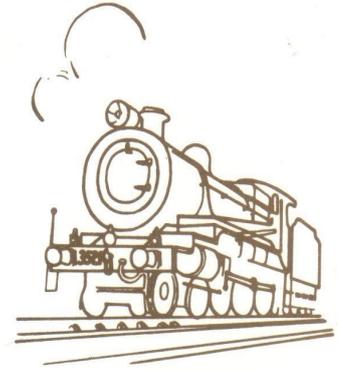


Sydney Live Steam Locomotive Society

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

'Newsletter'

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August 2007



David Thomas and the B10 with a one car train at the green lower end of the grounds on the May Running Day.

Running Day Reports

May 2007 Running Day Report.

This was a great day, after the rain on Friday the weather cleared and we had a nice sunny day. We had a very good crowd, they rolled in all afternoon. We had a good turn out of members to help run the show. In all we gave 2187 rides for the afternoon. Lunchtime we saw some stirring film courtesy of Barry Millner of the Romney H & D where Southern Maid was filmed from a train along side. Long close ups of the wheels and motion at speed! Today was also the first day we flew 3 flags from our flagpole, with the Australian flag in the superior position, the NSW flag on the left and the SLSLS on the right mast arm. Very impressive too! Thanks to Brian Muston for the NSW flag.

On the elevated track we had Brian Kilgour "Nigel Gresley" 2-8-0 and my Z1915 on a three car train, Paul Taffa hauled two cars with his Hunslet, 0-4-0 and David Thomas 2-6-0 B10 ran one car. Gary Buttell ran a few laps with his 3 1/2" C36 class. When I came off a little early Brian continued for a while unassisted.

On the ground level outer Lionel Pascoe C3811 was in control of one train with Tony Eyre having a turn at the regulator, while initially the second was hauled by the Hurst 4-8-2 mountain class till it was forced to retire with a problem. Ray Lee, C3112 took over the running of this train with a reduced load after earlier double heading with Henry, TGR R class on the inner. On the inner main, as mentioned, Henry ran one train with Ray Lee C3112 to start. Matt Lee C3506, replaced Ray and when Matt had to depart Henry continued unassisted till the



John Hurst with 'Baby' 4-8-2 on the outer main framed by the inner main girder bridge on the May running day.

end. The second train was hauled by 2-6-2 Mountaineer with Barry Tulloch and Martin Yule sharing the driving.

Last off was Mountaineer, and by the time this happened the day was getting dark. There was a high level of malingering given the good weather.

There were a couple of derailments, 2 of which damaged bogies, however some robbing of parts from the damaged one fixed one so there is only one to fix. Damage is (of course) brake gear.

June 2007 Running Day Report.

With the rather wild weather on and off since the June long weekend it was no surprise that "play was abandoned due to rain". The

grounds were very wet, it was windy and there were constant showers. Those members who ventured to the grounds enjoyed some videos, lunch and a few cups of tea.

John Hurst did manage to give the 4-8-2 "Mountain" a test run, the problem that limited its performance the previous running day was rectified and it performed faultlessly between the showers. Jim Leishman did some drain clearing and most members headed off early to more comfortable surroundings.

The Lyons family were very fortunate as it had been planned to hold grand daughter Gemma's third birthday gathering on the Sunday following the running day. It did not rain! How lucky could we be. I ran the Z19 with one car, it was in steam for 4 ½ hours. With the char chopped into smaller pieces and the rosebud grate it seemed to steam excellently for the whole of the time. Brian Rawlinson ran his "Blowfly" on the inner ground level (thanks Brian) and all the visitors, young and old had a great time.

July 2007 Running Day Report.

A cold, bleak day for our mid winter running day. The forecast was not the greatest but while the clouds were rather threatening it did not rain. We had a big crowd, it was hard to pick the best location, it was cold in the shade but the sunshine was pleasant even though it was scarce.

A minor pie crisis at the pie shop had us waiting a bit longer for lunch, but ultimately had us eating some freshly made sausage rolls, which proved to be surprisingly good!

Matt Lee & 3506 leads Henry Spencer's R class on the inner main.



Mark had earlier corrected a problem with 44 points, but otherwise things ran well. The overall result was 2327 rides, a good result seeing the nippy conditions towards the end that caused our patrons to hurry home when the parties were over.

First train ready to go was Ross Bishop with 0-6-2 Fowler "Toneya" running on the inner main. With Warwick's V class still to return to service Ross was very much appreciated, thanks Ross. Ray Lee with C3803 ran the second train on the inner. Ray was assisted by the LBSCR Atlantic early in the afternoon. On the outer main the Hurst 4-8-2 Mountain was back to its best barking up the grade in fine style with John.B. at the regulator and John.L. on the guards van. The second train was hauled by Henry, TGR R class, double headed by Matt Lee C3506 early in the afternoon. Max and Andrew assisted at the regulator of the R class. When Matt retired the C35 was replaced



John Hurst making the most of a cancelled wet running day!

by the Ross Style built 4-4-2 LBSCR atlantic driven by Barry Tulloch and Martin Yule.

On the elevated Jim Lieshman ran the Ps4, 4-6-2, initially with three cars but built up to five cars to cope with the loading. Jim Mulholland and myself assisted Jim with the driving and guard duties. Gary Buttel ran his 3½" C36 taking one car and working in revenue service for the first time. David Thomas ran the B10 with one car but increased this to two when Gary decided to call it a day.

Vernon sold a record 31 postcards today, a new postcard record. However we are not going to run out any time soon, as there are plenty of stocks!

The day was uneventful incident wise, and things generally ran smoothly. The signal crew were very comfortable in the signalbox enjoying the benefit of the new reverse cycle air-con, that had been recently fitted.

2007 Interclub Run

The last Saturday in June dawned fine if not a little chilly, a contrast to our washed out June running day. Jim Leishman, Mark Gibbons, Barry Millner, Vic Scicluna and your Editor were there early, Mark had beaten everyone and had much of the opening up done. Mick Murray was there in time to start checking boiler certificates. The first visitor to unload at 8.00am was former member Ian Ramsay and his 0-4-0 5" gauge Railmotor. From there we had a steady stream of members and visitors. We had a display of work in the clubhouse. Henry displayed the cab and smokebox of his Shay, Wayne Fletcher had the C34 class, 3½" gauge chassis that he is restoring (original builder Alan

Matthew and 3506 was double heading with Max Gay and Henry's R again on the July running day. Here is an unusual view of the pair.





Member's locomotives included Warwick Allison's Mona 0-6-2, Gary Buttel's 36 class, Jim Leishman's Mountaineer, Ray Lee's 3½" P class with Matt at the regulator, Ray's C3112 tank engine Brian Mustons' Springbok 4-6-0 with some of his carriages and Mike Tyson D5112, 2-8-0.

The girls Di & Liz did a sterling job in providing morning and afternoon teas and manning the kiosk all day. Chefs Brian, Henry, Barry and myself did justice to the BBQ. Loads of snags and onions were cooked to feed the hungry hoards at lunch.

There was an incredible amount of nattering going on, and while we didn't count the people it would have exceeded 120. Hugh came the furthest, all the way from

Barry Tulloch and Eunice, leads 3803 and Ray Lee past the new carriage shed site on the inner main in July. Soon this scene will be different!

Mackellar), David Thomas's SA 620 class tender, cab, chassis and leading bogie, the Allison collection included Andrew's recently acquired 5" gauge Z13 chassis, Z21 class boiler and cylinder block, the A10 chassis and a display of signalling relays. Max Gay showed the cab and valance for the 3½ inch gauge C38 he is completing, Matt Lee had his Z25 class tender (six wheel P class) and front truck and my D wagon completed the display. Out in the ground level depot Ken Baker had his N&W J class on show, chassis, smokebox and boiler, very impressive.

In all there were 12 visiting steam locos, plus 3 electric X200s, (one 3½ inch gauge) plus 7 club locos making 22 locos all up.

The locos were: Railmotor 0-4-0, Hugh Elsol's Hardwicke 3½ inch gauge 2-4-0, 2-6-2 Rio Grande (was this the biggest loco ever to use the elevated loco depot?) 2 off Fowler cane locomotives 0-6-2 tanks (1 a Bundy), Blowfly, Simplex, 3½ inch gauge LMS 8F 2-8-0, 2705, 0-4-0 0-4-0 Garratt, 2-6-2 Sandy River and Rangely Lakes and a 0-4-2 Bli Bli.

Ross Bishop & Toneya helped us out in July, seen here on the inner main.



Running Day Feedback

This was an email received after the July running day.

I just like to thank you for the best time for my son's 3 years old birthday party on Saturday.

My family especially our children had great time and they loved it so much. They loved it so much and they love watching the video we took on the day at least 2-3 times everyday since Saturday.

Also everyone who came to his party told us how much fun they and their children had!!!

We will come back again for sure!

Brisbane with his flying Hardwicke! There were no incidents and everyone had a great time. Thanks to Simon, Nathan and especially Mick who spent long periods manning the signal box and making sure things ran smoothly, and everyone else who contributed. It was a most successful day, and if you missed it I think we have another in 5 years time!

What's Doing!

Annual General Meeting

At the AGM the current position holders were all returned. These are:

President: Warwick Allison
Vice President: Bernie Courtenay
Secretary: Henry Spencer
Treasurer: John Hurst (now in this position for 59 years!)
Directors: Brian Kilgour, Jim Leishman, Ken Baker.
Track Superintendents: Mick Murray (ground level) and Jim Leishman (elevated)
Train Controller: Barry Millner
Inspecting Engineer: Mick Murray
Newsletter Editor: John Lyons (now in this position 30 years!)

Last Newsletter

A critical typo slipped into the last newsletter. On Page 9 the first sentence of the wheels article (after the 7¼ inch gauge heading) the sentence should read ".....the wheels should have the point where the root radius meets the **tread** at the gauge face of the rail...." You are invited to amend your copy as this is a fairly fundamental aspect. This article has since been substantially enhanced and submitted for publication in AME.

Club Shirts

If you want a club shirt please let Warwick know. Email me your size S, M, L, or XL. These are short sleeved chambrays. So far we have not yet received sufficient for an order. How about stocking up!

Loco and Rolling Stock News

We have seen a 2½ inch gauge 36 class rebuild by Matt Lee, very colourful on its short length of display track! The loco is a non working restoration. Henry has also shown us his newly produced No.4 plate for the front of his shay. Very nice indeed.

Jim Leishman steamed Mountaineer, ably handled by family members, while Mick Murray brought along his Tinkerbelle for a trial with all rolling stock (including a new passenger car that looks like a flat car with a structural load.) John also had his finished D wagon down at the grounds.

Paul Taffa & Hunslet heads out on the elevated track with the starting signal showing all clear!



Jack Grierson

It was very sad to hear of Jack Grierson's passing away. Jack joined our Society in 1997 and in his quiet manner made a substantial contribution in that time. His involvement in model railways went back a long while. In the very early days of the Australasian Model Railroad Magazine, AMRM, Jack made his mark. Issue No.3 Aug.-Sep. 1963 has a photo of a scratch built C3806 in 3.5mm scale, the motor was the only commercial part, he had made the lot including the boxpok driving wheels. It could hold its place with any of the commercial products produced since then. The cover of AMRM No.4 is graced by a photo of Jack's hand holding a 3.5mm scale Z18 0-6-0 tank engine and inside was a description of Jack's very extensive layout. AMRM Nos. 5 & 6 carried a description of how to build the Z18. Jack was credited as being one of the countries foremost modellers. He had a long term membership of the Bankstown Society before joining SLSLS. We will miss Jack's quiet companionship, our sympathies to his wife, Audrey, and family. RIP.

Right: Jack & his 3½inch gauge 3806 in January 2005.



Redkite Running Day

November will be our usual charity day with all proceeds to RedKite. Come along and help make this a great day & fundraiser for them.

Sydney Live Steam Locomotive Society Co-Op Ltd. President's Report-2006/2007

1. Running Days & Events

The 12 months passenger figures were significantly down to 21,000 in the period in review from the 27,000 the previous year. The main cause was a complete wash-out in July 2006, and an extremely hot January 2007 day. As a general thing, numbers were also down in each

month (except for August), and this produced the significant reduction in passenger numbers.

Our low injury rate last year of 0.005% for the 12 month rate and 0.007% for the 24 month rate were too good to last, and this year although running at around 0.010% we ended the year with 0.036 % for the 12 month rate and 0.017% for the 24 month rate, which are significantly up on the previous year. This is the result of an incident in April where 4 people fell off (there was no derailment) and received very minor attention. 4 people is statistically a large number in a short time, and we see the impact of this in the figures.

I continue to commend members to be ever watchful for ways we can achieve better safety through small but important continuous improvements.

Inside the clubhouse on the Interclub day. A hive of talk and social activities!



Thanks to Chief Train Controller Barry Millner for handling the train organisation and Signal Box supervision, as always, most reliably. Thanks also to Track Superintendents Mick Murray and Jim Lieshman who keep an eye on our running day safe operations. Mick and Mark Gibbons regularly check the ground level rolling stock making sure it is in running order.

We are very grateful for the assistance of our regulars Liz, Di, and Joy, in the kiosk, and for their stand-ins, Jane, Chris and Wendy who respond to a cry for help when the need arises.



The 2 1/2 inch gauge 36 class static rebuild displayed by Matt Lee on the May running day.

A special thank you to Vernon who nearly always is our ticket seller. Vernon has contact with just about every person who goes for a ride, and in this respect he is our public face. Thanks Vernon.

The President's breakfast held in early May was attended by about 25 members! The family fun day for Red Kite followed and was well attended. Our charity day for Red-Kite last November had 2361 rides, which was one of the best results for them ever, despite the generally low figures in adjacent months.

The Society also had its own special events for members and friends. The Christmas Party last year was held on the first Sunday of December and we also had a New Years Eve get together. We also had a very good attendance at a Christmas in July event at the neighbouring bowling club.

2. Financial Results

The financial performance of the Society during the year has again been pleasing, with cash in the bank being almost the same as last year while simultaneously our assets have increased significantly with the new shed. This is the result of the \$1 rides and it certainly seems to allow us to do more with less financial stress.

Editorial.

People like us with an interest in railways and model engineering can have an incredible connection with others over a long period of time without realising its there. In 1964 in my third year of teaching at Temora High School I followed Jack's description and built a Z18 class locomotive, scaled up to 4mm scale as I did not want to risk machining the very expensive Romford wheels. Little did I realise that some five years earlier as a shop assistant at Hobbyco I had sold Jack one of the Tenshodo NYC hudson locomotives he had in his collection. Many years later at an SSME invitation day at Luddenham I met Jack and when he joined our society all the pieces fell into place. I was very proud to be able to show Jack the results of the effort he put into the magazine articles. Much the same can be said with my daughter's in-laws, the Crew family have been long time friends of Tony and Joy and their families. What a small world, it gives us so much in common. The interclub day was another example of renewing friendships that for some people have been there for as long as the SLSLS has been in operation. We may have differences of opinion at times but what we have achieved and the experiences we share are very valuable.

John Lyons.

Our position remains sound and the accounts are still handled professionally and without fuss. As is customary in recent times, I would like to acknowledge John's role as Treasurer now 59 years. Thanks John. Thanks also to Peter Spencer for auditing the accounts this year.

3. Our Membership

We have 73 members (including country members, and one provisional), an increase of 1

from last year.

The newsletter has continued in the format set in recent years. Our Editor John Lyons has now reached 30 years in the post and has seen some changes. Thanks John!

Nearly half our members receive my weekly email. This is a good means of keeping in touch. Thanks to Mark Gibbons who fills the gap when I am away and unable to do it. Our website is now getting on a bit, and maybe a facelift is in order. Never the less it gets significant traffic and we receive several enquiries a month via email. Some statistics I have obtained from our domain name company is that we get some thing like 200 to 300 'hits' a month. Interestingly about 20% occur on running days with the remaining 80% spread over all the other days!!

Our Inspecting Engineer Mick Murray has done his annual grounds inspection as a requirement of the Code of Practice and is having increasing difficulty in finding issues. This is good. Our aim should be to thwart him so he finds nothing! Additionally, as a way of enhancing the hazard and risk assessment process we have done some Task Safety Analysis worksheets which look at our various processes in detail (such as unloading a loco), and these so far generally show overall risks are low.

Garden Roster

September. J.L.Hurst, J.B.Hurst, A.Cottrell, J.Leishman, J.Lyons, B.Rawlinson, M.Tyson, M.Yule.
October. B.Hurst, G.Croudace, T.Eyre, M.Lee, R.Lee, R.Smithers, P.Taffa, B.Tulloch, J.Tulloch.
November. H.Spencer, A.Allison, M.Gibbons, W.Fletcher, M.Gay, G.Kirkby, B.Muston, J.Noller, P.Sayers.
December. W.Allison, N.Amy, S.Collier, B.Kilgour, G.Buttel, B.Millner, J.Mulholland, M.Murray, S.Murray.

Gate Roster

September. Henry Spencer October. Paul Taffa November. David Thomas December. John Tulloch

Our boiler inspectors Brian, Ken and Bernie continue to keep the Society operating with boilers. Many thanks.

Thanks also to Directors Bernie, Jim, Ken and Brian, and I think all will agree a big special thanks to Henry who, apart from the exemplary performance of the secretarial duties, has managed to find us a shed builder, negotiate the contract, and then perform all the electrical work to provide what I think is a superb facility for members. Thanks Henry. The other big shed player is Jim who sorted out the consumer mains side, and was very energetic in our concreting activities.

4. Projects

Last year I reported on the removal of our old shed. This year I am pleased to report on the completion of the new shed! At last the unloader and all our equipment is housed in a purpose built facility. Following a tidy up, we have managed to further reduce the locations of our 'stack' to one at the Park Av fence, and that is largely hidden from the view from Park Av. This is a significant improvement on the look of the grounds. As well this has been complemented by the completion of the driveway concreting to the street, and a lintel for the ballast pit.

We did no fencing this year, and only limited track upgrading which was largely isolated to some of the outer main and the siding which was completely revamped. Some elevated track beams have also been re-levelled. We re-decked the Hawkesbury Bridge, rebuilt a retaining wall that had developed a lean after some heavy rain, concreted all our fence post bases (thanks Brian!), and replaced some fence posts that had corroded through

David Thomas continues to attend to the gardens and has done considerable work in applying mulch and in revegetating the site with local natives. The garden at the entrance to the grounds, replanted after the fence replacement, has taken off and is looking good.

Thanks also to Mark Gibbons who has taken on some of the signalling maintenance, so important in keeping the place running smoothly.

5. Model Engineering Activities

David Thomas' 620 class has reached rolling chassis stage. We have seen a variety of components for this, on a monthly basis. Mick Murray has a re-engined 'Tinkerbelle' and David Lee has produced a very nice GM class diesel. We have seen Matt Lees' 6 wheel 25 class tender, and John Lyon's 25 class chassis. Our new member Simon Collier has brought down his parts for a 'Springbok' and Brian Muston has shown us a non-air hopper wagon to supplement his CHG brake van. John Lyons has produced a NSW 'D' wagon and I have a WAGR DA wagon. Ray Lee has reconfigured the internals of 3112. This was tested unmercifully on the Red-Kite kids day! Henry's Shay continues to make progress as does Ken's N&W J class. I am aware of many other projects, including the Courtenay Blowfly, the Croudace 38 and we still await the K class from Tulloch works. It's good to see model engineering activity on a roll.

6. Interclub Activities

Some of our members attended the convention at Penfield South Australia this year. We also attended a number of other clubs, including visits to Newcastle for their birthday celebrations, and Wollongong for the Hot Pot.

Air conditioners have been fitted to the clubhouse (left) and Signal Box (right). These have already been given a workout!



7. AALS & AMBSC

Our motions for the amendments to the wheel standards and to standardise the air fitting for steaming up was passed at the AALS AGM. They were the only technical motions put forward. This corrects an error in the 7¼ inch gauge standards and tidies up a number of minor issues, including making some aspects much more consistent.

8. Our Future

This year will see the progressing and hopefully completion of the new inner main carriage shed. We have also been pondering the relaying of the elevated track. This is a very large job but one which will raise the standard of the elevated to something closer or even beyond what it was when new. I think we show elevated tracks are not a thing of the past, and when done properly can satisfy both passengers and drivers alike.

2008 will see our 60th year, a significant event and a time for celebration.

This is all something we can look forward too.

Thank You.

Warwick Allison

5 June 2007



Mick Gray (LMLSLS) with his Rio Grande on our Interclub day.

Annual Inspection of Non-boiler Plant and Equipment - 2007

The annual inspection of the Society's grounds and facilities was conducted on 12 May 2007 pursuant to the requirements of Appendix 8 of the Australian Association of Live Steamers Code of Practice for the Operation of Miniature Railways, Road Vehicles and Plant, 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.

The continuing progress made by the Society in addressing identified safety issues makes it harder to find items for attention. The main items noted for attention at this year's inspection were:



Another Interclub scene. Darin O'Brien (HME) with his Bundy Fowler in deep discussion with Ross Edmonson (ILS), and behind Barry Millner shunting Jeff Huntley and Joe's Fowler (LMLSLS). They later double headed. Below: Hugh Elsol (QSMEE) and the flying Hardwick pose for the camera.



Diary

- 4 September Directors Meeting
- 15 September Public Running Day
- 2 October Members Meeting
- 20 October Public Running Day
- 6 November Directors Meeting
- 17 November Public Running Day and Next Newsletter
- 1 December Members Family and Friends Christmas Party (evening)
- 4 December Members Meeting
- 15 December Public Running Day



Left: Gary Buttel attaches security chain to the car ramps provided by Brian Kilgour. Above: A happy lot consuming some of the left over Interclub sausages!

- Improved recording of Running Day carriage inspections
- Renewal of the highlighting of trip hazards at various locations,
- Dead branches in various pine trees around the site,
- Warped decking timbers on Hawkesbury bridge, and;
- A couple of minor fencing issues.

A copy of this year's checklist will be on display on the notice board in the clubhouse.

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

The Society's Risk Register and Hazard Control Matrix was reviewed by myself and Warwick Allison during May 2007 and the Matrix has been updated to make it appropriate to the Society's current operations. A copy of the updated Hazard Control Matrix is displayed on the notice board in the clubhouse.

The Society has commenced the preparation of Task Safety Analyses (TSA's) for the major tasks performed by its members in operation and maintaining the railway and grounds. This is an important step in an ongoing Risk Management process and is commended.

Mick Murray
Inspecting Engineer

Works Reports Elevated Track

David Thomas and Jim Mulholland attended to the brakes on some of the elevated cars and these are now all OK.

John Lyons has done some work in fitting lock levers to the stub points. These have a chain attached to limit travel, and work in a horizontal plane, and are very easy to lock up with the pad lock.

The new carriage shed excavation under way!



Ground Level Railway

We continue to have some problem with ants. One signal looked at for a lamp out turned out to be ants that had deposited a layer of dirt over the inside of the red lens! Some slow point machines are also suspected to be impacted by ants.

Mark Gibbons has attended to some of the points. He has replaced a defective armature and done further work with the microswitches.

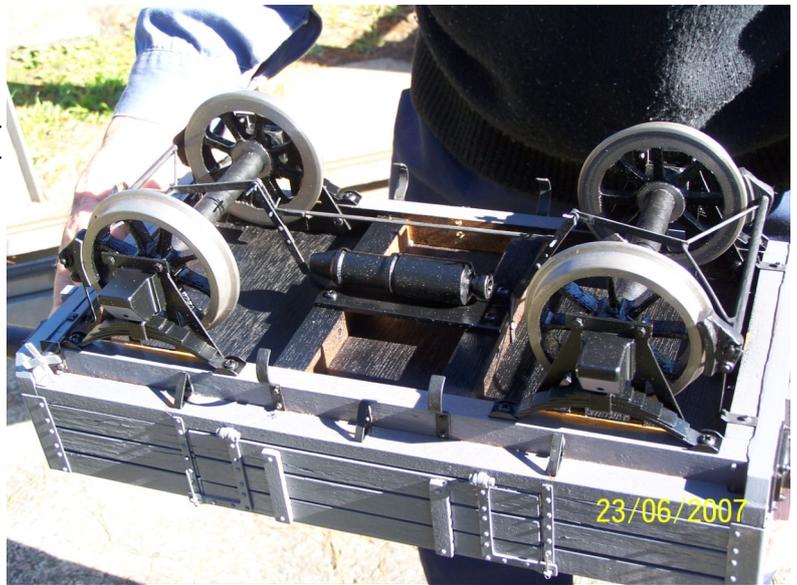
We replaced a green set bogie under a car after repair at Tulloch's Works and tested the brakes.

Mick Murray has also worked on the blue cars finding numerous brake defects. Our cars would be a lot less work without brakes!

Max has replaced a leaking diaphragm in the EP shunt signal out of loco. However elimination of the big leak exposed the smaller leaks. One of these was tracked down to a defective soldered joint into a union, so Max took this home for attention. Fixing these leaks should have some impact on the compressor capacity!

Our painters Brian Hurst and Allan Cottrell have been hard at the carriage sets repainting the footboards. It's amazing how a coat of black paint really lifts the carriage's appearance.

Andrew and Barry M, together with assistance at various times from Mick, Brian, David and Paul relocated No. 9 signal 2m towards the platform. This is to clear the new ground level crossing at the station. It would be true to say it took more effort than we anticipated! Henry came to the



John Lyon's newly completed D wagon, showing the scale working brakes. The brake shoes were cast in the Lyons' backyard.



Lionel showing his axeman ship. The chips were really flying too!

rescue and rewired the signal after we broke the wires, but eventually we got it all in and working. As well a few defective wheel trips were replaced.

New Inner Main Carriage Shed

Lionel has whittled the tree stump in the way of the new carriage shed. This was a labour of love we are sure! He certainly made the chips fly. Even though the tree has been gone 15 years the base looked fresh solid wood. When he completed the large blue gum base he finished off the other one on which Barry Millner had broken the axe!

There will be sufficient room in the shed for two tracks plus our long aluminium ladder down the side.

The edge formwork has been installed and levelled and excavation is well in hand.

Ground Improvements

We have noticed that the ladies have washed and rehung the shelving covers. It certainly makes a difference and

we noticed!

The first people who benefited from our newly air conditioned clubhouse were the Directors on a Tuesday night Director's meeting! They did a good job, (ie the air conditioners!) although the compressor unit for the signal box was not optimally located. Jim and Henry attacked this first thing and the unit has been rearranged, some brackets pruned back and now it is much more satisfactory.

Jim Leishman has replaced a fitting in the ladies toilet with the dual flush trial one purchased some time ago. This seems to work OK, and members are invited to trial it, but it is in the LADIES!

David Thomas and Simon did some gardening up on the bank. This included the use of wood chips that came from Lionel's tree stump work.

Bill is attending to the new gates needed for access down the grounds.

Henry and Jim have produced a bracket to hold a floodlight pole on the far side of the grounds across from the shed to provide much needed light for evening loadings.

Bernie did the rounds with his weed killer backpack. This is needed and it has been a while since last done.

Jim has arranged some additional perspex for interpretive signs. This will allow us to fill in the loco gaps!

Toolshed.

Henry has wired up the last of the signal power supplies in the shed. This finishes the fitout, so it is a moment to savour! A clean out of the old shed is now on the cards. The word is that this will be ruthlessly carried out! A large club logo has been installed in the large blank spot of the new shed. This looks great, and leaves people in no doubt as to where they are!

As well the shed has received the final council inspection. After a brisk 3 minute walk around the site, it was declared OK. Bill has installed a larger towel rail in the shed toilet.

John Hagan.

It was with some shock that we heard that John had passed away after suffering a massive heart attack at the end of July. John had joined the Society in 1976 but his interest soon moved to 7¼" gauge. The Newsletter Vol. 5 No. 5, December 1977 gives a description of the extensive Duffy's Forest railway he constructed in the larger gauge. On moving to the country John and his son were regular in attendance at the annual conventions. John was at our last interclub day in late June. The back page of our last Newsletter was graced by a photo of his latest locomotive, John provided us with a description of "City of Nottingham". It is published in this Newsletter in his memory. RIP.

Features

City of Nottingham.

John Hagan.

I was very encouraged by the way "City of Nottingham" was received at the 2007 Convention, I can safely say that there were more questions and discussion about this engine than any other that I have built. With this in mind I thought a few words on how 46251 came to be built might be of interest.

The most numerous question I was asked was, "why City of Nottingham"? There were 38 Duchesses, more correctly "Coronation" class, engines built commencing with 6220, "Coronation" and ending with 6257 "City of Salford". There were therefore plenty of names to choose from. The answer is that through a process of elimination "City of Nottingham" was the only name left.

When the streamlined engines were defrocked and became non-streamlined, all these engines were left with what was called the "utility front". Reference to the photo in the May 2007 Newsletter shows that the running boards of 46251 are continuous from the cab front to the front buffer beam including a vertical section just in front of the cylinders. In the ex-streamliners the vertical section was omitted for ease of removal of the piston valves during overhaul. To my mind this spoilt the appearance of the engine and hence I wanted a prototype that had the

full running board configuration. That left Nos. 6230 to 6234, 6249 to 6252 and 6242 "City of Glasgow" which was repaired with full running boards after the Harrow disaster.

The next requirement was that I preferred the bright red livery. In checking livery changes I found, to my amazement, that of the 10 engines with full running boards only "City of Nottingham", now with

British Railways number 46251 was the only engine ever painted bright red. As a matter of interest in LMS days this colour was called LMS Maroon but in British Railways time it was called British Railways Express Passenger Crimson Lake. My only other requirement was that the prototype should have smoke deflectors. In a Duchess there is a very large and to my mind very ugly cover over the steam pipes between the running boards and the smokebox. In the later period of their life smoke deflectors were fitted to all the "Duchesses" which hid these covers and seemed to add a balance to the engine's appearance. When 46251 was painted red, smoke deflectors had already been fitted. There were three types of tenders attached to Duchesses. The most numerous was that attached to the streamliners. This was basically a standard Stanier tender but with higher side plates to provide an extra ton of coal. At the rear it had two fillers so that water cranes could be used to fill the tender through a removable plate in the streamlining. On defrocking the two fillers remained as did the ladder attached to the rear. "City of Nottingham" was built as a non-streamlined engine, however it was originally ordered as a streamliner and hence the tender which was built by a different contractor was built as a streamlined tender. This was completed prior to the engine order being changed and when 6251 came into service it was a non-streamlined engine with a streamlined tender attached. Photos show this as a

very odd combination.

Another often asked question was "where did you get the plans?" These came from a Michael Breeze of the U.K. who advertised in Australian Model Engineering. I sent for a set of plans and they duly arrived. They were to 5" gauge and scaled at 1 1/16" to the foot. I simply scaled them up by multiplying by a factor of 1.41. The plans take some "modellers license" in certain

Bruce Hagan instructs some would be drivers on the workings of the "City of Nottingham".



respects but these are easily detected and corrected if so desired. The important part was that even in the highly detailed and cramped area around the inside slide bars – which are over the bogie – I did not experience any interference. I can thoroughly recommend this set of plans. Several people asked where did I get castings. I would have preferred to have been able to buy these but the only source was England and were way too expensive. For example, a driving wheel was \$200 plus postage and a cylinder set was \$3000 plus postage. Barry Glover told me that the cylinders were a “work of art” with cored passageways and beautifully finished. As a retired person these costs were too expensive hence I made my own patterns and had them cast locally. The driving wheels were \$40 each this being the price per board at the foundry. The cylinders, two inside and two outside – were cast in gunmetal with a total weight of 82kgs. I nearly freaked out at this as the rather massive block of the inside cylinders is only 2” from the front buffer beam and right over the bogie. In the event, balancing this weight proved to be not too difficult, as with a pacific there is a lot of weight behind the rear coupled wheels by virtue of the firebox. Apart from the wheels and cylinders, everything else is fabricated or machined from the solid.

Concerning detail, I was able to get some good books from England which when used with the Breeze plans enabled me to build in much of the detail including most of the rivet detail. There was not a lot of this most occurring on the cab sides, the running board valances, the vertical section of the running boards and the smoke box front and sides. I was also fortunate in being able to get copies of photographs taken by Dave Merrifield. When I was finishing the detail I found I could not source any photographs showing the back face of the engine buffers, which are fabricated, and the tender sieve boxes. Both these items were very prominent and therefore of some importance to get correct. Help came when Barry Glover made a trip to England and was able to take some detail photographs in-



Andrew Allison and City of Nottingham underway at the Penfield Convention.

cluding the ends of the 1:1 levers which operate the inside valve gear. These photographs were of 46229 “Duchess of Hamilton”, then at the York museum.

The front coupled wheels of a Duchess have a cranked axle. In 46251 this was the third cranked axle that I have made and as the method I have used is not documented in any magazine or book that I can recall, a few notes on this subject could be of interest.

Basically the method is a series of press fits on a straight through axle which is later pinned before having the waste sections cut out. Firstly two webs were pressed together over the crank pin, a loose guide was used to

Close up of the important parts!





Cab view of
"City of Nottingham."

same time, as any difference here makes the most dreadful sound imaginable in the exhaust note.

As part of the piston valve fitting I used teflon rings. I do not think that the Duchess valve rings are quite run in even now. In using teflon rings there are two important components. The first is that the edge of the teflon ring must be a sharp right angle for accurate valve setting to be achieved. In my first attempt I'd rounded the edges which made accurate valve setting impossible, especially the connected inside valve. The second component is the diameter of the teflon ring. The method used was to machine slots in each end of the valve bobbin into which four "O" rings were located. The teflon is machined such that the rings formed squash the "O" rings by about 10 thou so that the teflon is pushed outwards onto the wall of the valve liner and so provide a leak proof sliding fit. The teflon ring of course must be cut to be fitted over the bobbin. In fitting my rings I cut them such that they were a neat fit (this is best done with a sharp paring chisel). When teflon is heated it expands substantially and I'm afraid that the Duchess valves and pistons were so tight that the locomotive would hardly move off at its first steaming.

keep the axle holes in line. The axle was machined in one piece. Dimensions were such that the two holes in the webs were machined with one slightly larger than the other (about 10 thou.) . This was so that the first web would pass over the seat where the second web would be located. With this arrangement the two webs could be then pressed simultaneously. In the machining of the one-piece axle it is important to form the chamfers where the waste pieces are later to be removed. Obviously no turning of chamfers can occur with the crank pins in place. Quarter inch diameter pins were pressed into the crank webs through both crank pins and axles prior to cutting out the waste.

Piston valves obviously must be machined accurately but in a Duchess this is even more so. With these engines the outside valve gear works the inside valves as well by way of a 1 : 1 lever connecting both valve rods. The exhaust of both connected cylinders MUST open at the

machine slots in each end of the valve bobbin into which four "O" rings were located. The teflon is machined such that the rings formed squash the "O" rings by about 10 thou so that the teflon is pushed outwards onto the wall of the valve liner and so provide a leak proof sliding fit. The teflon ring of course must be cut to be fitted over the bobbin. In fitting my rings I cut them such that they were a neat fit (this is best done with a sharp paring chisel). When teflon is heated it expands substantially and I'm afraid that the Duchess valves and pistons were so tight that the locomotive would hardly move off at its first steaming.

The first run for the engine was at Les Irwin's private track at Berry. For those who do not know this track, the mainline leaves the station on the straight and level then turns to the right in a semi circle of 70 ft. radius and a 1 in 70 rising grade. The Duchess was so stiff that it came to a stop about 100 ft. into the curve. I put it into reverse and drove back down the slope to the station. Back into forward and a run on to the grade, this time the locomotive made the crest and thence a full circuit of the track, about 1500 m. We had about six circuits with the locomotive easing up but no where good enough to take it to the convention. I organised another run at Les' track for the following weekend. Running was better and the result was the loco eased up enough to confidently take it to Adelaide. On the Friday of the Convention the loco ran quite well but was still stiff. We ran every day for about four hours per day. By Monday afternoon the engine had freed up to a point where it would roll down a grade without stopping. The conclusion is that the teflon is slow to wear in and probably if I had left a gap in the ring when it was fitted the running in period would have been shorter. It is a case of live and learn.

The boiler. To this point in my modelling experience I had never built a boiler. With 46251 I simply could not

John Hagan in discussion while Bruce cleans her down.



afford the luxury of having the boiler built by a professional builder. A start was made by drawing the longitudinal section and then having a talk to a club boiler inspector. While general sizes and arrangements were well illustrated in the AMBSC boiler code the subject of discussion was more about the design elements of grate size, tube lengths and diameter and staying.

I started off by calculating grate size, which came out at about 45 sq. in. Scaling the drawings of 46251 I found that the grate would be more like 85 sq.in. From there nothing else seemed to make sense and I was in a state of despair when the light came on and I thought, you have a known good performer in 3806, go and measure it. I did so and found it to have a grate area of 82 sq.in., so grate area solved. The next step was tube length and diameter. I had vivid recollections of Arthur Mears talking about a combustion chamber being necessary in 3806. When I went to measure this, I found to my surprise, that there was no combustion chamber. This meant that according to the formulae the tubes would be too long for their diameter. However, in the knowledge that 3806 was an exceptionally good performer I designed the boiler with the same tube length although because the Duchess is a

about the Rosebud grate as compared with the normal bar grate. As I could not see any disadvantage in the Rosebud grate and it is far easier to make I put this style of grate in 46251.

The outcome was a complete success. The boiler steamed beautifully, the only difference being a little more water coming out of the chimney on initial steaming - and all other engines have condensate at initial steaming -. There was no difference between the C38 with its superheaters, the "Flying Scotsman with superheaters and combustion chamber, and the Duchess with no superheaters, no combustion chamber and a vertical face to the firebox tube plate. The moral of the story would seem to be that all the design formulae can be treated as a guide but nothing can beat comparison with a known good performing existing boiler.

One thing I did find at Salisbury was that the char clinkered. This was not found until I was cleaning the engine after arriving home. I had never had this problem before and hence was not looking for it. I don't know if Warwick and Andrew had difficulty firing the Duchess on the Easter Monday but if there was a problem, clinking would have been the cause. Subsequently I have been

told there two kinds of char, one pressed into pellets using silicon as a binder and the other using carbon as the binder. It is the silicon version that clinkers, the carbon variant is the one we use with so much success.

The photograph (page 13) shows Andrew driving the locomotive at Salisbury on the Easter Sunday and gives a good idea of the proportions of the engine. As a matter of interest, the overall length of the Duchess and the 38 is the same at 9' 9". The Duchess engine is a little longer and the tender a little shorter on account of the abundance of water troughs along the LMS mainlines in the days of steam.



Left: Jim Leishman gives Mountaineer an outing pre Interclub! Below: The club logo proudly displayed on the tool shed.

slightly longer engine than the 38 I did increase the tube diameter from 5/8" OD to 3/4" OD.

Having had numerous discussions about superheaters I had come to the conclusion that these were a doubtful commodity in model boilers. However it is one thing to theorise and quite another to commit several thousands of dollars to a boiler just because you "think" it will work. The decision was made however, to build the boiler as a wet steam boiler. This made construction a lot easier particularly when it came to the plumbing in the smokebox. At about this time there was much talk





Above: Ross Bishop & Toneya in the Inner Main platform is almost ready to go as soon as Ray & Barry on 3803 and Eunice clear the section. On the outer Guard Simon is ready to give the right-away. Below: The Jim Train with Jim Leishman leading and Jim Mulholland bringing up the rear, run a late service as the grounds empty late in the day.



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