no lost days in the last twelve months.

We increased our entrance and ride charges in August 2018. Since then we have seen a reduction in the number of tickets sold of 7,220 compared to the comparable period of the previous year, which also included our record month in April 2018 with 3,940 tickets sold. Even with the reduction in tickets sold, our ride revenue for the period was \$4,437 higher than the previous period.

Our annual injury rate is currently at zero, with the long term average since 1994 being 0.017%. We have indeed been fortunate to have had no injuries recorded for some months now, but need to be mindful that our long term average is 4 injuries per year. We need to be vigilant in identifying and pre-empting situations that would cause derailments or passengers falling off. In this regard, the warning to passengers before train departure is one of our key controls and should include a warning not to take "selfies" while the train is moving.

Our charity day for RedKite last November had 2,010 rides, which was again a good result.

The Society's special events for members and friends, the Presidents Breakfast in June, the Family day in September, the Christmas Party, and our March members' day were all very pleasant affairs, with reasonable numbers attending.

We also had our annual West Ryde Community Centre function in December and our Small Gauges Weekend in November when there were about 60 present on the Saturday and 25 on the Sunday.

### 2. Financial Results

John Hurst has again done a professional job as our Treasurer during the year. The end of year again resulted in an increase in our reserves. As well John has led our dealing with council regarding our lease renewal, which hopefully is edging closer. Having sound financial management is an immense benefit for us and we owe John a vote of thanks for this. Thank you John.

### 3. Our Membership

We ended the year with 68 members (including country and provisional members). We gained two new members but lost four giving a net loss of two. The Board has been giving consideration to ways of increasing our membership and we have recently joined the Australian Men's Sheds Association as an initial step to widen our exposure to potential new members.

During the year we conducted a Membership survey to seek ideas on how we can enhance the value we provide to our members. The results of this survey have provided valuable ideas which can be developed in the coming year. An example is the upcoming First Aid training session.

The regular Saturday email has continued and is good up to date information for supporters of the Society as well as members. Thanks to Warwick who is our correspondent most weeks and to others who have assisted when he was not available.

We have continued to have good coverage in AME, and Model Engineer from reports of club activities and photos from our newsletters. There have been a number of feature articles in AME from our keen authors Warwick, Andrew and James.

Thank you to John Lyons and Warwick Allison who have produced our excellent newsletters this year. Thank you also to John Lyons who has arranged the printing and Simon who sends them to other clubs.

Thank you to our signalmen, Mark, Barry, Steve, Martin and Deven. Thanks to those members who fulfilled the task of Track Superintendent, David Lee, Steve Border, David Thomas and Neal Bates.

I again performed our formal amusement device inspection which is a requirement for the Code of Practice and shows due diligence on our part in keeping the operation safe.

In the kiosk, we are very grateful for the assistance of Liz, Di, Joy, Margo, and Gai and others who help from time to time. Ticket selling was principally handled by Peter Wagner. Thanks also to our Gatekeepers who are the public face of the Society on Running Days.

Thanks as always to Andrew Allison, Bernie Courtenay, David Thomas, Brian Kilgour and Ken Baker who handle our boiler inspections and maintain our boiler records. There were no boiler incidents at the club during the year, which is what we like to see.

David Thomas has continued to weave his green magic with our gardens and grounds which provide a very pleasant venue for our visitors and members. As always, David would welcome some other gardeners! A special thanks to Sheila Dewhurst who has continued to care for and develop the clubhouse garden and to Simon who teds the Ticket Office garden.

Mark Gibbons and Martin Dewhurst continue maintenance on the point motors while bogie maintenance is usually done by myself. Thanks also to our librarian Peter Wagner who organises our collection of magazines and books.

Tony Kidson looks after our lawnmowers and powered equipment, again a never ending job, thank you Tony.

Secretary Simon who has spent many hours during the year handling our correspondence and the general workings of the Society. In particular, as Simon is retiring from the Board, I would like to thank him for his service to the Society as Secretary over the last nine years. Thank you Simon.

Many thank you also to the many other members and friends who assist as guards, stationmasters, drivers, and who help to maintain and improve the grounds.

#### 4. Projects

This year we have seen important progress on some of our long term projects.

Installation and termination of cabling for stage 1 of the level crossing warning and lower grounds signalling system is now completed, with the level crossing warning expected to be activated in the coming months. Thank you to David Lee and Peter Wagner who have spear-headed this work, and to the others who have assisted from time to time.

Planning has been completed for renewal of the western retaining wall and delivery of materials will commence soon. We are also planning to purchase a petrol post hole digger to assist with the 40 plus holes required.

The elevated renewal design review team have finalised a design proposal that substantially meets the design goals set out at the beginning of the project. The design is now being independently verified to ensure that the design criteria related to its structural performance and stability are sound. We are fortunate that Dr Allan Wallace, Chairman of the AALS Safety Committee and a well-respected railway engineering consultant, has agreed to perform the verification for us free of charge. Allan has been provided with the design drawings and supporting documentation and we are expecting to hear back from him soon. Following the engineering verification, it is intended to construct a trial section of around 20 metres to test the construction aspects of the design. Thank you to the team, and in particular Andrew who prepared the design drawings and documentation for verification.

Bernie has been painting the ground level signals and Mike has tackled the painting of many items of track equipment as well as moving on recently to the full size banner signals.

Work has continued on sleeper replacement on the ground level track to address corrosion, particularly in those areas affected by leaf fall. Most weeks a panel of track is lifted and re-sleepered by Paul Brotchie, Tony Kidson and Peter Dunn. Some sets of points have also received attention.

A large number of other smaller projects, have been carried out. Thank you to everyone who has contributed not only to projects but also grounds maintenance throughout the year, and I encourage members to involve themselves in the upcoming projects for 2019/20.

#### 5. Model Engineering Activities

As has been the case in the past, we regularly see member's progress on their Model Engineering projects. This year we have had the pleasure of watching progress on David Judex's prize winning HG guard's van – congratulations David. David Thomas has made significant progress on his 620 class; Warwick has finished re-building his 36 class and is working with Andrew to construct a matching set of NCL cars. Warwick has also completed Ayesha II, the first 2 ½" gauge locomotive built within the Society since 1987. Paul Broth-

chie has progressed his O class; John Lyons his Avon-side; Bill Perrin his Isle of Wight; and Geoff Hague his Speedy; Mark is nearing completion of his Blowfly; James has completed his 12 class and I have restarted work on my Hunslet. Not to be outdone by all the locomotive and rolling stock work, Ross Bishop and Jim Mulholland took their Fowler ploughing engines further along the path to completion.

There is no doubt that Model Engineering remains alive and well at SLSLS!

#### 6. AALS & AMBSC & Other Visits

This year's Convention was at Warner in Queensland and a good contingent of members and partners made the trip north. As an added bonus, Graeme Kirkby brought home the SSME trophy for his 5035.

Members also attended other clubs invitation days, including Newcastle, Hornsby, Hot Pot, Western Districts and the scale day at Orange. As usual we are well represented at other clubs invitation runs.

#### 7. Our Future

Another year has passed and we still do not have a lease, however indications are that it is finally getting closer. Council's proposed 10 year lease with a 5 year option will give us the security of tenure to plan and implement some of the projects we have been talking about for so long.

We have seen a drop off in patronage in recent months, likely as a result of our increased charges. On the plus side, we have seen more comfortable crowds each month and a more relaxed afternoon's enjoyment for our members. A further plus is that our overall revenue has increased, allowing us to fund our big-ticket projects. Only time will tell whether the change is sustainable.

Our offering here is unique, in providing a service to our visitors; in showcasing the days of steam; and in progressing the hobby of model engineering.

It is hoped that the initiatives flowing from the members' survey will provide activities that will benefit and encourage not only our current, but also our future membership. We have taken some small steps in broadening our membership catchment, but I would also encourage members to promote the Society to those who might like to join us.

On behalf of myself and the Directors, I thank each and every one of you for your confidence and support during the past year, and as we all collectively take the Society forward during the next 12 months and beyond.

Thank You.

Michael Murray

1 June 2019

# Rebuilding Tramfly

Andrew Allison

A couple of years ago I had received a request from my friend Dennis to help him “set the valves on Tramfly”. After a little discussion it became apparent it was a bit more involved than just setting the valves to get the loco running on air. At the time I had just started pulling apart my workshop in preparation for moving house, and told him he would have to look for help elsewhere!

The house we had moved to had no existing space to use for a workshop and it was close to a full year until we had got around to building one in the backyard. About the time we were moving the machines in, Dennis enquired again - now I had they workshop in order, could I help? In the intervening time Warrick Sandberg had made some new pistons and rings, some other work on reassembly had occurred with some assistance from others, it couldn't take that long? I told him to bring the bits around.

Tramfly, as the name suggests, is a Sydney steam tram version of Blowfly. It is large, probably close to 2”/foot scale on 5” gauge track. The chassis is pretty close to Blowfly, with cosmetic alterations to the frame and buffer beam shape, but the saturated boiler is significantly different, being 6” diameter compared to Blowfly's 5”, and sitting much lower, to the point where the firebox is less than 1” deep. Unusually the boiler is also domeless, the appendage that is unmistakably a dome is actually just a safety valve shroud! The bodywork is made from fiberglass and timber. To the best of my knowledge it was a first effort by a young high school/uni guy down the Illawarra. It is rough, and has some unusual features, but I knew it had been a goer as had seen it years ago running fine at Hot Pot, and it certainly is unmistakably a Sydney steam tram. It had even featured on the cover of AME.

When I received the bits, there were obviously items missing. Dennis had moved during that time and between his old and new homes and a storage unit, some of the bits of the disassembled loco had gone AWOL. I doubt it was a big loss! The chassis was largely complete except the steam chests were disassembled.

The first task was to make studs for the steam chests. These were made from 3.2mm diameter 316 stainless TIG rod with the ends threaded 5BA. The next thought was how to get the steam into the cylinders. Previously, the steam had entered the steam chest through elbows in the covers. I can only assume this connection at the cylinder was done before the steam chests were assembled and the steam pipework was soldered up in situ (it looked like it had been!) as it was absolutely inaccessible. Clearly a better arrangement was required.

I decided to make a new steam pipe arrangement to feed into the tops of the steam chests with banjo fittings. I drilled and tapped the first steam chest and found I had forgotten to allow for the 10mm thickness of the frame! This hole was plugged up and a new hole made in the correct location! If I had to do it again, I would put it into

the bottom of the steam chest, which would mean that the steam pipe could be removed without taking the boiler off.

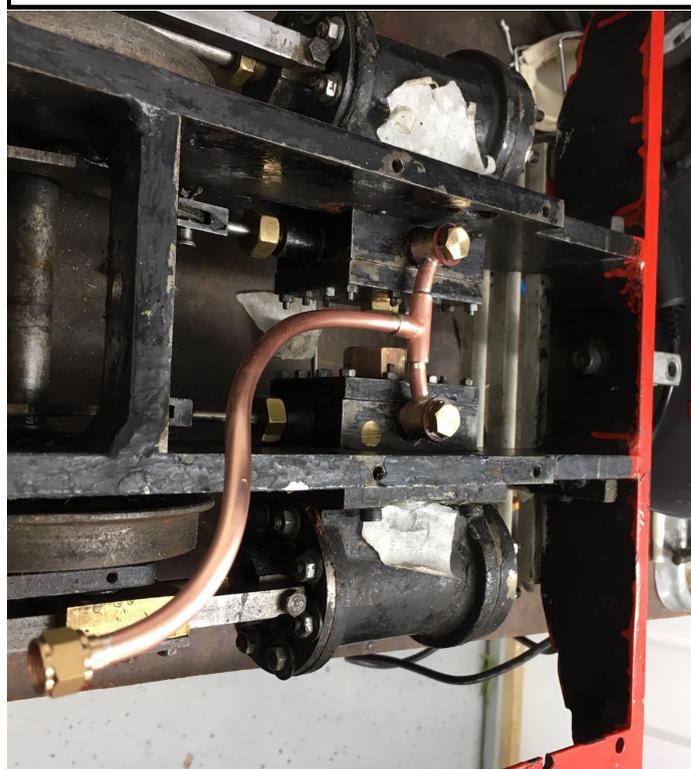
One of the original steam entry elbows into the steam chest covers was an odd size. So I made a new plug for one, and soldered up the hole in the elbow of the odd one and converted it to a plug.

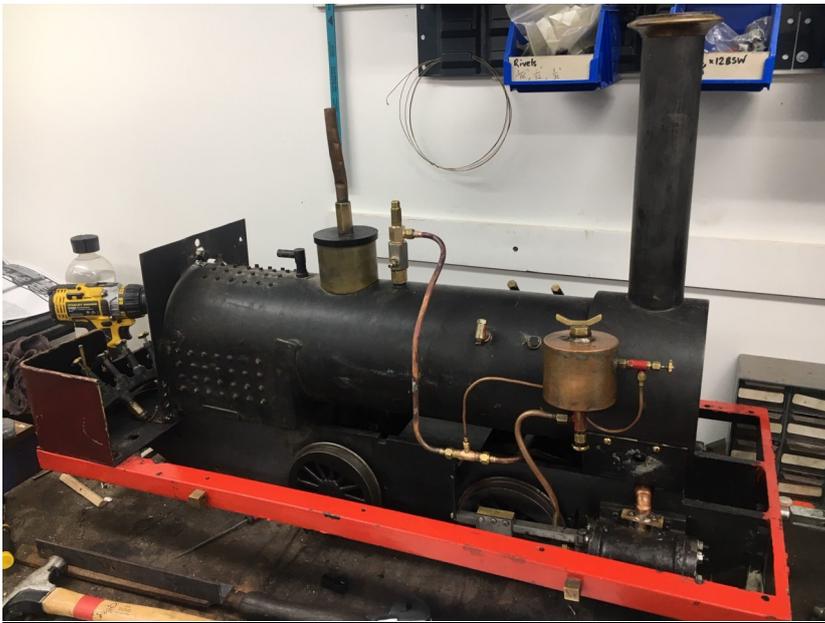
The cylinders had the end covers on, pistons in and were mounted in the frames, I was told this part of the work was ‘done’. Although it looked doubtful, at this stage I was still thinking I could get it done quickly and then that was someone else's problem. However there were a number of broken studs around the covers. Of particular concern was the left had cover which had 3 broken studs, 2 of which were next to each other and over the steam port, a big gap where there is only 8 studs! So I decided it needed at least one working stud in this area!

The cylinder was removed easily from the frames. However the broken studs, actually must have been unbrako grub screws, and proved impossible to drill out. So a new stud was put in between the 2 broken studs. This was all done without disassembling the cylinder. With the cylinder off, it was noted some of the steam chest mounting holes were striped or otherwise damaged, so these were drilled and tapped deeper. The other cylinder was also inspected, then removed and treated in the same way. Fortunately the new steam chest studs I had made as the first thing were long enough to cope with having to be screwed in further!

The port faces and valves were polished to remove some marks. The ports were pretty average, but the valves had been machined to suit the ports and looked okay. The ex-

New steam pipe connection





**Ball valve regulator and external steam pipe**

isting steam chest gaskets were discarded and Loctite 518 gasket maker used when assembling the steam chests. The crossheads are theoretically held together with 7 x 4ba bolts. In practice on one side there was only 3, and the other side 5, due to a combination of broken taps in holes and striped threads. Some holes were able to drilled deeper with longer bolts used, other holes were filled and a new tapped holes provided to restore the designed number of fixings.

Glands were repacked, the valves set by eye, the steam chests closed up and the chassis tried on air. It worked, but was a bit lackluster, which I put down at the time to not having plugged the draincock holes, and also the new rings that might need a little running in so I continued on. The next item was the exhaust. The exhaust arrangements had been lost, but It was described to me as being a separate 1/4" pipe from each cylinder, entering the smokebox at the 4 and 8 o'clock positions, ending at the top of the smokebox which is also the bottom of the chimney. Separate for each cylinder and no nozzles. This is relatively unusual but not dissimilar to some traction engines. One advantage is that it would removed obstructions sweeping the tubes. I decided that 1/4" was a little small, especially considering the length of pipe and the right angle bends required, but otherwise would try similar with nozzles, and tried making it out of 3/8" pipe. I just could not get an arrangement I was happy with the bends required were sharp and in awkward positions and would have had to cut larger holes in the smokebox to fit the larger pipe. I soon abandoned this method in favor of a more traditional arrangement made from 1/2" copper tube and elbows sticking up through the smokebox base. An angle grinder was used to cut out the frames for the new exhaust pipes. Apart from being low profile to suit the low slung boiler, this was pretty standard Blowfly. The T in the middle enters the base of the smokebox and has o-ring grooves machined into it. The new blastpipe pushes down over these o-rings and has a M3 clamp bolt to secure it. It has a nozzle screwed in so it can be easily altered if required.

The wheel flanges were a bit too deep and the back to back was just under 4 9/16". This was corrected with a file while running the chassis on air! ,the extra pressure proved too much and one of the wheelsets fell out! The tapped holes in the frames for the axle box keep were drilled so far oversized there was barely a visible spiral of thread in them. What appeared to be araldite or similar on the bolt was doing all the work. As these were already 5/16" W into a 10mm frame, tapping them out was not really an option. So instead I made longer axlebox keeps and the frame was drilled and tapped 1/4" BSW outside of the problem holes. Now the chassis was effectively done (so I thought) and my attention turned to the boiler and fittings.

The regulator arrangement was very unique. Steam exited the boiler ahead of the 'dome'. It went through a check valve, then through an unlagged 1/4" pipe back towards the rear. Through another inline check valve, before this pipe exited the bodywork and terminated on a ball valve mounted on a brass stand secured to the floor of the rear deck. This brass stand was hollow, and from under the rear deck another 1/4" steam pipe emerged and ran forward to the cylinders via a T piece for a colossal displacement lubricator. I am told that the regulator used to be a needle valve (in the same location) which leaked. My assumption is that this leaky regulator meant that the boiler when cooling down may have been drawing oil from the

**New backhead arrangements, showing regulator handle, brake valve and new turret**





New and old grates

lubricator into the boiler. The attempted fix for this was putting check valves in the steam line. This was all pretty amazing to me that even with such a long steam pipe of relatively small diameter, lots of condensing effect and clacks causing significant restrictions in the line the loco ever worked!

It was realized that 3' of pipework could be removed by locating the ball valve on the boiler barrel and operating it with a rod to a pull out regulator handle. The regulator

bracket made was a welded steel frame bolted to the chassis. The regulator handle has a 38 class style crank in it to keep it away from the hot backhead. The steam pipe now descends straight from the ball valve to the cylinders. While I am sure the ball valve would provide an effective seal, one of the clack valves that had been in the steam line was repurposed and turned into a snifting valve which sits atop the ball valve. Thus any vacuum from the boiler that makes it past the regulator will suck atmosphere not oil!

Next my attention turned to the turret. This was ugly. It stuck out through the back of the bodywork, It was very long and had a dozen valves all in a line for injector steam valves, blower, vacuum, whistle and cylinder drains. The pipework for these then went down the outside of the bodywork in a spiders web before bending back into the body along the lower sides of the backhead. In addition, the pressure gauge was mounted in the rear headlight. Together with the regulator steam pipe, all this meant to take the body work off for any reason involved undoing about a dozen pipe connections too. I resolved to make the body easily removable to aid maintenance and cleaning.

A new turret was made that locates inside the bodywork, with the hand wheels just protruding through the rear windows. The number of valves in a row was reduced to 4, by relocating the brake and whistle valves. All pipework is contained within the body.

What had been the old regulator stand mounted to the rear deck was modified to become a brake stand. A proper little brake handle was made which has an operating shaft through the stand. Under the floor a combined steam valve and ejector were mounted off the bottom of the spindle. This makes the brake very accessible and in the same vicinity as the regulator. With one motion you can shut the regulator and flick the brakes on, instead of fumbling to find the correct valve amongst half a dozen similar valves across the turret.

The pressure gauge was relocated to the backplate surrounding the boiler, and the whistle mounted inside the body work instead of through the roof. This completed the untangling of the pipework from the body and now all that is required before the bodywork can be removed is pull off the chimney cap.

Pipework was then done, reusing as much of the existing pipework as possible. Because of this It is not very pretty but at least it is all covered up! Injectors were positioned closer out to the sides and extensions on the overflows provided so that water flow could be observed. As the overflows protrude down and out, they are only attached by tight fitting silicone tube, the idea being should they catch on anything they can pull off without causing other damage. One other interesting feature was a connection to a compressed air blower for lighting up on the loco. This had its own jet up the chimney. The connection for this was mounted to the front platform. I wanted to make the front platform easily removable to aid tube sweeping so this feature was retained but positioned further down the loco side. In addition a control valve was added. Now the front platform can be removed easily by undoing 2 finger

Gauge Glass Protector





**Cylinder showing gasket blocking of steam ports and the drain holes too far down the bore. All ends had this problem to a greater or lesser degree.**

tight screws. Some other minor repairs were done such as fixing water valves and plumbing, machining down the con rod so it didn't hit the slidebars, grinding a frame stay where it was being hit by the eccentric rods, replacing o-rings in the seized drain cocks etc.

The gauge glass was very long and very close to the fire-hole. It was just waiting to be hit with the shovel. A simple gauge glass protector was made from 1/16" stainless rods clamped over the top and bottom fittings. This is relatively unobtrusive and effective.

The last item was a new grate. One of the unusual features of the loco was the position of the grate. As stated before, the barrel is very low slung meaning the firebox, which sits on the top of the frames, is very shallow. Obviously desiring a deeper firebox, the grate had been positioned at the bottom of the frames, with the frames and a couple of frame stays serving as an extended dry firebox some 4" deep! The corrosion on the frames was an indicator that this was probably not best practice! The grate itself was economical on steel if not on fuel - it had 5mm bars with 10mm spaces! Everything that went in the door would surely just come out the bottom!

I saw no reason why a shallow firebox shouldn't work, reasoning that if the fuel remained above the grate, not disappearing through it this would already be a massive help. Additionally, the shortened steam pipe, many leaks fixed, a proper blast arrangement and the cylinder blows having been fixed would mean the steam consumption would be much reduced.

A rosebud grate of my usual pattern (10mm thick plate, 4mm holes on 10mm square pitch for 12.5%

air) was provided with an attached ashpan. The ashpan is very deep and the assembly sits on tab welded to the frame at the front and secured with a single pin at the rear.

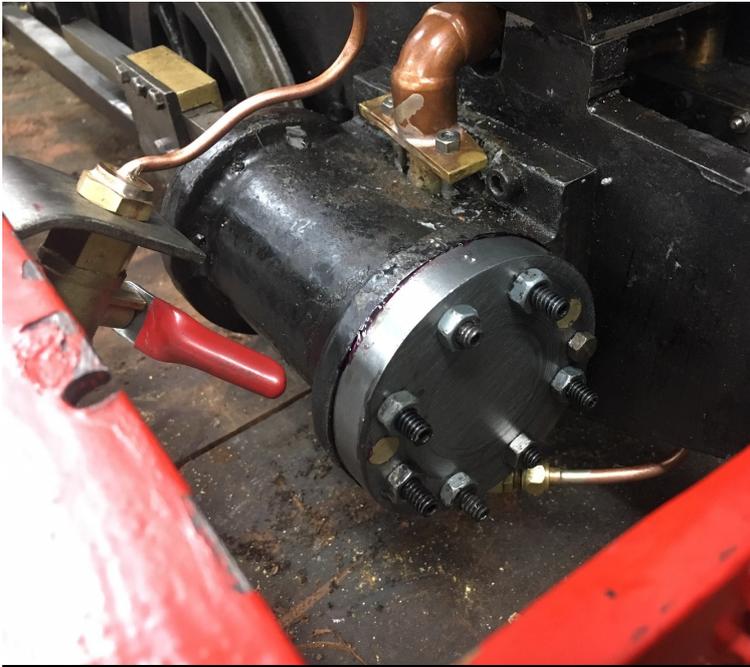
With the loco largely complete it was taken to the track one rainy day. Within a few metres down the track, the rear left hand cylinder gasket blew out of one of the vacant stripped stud holes. There was quite a big leak out of this hole. Performance was jerky and lackluster, put down to the big steam leak out the stud hole. We ran around for 30 minutes or so testing other things and looking for other problems that may require attention. A couple of pipes leaking from the tails were noted but otherwise everything else seemed to work okay. Getting the engine home, I was able to tap the missing stud hole out in situ, but the size had to go to a ridiculous 1/4" stud! Luckily it didn't break through into the cylinder bore! The new stud was put in, with some loctite gasket maker applied around the thread before the nut was applied, the pipe leaks fixed and the loco taken back to the track the next week.

Despite the new stud having fixed the cylinder leaks, performance was not improved. On a single ground level car progress at full regulator was very slow indeed and the loco was still jerky. With a few passengers on the car, the bit of jerkiness turned into violent whipping, and the loco made it 1/3 of the way up the hill before terminal failure with sounds of steam escaping from below! A close inspection revealed that the same cylinder gasket had blown again, this time around the back edge of the cover behind the slidebars. The passengers alighted and the loco limped back to the steaming bay. Although the gaskets were obviously a problem they could not be blamed for the jerkiness as the loco had run for a while before the gasket blew and was noticeably jerky. As the loco ran downhill fine, it was unlikely to be mechanical problems (binding, piston or valve over traveling hitting covers etc.), so it was reasoned it could only be the setting of the valves.

I was reasonably confident I had set them okay, but with the aid of a few experts and the loco still in steam, the valve timing was checked by cracking the regulator, rolling the loco and watching the steam coming from the draincocks. It

**Setting the valves on air with cylinder covers off**





**Cylinder cover showing extra holes over broken studs filled in .**

appeared to be way out. However, no matter what the adjustment of valve spindle and eccentric advance we just could not get steam to come at the right time at front dead centre, the other end was just as bad, and the cutoff was all over the place. What was going on??!!

After a day or so of despair I decided this really could not be that hard. After all it is only slip eccentric gear and I understood very well what should be going on. As the gaskets needed replacing, I decided the first thing to do was to disassemble all the cylinder end covers so new gaskets could be provided. It was then that everything became clear!

The gaskets on the cylinder ends were a real mess, a mixture

of silicone and some very thick gasket material. The gasket material was not trimmed neatly to the internal dimensions of the cylinder. When the spigot of the covers pushed in, it pushed the gasket material into the bore and against the steam ports, effectively sealing them off! This had been throttling the steam and exhaust entry and exit to the cylinders. In addition, the drain cock holes were way too far down the bore, this mean they were covered by the piston at top and bottom dead centre, accounting for the impossible events when we had tried to use them to set the timing.

A small channel was cut from the drain hole to the end of the cylinder bore with a cutting disk in the Dremel. This ensured the drain is open at dead centres! The covers and cylinder were cleaned up. I managed to get another stud in where there were broken studs, and the holes in the covers where there were no longer studs were riveted over and smoothed. This would give the new gasket a greater compression area and nowhere to blow out of! A relief was machine into the cover spigots adjacent to the port to provide an even greater passage for the steam.

The valves were then set very easily. With the cylinder covers off, air was applied into the steamchests. The driving wheels were rotated by hand to front dead centre and rear dead center. Correct opening was confirmed by a healthy blast of air out the ports, unrestrained and uncomplicated by anything else in the way. At least if I had any other problems I could be sure the valve setting was correct!

The lot was reassembled using only a smear of loctite 518 for the new gaskets. Running on air confirmed that performance was no longer lackluster, and taking it down the track for steam trials with a couple of cars and some passengers confirmed it now ran exactly like a Blowfly! It was with sweet relief that I was able to call Dennis and ask him to pick up his loco!

It takes a lot of work to build a working loco and I know Tramfly has run for many years and brought a lot of joy to previous owners as well as Dennis. To have it out of order and disassembled seemed a waste of the effort that had gone into building it in the first place. In pieces as a wreck, a loco this agricultural is worthless. The value of a loco like this is in the fun the owners can have with it. While the roughness of the loco made it feel at times it wasn't worth the effort to rebuild, the end results of getting it running again and seeing Dennis' enjoyment of it has displaced those notions.

It is very rugged and the various improvements to aid maintainability and operation will pay off, the loco will withstand much knocking around and abuse. Dennis reports that fuel and water consumption has gone down to virtually nothing compared to what it was prior to the rebuild, there is no problem with the shallow firebox making enough steam and it is much more pleasant to drive.

Still, despite the satisfaction of a successful outcome, the next time someone asks if I can rebuild their engine I know what I'm going to say!



**The rejuvenated Tramfly with a happy owner pilots V1224 on the November running day.**

## Annual Inspection of Non-boiler Plant and Equipment - 2019

The annual inspection of the Society's grounds and facilities was conducted on 27 April 2019 pursuant to the requirements of Section 4 of the Australian Association of Live Steamers Code of Practice for the Operation of Miniature Railways, Road Vehicles and Plant - Hazard Identification and Management (Sub-section 4.5: Owner/user Inspection of Non-boiler Plant and Equipment).

The Society's Policy, General Appendix, Qualifications, Assessment of Competency, Hazards and Controls analysis and Maintenance policy and supporting documents generally comply with the recommendations of the Australian Association of Live Steamers Code of Practice for the Operation of Miniature Railways, Road Vehicles and Plant.

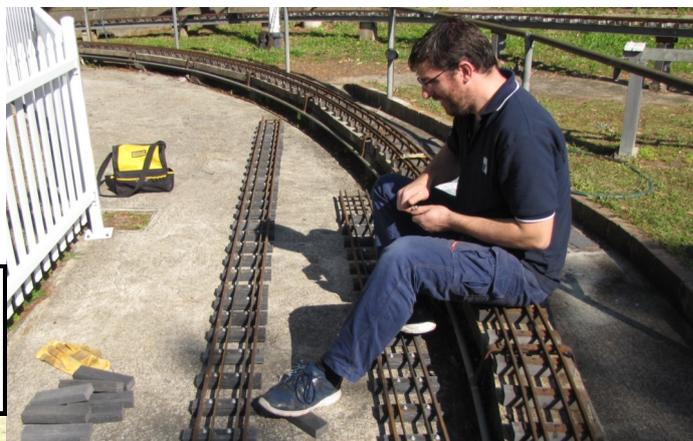
There was the usual listing of dead tree branches requiring attention, with tree removal, lopping and pruning occurring as required during the year, again effecting a reduction in the overall hazard.

A small number of items listed for attention in my 2019 inspection remained outstanding at the time of the current inspection. These items have been re-listed for attention in the 2019 Notes of Inspection.

Additionally, a number of items identified for on-going monitoring in 2019 have been checked, with no noticeable deterioration being noted in the past year. The displaced bricks in the retaining wall will need area will require review and rectification in the foreseeable future. The remaining items would require rectification should further deterioration occur.

The design for the new Elevated track is under development with a trial section planned for completion Q4 2019. Pending the completion of the new track, the concrete posts and beams should be monitored for further deterioration and be attended to as required.

**New elevated track construction: A lifting device from John Hurst to facilitate removal and transport of old beams, Andrew working on track sections and new cast track supports. Photos: David J and John L**



Some fencing items (broken & displaced palings) should be attended to as soon as possible.

A copy of this year's Notes of Inspection has been placed on display on the notice board in the clubhouse. Members are encouraged to have a look at the checklist and feel free to action any (or all) of the listed items.

The Society's Rolling Stock, Track, Infrastructure and Signaling, continues to be maintained in a generally satisfactory manner.

The Running Day Inspections of Carriages, Track & Structures and Signals (per the SLSLS Running Day Inspection Sheet 2008) have been performed and signed off in a generally consistent basis throughout the year under review.

A review of the Society's Risk Register and Hazard Control Matrix was conducted by Warwick Allison and myself on in May 2019 and the Matrix has been updated and confirmed as appropriate to the Society's current operations.

A copy of the updated Hazard Control Matrix is displayed on the notice board in the clubhouse.

Warwick has provided an updated "Review of Hazard Assessment" for the current year, a copy of which has been appended to my report for 2019.

**Mick Murray  
Inspecting Engineer**



The latest loco to roll out of the Sanders Locomotive Works is this Dick, Kerr & Co. 0-4-2 cane locomotive. The original loco was supplied to Marian Mill, Queensland in 1910. The model has had a long construction history beginning in Queensland and passing through several builders before James acquired it and completed it in 2 months. We look forward to seeing it at West Ryde sometime! Photos: James Sanders



***'Newsletter' is Published by: Sydney Live Steam Locomotive Society Co-op Ltd.***

Track location is Anthony Rd, West Ryde adjacent to Betts St, behind West Ryde shops. 33° 48' 15.99" S; 151° 05' 12.78" E

**Telephone:** (02) 9874 8696. **Postal Address:** The Secretary, PO Box 124, West Ryde, NSW, 1685

**Web Page Address:** <http://www.slsls.asn.au>

Public Running Day is the **THIRD** Saturday in each month from 1.30pm. Entry is \$4 adults, \$2 children. Rides are \$2 each.

***To ride on the trains, enclosed footwear must be worn.***