TROLLEY WIRE

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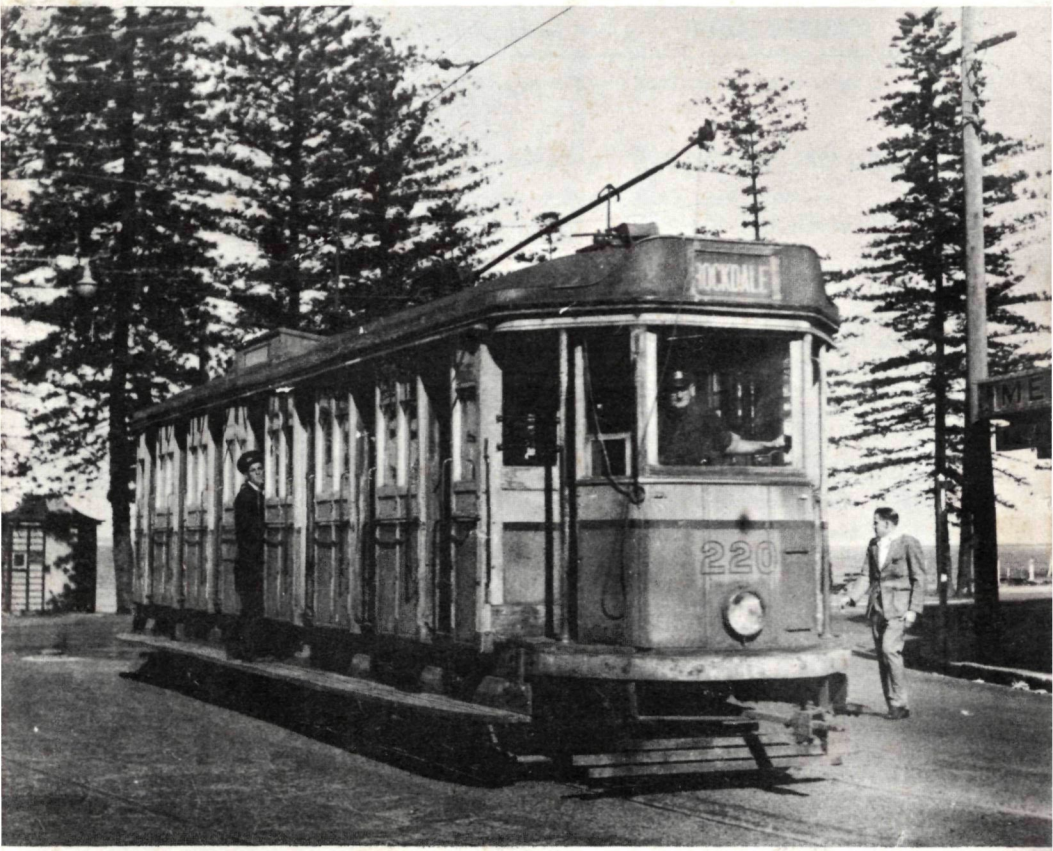
AUGUST 1974



Rockdale Tramway Closure – THE BEGINNING OF THE END

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TROLLEY WIRE

Journal of

-SOUTH PACIFIC ELECTRIC RAILWAY
-AUSTRALIAN ELECTRIC TRANSPORT MUSEUM
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-STEAM TRAM PRESERVATION SOCIETY
-TRAMWAY MUSEUM SOCIETY OF VICTORIA

AUGUST 1974 New Series Vol. 15 No.4 Issue No.153

MUSEUM DIRECTORY – See page 31 of this issue.....

A WORD OR TWO (OR 319) FROM THE PRODUCTION EDITOR.....

I very much regret the hybrid nature of the June issue of *TROLLEY WIRE,* but was unable to postpone illness long enough to complete the magazine. It was therefore basically compiled during convalescence and it would seem, judging from the result, that I really wasn't "with it". A large number of typographical errors were allowed to remain – the more important ones are corrected below.

While I have your attention, I would like to mention several important points concerning *TROLLEY WIRE.* The address printing is now being ably handled by Mal McAulay and Bob Harvey; these members have expressed concern at the nomadic trend of our subscribers. We don't, of course, deny people the right to move house, one, two, three maybe more times a year, but we would like to be kept up to date with your new address. The proposed further savage postal rates increases, plus the guaranteed return postage payable on undelivered *TROLLEY WIRE* magazines must reflect in any future selling price. By keeping us up-to-date on your whereabouts, you are helping to keep the price of TW down.

Also, prompt payment of subscriptions will have an effect on the stabilisation of the prices.

CORRECTIONS TO JUNE 1974 ISSUE.

Page 2: caption should read 'Birney Car 217'
Page 15: last paragraph of Melbourne article tram number should read '653' not 633.
Page 22: table of dimensions – 31 ft 0 in equals 9 450 mm!

Page 27 it has been pointed out that the car listed under the T.M.S.V. as 29 (V.R.) is is actually No.20, and is still privately owned.

Photos on pages 1, 12, 13 and 14 were from the collection of C. Gibson.

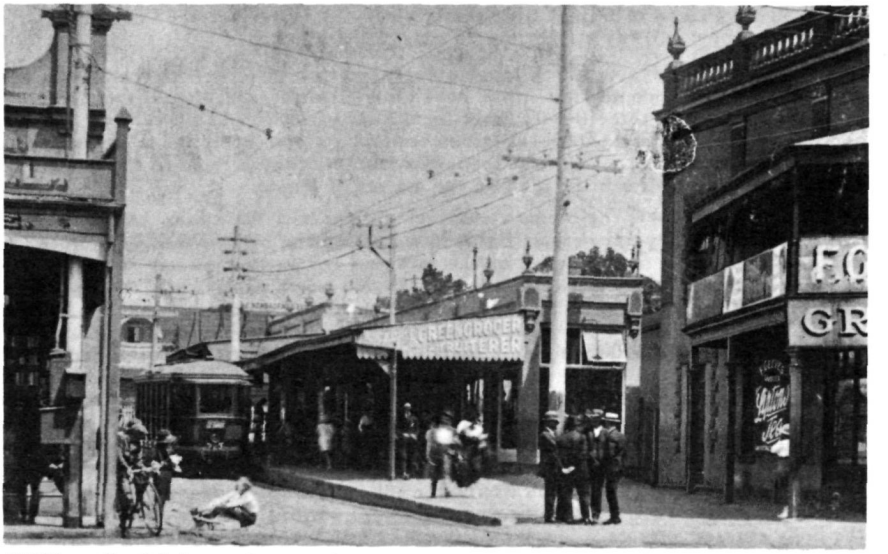
A further variation in production is offered with this issue – I hope we've 'struck oil' at last. The Production staff wouldn't mind a few words from some of our readers. WE think we're doing a pretty good job, all things being considered, what do *you* think?

–*Bill Denham* for TROLLEY WIRE Committee.

FRONT COVER: LP 220 turning from Grand Parade into Bay Street, Brighton -le-Sands with Driver Jim West at the controls on 13th June 1949. Note the conductor collecting fares from the right hand side! –Ben Parle

SEPTEMBER 1949 — The Beginning...
...of the End...

— Ken McCarthy



N 723 at Rockdale station terminus. —Vic Solomons collection

SEPTEMBER 3rd 1974 marks the 25th anniversary of the closure of the short Rockdale to Brighton-le-Sands *tramway in N.S.W. The curious history of this 2 mile tramway has been told many times, but the point which should be emphasised is that the demise of this minor undertaking was the 'water shed' of the closures of the routes of the once large N.S.W.G.T. system.*

Transport enquiries during the 1930's prescribed the closure of the Manly, Kogarah, Enfield and Newcastle tramways together with some poorly patronised branches of the Sydney network, but the Rockdale route was one recommended for retention! The closures of the Kogarah and Manly isolated sections were carried out in 1937 and 1939 while two electric lines in Newcastle were also replaced by buses in 1938. World War II reprieved Enfield and the remaining Newcastle lines for the duration of the hostilities, but the pre-war closure scheme commenced again in 1948 with buses replacing trams at Enfield, Mayfield (in Newcastle) and on the Suspension Bridge line at North Sydney.

On 3rd September 1949, three days after the public were notified, the Rockdale tramway closed, thus initiating the general N.S.W. tramway closure.... a new plan of events which would no longer have relevance to the pre-war transport recommendations. This was *The Beginning of the End.*

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This brief article does not aim at itemising the history of the 64 year old undertaking, but to outline some unusual aspects of the Rockdale tramway which have only come to light in recent research.

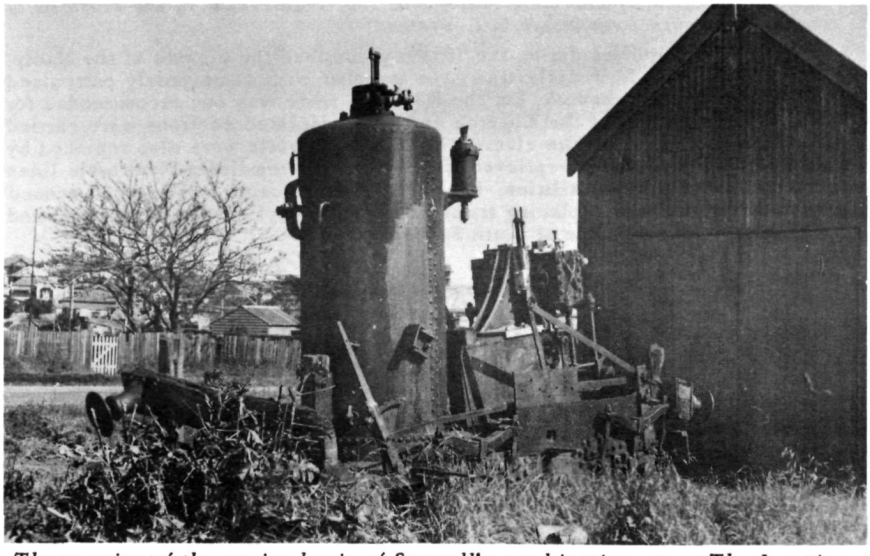
Thomas Saywell *(1837-1928)* was an entrepreneur of the 1880's and 1890's. His many business interests included a tract of real estate on the western shore of Botany Bay (West Botany) known as Lady Robinson's Beach, and later, as Brighton-le-Sands. The Sydney suburban section of the expanding Illawarra railway reached Hurstville in 1884 and this passed 1½ miles west of the real estate

in question. To Saywell this was only a minor impediment. He promptly presented a private Act in Parliament dated 6th March 1884 seeking approval for the construction of a steam tramway linking Rockdale station with Lady Robinson's Beach. The Act met with success and after many vicissitudes the line opened for public traffic on the Prince of Wales' Birthday holiday, 9th November 1885 employing hired government railway motive power and rolling stock.

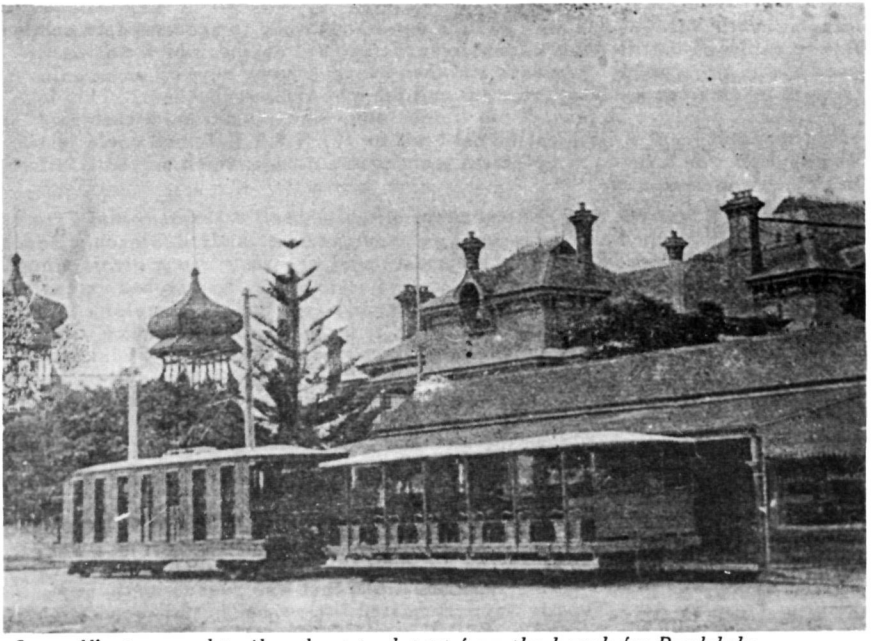
Saywell's private rolling stock entered service in 1886 with the arrival of an 0-6-0T Fowler loco and two cross bench bogie tramcar trailers. From 1886 until 1900 a total of three 0-6-0T light locos (named *Fowler, Saywell and Pygmy*) and five bogie tramcar trailers (all cross bench cars, two open and three enclosed) served the undertaking. The first loco, however, was transferred to the South Bulli Colliery at Bellambi in 1888 on the arrival of *Pygmy*.

One oddity was the steam combination tramcar at Rockdale, known as *Coffee Pot*. The separate steam Baldwin motors on the Sydney tramways were successful, a claim strengthened by the fact that the average yearly steam motor mileage in Sydney in the 1880's was 25,000 miles each, while the main line railway locos only averaged 24,800 miles each. Indeed, some tram motors worked as much as 34,000 miles per year, but maintenance was expensive and a large work party had to be employed each night on penalty tates at Randwick Workshops to carry out repairs to enable adequate steam motors to operate the next day's services. The answer to this problem seemed to be the combination, self contained steam tram where the boiler, cylinders and transmission could be carried on a front bogie while the rear bogie supported the passenger carrying body articulated from the power bogie. A self contained Rowan-Kitson car seems to have received a trial in Sydney in 1880, while in November 1882 a similar combination car, purchased by the N.S.W.G.T. holding engine number 46 for the steam unit and 50 for the body entered service. The loco superintendent's report for May 1883 stated that the unit was in 'running order but requires frequent repairs'.

Loco Superintendent George Downe perservered, as a successful fleet of combined cars would be able to operate off peak and evening services without a fireman and so release the motors for peak loadings. This gentleman designed a steam unit for a batch of combined cars with a double or 'T' shaped boiler pro-



The remains of the engine bogie of Saywell's combination car at The Junction, Newcastle, just before being cut up for scrap in 1949. —Ben Parle



Saywell's tram and trailer about to depart from the beach for Rockdale.
From St. George *Propellor* – Norm Chinn collection

viding steam for a pair of double expansion compound engines, consisting of two high pressure 9 inch diameter cylinders mounted above two lower pressure 12 inch cylinders each set driving a common piston rod in tandem. Five of these steam units were manufactured by Baldwin and the first arrived in Sydney in October 1883 with a double deck body manufactured by Brill. The remaining 5 engines reached these shores in March and April 1884 and entered service between May and August fitted to local Wearne bodies.

In late 1883 the Kitson unit was dismantled, the engine used to power the Randwick traverser and the car portion converted to a small trailer which saw later use in railway service. The Downe cars were not much better; during 1884 they travelled an average of 6,000 miles each and were banished to the new Newcastle tramways in 1887 where they opened the Plattsburg line on 20th July and according to the local press it was a newsworthy occasion for the first month of operation when a day passed without one of these cars breaking down.

With these difficulties being faced with combination car operation one wonders why a shrewd businessman such as Thomas Saywell should have ordered a Downe designed single deck combination tramcar for his tramway. Nevertheless a Hudson built car entered service at Rockdale in May 1887 with no better results than the N.S.W.G.T. vehicles of this type. Perhaps George Downe felt that a greater degree of compounding would help the situation as Saywell's unit carried a vertical boiler and two vertical cylinder units. One unit consisted of a high pressure 5 inch diameter in tandem above a 7.7/8 inch diameter low pressure cylinder, while the other unit was made up with a 6.3/8 inch intermediate pressure cylinder in tandem with another 7.7/8 inch low pressure cylinder, thus this was a triple expansion mechanism.

A possible explanation to this transaction could be that Saywell purchased the unit cheaply as it may have been destined for the N.S.W.G.T. Downe had six steam units built in U.S.A. by Baldwin (Nos.70 to 75) yet seven bodies were

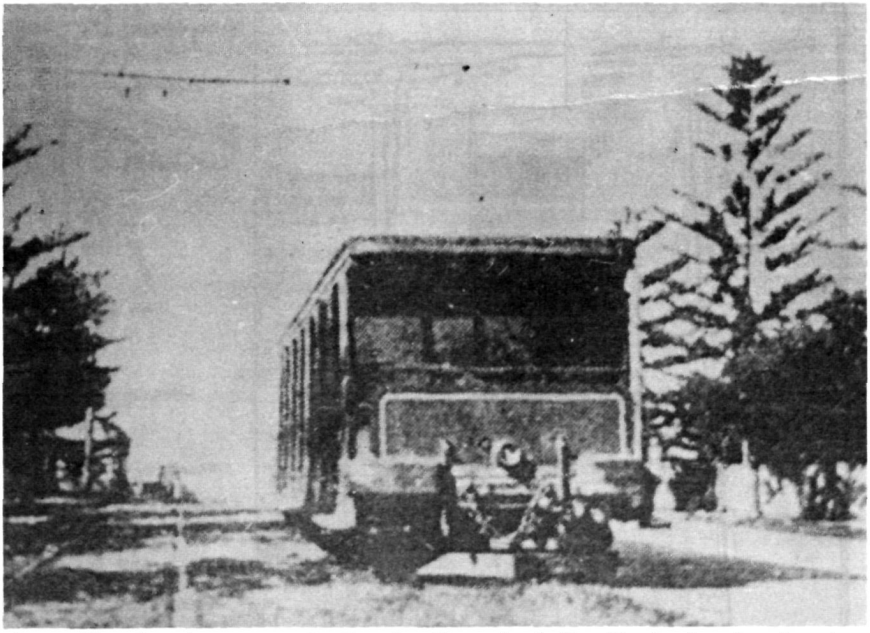
manufactured (Nos.100 to 106). Was the extra body made to accommodate another Downe designed unit, a triple expansion experimental engine, which was never used by the Government Tramways and then snapped up by Saywell at bargain rates to be fitted to a new 60 seat car unit built by Hudson Brothers? This hypothesis still needs to be proved, but it does offer an explanation for the spare passenger portion of a combination car built for the N.S.W.G.T. and could justify why Saywell was tempted to operate a tramcar of a design which proved a failure in Sydney and Newcastle.

Saywell was not only the proprietor of the *Saywell's Tramway and Estates Ltd*, he also developed a popular hotel and racecourse at Lady Robinson's Beach. constructed a shark proof enclosed swimming pool, the *Shady Nook* picnic grounds, and holiday accommodation around the tramway terminus. He also had extensive interests in the Excelsior colliery in the Illawarra area and the Excelsior Land and Building Company at Toronto, N.S.W. It is not surprising, therefore, that the engine bogie of the Saywell's combination tramcar appeared on the Fassifern to Toronto—Excelsior Co's. tramway in March 1899 and the 0-6-0 loco *Pygmy* joined it in October 1900. The combination car unit was used as a locomotive with a primitive wooden cab mounted on the power bogie thus being in effect an 0-4-0 steam tram motor. At this stage the high and intermediate pressure cylinders were removed and the vehicle operated as a single expansion machine using the former low pressure cylinders.

The success of the pioneer electric tramways in Sydney was not lost on Saywell and in 1899 he had plans prepared for the electrification of his tramway between Rockdale and Lady Robinson's Beach. On 7th July 1900 a bill for this electrification was placed before Parliament and this was passed as the *Saywell Electric Tramway Act.* Thomas Saywell wasted little time((initial preparations had been made with the hope that the Bill would be passed) for on Friday 27th July 1900 the regular electric operation commenced.

The power house was located in a brick building at the rear of the Brighton Hotel and consisted of Willins engines driving Siemens dynamos by direct couplings at 400 rpm with steam supplied at 300 psi by Babcock and Wilcox water tube boilers. A bank of Chloride Electric Company's accumulators compensated the line during peak loads. Mr. Noel was the engineer in charge of the introduction of electric traction and was former officer of the Melbourne Electric Light Company.

Six cars equipped with General Electric motors were reported as being available for the opening operations, but this may possibly be translated as meaning that such equipment was on hand for the eventual provision of 6 electric cars. The line was fitted with twin overhead wires as later used on trolley bus undertakings and contemporary reports stated that the tramway operated on a 'metallic circuit' indicating that one wire was positive and the other of negative polarity. Yet technical details issued at that stage also mention that the power plant was of the three wire system which could also mean that the cars employed a power transmission system which did see limited use on some tramways at that period. In this sytem, two 240 volt dynamos used for domestic power generation were linked so that the bond between the units provided an earth connection to the rails at zero potential and the unlinked cable from one dynamo was attached to one overhead wire at 240 volt (negative) potential and the similar cable from the other dynamo provided 240 volt (positive) potential in the other trolley wire giving an effective potential difference across the two trolley wires of 480 volts. This is another mystery still to be clarified regarding Saywell's tramway. When the Government took over the undertaking in 1914 the changeover to the standard N.S.W.G.T. positive single trolley wire and earth return at the rails would have been simple if the trolley bus overhead system had been used by Saywell. The tracks could have been temporarily bonded and both types of rolling stock operated on the one circuit, one using two poles, the other the positive wire and the rail return circuit. The changeover, however, was a complicated one, perhaps indicating that the three wire circuit outlined above was used by Saywell, and not



Saywell's electric tram at the Beach. Note the buffer blocks for shunting the railway trucks. —Ken Magor collection, from *Town & Country Journal*

compatible with the standard N.S.W.G.T. rolling stock.

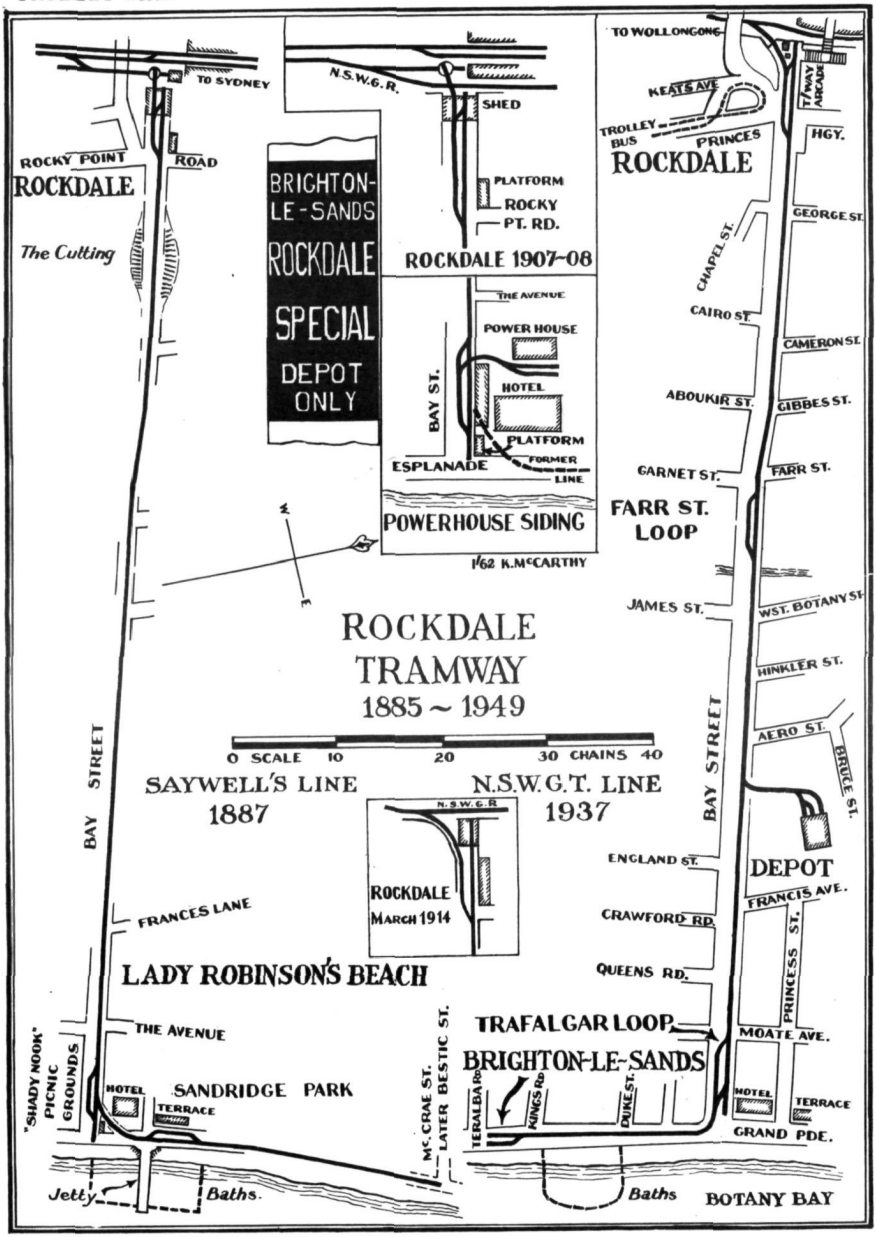
Saywell took delivery of two end loading four wheel saloon cars from the Electric Tramway Equipment Company of Birmingham in 1900 for the initial electric service. One of these twins was a conventional motor car while the other was a driving trailer, jumper cables linked the two units. These cars were of limited capacity and were withdrawn from traffic in 1908.

Saywell's 30 year franchise expired on 5th March 1914 but the N.S.W.G.T. extended the expiration period until 6th June 1914 and for this interim period Saywell operated the line with his rolling stock for the Government Tramways.

N.S.W.G.T. Archives for the 1914 period throw considerable light onto the state of Saywell's tramway at that time. During February 1914, the N.S.W.G.T. contemplated using steam motors and trailers during the conversion period between March and June, but the poor state of the track and the shortage of steam rolling stock caused the Tramways Dept. to allow Saywell's operation to continue. An inspection carried out by Departmental officers on 1st and 2nd March 1914 reveals that three motor cars and four trailers were available. The three motor cars were the former cross bench enclosed steam trailers, while the four electric trailers comprised two former N.S.W.G.T. B type (ex C 2) steam bogie trailers and two open cross bench Saywell steam trailers.

The cars were not numbered so the report described one motor as being fitted with 2 motors and seating 130 passengers while the other two motor cars had four motors each and seated 100 passengers! The Saywell cars were wider than the Government tramcars and could seat 6 passengers per cross bench in place of the usual 5, and even though the cars are known to have carried huge loads, this report possibly exaggerated the cars' capacities.

All cars were in a dirty and neglected condition with the exception of the large two motor car. All trams carried GE 52 motors rated at 22 hp each, worked through K7 controllers; the two motor car had one powered and one non powered



bogie. The four motor cars carried Christensen air brakes with the air handles working in reverse to the N.S.W.G.T. practice. The compressors were not provided with the refinement of cut out governors, the drivers switched on the compressors when the reservoir pressure fell to 60 psi and switched them off at 85 psi. The large two motor car had to rely on hand brakes and the electrical emergencies as it was not provided with an air braking system.

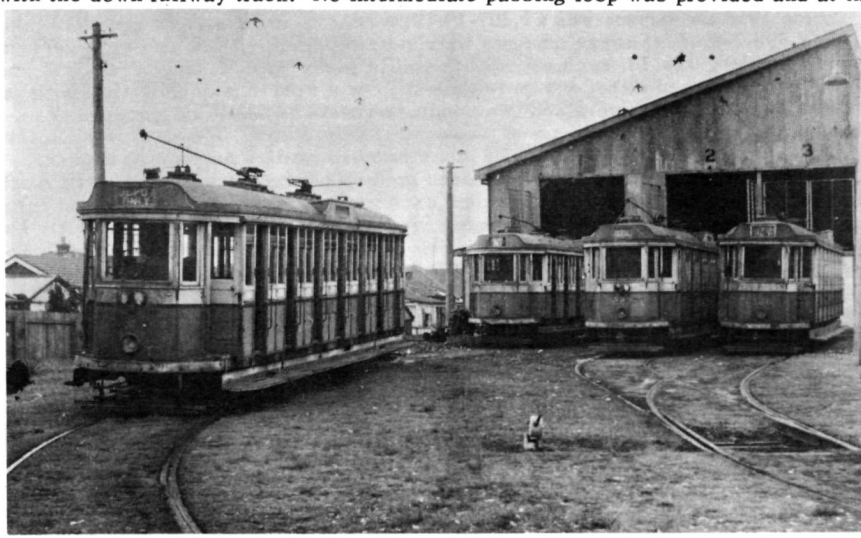
All the trailers were fitted with air hose couplings and electric jumper leads so that the driver could control motor-trailer sets at the front when the trailer was the leading car, but on some occasions the driver would control these two car sets from the inner motor car platform when the trailer was being propelled and would endeavour to keep an eye on the road through the length of the trailer car. The N.S.W.G.T. officer carrying out an inspection of Saywell's undertaking on Sunday 1st March 1914 reported that the 5.15 pm tram departed from Lady Robinson's Beach propelling a trailer car, both vehicles loaded to the footboards. The driver worked the set from the coupled end of the motor car as it took too long to couple up the necessary jumper cables!

On holiday periods the four motor cars would haul as many as four trailers while the two motor car,which only had a hand brake as its service brake, was limited to hauling two trailers.

The dead end at Rockdale tramway platform was enclosed under a 91 ft long shed in which 3 trams could be stabled, while maintenance could be carried out on the double road power house siding which curved sharply northwards from the Beach passing loop. Oiling and inspection was carried out in the street at the Beach end of the line, the N.S.W.G.T. inspector remarked that the inspection pit was boarded over and located in the public roadway while the tramcars were washed from a standpipe while standing in the street, so the Department would have to provide alternative arrangements immediately on taking over the undertaking.

The large two motor car would not negotiate curves and had to be parked in the street at the Beach. This vehicle was an embarassment to the N.S.W.G.T. after the takeover, for when it was transferred from the tramway to a store road at the new Rockdale depot on 14th December 1914, it had to be derailed and dragged across the ground to negotiate the curved track into the store area. The fact that this tramcar had one two motored bogie and an unpowered trailing bogie, which would not negotiate curves, gives strength to the assumption that the single trucks from the motor and trailer saloon cars imported in 1900 and scrapped in 1908 may have been fitted under this large vehicle.

In 1914 the running tracks on the Saywell tramway consisted of a single line dead end at Rockdale with a left hand turnout providing a trailing connection with the down railway track. No intermediate passing loop was provided and at the



Left to right: LP cars 387, 191, 223 and 386 at Rockdale depot on 13th June 1949. —Ben Parle

12.47 am, Sunday September 4th 1949, LP220 about to depart from Rockdale on the last passenger trip on this line. —Ken McCarthy

Beach end a passing terminal loop with 210 ft in the clear and a 24 ft dead end beyond was located with the siding line to the south of the through track. By March 1914 the vital parts of the end points on this loop had been removed making the layout, in effect, a two road dead end terminus.

Saywell, nevertheless, operated a lucrative business on this tramway. During 1913 the income was £2,207-19-10, a healthy increase over the 1912 takings of £1,898-2-4. Both these amounts were more remarkable when one considers that the adult fare was 1d. each way and the child's fare was 1d. return! Drivers and conductors worked either a 6 am to 2 pm shift or a 2 pm to midnight stint, without meal breaks. Two drivers and two conductors were regularly employed with an additional assistant conductor at weekends and holidays. The drivers oiled the cars, kept them clean, and replaced motor brushes while a handy man kept the overhead and rails in repair and cleaned up 'around the place'. The traffic staff were provided with one suit of clothes each year, received no holidays and earned £2-8-0 one week and £2-10-0 the next. In spite of all this, Driver Sam Harris had spent 23 years with the company by 1914, Driver Chas. Stickby 3 years and conductors Clark and Jenning, 3 months each. All were offered jobs as conductors on the Government working.

The two motor car and one of the four motor cars were used for hauling S type trucks with coal from Rockdale to the Beach power house. These two trams were fitted with large blocks on the aprons to align with the railway buffing gear while a four wheel coupling 'match truck' with railway and tramway couplings, was also on the rolling stock roster. This was later numbered 120S on the N.S.W.G.T. lists, and consisted of a wagon tray on an ex N.S.W.G.R. goods wagon bogie.

Between March and June 1914 the Government carried out modifications to make the tramway suitable for N.S.W.G.T. rolling stock. A three road timber framed galvanised iron depot and track connection was provided half way along the route. near the old racecourse, in a location where it could be later expanded to take 84 cars. A crossover was constructed at Rockdale and the loop points restored at the

Beach so that run round facilities were available at both ends and a start was made on reconstructing and straightening the track. This task was performed in 5 chain lengths. Five chains of new track was relaid, the reclaimed 5 chains straightened and resleepered and this used on the next 5 chain stretch, and so on along the entire length of Bay Street.

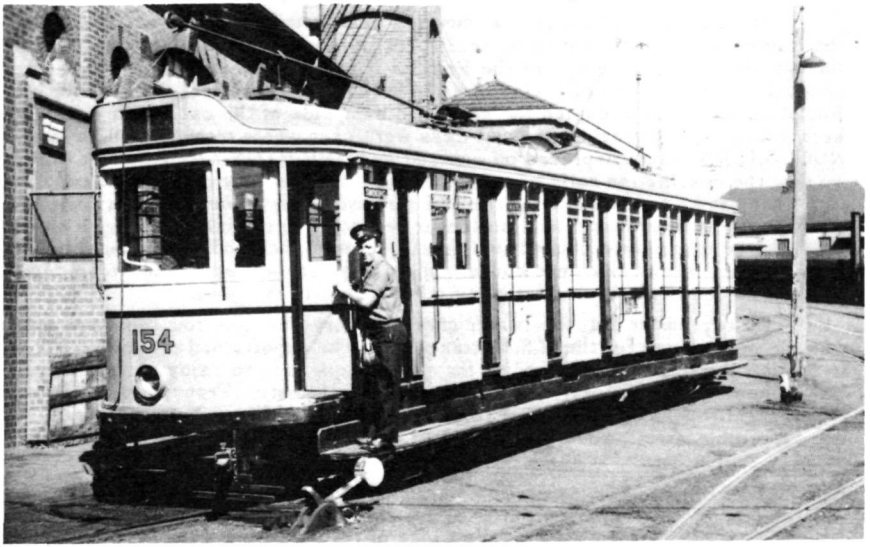
Government cars took over the operation on Sunday 7th June 1914 working in two divisions during busy loadings until an intermediate loop was opened at Farr Street in December 1923.

N class cars were used by the N.S.W.G.T. between 1914 and 1939 and from 1914 until 1924 these cars hauled trailers, two B class steam trailers being provided during 1914 and a maximum of three demotored N cars between 1916 and 1924. LP cars are well known for their Brighton-le-Sands operations. These were used on the undertaking from 1920 to 1949. Two O cars had a brief turn of duty at Rockdale during 1929. O 1330 and 1342 were transferred to coincide with with the southern extension along the beachfront to the new baths, opened on 28th March 1929, but they returned to the main Sydney system during December of that year.

While Saywell continued to generate electricity at the Brighton-le-Sands power house, the coal had to be hauled over the tramway in railway wagons. Thus until 1922 the tramway had railway contour frogs and point blades and the tramcars were provided with coarse profile tyres suitable for this type of permanent way.

During the government electric era a maximum of 14 tramcars were attached to the small undertaking at the one time, this was reduced to eight LP cars for the remaining 7 years of operation from 1943. Rockdale shed was treated as a sub depot to Tempe and as such did not have a regular administration staff. A maximum of 25 men were attached to the working in 1932 and this had diminished to 17 in 1949; still an improvement on the 5 permanent staff used by Saywell.

The arrival of the large tramcar carrying road trailer, known as *The Lizard,* meant that the railway connection at Rockdale was no longer needed. The official closing date for this operation was 19th February 1937. The Lizard would collect cars for transfer from Sydney at the Ascot Racecourse gates and unload the trams



While other cars of its class were making their final run to the scrapheap, LP 154 received a miraculous reprieve and averhaul, and is seen here in the depot yard at Newtown after return from the workshops. —Norm Chinn

in Grand Parade, Brighton, between Bay Street and the terminus. One unusual task performed by this road trailer has been mentioned several times before but needs to be repeated here: during July 1948, car 223 had to be taken to Randwick Workshops for repairs while another of the eight tramcars at Rockdale was not proving reliable at the time. Three coupled sets were required for peak working at this stage, and as the LP cars could only couple at their No.2 ends, not enough reliable trams were located on the tracks facing the correct direction to be coupled into three sets. The Lizard had to transport LP 216 around the block to reverse its direction as there was no track reversing facility on the Rockdale system!

The last day of operation was Saturday 3rd September and all trams carried wreaths provided by local residents on that last sunny day. The tram crews were on duty from early in the morning until after the last tram, most being present for a 20 hour shift.... but after 25 years the story can now be told. Many only worked each alternate trip spending the intervening time burying the undertaking over bottles of beer in the small staff hut at Rockdale!

The last trip consisted of LP 220, packed to the roof, which left Rockdale for Brighton at 12.47 am on Sunday 4th September, and departed from the beach for the depot at 1.10 am where further obsequies were continued until daybreak. The trams were transported from the system in great haste. On Monday morning LP 216, 230 and 223 departed, followed by 386, 220 and 387 on the following day. On Wednesday 7th September cars 191 and 154 were transferred, marking the end of an interesting tramway undertaking. LP 191 left Rockdale depot around 8.30 am and remained on the tracks at Ascot for the last car, LP 154. This departed around 10 am and was driven down to Brighton for the last time. So rapid had been the closure that people boarded this car as it waited for the Lizard at the Beach, expecting to be taken to Rockdale as usual; they had to be directed to the substitute bus service. 154 was driven onto the trailer at 10.45 am and on reaching Ascot was coupled to 191 and both proceeded off to Dowling Street depot and expected oblivion. LP 191 was burnt on 18th April 1950, being the first Sydney LP to be so disposed, but 154, however, had a different fate ahead.... fifteen years later, on 19th July 1964 it became the first preserved electric tramcar in Australia to work under its own power on a museum undertaking.

During April 1950 a protest meeting held at Brighton endeavoured to have the tramway re-opened, but to no avail. No more were trams to be seen ploughing through the busy traffic across the Princes Highway at Rockdale; no longer were conductors to be seen collecting fares from the 'wrong' side of the tram for at Rockdale they only occupied the north and east side of the car which was at the kerb side in Bay Street; the casual days were over where trams would be seen with *ROCKDALE* always displayed on one end and *BRIGHTON-LE-SANDS* at the other, so that the destination rolls became worn and faded at that destination only, while the other names on the never altered rolls remained new; but the main complaint was that the passengers would no longer be known to the crews and *vice versa.* Whereas the trams were housed in a small isolated shed and were shared by no other district, the buses were housed miles away at the large Kingsgrove depot which provided the vehicles for many other routes in that area.

On September 3rd, the 'water shed' was crossed and from there onwards it was a down hill run for the N.S.W. tramways. The experts had their way, but failed to realise that the main aim in life for many people was to enjoy getting there, rather than arriving quickly at a destination at all costs. Transportation is sometimes like life, the idea is to get to the end slowly with maximum enjoyment for one gets little satisfaction reaching the terminus quickly.

REFERENCES:– *The Australian Mining and Financial Review*
Archives in the SPER collection and the Archives Office of NSW
Personal recollections of the author, and the late Roy Fields
SUN-HERALD, November 13th 1955 *Down to the Beach 70 Years Ago*
Copies of the *Tramway Weekly Notice*
Copies of *Annual Reports* of the NSWGT.

BUS STOP (i)

SYDNEY'S "ALL-OVER" ADVERTISING ATLANTEANS

The aim of any retailer is to bring his products to the attention of the consumer public to sell his goods. A novel way of doing this has recently taken place in Sydney, by way of 'all-over' advertising on Atlantean buses.

Four of these buses, Nos.1118, 1155, 1180 and 1185 have been used for this advertising purpose. The first vehicle to appear, No.1185, entered service on 11th February 1974 advertising *Whiskas Cat Food* (pictured), with No.1155, which advertised *Firestone Tyres*. No.1180 commenced running on 25th February for the *Daily Telegraph* newspaper. The last vehicle to appear was No.1118 advertising *Dulux* paints, on 12th May 1974. Maximum use was made of bright colours and unusual design to promote the products concerned. No.1180 was subsequently repainted for radio station *2UW* and re-entered service in this guise on 2nd June.

A special roster was prepared for the operation of the buses which were attached to Waverley, Pagewood, Kingsgrove, Burwood, Brookvale and Mona Vale depots for varying periods. The buses were operated over several routes which passed through the City area or main suburban shopping centres, no doubt to obtain the maximum possible benefit from the visual effect.

The use of public vehicles for 'all-over' advertising purposes is not new to Sydney. As early as 1925, E class cars 587 and 588 were painted blue and operated for the retail firm of Grace Bros., promoting a shopping sale. In 1952, R1 class car 1974 was painted in light and dark blue as part of a recruiting campaign for the R.A.A.F. Over the years, several buses have been used for advertising, suitably repainted for the occasion.

Photo G. Travers

BUS STOP (ii)

'Ready for a day's run'... P.T.C. Leyland *2609 and A.C.T. Transport Dept* AEC *ZIB 168 at the Kingston bus area, Wentworth Avenue, Canberra on 8th May 1974.*
—Ken McCarthy

SYDNEY'S 31-SEATERS MOVE SOUTH

During 1951-3, the N.S.W. Department of Government Transport (now part of the Public Transport Commission of N.S.W.) took delivery of 120 front engined, single decker buses to replace their aged pre-war single deck units.

As large numbers of 43 seat single deckers are being introduced, the need for the smaller bus is being removed and the vehicles are being gradually withdrawn for disposal. In 1962, however, before disposal had commenced, 15 of the buses were rushed to Brisbane to provide services on tram routes after the Paddington tramway depot fire and in this operation retained their N.S.W numbers and plates. 10 vehicles which remained in Brisbane after the emergency period were re-registered with Queensland plates and did not return to Sydney for three years. After return they were returned to the D.G.T. roster.

Faced with a chronic shortage of buses for school and peak services at the start of this year, twelve 31 seater buses were transferred to Canberra to come to the aid of the Capital Territory Transport Department. As was the case in the emergency in Brisbane in 1962, the Canberra units have retained their N.S.W.P.T.C. (D.G.T.) green and cream livery as well as their original fleet numbers and registration plates. The buses departed Sydney in two batches. The first consisting of Nos.2594, 2596, 2600, 2609, 2658, and 2659 left Sydney on 1st February. No. 2594 blew up near Moss Vale and No.2606 was dispatched carrying a spare motor for 2594. The second batch (5) of buses arrived in Canberra on 8th February. These were Nos.2631, 2632, 2633, 2637 and 2656.

As with Brisbane, the time these buses will continue on the Canberra scene is limited and will be determined by the arrival dates of new vehicles. In the mean

time, the Canberra transport vehicles have taken on a more colourful appearance. The new A.C.T. buses have introduced a livery which contrasts with the drab standards of the older units, while the Sydney green and cream seems well out of place, especially displaying such foreign destinations as *CITY* and *BELCONNEN*.

Disposal of others of the 31 seaters was accelerated during 1973 and they can now be seen in public service in the far north of Queensland, Central Australia, and, as expected, in that haven of second hand buses, Wollongong.

P.T.C. Leyland *2658 in Rudd Street, Canberra City, 8th May 1974.*
—Ken McCarthy

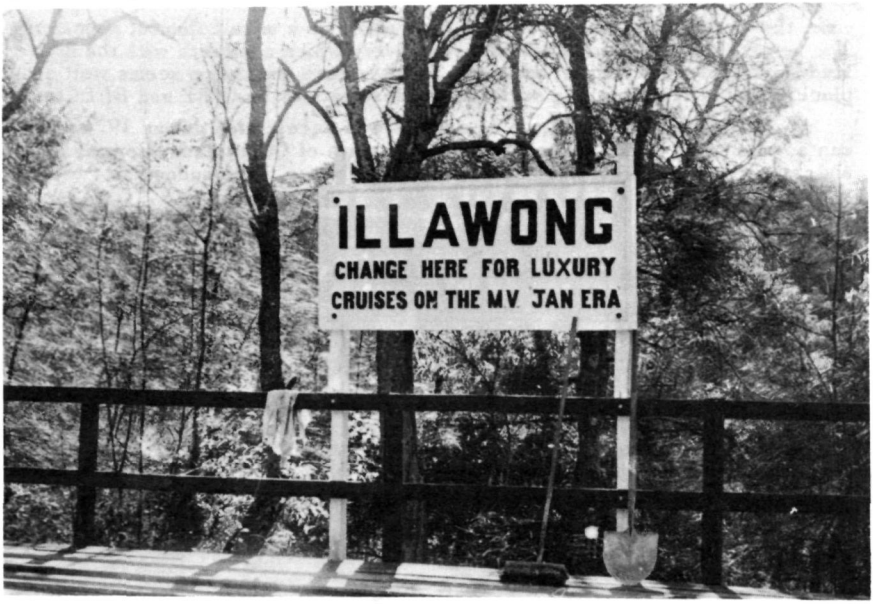
OF TRAMWAYS AND TUNNELS

The Illawong Electric Railway

by Paul Simpson
photos: Ken McCarthy

Due to design advances made with rubber tyred and tracked earth moving equipment in recent years, little use has been made of light railways in major public works construction since World War II. This mode of transport is still to be found, from time to time, mainly in tunnel and breakwater construction where the use of guided vehicles is essential, but the days of major light railway construction as used earlier in this century at the Burrinjuck Dam, the Cataract Dam, the Nepean Dam, the Captain Cook Dock (all in N.S.W.) to name a few instances, have passed.

From time to time, however, a temporary light railway appears on some specialised job and on 22nd June 1974 the I.L.R.M.S. members made a conducted tour of inspection of a 2ft gauge electric railway servicing sewer main tunnel excavations at Illawong, on the southern side of the Lugarno ferry crossing on



....the employees have erected an ILLAWONG *station sign....*

the Georges River in Sydney.

The Metropolitan Water, Sewerage and Drainage Board is currently constructing sewer mains to eventually serve the Menai area and a major work in this scheme is the construction of a carrier main along the southern foreshores of the Georges River. This will drain westwards to Griffins Point and then southwards to pumping station No.360 at Woronora from where the effluent will be elevated to Sutherland passing by gravity from that point to the sewer treatment works and sea outlet at Cronulla.

In order to preserve the natural beauty of the wooded foreshores of the Georges River, the main is located below the rocky shore ledges and, where possible, passes through headlands by way of tunnels. So conscious is the Water Board of preserving the river banks, the rock pieces have been cemented back into their original position as each section of the shore carrier main has been completed. This mammoth jigsaw puzzle has added to the expense of the job but it makes it nearly impossible to detect the location of the main.

The 2 ft gauge light railway is situated along the southern river bank just east of the ferry landing and is used to transport spoil from a 420 ft tunnel to an accessible location from where it is carried by a front end loader to a wharf. At this jetty the earth and rock is loaded onto a barge which is towed by the lighter *M.V. JAN ERA* to an adjacent inlet where it is needed for associated works.

The line is above ground for approximately 400 ft. At the western terminal some 60 ft of track is located on a slightly raised trestle from where the spoil is tipped for the front end loader. A small loco shed is situated at this end where the battery loco is recharged. This terminal forms such a close similarity to a suburban railway platform that the employees have erected an 'Illawong' station sign patterned on the former N.S.W.G.R. station name boards!

Leaving the terminal, the line, which consists of 45 lb rail, advances eastwards for 200 feet on a falling grade of 1 in 25 across another trestle. Beyond this location the line is almost at river level and at this point a parallel siding is laid on which is stored rail bound accessories. The line continues on the level for another 100 feet and then turns sharply on a 20 ft radius curve and enters the sewer tunnel located at 90° to the shoreline. In the tunnel, the track is laid with 30 lb rail.

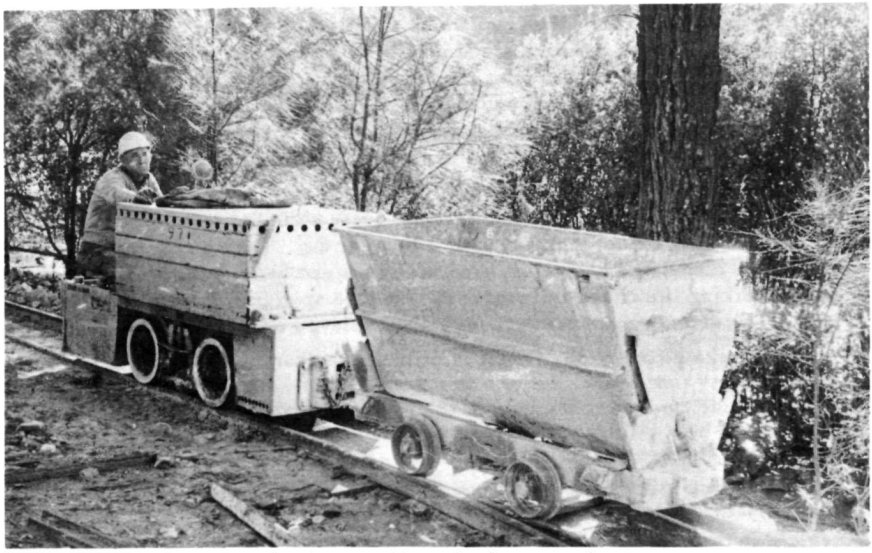
Approximately 4 feet of tunnel is made every shift and two shifts per day are worked, thus the tunnel progresses at 8 feet per day. During mid April about 200 feet of the tunnel had been completed with still another 220 feet to be excavated, so the working life of the railway is expected to span from February to August 1974. The actual tunnel breakthrough was achieved on Saturday 29th June.

The working face of the tunnel is drilled, the charges fixed and exploded. After a safety time lapse, the men re-enter the tunnel, followed by the loco propelling a side tip hopper wagon. At the working face, the hopper wagon is filled by hand and by a rail mounted mechanical belt loader from where the loco hauls the spoil to the western terminal.

The rolling stock consists of one *Gemco* hauler, (M.W.S.D.B. No.104, serial No.12703-40/97/70), a 22 cu. ft *Gemco* side tip wagon and a similar but smaller vehicle in reserve. The belt loader, as mentioned above, and several flat trucks used for transporting rails and sleepers into the tunnel, complete the rollingstock picture. The sole loco has two 4 hp motors energised by the 60 volt battery supply. The loco weighs 1.8 tons and the battery box (No.97) 1.7 tons making a total of 3.5 tons in working order.

Safety catch points are provided at three locations; at the top of the grade near the western end, near the siding points and at the tunnel entrance. These points are pneumatically operated. As the loco and wagon travel downhill, the

....on a falling grade of 1 in 25 across another trestle....



....one Gemco *hauler....a 22 cu. ft.* Gemco *side tip wagon....*

driver must close the catch points by pulling a rope as each derail point is approached. On the return journey the loco strikes a trip beyond each catch point thus opening the derail device behind the hopper wagon.

The I.L.R.M.S. party spent a very interesting 2½ hours at the construction site and are grateful for the efforts made by the Board's officers and employees, especially Messrs Ian Morrison, Ray Lalor, Pat Bottrell and Bill Salter, in making the visit such a success.

PUBLIC NOTICE

SOUTH PACIFIC ELECTRIC RAILWAY CO-OPERATIVE SOCIETY LIMITED

NOTICE IS HEREBY GIVEN that it is proposed to move, at the meeting of the Directors of the Society to be held in the Railway Institute, Devonshire Street, Sydney on Friday 27th September 1974, commencing on or about 6.45 pm, a special resolution to forfeit the shareholdings of the following members for breach of the Rules of the Society, namely, failure to pay Annual Management fees.

18. Adkins, J.	125. Best, E.	178. Bradshaw, G.
37. Craig, J.	209. Daniels, W.	217. Dunn, I.
174. French, R.	75. Holtham, D.	184. Hungerford, F.
72. Mackay, A.	219. Munn, G.	123. Richardson, D.
154. Scott, I.	53. Sheppeard, R.	38. Shewcroft, J.
181. Smith, G.	170. Underwood, P.	139. Watson, T.
173. Watts, A.		

If outstanding fees are paid, or share certificates returned for repurchase of shareholding, prior to the commencement of the above noted meeting, forfeiture will not be proceeded with.

LOFTUS, 1st August 1974. *M J. Giddey,* Secretary

SPER — Notice of Meetings

The next general meetings of the South Pacific Electric Railway Co-operative Society Limited will be held in the Railway Institute, Devonshire Street, Sydney on *Friday, 23rd August 1974* and *Friday, 25th October 1974.*

*MUSEUM Notes & News *

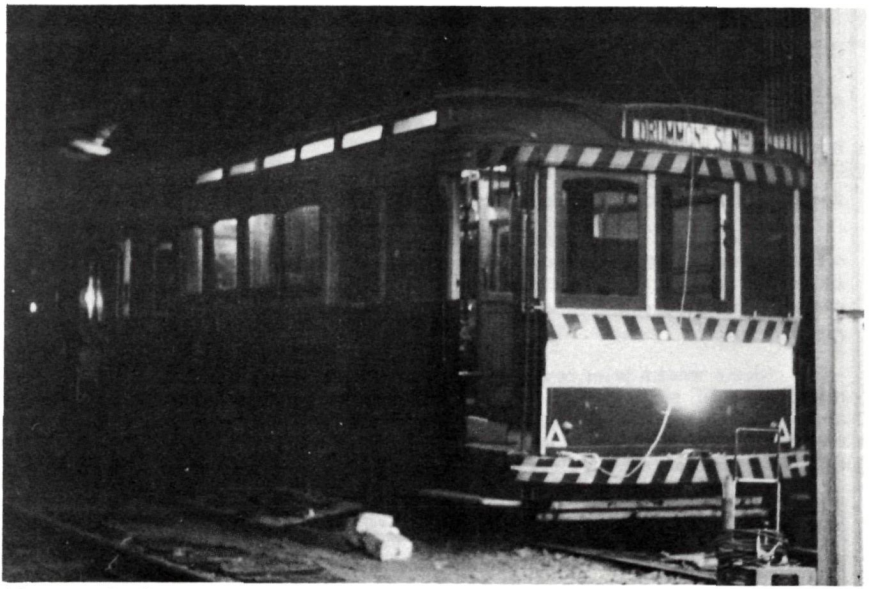
from BALLARAT

BALLARAT TRAMWAY PRESERVATION SOCIETY

Two major events have occurred since last issue.... The first is the arrival back in Ballarat of tram No.30. As the notes which should have expanded this statement were posted separately, the inevitable has happened. They did not arrive. So further details when they come to hand.

The second event took place late on Sunday afternoon, 14th July 1974 when 600 volts DC flowed through the overhead for the first time in nearly three years. Frank Hanrahan (Vice President, Ballarat) and Peter Rees plied themselves diligently to connect the 600. By 5 pm Frank was nearly ready to 'switch on'. While the above work was being carried out, tram No.14 was being fitted out with globes by Gavin Young and Andrew Hall. It was felt that it would be appropriate to select this tram for the first tests because it was the last car to be moved around in the S.E.C.'s old depot

At 5.05 pm, General Manager Richard Gilbert asked all present to gather round the switchboard area and, after a short summary of the hard work over the past three years, he invited Frank to step forward and connect the depot roads to the 'juice'. After some adjustments, the DC dial set at 600 volts, and this was marked by the viewing party with acclamation. As there were no electrical problems, everybody was then invited to step up to where No.14 was standing; with that, Gavin Young turned the light switch to *ON*, and the car was illuminated. After a few minutes, Gavin turned the compressor switch to 'on' and on hearing



After nearly three years; at 5.15 pm on Sunday 14th July, car No.14 feels 600 volts once more. The lighting tests were successful, as this picture shows.

—Bob Prentice

John Withers reverses his Land Rover into position in order to haul cars 27 and 40 out of the depot.... Soon these cars will be driven out under their own power! —Bob Prentice

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the pumping sound of the Westinghouse compressor, further cheering broke out. Gavin also tested the motorman's valve and, of course, the brakes. Our congratulations to Frank Hanrahan for a fine switchboard and ancilliary equipment. Subsequently, other cars have been tested for lighting and compressors, and all seems well!

It is anticipated that some weeks will pass before cars are notched up due to further works to the main feeder cable.

(TROLLEY WIRE joins with the executives and members of all the other enthusiast groups associated with this magazine in congratulating the Ballarat Tramway Preservation Society in achieving this milestone in their endeavours.)

OTHER NEWS

Some weeks prior to the above event, Noel Gipps and Bob Prentice electrically tested, per ohm meter, the motors on cars 14 and 27. Also, they checked controllers, circuit breakers, etc. Apart from one or two items that require attention they reported that the two cars are electrically sound. It is hoped that they will test the other cars in our fleet.

During Sunday 14th July, under Bill Kingsley's supervision, the welding instructor at the Ballarat School of Mines burnt holes in various sections of the track near rail joints, so that fish plates could be fitted; these were placed in position and bolted home by Graeme Jordan..

Four cars, Nos.26, 27, 38 and 40 were hauled out of the depot by John Withers assisted by his Land Rover. It was necessary for the cars to be moved, so

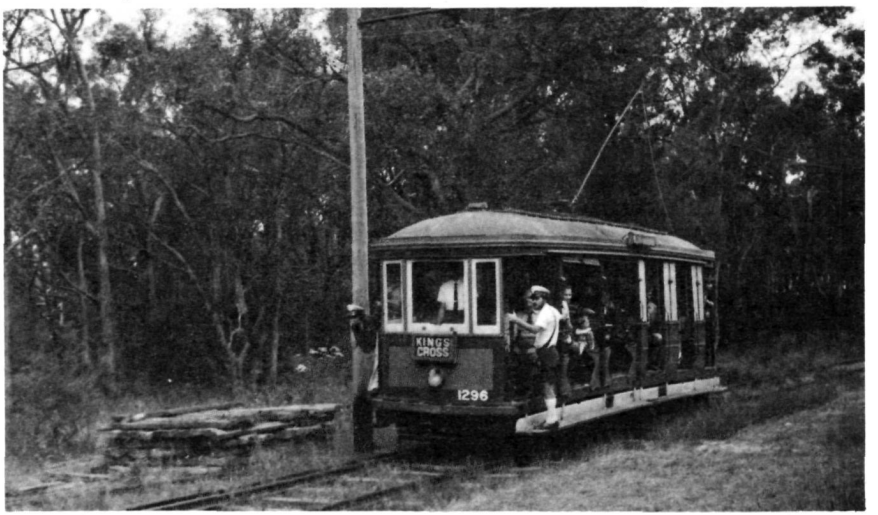
that Peter Rees could bond the depot track – an essential task to be completed before power could be turned on. Peter Winspur and Geoff Cargeeg supervised the movement of the cars.

from LOFTUS

SOUTH PACIFIC ELECTRIC RAILWAY

The severe storm which lashed Sydney on the night of Saturday 26th May, caused widespread damage. Many trees were uprooted or broken. The Loftus area received its share of damage and a large tree adjacent to the museum substation broke high up the trunk and the branches crashed down into the switchyard, fouling the lightning arrestors, damaging the fence and breaking the positive D.C. traction feeder. Mal McAulay went to the museum early on Sunday morning after working all night and checked the area for damage, then returned after breakfast, and with the aid of traffic staff cut up sufficient of the tree to clear the equipment in the switchyard and reconnected the feeder. Fortunately, due to the bad weather, there were no prospective passengers in the morning, while the power was restored by the time people began to trickle in.

Major overhaul and restoration work continues on the trams. This is mainly undertaken on Tuesday nights; weekend work is normally concentrated on routine maintenance and buildings and track. The floor of N 728 has been repainted and reslatted and undercoated. Gutter rails and the extended roof ends have also received attention and the paintwork will be touched up where necessary. This car is expected to be available for service at the end of August. Brisbane dropcentre car 295 has had all necessary woodwork completed and the exterior has been undercoated and masked ready for spray painting. Brisbane car 180 now carries replated hand grips complete with new leather straps. These are fitted along the longitudinal grab rails in the saloon. The straps and replating are the work of member Wayne Armitage. K 1296, in common with most other four wheel cross bench and combination cars in Sydney that survived the deffered maintenance during and after World War II, has become well known for its banana-like drooping appearance.



The banana shape frame of the veteran K class car 1296 is well in evidence as the car grinds its way uphill on Members Day - 1973. –Bob Harvey

Bill Parkinson recently undertook some remedial work on the underframe which has considerably straightened it. However, a major overhaul of running gear and and motors will need to be carried out before this car is returned to regular traffic operation.

At the beginning of August, 5 cars were rostered for regular Sunday operation, these being LP 154, Brisbane Centre Aisle car 180, O 1111, P 1497 and R 1740. Three cars are used each day; the roster providing for one 2 motor car and two 4 motor cars to be available to cover fluctuating passenger loading. Trevor Glenn has set up a comprehensive record card and inspection sheet system and regular maintenance has now settled into the desired routine.

Ten Years of Electric Operation

LP 154 was in service on Sunday 21st July 1974, in company with P 1497 and R 1740 and thus celebrated in an unremarked and routine way the tenth anniversary of the day in 1964 when it became the first electric tram to operate under power on a museum tramway in Australia. Built by Clyde Engineering in 1900 as an F class car, it was converted to the L class in 1910 and further rebuilt in a major conversion to an LP car in 1926. The first electric tram to be set aside for preservation in Australia, in 1950, it also inaugurated regular electric passenger operation at Loftus on Saturday 13th March 1965. As at 30th June 1974, LP 154 has operated 2,613 passenger carrying trips at Loftus.

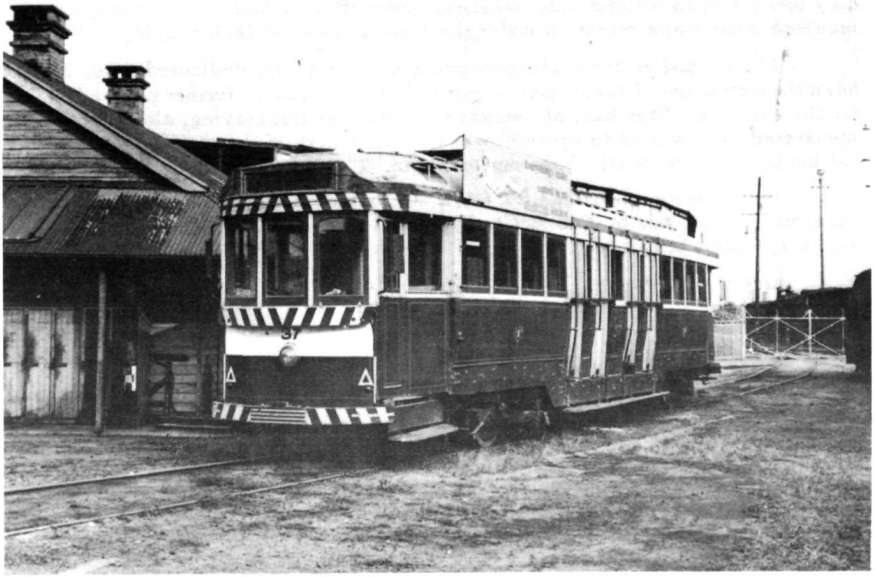
On Saturday 13th July 1974, some 25 members and their families from the N.S.W. Branch of the Museums Association of Australia visited the museum to inspect the progress of the undertaking over the last 10 years. The afternoon saw a number of special tram trips run on which operation of the cars, the tramway and the problems of site limitations were explained. The unhurried atmosphere of the visit gave ample time for the visitors to gain considerable insight into the operations of one of N.S.W.'s largest private museums.

Since the commencement of electric operation in 1964, 220,303 passengers have been carried and 12,501 trips operated (as at 31st March 1974). The average tram load was thus 17.6. During the Society's 1973/74 financial year, 32,294 passengers were carried on 1544 trips (20.9 average per trip). This total figure exceeds the previous highest which included the Bi-Centenary figures in 1970! Figures for the three months to 30/6/74 are:-

	No. of Passengers	No. of Trips	Average Load	
April	2893	156	18.5	
May	1732	91	19.0	
June	3109	142	21.9	
Total:	7734	389	19.8	average for the 3 months

Negotiations for a new site for the museum are at present stalled, The Picton scheme is being re-evaluated by the consultant and Campbelltown does not now appear to be a viable proposition. Approval in principle has been received for an alternate site in the Loftus area but final agreement is being held up pending the outcome of the negotiations for Picton and Campbelltown. The proposed expressway through the present site will be many years coming, if at all and although this site has severe limitations, it obviously will be occupied for many years to come. With this in mind, work has started on major repairs to the six bays of the main depot roof which were not previously reconstructed. Some re-sleepering has been carried out near the South terminus and a complete re-sleepering and ballasting of the southern end of the line will be undertaken.

The two tracks in the depot annexe and the four trams thereon are at present isolated from the main line and the other depot tracks. Work commenced in July to connect these two tracks to the mainline, the first stage now nearing completion being a headshunt in front of the substation. This work has been necessitated by the need for a general re-arrangement of the cars in the depot as the overhaul programme progresses. It had been hoped that a new workshop would



When visitors arrived at the NSW Rail Transport Museum Extravaganza at Enfield on 27/28th April 1974 they were met at the gate by Ballarat car 37, towed out of storage and still recognisable as a tram despite the lack of trolley poles, life-guards and destination blinds. —Bob Harvey

have been erected elsewhere before the present stage of the overhaul programme had been reached and this trackwork would not have been needed.

Results of Annual Election of Directors

The Annual General Meeting of the Society was held on Saturday 20th July 1974. As the result of the election for three directors, two of the retiring directors, Dick Clarke and Phil Parker were replaced by Mal McAulay and Bill Turnbull. The Board now comprises:

Peter Kahn *(Chairman)*
Michael Giddey, Laurence Gordon, Malcolm McAulay
David Rawlings, Victor Solomons & William Turnbull

The three executive officers have been re-appointed by the Board for a further twelve months. These are:

General Manager : David Rawlings
Secretary : Michael Giddey
Treasurer : Laurence Gordon

from PARRAMATTA

STEAM TRAM PRESERVATION SOCIETY

Work at Parramatta has centred recently on two main projects. In the first the veteran steam tram motor No.103 A, has been receiving attention to the crank bearings. The rods have been taken off to enable this. The enforced rest from

duty has not been without side benefits, however. The body of the motor has received some major attention under the capable hand of Jack Midgley.

The second activity occupying this small but very dedicated group has been the extension of their small depot building to provide further covered storage for the exhibits. This has, of course, disrupted the tracklaying, although the steam tram is now able to operate over the full length of the track – almost up to the backyard fence of Old Government House!

In this issue of *TROLLEY WIRE* we include a drawing of the KA car, thoughtfully supplied by Ken McCarthy, which could not accompany the article which appeared last June.

from WOLLONGONG

ILLAWARRA LIGHT RAILWAY MUSEUM SOCIETY

The return of fine weather has enabled more progress to be made on the Albion Park Museum site. By early July almost 800 ft of park rail fence had been erected around the initial lease boundary thus passing the half way mark, while 450 ft has been repainted. Local quarry firms have been most generous with donations of blue metal supplies and this has enabled the entry road into the site to be hard filled while the 125 ft length of permanent 2 ft gauge trackage already laid has been placed on a 6 inch thick gravel bed and then ballasted up to sleeper tops.

On Saturday 29th June, the work day was occupied with the loading and delivery of two 3 ft 6 in gauge locos, both Hunslets, one being a centre cab diesel haydraulic machine while the other is an end cab diesel mechanical unit. Both are carried on four wheels driven through a countershaft and external connecting rods. Accompanying these locos were 16 lengths of made-up, 45 lb track (with sleepers), two lengths of which were temporarily relaid at Albion Park on which to stand the locos. These items were surplus to the requirements of the Coal Cliff colliery, to whom we are grateful for these generous donations. Member Bob Hague purchased two further Hunslet diesel mechanical units from that source late last year and these are currently being restored and may operate at some future date at the Society's museum .

No sooner was the receipt problem of the 3 ft 6 in gauge machines solved when a load of 2 ft gauge equipment arrived at Albion Park on Wednesday 3rd July. This load contained 9 side tip hopper wagons and a Malcolm Moore four wheel V8 petrol loco. This unit, with the new side tips, make up a fine train representative of light industrial railway workings, but the current track length is now fully occupied with rolling stock! The I.L.R.M.S. thanks the Victorian *TROLLEY WIRE* reader who directed the Society to the location of these 2 ft gauge items in the S.E.C. of Victoria disposal depot. Member Bob Hague was quick to act and purchased these rolling stock pieces for use on the Society's railway, although they will remain his property.

Initial track ballasting has been carried out using the ex Scone side tip Hudson wagon and former Newnes skip 110, the soft nature of the ground in the museum area prevents, at this stage, the dumping of gravel straight from motor lorries at the railhead.

A small party of I.L.R.M.S. members inspected the 2 ft gauge electric

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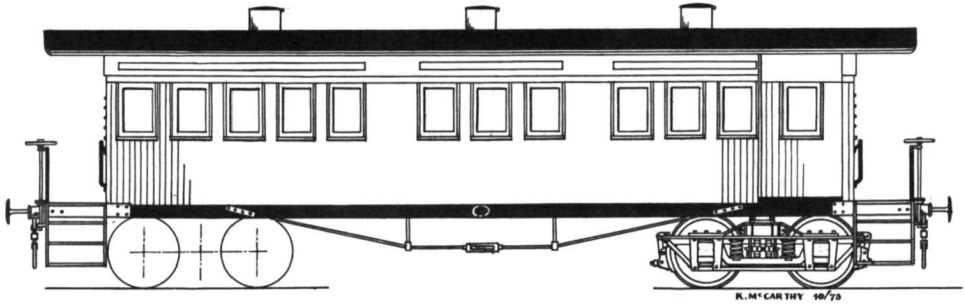
OPPOSITE PAGE: Before and After.....
LEFT: The string line marks the centreline of the first track to be laid on the Albion Park site of the future light railway of the I.L.R.M.S. RIGHT: The first track laid and ballasted. –Ken McCarthy


K.McCARTHY 10/73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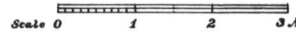
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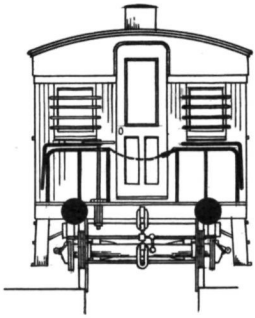
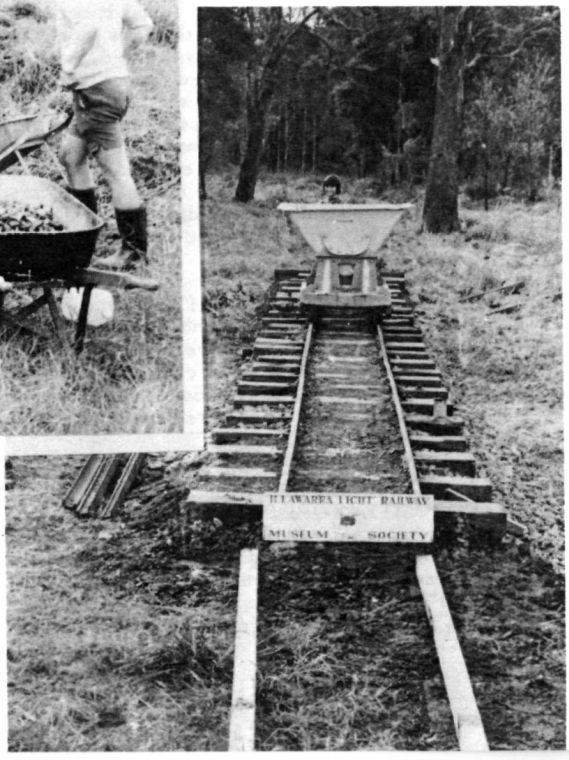



ILLAWARRA LIGHT RAILWAY
MUSEUM SOCIETY

railway at Illawong, near Lugarno, on Saturday 22nd June. This operation, employing a *Gemco* electric battery loco as motive power, was serving the M.W.S. & D.B. sewer main construction project in the Menai area of Sydney. A detailed account of this undertaking has been prepared as a separate article for this magazine.

from BYLANDS

TRAMWAY MUSEUM SOCIETY OF VICTORIA

DEPOT External work in recent weeks on the depot building has been confined to two areas. The first has been the cutting and fitting of the small sheets of corrugated iron along the top of the eastern wall. Approximately three quarters of the wall has been covered and, weather permitting, it is hoped to have the job finished by early August. The second task has been the sealing of the rear wall of the shed. In May, the girts were attached between the west corner and centre columns and corrugated iron fitted, reaching to the bottom of the roof truss. A pair of full height doors, from the now demolished Ballarat tram depot, were hung at the rear of the east road. It is planned to clad the remaining area, which forms the gable end of the building, with fibreglass sheeting so that the workshop area will obtain as much natural lighting as possible.

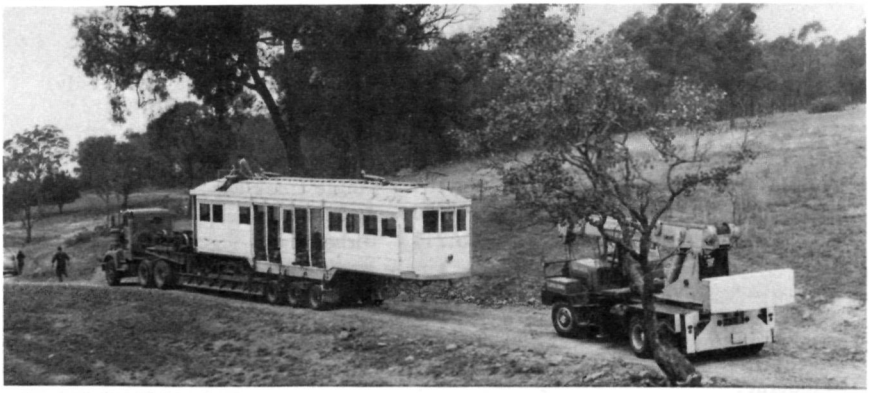
Internally, electric wiring has been continued and several large lamps have been hung from the centres of the roof trusses. Additional loads of scalpings have been delivered from a quarry, and the material spread down the centre walkway of the shed and across the front five metres of No.1 road, to sleeper height. This work improves the appearance of the Depot and allows easier access to the exhibits by the visiting public.

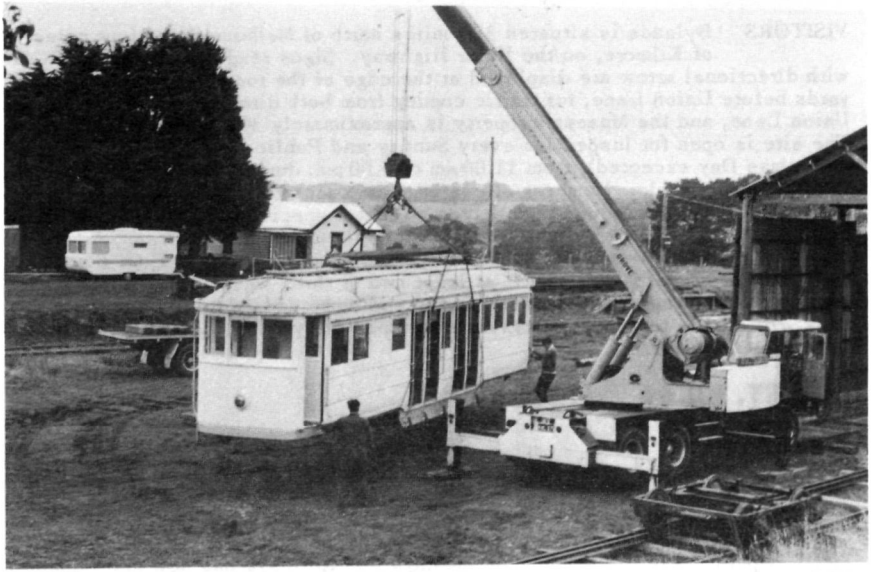
SITE Early last winter we found it necessary to dig a drain across the south end of the depot, with leads into it from adjacent to the east and west walls. As more roof and side iron was fixed, more water poured down the channels, and the 'main drain' was enlarged two or three times. By Christmas it was quite a sizable trench. To allow motor vehicle access along the east side of the shed, the drain was bridged by tossing four sleepers into the gap with the promise 'we must fix this before next winter'. Eventually the 'temporary expedient' sufficiently exasperated the Works Officer to cause a flurry of action to take place in mid-July, with the result that both the motor access road and a vehicular crossing into the back of No.2 shed road rapidly took shape. Heavy timbers have been used, and we trust that they will withstand the weight of semi-trailer trucks bringing more tramcars to the museum.

TRAMCARS The arrival of Victorian Railways tram No.34 in April brought to eight the number of trams stored under cover at Bylands Depot. T.M.S.V. members will be well aware that it was not until July 1973 that our first tramcars were placed under cover of the depot roof at Bylands. During these ten eventful months we have closed 'open storage sidings' at Bylands, Wantirna South and Yarrambat and transported four trams to the museum area. Our present fleet allocation is as follows:-

1. Bylands Depot – M.& M.T.B. No.1 – reciprocating grinder

OPPOSITE–*TOP: Brian Weedon rides atop No.34 to ease the overhanging tree branches aside as the tram sets out from open storage at Yarrambat.*
MIDDLE: The low loader has been driven away and No.34 is ready to be swung around to be placed on the standard gauge bogies. –Len Millar
BOTTOM: Over 50 lengths of 5" x 2" timber are laid on edge across two sleepers to finally give a good vehicular crossing over the southern drain.
–Keith Kings





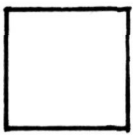
S.E.C. Ballarat No.17 – single truck car
S.E.C. Ballarat – single truck scrubber car
S.E.C. Geelong No.23 – Radiax truck car (body only)
V.R. No.34 – equal wheel bogie car
M.&M.T.B. No.467 – single truck car
M.&M.T.B. No.680 – single truck car

2. Malvern Depot – M.&M.T.B. No.164 – single truck car
M.&M.T.B. No.180 – Radiax truck car
M.&M.T.B. No.217 – Birney car
H.T.T. No.8 – single truck car

In addition, M.&M.T.B. bogie cable trailer body No.35 is stored on private property in the country. Auxiliary vehicles comprise M.&M.T.B. tower wagon No.3 and the 1937 McCormick Deering tractor at Bylands, and the 1939 Ford truck in Melbourne.

VISITORS Bylands is situated 32½ miles north of Melbourne and four miles south of Kilmore, on the Hume Highway. Signs reading *TRAMWAY MUSEUM* with directional arrow are displayed at the edge of the roadway approximately 100 yards before Union Lane, for traffic coming from both directions. Turn east into Union Lane, and the Museum property is approximately 300 yards on the north side. The site is open for inspection every Sunday and Public Holiday (Good Friday and Christmas Day excepted), from 11.00 am to 5.00 pm, during which hours a member is rostered as Guide. Members of contemporary societies and readers of *Trolley Wire* are asked to introduce themselves so that a special welcome may be accorded. Anyone visiting Melbourne who does not have their own private transport and who would like to visit Bylands is asked to write to the Secretary at P.O. Box 4916, Mail Exchange, Melbourne, 3001, at least two or three weeks beforehand, giving details of when they will be in Melbourne and name and address of accommodation. This will enable us to try and arrange transport for you, especially if you have but half a day to spare.

from ST. KILDA



AUSTRALIAN ELECTRIC TRANSPORT MUSEUM

Operation of the Museum on Sundays and Holidays has now settled into an established routine. Eight members are required for the operation, being a Despatcher, two motormen, two conductors, a bookseller, a ticket seller and a revenue officer. Between the official opening on 23rd March 1974 and 30th June 1974, 315 passenger runs were operated on the St. Kilda tramway. Mileages operated by the various cars from 22nd September 1973 (the date of erection of overhead from the Museum to Samphire Road) and 30th June 1974 were as follows:-

OPPOSITE – *TOP & MIDDLE*
After the terminal seat had been installed at St. Kilda, its roof was taken down by trailer and lifted into position by a contingent of members who arrived by special tram. –John Radcliffe

OPPOSITE – *BOTTOM*
Adelaide A class car No.1 waits at the Mangrove Loop at St. Kilda while Ballarat No.21 enters from the terminus. H1 class car No.381 has already passed through the loop and is striding off towards the Museum
–John Radcliffe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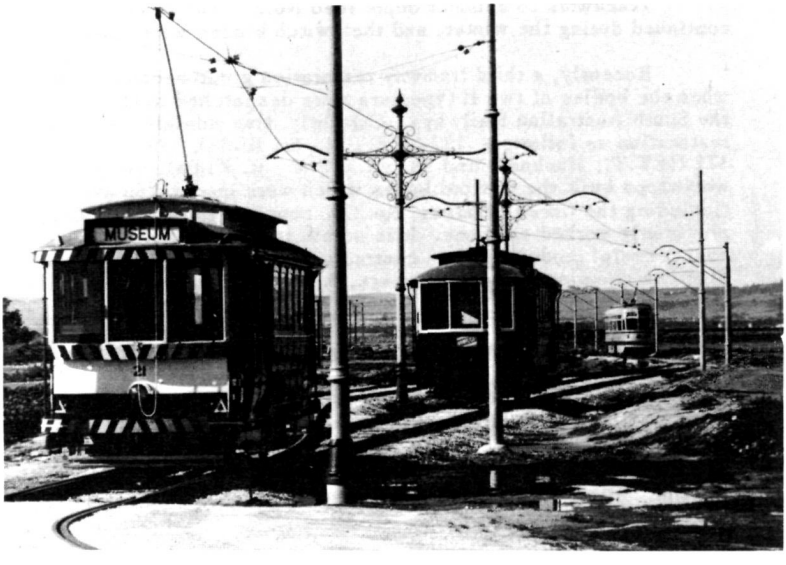

MUSEUM

CAR NUMBER	PASSENGER MILEAGE	NON-PASSENGER MILEAGE
1	133	177
21	125	107
34	123	209
111	178	135
282	175	101
381	12	107
6 cars – Total	746	836

Approximately 100 miles of running has been required to bring each car into operating condition and to train the platform staff. The higher non-passenger mileage of car No.1 is due to additional training in the operation of a handbrake car and the use of the car for ceremonial purposes. Car 34 was extensively used as a works car during the erection of the overhead. The open dropcentre, from which some seats had previously been removed by the S.E.C., proved convenient for carting tools and wire, while the long steps were used for transport of ladders.

Car 381 was brought into passenger traffic on 30th June 1974, and is preferentially used during wet cold winter weather when open cars are less popular with passengers. Work has commenced filling dents on the car, and it is intended to respray the silver finish later in the year.

The exterior varnishing of the paintwork on car 111 was completed in July.

The St. Kilda tram terminus was recently enhanced by the erection of a roofed tramway waiting seat made available by the Municipal Tramways Trust. These seats were traditionally placed on all tram routes at ends of section and termini, but have gradually been replaced by newer structures or have been removed entirely.

The South Australian Government Tourist Bureau annual 'Mystery Tour', held each year on the Queen's Birthday weekend, this year featured a visit to the Museum and a ride on the St. Kilda tramway.

Councillors, aldermen and local parliamentary representatives toured St. Kilda in Car 381 on 12th July 1974 as part of the annual inspection of the district conducted by the Corporation of the City of Salisbury.

Trackwork to connect depot road No.2 to the remainder of the fan has continued during the winter, and the switch blades were installed in July.

Recently, a third tramway restoration group became established in Adelaide when the bodies of two H type cars were despatched to the Islington workshops of the South Australian Railways. Currently, five Adelaide trams are undergoing restoration as follows:- 192 (A.E.T.M., St. Kilda), 358, 368 (S.A.R., Islington), 371 (M.T.T., Hackney) and 381 (A.E.T.M., St. Kilda). Although the Islington workshops built the Garford buses which were later taken over by the M.T.T., (including the *Green Goddess*, No.216, now preserved at St. Kilda) they have not previously worked on trams. It is noteworthy, however, that they were among the unsuccessful tenderers when contracts were let to build the F class cars in the nineteen-twenties. In earlier years, they constructed and maintained horsecars.

Car 54 in the final altered form of these cars. —R. Francis collection

PERTH C CLASS TRAMS

Perth was the first of the three principal cities of Western Australia to open an electric tramway. On 25th September 1899 the Perth Electric Tramways Ltd. commenced operation. In May 1912 the Government exercised its right to acquire the system and the P.E.T. fleet was entrusted to the Western Australian Government Railways. In anticipation of the takeover, the W.A.G.R. built eight single truck closed combination cars which became the C class, numbered 54 to 61. The trucks, however, were not immediately available and completion of the cars was delayed until the takeover; they entered service in 1913.

As built, the cars seated 36 passengers with the full load being 45. They proved unpopular with passengers and crew alike, and in an attempt to rectify this, doors were cut from the entrance gangways into the end compartments with a resultant reduction in the number of seats to 34. In 1929 doors were cut from the end compartments into the driver's compartments which by this time were fully enclosed. This alteration reduced the seating again – to 32. The eight cars were fitted with two 37 hp motors in Brill 21E trucks and were 30 ft 6 in long. All were scrapped in 1932.

HERE and THERE

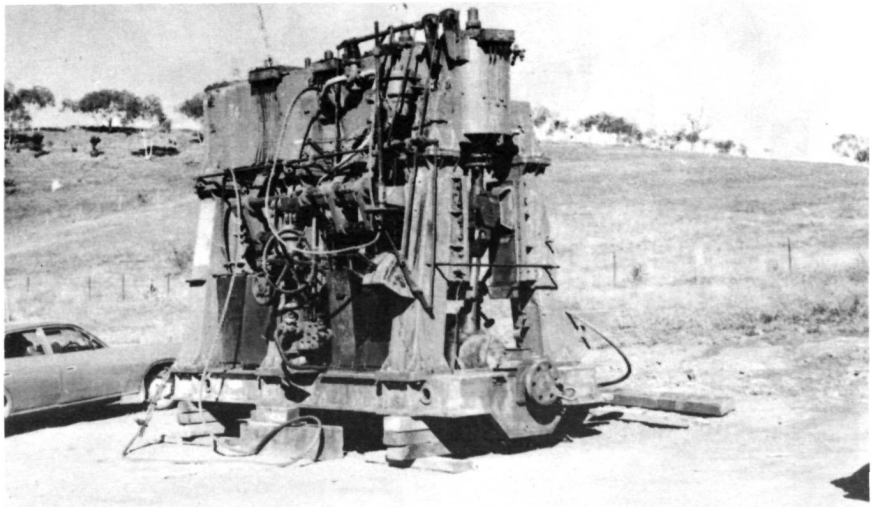
MARSDEN MUSEUM OF HISTORIC ENGINES

Goulburn, N.S.W. 2 ft gauge steam (last report – *TW Oct 1973*)

There have been some locomotive arrivals and departures from Goulburn.

DEPARTURES: since Christmas 1973

1. Fowler 0-4-0T No.16089 of 1923 ex Kiama, N.S.W.
2. Baldwin 4-6-0T Ex War Dept. 1916-17 ex Racecourse Mill, Qld.
3. Krauss 0-4-0T No.6927 of 1914 ex Corrimal, N.S.W., chassis only.



Steam engine from the S.S. Kara Kara – *see* TROLLEY WIRE–*October 1973.*
–Ken McCarthy

.....between late March and early May 1974

4. Fowler 0-6-2T No.4 of 1952	ex Bingera and Gin Gin Mills, Qld. *Ralf.*
5. Fowler 0-4-2T No.16341 of 1925	ex No.5, Tully Mill, Qld.

ARRIVALS:

1. Orenstein & Koppel 0-6-0T No.4241 of *circa* 1910	ex Great Boulder, Kalgoorlie, W.A
2. Maffai 0-6-0T No.3677 *circa* 1910	ex Plane Vreek Mill, Qld, boiler missing.
3. Perry 0-6-2T No.5643/51/1 of 1951	ex Bingers Mill, Qld. This is the second last 2ft gauge steam loco built by Perry Engineering of Adelaide.

This means that since the establishment of the Goulburn steam museum, a total of 16 locos have been received and 5 disposed, leaving 11 items on the property in mid May 1974.

Recent welcomed corrections and queries concerning the last Goulburn report in October 1973 have been received.

The Bauple Sugar Mill in Queensland closed during 1950, but the *TW* date of 1953 for the last year of use of the Krauss loco 6611 of 1912 could still be correct. The builder's number for the 0-6-2 Bundaberg Fowler, *Ralf*, is No.4 of 1952 (not No.5 as was reported due to a typing error). Concerning the War Dept. Baldwin 4-6-0 loco; this carried fleet number 5 of Racecourse Mill in lueensland where only one of this class operated. Our correspondent has suggested that this Baldwin carried No.*42155* but this does not correspond with War Department records and is several hundred out of sequence for the Baldwin numbers of the 1916-17 period so further research is needed on this item.

Builder's number 455 has been located on various parts of the former Mulgrave Mill Decauville 0-4-2 loco at Goulburn, verifying the October *TROLLEY WIRE* report, which shows earlier sources (which named this loco as 454) to be incorrect.

THE AMATEURS AND THE PROFESSIONALS

The transport museum scene, with associated artifacts, is becoming big business. Not necessarily in direct economics, but visitors to country museum projects are placing money into local tourist facilities such as restaurants, hotels, motels and clubs as well as service industries associated with the private motor car in which most family groups make the visit.

The transport museum business, which has grown from a few pioneer voluntary (amateur) undertakings is now becoming the domain of the big operators where financial return will be a major consideration and the ideals of the amateur hobby undertakings (education, preservation and self satisfaction of a job well done) will only be given importance to the degree that is necessary to ensure the the prime aim of financial return. Some of these professional enterprises are also receiving direct government financial aid which is not available to, and also not required by the established amateur groups in some states. We do not criticise these factors associated with the professional museums as they are able to open seven days a week and so cater for the school excursion and interstate holiday trade while the government financial aid will enable very decayed, but very interesting relics to be preserved by those professional groups, a task which would be beyond most amateur bodies.

We do criticise several aspects of the professional museum movement.

1. Many charge as much as the public will bear. For example, a family can spend several hours at an amateur venture where entry to the grounds and a guided tour of the exhibits are free and several rides will only amount to about one dollar for the entire group. Such activity in a professional venture could amount to almost ten times as much with very little extra to see.
2. At least one professional museum some time ago mentioned in its proposals (perhaps confidentially) that established amateur museum collections would be available if this new professional venture was established. Enquiries directed towards the amateur bodies concerned met this information with shocked surprise as at no time were they approached in this matter.
3. Some professionals are criticising the lack of efficiency in some amateur undertakings, this comment is aimed at lack of regularity in some passenger operations. Observations of many museum operations over the last decade indicates that both professional and amateur bodies alike have some trouble keeping to schedule during the busy periods when using steam traction although this is not a difficult matter with electric and internal combustion operation. The nature of steam operation with one engine in steam is the cause of this, not whether the museum is operated by professionals or amateurs.

Most readers will no doubt agree that there is room in the museum movement for both professionals *and* amateurs and no good will be served by one section of the craft cutting across the other. Whether the museum is a professional one or an amateur one does not make it successful *or otherwise*. Having visited many undertakings in both categries we find that there are "amateur professionals"

undertakings in both categories we find that there are "amateur professionals" as well as "professional amateurs".

—Ken McCarthy

LATE NEWS FROM THE T.M.S.V.

Phew! What a week. It never rains but it pours, according to the old saying, and late July seemed to prove the point. We were suddenly able to move the former S.E.C. Ballarat Tramways road roller from its storage near Ballarat to Bylands on Monday 29th July. With equal swiftness, our good hosts at Wantirna South (who stored cars 467 and 680 for many years until last September) suddenly concluded the protracted sale of their orchard. This meant that we had to quickly shift all

the cable tram rails and slot beams, points, boxes, etc., two quarter squares of 4' 8½"/5' 3" gauge tramway crossings and the two lengths of track on which 467 and 680 reposed for many years. Apart from this, a couple of minor urgent jobs had to be dealt with concurrently. Further details in the next report.

– MUSEUM DIRECTORY –

SYDNEY TRAMWAY MUSEUM, Princes Highway, Loftus.
(South Pacific Electric Railway Co-operative Society Limited)
Tram rides: Sundays and most Public Holidays – 10.30 am to 5.00 pm.
Correspondence to: The Secretary,
Box 103, G.P.O., Sydney , N.S.W. 2001

AUSTRALIAN ELECTRIC TRANSPORT MUSEUM (SA) INC.
St. Kilda, S.A.
Tram rides, static display of trams, trolley buses, per-way equipment, photos, etc. 2.00 to 5.00 pm Sundays and Public Holidays (Good Friday and Christmas Day excepted).
Correspondence to: The Secretary,
Box 2012, G.P.O., Adelaide, S.A. 5001

WESTERN AUSTRALIAN TRANSPORT MUSEUM (INC)
Bullens Lions Park, Wanneroo, W.A.
Correspondence to: The Secretary,
P.O. Box 33, Maylands, W.A. 6060

BALLARAT TOURIST TRAMWAY, Ballarat Botanic Gardens,
Wendouree Parade, Ballarat.
(Ballarat Tramway Preservation Society Limited)
Tramway Museum: Saturdays, Sundays and Public holidays – 12.00 noon to 4.00 pm.
Correspondence to: The Secretary,
P.O. Box 632, Ballarat, VIC, 3350

ILLAWARRA LIGHT RAILWAY MUSEUM SOCIETY
(Albion Park museum site to open about December 1974)
Inspection of exhibits by arrangement (phone Wollongong 71 3707)
Correspondence to: The Honorary Secretary
P.O. Box 1036, Wollongong, N.S.W. 2500

STEAM TRAM PRESERVATION SOCIETY, Parramatta Park
Tram Rides: Third Sunday of each month – 1.30 to 4.45 pm
Correspondence to: The Secretary
Box 55, P.O., Round Corner, N.S.W. 2154

VICTORIA'S TRAMWAY MUSEUM, Union Lane, Bylands, Victoria.
(Tramway Museum Society of Victoria Limited)
Museum site: trams, exhibits and photo displays etc. 11.00 am to 5.00 pm Sundays and most Public holidays.
Correspondence to: The Secretary,
Box 4916, Mail Exchange, Melbourne, VIC. 3001

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ALL CORRESPONDENCE concerning *TROLLEY WIRE* should be addressed to The Editors, Trolley Wire, P.O. Box 103, Sutherland, N.S.W. 2232.

VALE – RITCHIE STREET DEPOT

THE LARGEST relic of the Kogarah trolleybus system has gone. On a recent visit to Sans Souci one of the *TROLLEY WIRE* staff drove down the side street for a sentimental look at the building only to find a neatly spread layer of rubble – the mortal remains of the Ritchie Street bus shed.

During the early 1930's the trolleybus craze had swept Australia. In Sydney the result was the experimental Wylde Street–City line, while the trolleybus was chosen as a suitable replacement for the last Government steam tramway, that from Kogarah to Sans Souci. The trolleybus service took over from the steam trams on 3rd July 1937.

To house the 21 double deck buses being built for the line, a four road brick depot building was constructed on a building allotment on the corner of Rocky Point Road and Ritchie Street at Ramsgate. The buses turned off the main road into Ritchie Street from where they gained access to the rear of the depot. Buses left from a gateway in Rocky Point Road. Five buses could be accommodated under cover on each road, while provision was made for routine maintenance, major repairs requiring the bus to be towed to the Randwick Tramway Workshops.

Some nine months after the closure of the Wylde Street line in April 1949, the two remaining double deck buses and the two single deckers from that line were transferred to Ritchie Street. These buses survived until the early 1950's. The two double deckers and single deck No.2 were offered for sale in December 1956.

In line with the general closures of the tramway system in the 1950's, the Kogarah trolleybus system was replaced by diesel buses from 30th August 1959. The trolleybuses were removed from the depot in November and sold. The depot remained out of use for some years. In the 1960's, the area immediately in front of the building was sold and on it was built a motel. The trolleybus shed was used for a time to store diesel bus chasses until required by the bodybuilders.

Now, virtually all that remains of the Sydney trolleybus era is single deck bus No.1, preserved by the Museum of Applied Arts and Sciences.