

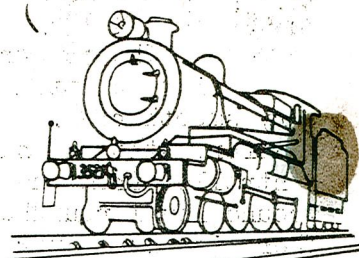
# Sydney Live Steam Locomotive Society

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## 'Newsletter'

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May 1980.

### Annual General Meeting.

The Annual General Meeting of the Society will be held on Tuesday 3rd June at the usual meeting place, the 1st. Yaralla Sea Scouts Hall. A good roll up of members should ensure a successful meeting.

The election of Office Bearers and Directors for the next year will take place at the meeting.

### Notices of Motion.

I hereby move that a further Rule be added to the Rules of the Sydney Live Steam Locomotive Society Co-op Ltd. as follows :-

#### Demolition and or Disposal of Structures.

- 7A No Society structure shall be demolished and or disposed of unless sanctioned by a majority of not less than 75% of the members as being entitled so to do, vote in person at any general meeting of which notice specifying the intention to propose the resolution has been duly given in accordance with Rule 30.

Proposer Brian L. Hurst.

I wish to propose that the number of Special General Meetings be changed from SIX to TWELVE.

Proposer Michael J. Tyson

### 1980 Easter Convention.

Our Convention report comes from two members, Bernie Courtenay and Mike Tyson. We will start with Bernies account.

The Annual Convention at Moorabbin appears to have been a great success. Melbourne turned on some of its best weather, and the club grounds looked a picture. A lot of hard work had obviously gone into preparing both the tracks and the landscaping. The spacious club house was able to cater for the multitudes at morning and afternoon tea, while for lunch and dinner, the catering was next door at the Masonic Hall.

The traffic on both elevated and ground level tracks was of course heavy, but the club seemed to cope well. The signal box has a good elevated view of the grounds and controlled the point work and the colour light signals. Ex-SLS member Les Thompson was noted up there on occasions especially for the late night shunts.

The locomotives present were as varied as you could imagine, in size, prototype and to some extent quality. The most impressive would have to have been the big mallet of John Wakefield, which sounded great with a good load. Some of the prototype engines present were, VR :- S, R, N, J, NA, NSW :- 59, 30T, 32, 36, 50, QLD :- B18 $\frac{1}{2}$ , and many English designs including a 5" LMS Princess, a 5" Sterling Single, GNR Atlantics - to mention a few. Stan McCaskell of Moorabbin won the Concours d'Elegance with his finely detailed VR N class.

The elevated round house seemed able to cope with most of the engines, while the yard giving access to both elevated and ground level tracks is worth a mention. Engines proceed off the turn table through elevated blade points, through a diamond crossing and across swing stub points, operated by a full size VR ground lever, which carries the depot road over the elevated track and on to the ground level. I believe there was a bit of last minute preparation and a lot of work involved there.

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## 1980 Convention.

The new ground level track, completed for the convention, is of steel bar fitted into slotted wooden sleepers. The track is ballasted throughout and gave a very smooth ride. There is some impressive point work coming into the island platform station and this is protected by an overhead gantry of colour light signals, controlled from the signal box. I hear that track circuiting is next. A new ground level roundhouse with sunken pit and turntable catered for the bigger engines. There is also a yard nearby where the rolling stock can be stored and access to this area is gained from the station roads where a shunting neck and additional siding is provided. The basic layout is two tracks running roughly parallel, with an additional loop. A through line runs outside the station which is an island platform with two roads. An overhead bridge carried pedestrians over all tracks, including the elevated.

The elevated track is a long spiral and ducks under the ground level in two places before disappearing into a tunnel, which is curved and takes the line under ground level, elevated and the public entrance thoroughfare, before coming out on to a rising grade for the return run.

Visitors all got a run on Good Friday, while the local engines came on the following day. All engines were booked on for a run, never the less everyone who wanted a run was able to. Some very late running was observed, for example, the loco off the Saturday night pick-up ( a C30 class ) did not return to the shed until about 3 am.

Thanks must go to the members and associates of the Moorabbin Club for their hard work and courtesy through the weekend.

The Tyson Report.

The journey south, 600 miles, was undertaken with the usual care and planning that is synonymous with the transfer of locomotives 5902 and 4613, with all service equipment.

Alan MacKellars ute. arrived, now lets see, how will the gear fit in? Try this way, no good, ok, try that way, still no good, right saw a bit off that box, push that bit there, disaster, no room for the six dozen refreshments, start again. Three hours later, all set. Now the ute, gas ok, needle moved, tyres, give them a kick. Next morning set off, clear highways and blue sky, speed limit of 100 KmPH and with careful driving and good navigating Moorabin came into view.

Unload locos and four days of running, derailments, adjustments to bogie king pins and refreshment breaks were undertaken. The track at Moorabbin was interesting and pleasant running was the order of the day during the early morning and late evening.

The judging of the locomotives and official opening of the track was Saturdays main event, Alan McCaskell ( Stan ? ) with his Victorian N class gained the highest point score.

Monday saw the repeat of the packing procedure and a trip over to Puffing Billy, the staff of Puffing Billy were very helpful and Alan and I rode the guards van up to Emerald Lake and return. The trip back to Sydney was by way of the Black Spur and the low lands of Northern Victoria, Albury, Bathurst, Kellyville.

All in all a very interesting week end thanks to all at Moorabbin for the 1980 Convention.

The Sydney Resignalling Project.

Warrick Allison.

They say that history often repeats itself and so the new Sydney Signal Box was to be built. When the new Sydney Terminal Station was finished in 1906 it was controlled from four mechanical signal boxes. Because of the close proximity of the boxes and the amount of traffic, special arrangements were required and this was not considered satisfactory for such a large and busy yard.

So in 1910 the first power signalling system in N.S.W. after a few years of construction, took over the control of the yard. At the time it was the largest of its type produced by McKenzie and Holland. Operation of the points and signals was by electro-pneumatic means controlled by miniature levers in two signal boxes.

"Tunnel Box", situated near Redfern tunnel or Cleveland St. bridge, had 59 levers and "Station Box" had 203. Although Tunnel Box has long since been demolished, Station Box is still standing in the middle of Sydney Yard.

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In 1924 Station and Tunnel Boxes were replaced by a single large signal box. Station West Box was fitted with 432 pistol grip type levers located in two rows facing each other. The miniature Westinghouse levers from Station And Tunnel Box were then used in the build up of new machines for other locations such as Wells St, Epping, Strathfield and others.

Station East Box and Wells St, were opened in conjunction with the completion of the Central Electric Platforms and the underground railway in 1926/7. Illawarra Junction signal box was opened in 1925. Station East, 83 levers, Wells St 107 levers, and Illawarra Junction, 120 levers, all have Westinghouse miniature levers and electro-pneumatic operation of points and semaphore signals, the colour lights of course, being all electric.

Station West, Station East and Illawarra Junction are unique in being the only signal boxes in N.S.W. that straddle the tracks they control.

As time passed, the system again became due for replacement. The mechanical interlocking, large, space consuming shelf relays and the effects of time, not to mention new technology, spelt their doom and on the 23rd September, 1979 the first stage of the new Sydney Signal Box was commissioned, replacing Station East Box. Progressively, the entire Sydney area was brought under its control, the final change over being Sydney Yard, controlled by Station West, on the 8th/9th December 1979.

The new control panel is of the Route-setting type. Here all signals have a button fitted on a diagrammatic layout of the tracks and the signalman merely pushes the button at the commencement of any route he wishes to set, and the button at the end, providing the locking requirements are met, the points will change and the signals will clear.

The advantage here is that the route may have many sets of points in its path but only two button operations are required to operate them. Additionally a button is provided at most signals to allow them to automatically re-clear for following trains if a route change is not required.

The control panel covers the area from Waverton to McDonaldtown, Erskinville and the Eastern Suburbs line and is 17 metres long. The North Sydney area and the Eastern Suburbs Railway are not as yet under control from Sydney Box, but provision has been made for this.

From the drivers point of view, all signals now have train stops that check the speed of the train, when approaching a "low speed" indication, before lowering for its passage. This allows trains to close up more in congested areas.

All wiring and most signals were renewed to provide a basis for reliable operation into the future.

Because of the size of the control area signalmen are now remote from their trains more than ever before. If a train was late it was usual for the signalman to hold other trains so that they went through the City in correct order to avoid problems associated with the correct setting of platform indicators for passengers, or indeed, signalmen sending the train the wrong way. To avoid these problems a train describer system is in use. This has a readout, like a calculator, but larger, at selected signals which gives the number of the train so the signalman can see at a glance what train it is. The basis of the train describer is four Hewlett-Packard computers that are programmed with the time table and the type of every train to run on the system. Although not yet arranged the computers will eventually set up the platform indicators automatically and this will easily cope with out of sequence or cancelled trains instructions about which are now conveyed by telephone often with resulting confusion and misunderstanding.

Additionally, at a later date, the computer will be used to automatically route trains through five simple junctions. Computer control of signalling is quite new and has not been tried extensively anywhere in the world.

The computer may also be used to control the Eastern Suburbs line after integration although this presently requires little attention from the signalman as the normal turn back of trains at Bondi and Central being entirely automatic.

The new Sydney Signalling Complex is the first of a new breed of control centres that will probably eventually control a large part of the N.S.W. rail network. Major signalling centres are now planned or under construction at Strathfield, Broadmeadow and Junee, there are then more to come.

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The above article was prepared by Warrick in early December 1979.



Galston Valley Railway Official Opening.

Report by Maurie Haynes.

This event proved to be more of a mini convention than an inter-club run day as it was held for the whole of the week end. Fine weather was enjoyed by all.

Clubs were represented from far and wide. Amongst them were Bathurst, Blue mountains, Canberra, Lake Macquarie, Illawarra Live Steamers, South Coast M.E. Society, to name just a few.

The official opening of the Galston Valley Railway ( H.D.M.E.Co-op.Soc ) was performed by the President of the Hornsby Shire Council, Councillor Evans, when he unveiled a plaque to commemorate the occasion. At the same time the final sleeper was laid to complete the 3,000 odd feet of dual 3½" and 5" gauge ground level track.

In his introductory speech the President of the Society thanked the Shire President for the Councils assistance enabling the development of the Galston Valley Railway. The Society is six years old and has currently 91 members. Councillor Evans commended the club for the work they have done and said he felt sure that it would be a great asset to the district in providing a recreational activity for many people.

After the official opening there was a grand parade of locomotives. It was difficult to check the beginning and the end of the parade. In all I counted 30 steam and 6 diesel and electric type locomotives. One of the smallest locos seen on the track, a 3½" gauge Titch easily handled the 3,000 ft. circuit, was driven by a big fellow - Phil Lennox of the home Society. This was contrasted by one of the largest engines from Lake Macquarie, John Hartleys 5" gauge narrow gauge tank engine. It was hard to estimate the number of people present on Saturday but it was sure crowded.

A few enthusiasts ran until late Saturday and steam whistles and locomotive exhausts could be heard through Galston Valley beyond M midnight. Some stayed overnight and made a full weekend of it, running again early Sunday morning. Newcastle mob, usually the first to arrive and the last to leave on these occasions.

I for one enjoyed the late night running. On behalf of the S.L.S.L.S. I would like to thank the Hornsby Club members and ladies for their hospitality throughout the weekend and for providing morning and afternoon teas etc., I am sure everyone who attended Saturday and / or Sunday enjoyed themselves immensely.

In conclusion a few points of interest concerning the track at Galston. The main line, 3,000 ft long, winds back and forth in continuous circuit, a station is provided with loops and sidings, signal box with remote control points and colour light signals. The steepest grade on the circuit is 1 in 48. The highest embankment is 22 ft., this worried a few drivers the first time around. One of the deepest cuttings, located behind the club house, had to be blasted and bulldozed out of solid rock and is approximately 6 feet deep.

To those who have not been to the Galston Valley Railway, should an opportunity arise to do so, don't miss out.

Locomotive News.

They say that a good wine gets better with age. The same seems to be so with the locomotive building of Ray Lee. Here is a report, by Ray, on his latest locomotive.

The C35 Class of the N.S.W.G.R. originally designated NN Class were placed in service from late 1914 to 1923, a total of 35 being built.

They were designed under the direction of Mr.E.E.Lucy and built at Eveleigh Workshop and in their original form carried much of his English influence. They were fitted with Stephenson's valve gear thus ending the Thow era of Allan gear fitted to the previous 811 T - TF - S and P classes.

Many modifications were made to the engines during the following years and it is difficult to find two photographs the same. In the early 1930's four of the class were painted royal blue to haul the Caves Express to Katoomba. From 1938 onwards they were rebuilt and given heavier frames, new cabs and a valance was placed under the running boards covering the top quarter of the driving wheels which did not do much to improve their appearance.

C 3506, 5" gauge. The engine has 3/16" plate frames with cast iron hornblocks and axle boxes fitted with needle rollers throughout. Following past experiences with my "P" class it was found that ten wheelers in a model tend to be very front heavy so every attempt was made during construction to keep the front end as light as possible and to beef up the cab end.

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G 3506. cont.

The driving wheels are 6.5" dia. and they are powered by cast iron cylinders having 1.875" bore by 2.5" stroke and supplied by 0.937" dia. piston valves. The valve gear was scaled direct from full size giving only 0.492" valve travel in full gear.

The eccentrics were machined from one piece of steel and keyed to the driving axle during the quartering process, any alteration to the valve events from there on had to be done by lengthening or shortening the eccentric rods. All available space between the frames was used in an attempt to prolong the life of the valve gear components by increasing the diameter of the pins and bushes etc., to 1/2" where possible.

The boiler is of 10 gauge copper throughout having a coned section between the 6" dia. barrel and the firebox throatplate which is 7" wide unlagged. Four copper superheater elements are fitted being copper welded at the spearpoints, which are located about 1" short of the ends of the flues. The boiler is lagged with 1/4" Koyowool matting in place of asbestos and covered with 22 gauge stainless steel sheeting. Feed water is supplied by two injectors and a donkey pump, no hand pump is fitted to the tender.

#### Special Train Day.

On Saturday the 7th of June Mike Tyson is organising a special day of running which will commence at approximately 9.30 am and will use both the elevated and the ground level track. The idea is to use locomotives for all shunting movements whether they be 3 1/2" or 5" gauge. A rough plan of the movements required is as follows.

- (1) Shunt trucks from carriage shed to 5" round house.
- (2) Shunt from 5" roundhouse to elevated track.
- (3) Make up train and run to west side siding.
- (4) Break up train and shunt trucks to gravel siding for loading.
- (5) Shunt loaded trucks to elevated track and make up train.
- (6) Run on elevated track for approx. 30 minutes.
- (7) Break up train and shunt to 5" roundhouse.
- (8) Shunt from roundhouse to ground level track, amalgamate with steel train.
- (9) Make up train and run for 30 min. in one direction then reverse direction for another 30 minutes.
- (10) Break up train and shunt to 5" roundhouse.
- (11) Shunt from roundhouse to elevated track.
- (12) Make up train and run for 30min. in opposite direction.
- (13) Break up train and shunt trucks to gravel siding for unloading.
- (14) Return empty trucks to elevated track, thence 5" round house and carriage shed.

At least 4 locomotives will be required to work the elevated, 4 for the ground level, 2 ground level shunters and 2 elevated shunters while a 46 class will be required for the gravel siding.

Depending on locomotives available other trains will be tabled to run in conjunction with the above operation, ie., passenger excursion and fettling trains.

All those drivers, fettlers and yard staff personel interested in making this day a success should contact Mike Tyson not later than 30th May. Come along and have a fun day without the worry of live passenger hauling.

A S.T.N. ( Special Train Notice ) will be issued June 3rd. at the AGM.

#### General News.

I would like to publish part of a letter received from Don Young following receipt of our last Newsletter.

" I found your activities extremely interesting and congratulate you in turn on a very fine publication. My quarterly Magazine, which as you know your self goes world wide, cannot provide this sort of service as all the news would be 'stale' before it appeared, although I always feel this can be much better covered locally, so I can concentrate on 'broader issues'. So it was good to know that you are enjoying LLAS, and the hope is that it will get better all the time. Having said that, you of course did touch on broader issues with the interesting history behind the Boiler Code, in which of course Australia is the pioneer. I have written at times against the Code, as I feel one or two details are open to question, though generally I endorse what has been done. What I was unaware of was the imposition of this work by your DLI in place of bringing out its own Standards, and I can tell you that my attitude has changed by reading Mr. Gunning's excellent

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General News. cont.

article. So you see, in this one respect alone, this Newsletter has been invaluable to me.

With best wishes. Yours sincerely, Don Young.

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Post Script C3506.

This magnificent locomotive had its steam trial last public running day. The trial was very successful, we now wait to see it painted and lined out.

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After the Convention, our flying Treasurer, John Hurst headed north and with his wife spent a few days with one of our country members, Ron Moffett, at his home at Coffs Harbour. John had a very pleasant stay and passes on the word that Ron and his wife would be more than pleased to see any members if they are in that part of the state. Ron is looking forward to having a 5" gauge track on his plot of ground eventually. In closing John mentioned that the recent rains would have brought Ron's creek back to life, something that would have made Ron very happy.

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Our latest country member, Barry Potter, now resident in the Orange district was given a send off by a small group of members one Friday evening at the grounds. A pleasant evening of refreshments, slides, movies as well as some late train running.

We all hope that the change in climate will bring better health to Barry's wife, Ann, something she has not enjoyed over the last few years. Best of luck.

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Presentation.

After the evening meal at the Convention, on Easter Saturday, a presentation was made to Reg. Wood in recognition of his efforts as Secretary of the AMBSC. Ken Tinkler made the presentation, a silver tray and service, on behalf of all Societies in Australia. Reg. was not accompanied by his wife as she was in hospital and arrangements had been made for her to receive a card telling of the presentation.

Accepting the presentation Reg. made a suitable reply.

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The new Secretary of the A.M.B.S.C. is Dave Merrifield of the S.C.M.E.S.

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Charity Days

Crowle Home Saturday 27th September.

Spastic Centre Saturday 1st November

KEEP

THESE

DAYS IN MIND.

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Duty Roster.

June '80. W. Richards, I. Ramsay, T. Geraghty, D. Jones, W. Sandberg, J. Hagan.  
July '80. G. Sharp, B. Kilgour, R. Larkin, P. Hinkley, J. B. Hurst, C. Wear, P. Bradley.  
Aug. '80. M. Haynes, J. Sorensen, P. Dunn, B. Courtenay, K. Sewell, W. Hamilton.  
Sept. '80. J. L. Hurst, J. Davies, R. Lee, N. Campbell, P. Shiels, J. Lyons.

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Editorial.

I should thank all the contributors to this Newsletter, it has been the longest for many issues and has involved the least of my own writing for some time. That is what an editor likes as it makes things more interesting.

Projects that are either nearing completion, underway or getting off the ground are the eastern retaining wall, the signal box and the club house have not been forgotten. I hope to have reports on all of these next newsletter.

John Lyons.

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SOFT DRINKS are now 35c to the public and 30c to members.