

TROLLEY WIRE

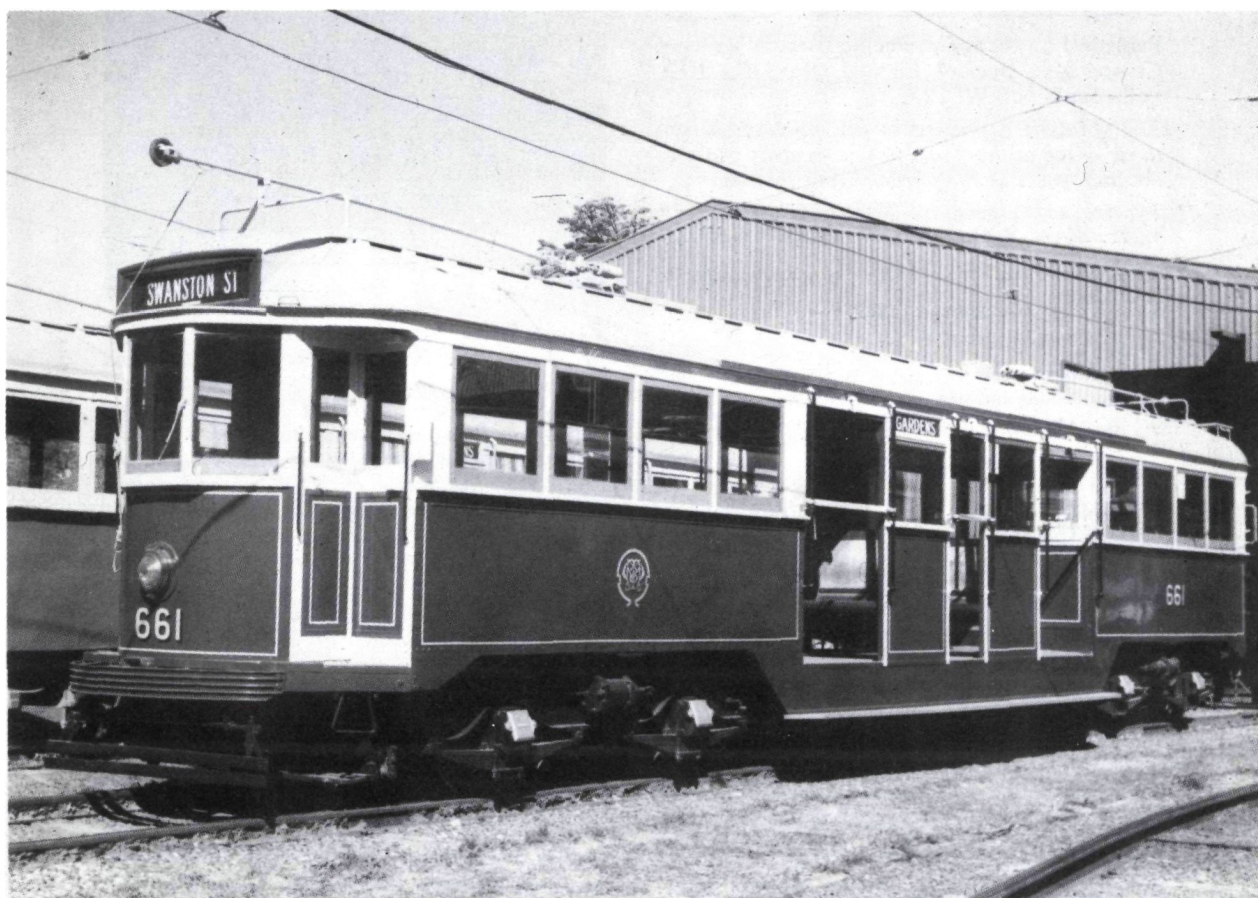
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INSIDE — 150 YEARS OF STREET RAILWAYS

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*Two eight-car double-deck interurbans inaugu-
rated electric train services between Sydney and
Newcastle on 3 June, 1984. The leading four cars
of the first train consisted of the first cars
delivered of an order for another eighty double-
deck interurban carriages. The cars carry the
State Rail Authority of NSW revised colour
scheme on the driving ends.* BOB MERCHANT

FRONT COVER:

*The Ballarat Tramway Preservation Society's ex-Melbourne W3 661 outside
the depot extension one week after entering service in its new chocolate and
cream colour scheme. This is the first car to represent the Society's revised
policy of depicting some of the fleet in various former tramway liveries.*

WILLIAM F. SCOTT

BACK PAGE:

*No, it's not the Toonerville Trolley it's ex-Adelaide D type 192 crossing the
lake section of track on the Australian Electric Transport Museums' St. Kilda
Tramway.*

JOHN RADCLIFFE

SESQUICENTENNIAL OF THE STREET RAILWAY 1832-1982

By John R. Stevens

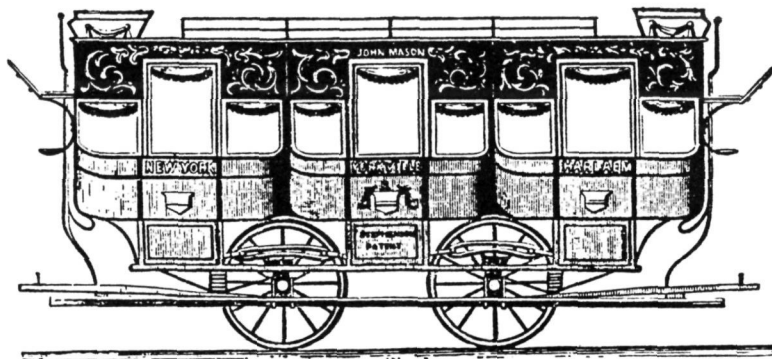
One hundred and fifty-two years ago, on 14 November, 1832, the first streetcar in the world ran in New York City. The partly double-track line on which it ran was laid along the Bowery and Fourth Avenue for a mile, from Prince to 14th Street. Passenger-carrying railways of any sort were in their infancy at that time. The omnibus had only been introduced to New York in the Spring of the previous year, and the first omnibus of all had run in London as recently as 1829. The concept of an urban railway was a striking innovation. The track was laid flush with the common road surface, and the street railway shared the road with free-wheel and equestrian traffic. Like the pioneer cars of North America's first railways, the first streetcars were horse drawn.

The concept of a street railway is credited to John Mason (1774-1839), one of the founders and second president of the Chemical Bank, who envisioned rail-borne cars as an improvement both in comfort and speed over the omnibus. The name of the operation was the New York and Harlaem Rail Road Company which received a charter in April, 1831 to build a double track line on Fourth Avenue, north from 23rd Street to the Harlem River. In April of 1832 the charter was amended to permit construction of track south of 23rd Street. In spite of some opposition, the new railway was well received, and by June 1833 was running as far north as the Murray Hill cutting (made into a

tunnel in 1852) between 33rd and 42nd Streets. By 1834 the cars were running to Yorkville, at 84th Street. The Harlem River was reached in 1837 and, at the same time, the line was extended south to Walker Street. The next year it was extended south again via Broome and Center Streets to the Post Office adjacent to the City Hall. The northern part of the line became the means of access to New York City for railroad lines from upstate New York and New England. The Park Avenue line into Grand Central Terminal is the survivor of the New York and Harlaem.

The track construction first used was very substantial. Granite stringers were set flush with the road surface and supported on stone piers. The flanged car wheels ran on iron strap rails securely bolted to the granite. A channel was cut into the granite stringers, inside the iron rails, for the flanges to run in. This rigid construction caused the cars to run with considerable noise. North of 23rd Street the rails were laid on timber stringers supported on cross ties. Eventually the lower end of the line was rebuilt in this manner. Strap rails on wooden stringers was the standard streetcar track construction through the period of horse-drawn cars.

New York's first streetcars, as well as its first omnibus, were built by a young coachbuilder named John Stephenson (1809-1893).



A sketch of the 'John Mason' type horse trams built by John Stephenson in 1832. His firm became the leading street railway builder for most of the 19th century.

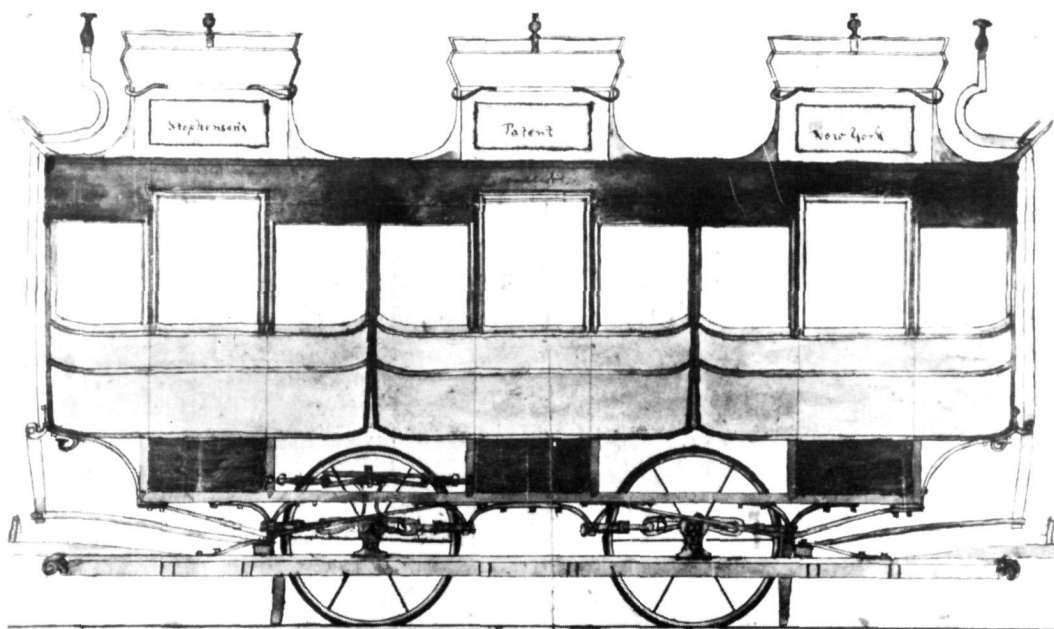
The two original streetcars were designed after the style of the standard English railway carriage of the time and one carried the name 'John Mason' in honour of the NY&H president. In appearance they were like three coach bodies attached to one another and carried on a common underframe. They ran on four large iron wheels. Cars of this type were used on the Camden and Amboy Railroad where they were horse-drawn prior to the introduction of steam locomotives, of which the famous 'John Bull' was the first.

John Stephenson made an improvement of his own to the design of the 'John Mason' type cars for which he was issued a patent. To reduce the step-height to the passenger compartments, he arranged the wheels to extend above the floor level under the seats. The patent for this design was signed by President Andrew Jackson and is preserved at New York University. The cars seated thirty people inside — ten in each compartment, and ten in the end seats on the roof, a total of forty passengers. The second order placed with Stephenson was for three cars, named 'President', 'Mentor' and 'Forget-me-not', and these had four additional seats on the roof which raised the capacity to sixty. These roof seats were protected by a canvas canopy.

As early as 1834 a steam engine was put into service, but this was destroyed by a boiler explosion. Locomotives were not used again until

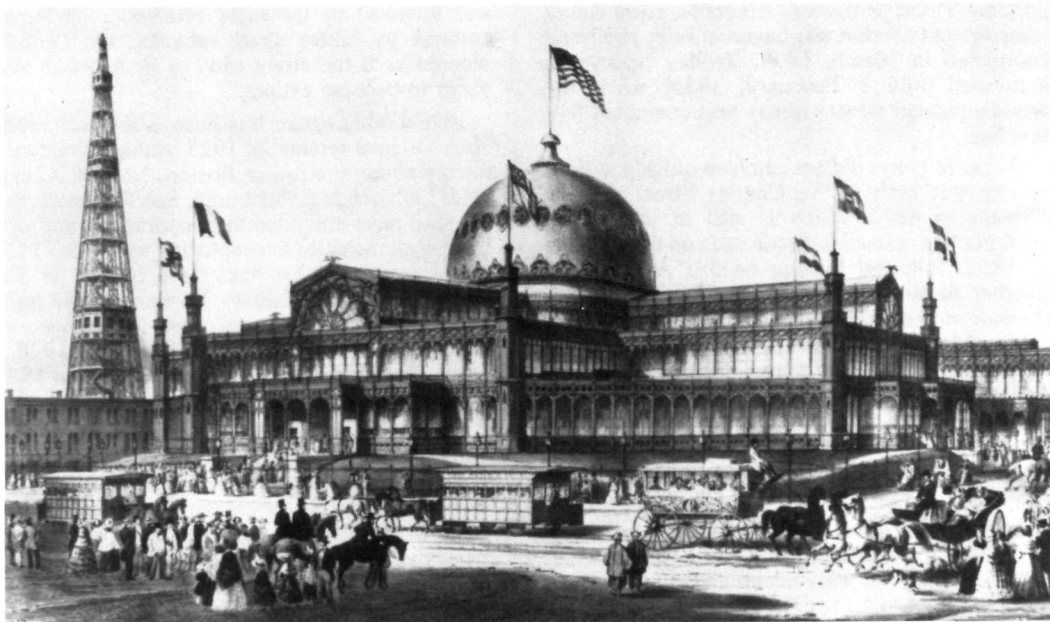
1837, when the 'Geo. Washington' entered service on the line north of 27th Street. By 1840 there were six steam engines on the roster but they were never allowed south of 14th Street and eventually were restricted to the north of 33rd Street. A roundhouse was located on the west side of 4th Avenue between 32nd and 33rd Streets. The car house was on the east side of 4th Avenue in the same block. A station was built in the block between 26th and 27th Streets, and Madison and 4th Avenues. The eight-wheeled "steam cars" were horse-drawn from 33rd Street down to the station. The "city cars", as the streetcars were called, provided all service south of 26th Street. These evolved fairly rapidly from the 'John Mason' type to a four-wheeled version of the standard American railroad passenger car. This design had end platforms with steps on the sides, sheltered with hoods that were an extension of the car roof. Each end bulkhead had a sliding door and within the car body there were facing "side seats". Among the rolling stock listed in 1840 there was one remaining "three coach body" car and twenty "square five-minute" cars.

In 1859 the southern limit for steam operation was fixed at 42nd Street while in 1863 the speed limit south of 14th Street was set at five miles per hour. Storage battery cars were tested unsuccessfully south of 14th Street for four months in 1890-91. On 1 July, 1896 the horsecar lines of the NY & H were leased for 999 years to the Metro-

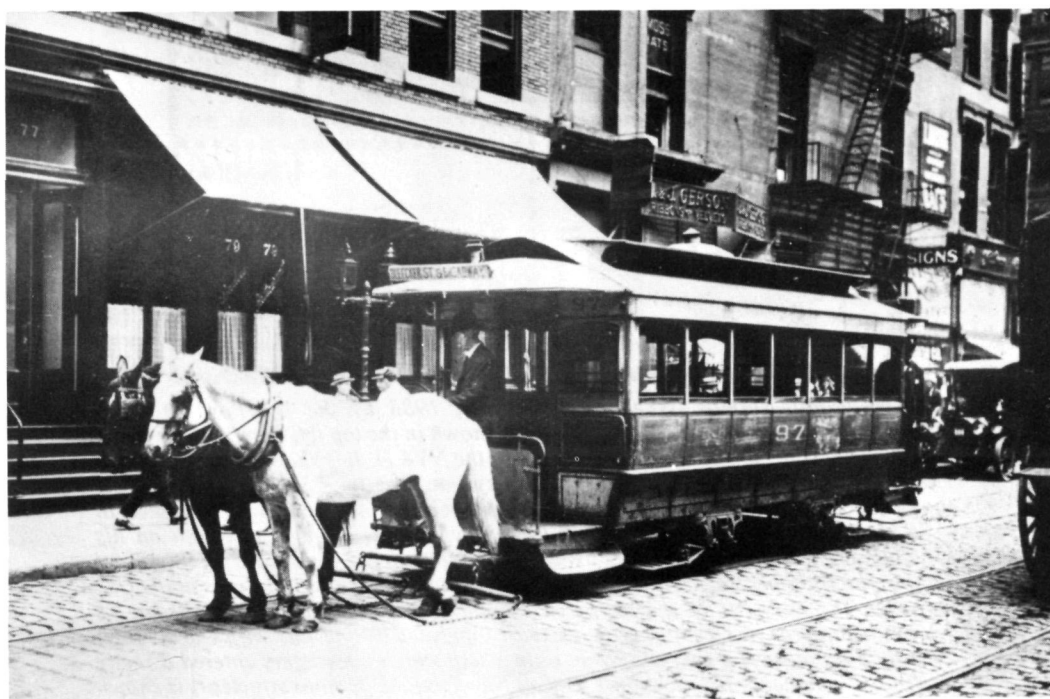


A patent drawing of the horse tram 'President' by John Stephenson in 1833. Three streetcars were constructed in the second order and these were named 'Mentor', 'Forget-me-not' and 'President'.

NEW YORK UNIVERSITY



An old lithograph of New York's Crystal Palace showing horse trams on Sixth Avenue in 1853.



The last horse tram to run in New York — 26 July, 1917. The car is a Stephenson-built 14-foot body type and is similar to Melbourne cable trailers.

politan Street Railway. Electrification using underground conduit was begun in July, 1897 and completed in March, 1898. Trolley operations continued until 1 February, 1935, when the world's pioneer street railway was converted to a bus line.

Street railways did not catch on quickly at first. A line was built on St. Charles Street in New Orleans in 1835 which is still in use today. Another line opened in Manhattan on 6th Avenue in 1852, followed by one on 3rd Avenue and another in Brooklyn in 1854, then one on 8th Avenue in 1855. Horsecars appeared in Cambridge, Massachusetts in 1856 and in Philadelphia in 1858. By 1859 Baltimore, Chicago, Cincinnati and Pittsburgh had them too. Most cities built lines in the 1860s and many large towns ran horsecars in the 1870s. After 1888 the changeover to electric traction caused a massive proliferation of the street railway.

In America street railways peaked just after World War 1. They declined in importance, slowly at first, but were eventually routed by the automobile. A brief respite during World War 2

was followed by the rapid conversion of transit systems to rubber tired vehicles. By 1960 it seemed as if the street railway in America was about to become extinct.

Remarkably, there has been a revival. While New Orleans retains its 1923 vintage streetcars, the remaining systems in Boston, Newark, Cleveland, Philadelphia, Pittsburgh, San Francisco and Toronto have upgraded their operations and new Light Rail Vehicles are replacing well-worn PCC type streetcars. New lines have opened in San Diego, Edmonton, Calgary, Portland and Buffalo. Several cities have also built lines for vintage cars to run on. The first of these was Detroit in 1976, a similar operation commenced in Seattle in 1982 and two routes are planned for San Francisco.

The streetcar has never lost its importance in many European cities, and the USSR has the largest number of streetcars in use. In America the "street railway" is now enjoying a modest revival. With a world-wide need to conserve energy resources, the power efficient electric tramcar is making a comeback — and much of the streetcar's history is yet to be told.



A block of four stamps issued on 8 October, 1983 by the US Post Office to commemorate early US streetcars. The tram shown in the top left corner is one of the two 'John Mason' cars built by Stephenson for the NY&H. It is shown in a blue livery. The world's first all-electric street railway system was the 15 mile Van Depoele equipped Capital City Street Railway in Montgomery, Alabama which opened in 1886. Initially, Van Depoele used a trolley system for current collection on his Montgomery installation and cars using this equipment are illustrated on the stamp at top right. Sulphur Rock, Arkansas probably operated the last horse cars in the US. However, the horsecar in the stamp at bottom left is not a true 'Bobtail' car. A "Bobtail" horsecar was a small vehicle usually operated by one man with one horse. It initially did not have a rear platform, only a step which passengers entered directly into the saloon, hence the nickname. One of New Orleans' famous streetcars is shown on the remaining stamp. These handsome cars were introduced in 1923 and are still running in the Louisiana city today. The car is shown in its present condition with pressed metal doors and rubber-mounted standee windows.

R. MERCHANT COLLECTION

THE NUMBERS GAME

By Dave Macartney

One of the items acquired by the BTPS after the closure of the Ballarat system in 1971 was the progressive record of mileages run by the cars. These were complete for most of the period from 1952 to 1971, and on closer examination proved to be most revealing. The daily mileage of each car was recorded on a card covering one week, then the total was entered on an octavo sheet which detailed weekly mileage and total since 31-5-31. The individual cards were disposed of, but the weekly sheets were kept by the Traffic Inspector, and a subsidiary list of totals compiled from them by the Depot Foreman, who was responsible for maintaining the cars.

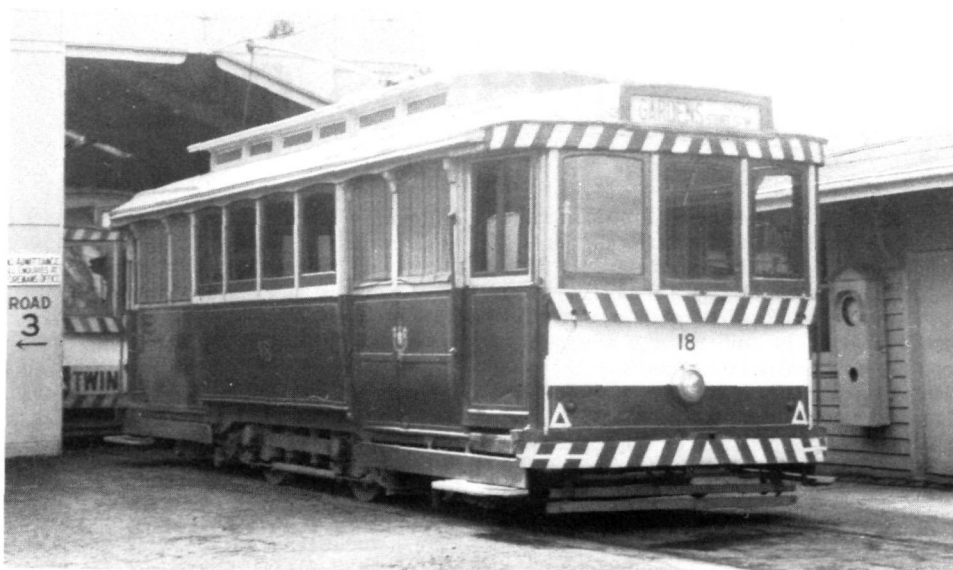
The weakness of this system is that it does not allow mistakes in addition to show unless the figures are regularly audited. An error made thirty years earlier in adding a weekly mileage to the total will be perpetuated. It was decided to check the

surviving records simply for arithmetical errors. The figures were kept with commendable accuracy by Inspector Peter Hugo for many years until his retirement in mid 1956; then followed a period during which a number of people had a go at the addition at various times, and accuracy started to suffer. During this period a number of errors appeared, most of them quite minor, but a few worthy of note, and one most significant. At the end, the majority of cars required corrections of less than a thousand miles, though nine cars were out by amounts from 1,003 to 4,808 miles. The main offender, however, turned out to be No. 27, which showed an error of no less than 98,505 miles. The bulk of this was a 100,000 mile error in March 1957, when 27's total was transposed to the next sheet as 769,935 miles instead of 669,935. The car before, 26, had just passed the 700,000 mile mark, which probably caused the slip of the pen.



Cars 12 and 18 arrive simultaneously at the corner of Sturt and Drummond Streets (as does car 11 lumbering up behind the photographer) on 4 August, 1968.

DAVE MACARTNEY



Car 18 stands outside the depot on 4 August, 1968.

DAVE MACARTNEY

The error went undetected until October 1958, eighteen months later, when it was spotted by someone, and each of the previous sheets amended. However, three months later, in January 1958, the correction was corrected, the error returned, and the mileage of 27 was 100,000 high for the rest of its days. During 1968, 27 received a great deal of publicity as the first car to run one million miles in Ballarat, though at the time it was, in fact, just passing the 900,000 mile mark!

A visit to Arthur Maxwell, the last SEC Inspector at Ballarat, seemed in order. Arthur had compiled many of the mileage figures himself, and was able to confirm that the figures were never audited or checked in any way. In fact, he recalled having been carpeted by the management for making a correction to the figures once, and told to leave them alone in future. Could this have been the 27 error?

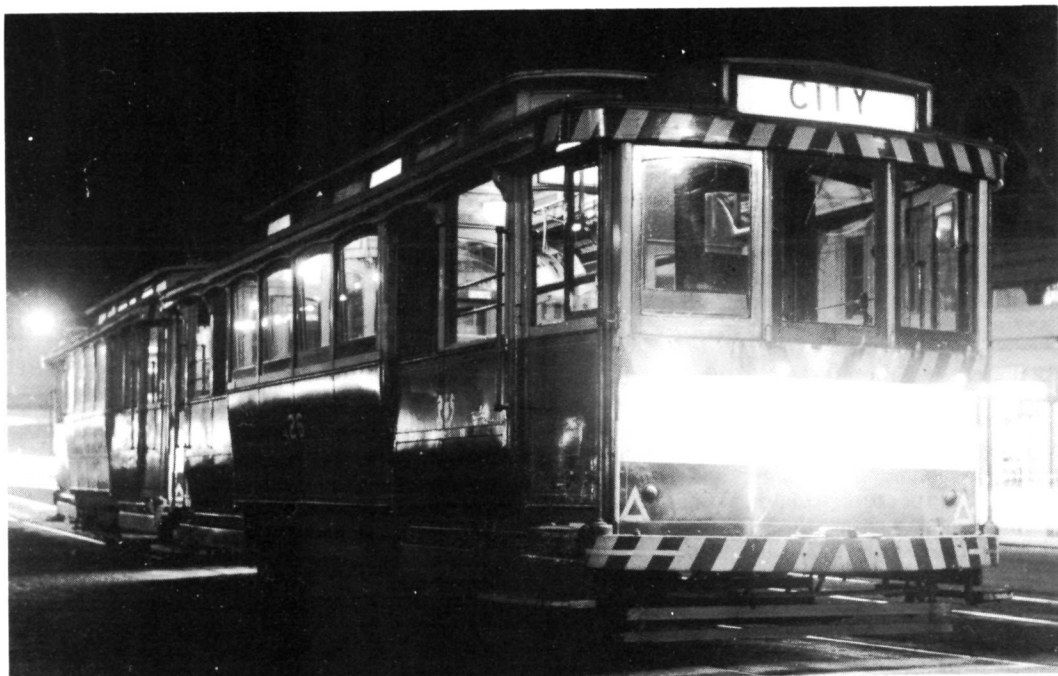
Further confirmation was sought by comparing 27 with its contemporaries. The five cars, 24 to 28 arrived in Ballarat in 1930, and followed parallel careers. By the beginning of 1953, 25 had the highest mileage of the group at 613,891, with 28 at 607,545; 26 at 588,497; 27 at 575,863 and 24 at 563,189. Of the group, 24 was the first to go; in May 1954 it ran away down Sturt Street hill, and ended up in the Saloon Bar of the Bucks Head Hotel, never to run again. 25 was transferred to Bendigo in October 1960. Meanwhile, in November 1954, 27 had one end torn out, and didn't run again for six months. During 1959 and

1960, the same car was out of service for some months for a variety of reasons, which would seem to eliminate any chance of its being the highest mileage car, as 26 and 28 were steadily logging up miles through these years.

Having corrected the mathematics of the mileage records, another problem emerged. The individual card system was abandoned after July 1970, and totals for all single truck or bogie cars were calculated for the entire month, then divided by the number of cars running. Thus in September 1970, for instance, each single trucker is credited with 1,679 miles, and each bogie with 1431, with one or two adjustments for cars which ran only part of the month. Worse was to follow; from March 1971 to the closure in September no records of any sort were kept.

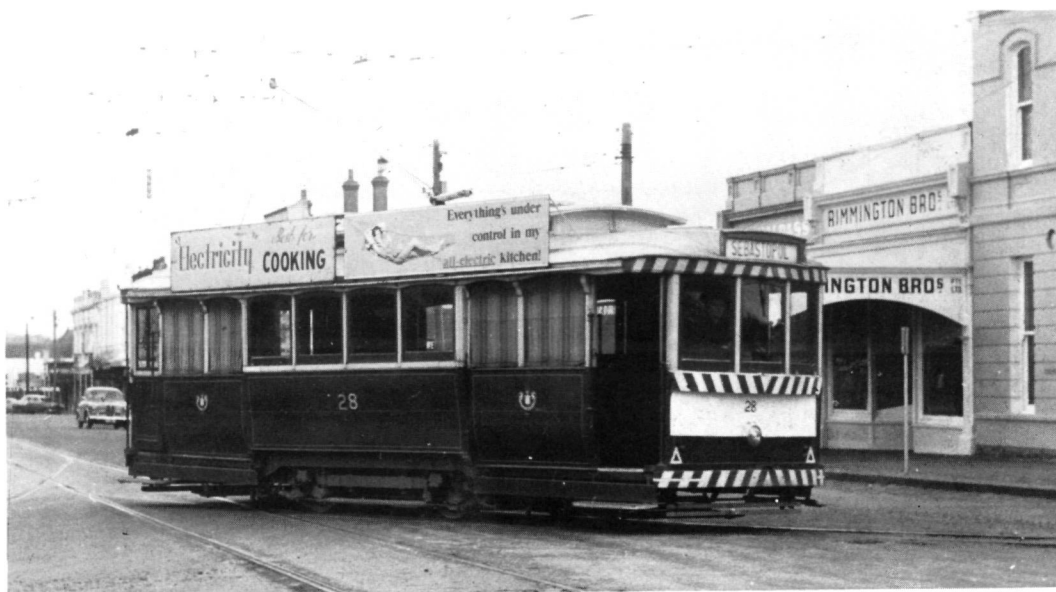
In order to arrive at some sort of total, it was necessary to estimate mileages for those last six months. These were calculated at 1,600 miles per month for single truckers and 1,300 for bogies, which seems to be about average for the latter days. Allowance was made for those cars known to have been little used at the finish, as well as for the gradual closure of the system over the last month. Also required was an estimate for the cars which ran before 31-5-31, when records commenced. This only affected 24 to 28, and was estimated at 2,000 miles per month.

Another SEC trick of the trade was not to carry figures forward if a car was re-numbered, so No. 17



The two million-milers, cars 26 and 28, stand at city loop in Sturt Street on the evening of 23 December, 1967.

DAVE MACARTNEY



Sebastopol bound, car 28 swings from Sturt Street into Drummond Street on 4 August, 1968.

DAVE MACARTNEY

had to be estimated at 2,000 miles per month for its first four years, while it carried No. 29. The postwar renumberings were documented; for instance, 15 ran 256,200 miles, then was renumbered 36 and started again from zero. Its total includes the mileage run under both numbers.

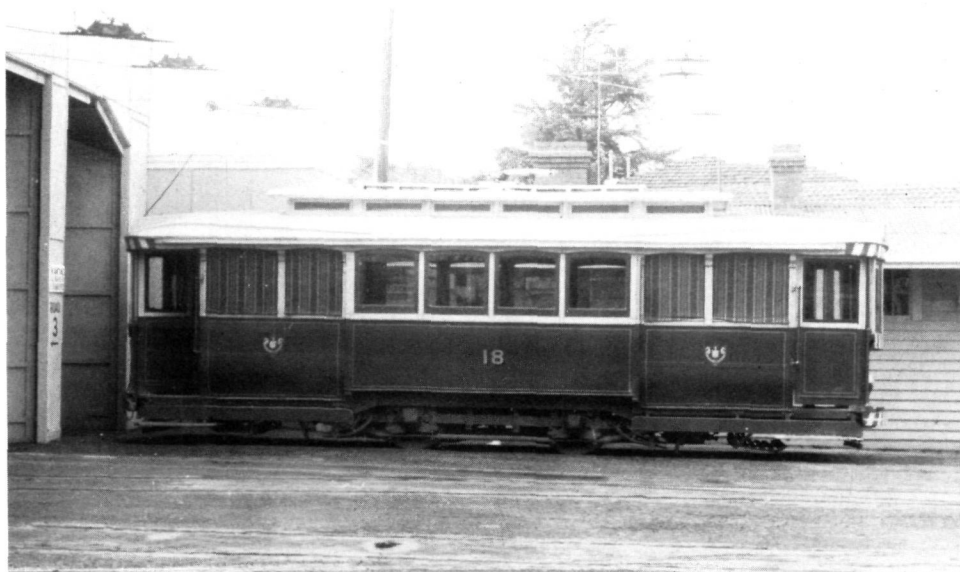
The figures shown, therefore, represent the actual mileages compiled by the SEC over forty years, corrected for errors of addition, and with estimated mileages for the periods not covered by the SEC. While these figures are not totally accurate to the last mile, they are probably as accurate as can now be obtained.

If there is a moral to all of this, it is that the revered "Official Figures" so beloved of historians are often compiled in a hurry by people who feel they have more important things to do, such as actually running a tramway, and without the benefit of the pocket calculator. While the methods seem a little slap-dash to the enthusiast, they served the purposes of the SEC adequately, and were never compiled with any thought of ultimate preservation.

As a footnote, the much-publicized 27 finally reached its millionth mile on 27th December, 1983, with Gavin Young at the controls, thus joining 26 and 28 as the only three cars to have run a million miles in Ballarat — so far.

Ballarat Mileages at time of Closure

Car	Period of Service	Miles Run
11	12/35 to 8/71	806,745
12	1/36 to 8/71	831,513
13	4/36 to 8/71	798,071
14	5/36 to 9/71	822,523
16	8/31 to —/52	560,824
17	7/31 to 9/71	932,102
18	7/31 to 9/71	748,841
19	7/31 to 10/60	750,938
20	7/31 to 9/70	957,995
21	12/37 to 9/71	804,074
24	2/30 to 5/54	630,235
25	5/30 to 10/60	806,391
26	6/30 to 9/71	1,023,121
27	6/30 to 9/71	987,283
28	6/30 to 4/71	1,032,341
30	8/35 to 9/71	929,640
31	8/35 to 8/71	930,305
32	8/35 to 9/71	954,953
33	8/35 to 8/71	939,260
34	1/47 to 9/71	546,731
35	2/47 to 9/71	529,524
36	10/45 to 8/71	548,900
37(1)	10/45 to 5/54	281,426
37(2)	7/61 to 9/71	147,978
38	—/51 to 9/71	347,507
39	—/51 to 9/71	375,981
40	—/51 to 9/71	376,387
41	7/56 to 9/71	274,172
42	8/56 to 9/71	245,015
43	11/56 to 9/71	252,634



A side view of No. 18 at the depot in August, 1968. This car was built by Duncan & Fraser in 1913 for the Prahran & Malvern Tramways Trust.

DAVE MACARTNEY

HERITAGE WEEK AT PARRAMATTA PARK

By Peter Stock

As a contribution to Heritage Week the Steam Tram & Railway Preservation Society was to operate its steam tram on Sunday 8 and 15 April, and for an added bonus the electric tram boys from Loftus were coming with two double-decker buses. It was planned that the 'real' trams would bring down visitors and patrons from Old Government House down the tramway and into the buses for a spin around the Westmead circuit.

Alas, the elements on 8 April turned nasty, with a dismal, grey and wet day. (It should be noted that the ducks were seen jubilantly dancing on the sodden slopes of the Park.) The buses arrived on time and loco 1022 was steaming to go after being readied by the two Ronnies and their apprentices throughout the night. The other scheduled festivities organised for other parts of the Park were abandoned until the following Sunday. With nothing left to do, the buses, until then being beautiful mobile shelter sheds, departed and 1022 returned to the shed.

The following Sunday dawned bright and clear. Only one double-decker arrived and, in conjunction with steam motor 103A, it and the steam tram began plying their trade for most of the day.

The Loftus lads only brought the AEC this time. Rumour has it that a red and cream double-decker fell into a bog in the Park the previous Sunday and was still yet to be found! Or was it a tram . . . ? Or a loco?

During the day it was noted that our Loftus colleagues were conductors on several trips on the real trams, whilst a Parramatta member rode the AEC platform like a true busman. His comment was that you didn't get cinders in your eyes in buses! The last run of the day was a parallel 'derby' with Bill Parkinson riding the diesel horse and Jack Midgley on the iron horse. The judge declared a dead-heat because of the closeness of the race, the bus route number was 103, the steam motor was 103A, and he couldn't separate either!

Our sincere thanks to the lads from Loftus for their generous assistance at Heritage Week in Parramatta Park. Unfortunately the elements proved our undoing on the 8th, but the 15th made up for it. The day proved to be an enjoyable get-together which further enhanced our Society's standing with our Loftus friends, and theirs with us — we look forward to another such gathering.



Derby day in Parramatta Park with Bill Parkinson driving the AEC (route 103) and Jack Midgley on steam motor 103A the iron horse. Result? A dead heat.

PETER STOCK

HERE AND THERE

NEWS ITEMS OF INTEREST FROM ALL OVER

ElecRail (Victoria)

The restoration of a four car suburban electric Tait train as part of Victoria's 150th Anniversary celebrations commencing November, 1984 is now underway. This major project, estimated to cost in the vicinity of \$350,000 is a joint exercise between the State Transport Authority of Victoria Workshops Branch, Metropolitan Rail Division and the ElecRail Department of Steamrail Victoria. It is proposed that the work will involve restoration to standards during the era 1936 to 1958.

After an inspection by ElecRail representatives with the Carriage Superintendent (Newport) and the Foreman Car Builder (Ballarat) in early May of all retained Tait stock at the Steamrail Depot at Newport, the four cars finally selected were 381M, 486M, 208T and 230D. Cars 243M, 48G plus a number of others are proposed to be retained as spares. Over a period of a month the ElecRail volunteers worked under exceptional pressure recycling parts and fittings from scrap cars for installation in those to be restored. The arduous and back-breaking work included replacement seats, reclamation of windows, partitions, lights, luggage racks and removal of both interior and exterior sheeting to expose the original clerestory deck light windows. The four cars were shunted by Steamrail



Allan Grigg removing exterior metal sheeting to expose the original clerestory deck light windows on 486M on 26 May, 1984 prior to transfer from the Steamrail Depot to Ballarat Workshops for total restoration.

DON POTTS



Scott Bray recycling heavy seats from 225D for use in 230D at the Steamrail Depot, Newport on 27 May, 1984.

DON POTTS

0-6-0 diesel hydraulic 231M to the adjacent Newport Workshops on 30 May for servicing prior to transfer to Tottenham Yard thence by goods train to Ballarat. During the latter period thieves did thousands of dollars damage by ripping out ornate lights, racks and other fittings, thus creating yet another challenge for ElecRail workers to find replacements to enable the project to proceed. Body restoration is being undertaken at Ballarat Workshops, the M car bogies lifted at Bendigo Workshops, traction motors overhauled at the Electrical Workshops. The unexpected lifting of union bans on the rebuilt Harris trains, due to

driver's cab problems during the first weeks in June, is expected to result in withdrawal of Tait's on the Sandingham line, leaving only St. Kilda and Port Melbourne with these veterans.

A Tailem Bend Tramway?

A Tailem Bend group wants to build a tourist tramway to run along a bank of the Murray River at Tailem Bend, South Australia. A spokesman for the Tailem Bend Tramway Feasibility Study Group said it was proposed to build the 9.7 kilometre tramway at a total cost of \$344,000 by 1986.

The local council has rejected the scheme but the group believes it could overcome council objections. The spokesman said tourism seemed to be the answer to unemployment in Tailem Bend caused by rationalisation of rail operations. The South Australian Minister of Transport, Mr. Abbott, said his department could help determine the project's feasibility.

Victor Harbor Tramway

The causeway from Victor Harbor to Granite Island will be upgraded at a cost of \$170,000 in a bid to reintroduce the horse-drawn tramway. The money will be made available by the South Australian Government in the next financial year.

The upgrading is the first step in a scheme to rebuild the horse-tram track on the wooden structure as part of the 1986 Jubilee celebrations. The condition of the 122 year-old causeway has

been assessed by Department of Marine and Harbours engineers, who recommended strengthening decking and supports.

Granite Island is a main attraction for tourists visiting Victor Harbor with more than 500,000 people making the causeway crossing each year. A small rubber-tyred train towing open carriages operates across the causeway on weekends, public holidays and school holidays. The 2066 metre-long causeway is under the control of the Department of Marine and Harbours under the category of a recreational jetty.

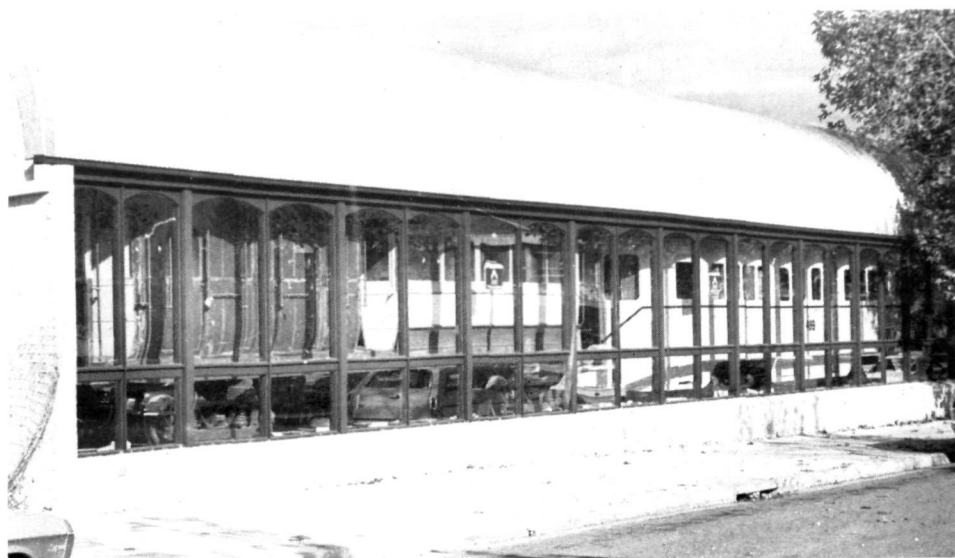
The Minister of Marine, Mr. Abbott, said that if the horse-tram proposal eventuated, broad gauge rails would be laid on the decking on the understanding that there would be no interference with use by pedestrians or essential vehicles.

Canberra

A visit paid to the Tradesman's Union Club at Dickson, ACT on 15 May revealed that the external restoration of former Brisbane tramcar 499 was close to completion. A colour style similar to the livery of the Brisbane Phoenix cars has been used.

Work was proceeding on former Adelaide tramcar 156. A considerable amount of restoration has been carried out on the saloon portion of this combination car while some attention was being given to the panels and sliding doors of the cross bench section.

The Brisbane car sits well on the Melbourne W2 type trucks. The Adelaide tram, originally



Adelaide 156 and Brisbane 499 under the new building extension at Canberra, 15 May, 1984.

KEN McCARTHY

mounted on Maximum Traction bogies, appears higher than normal on W2 bogies. This problem, however, will be rectified when the side foot-boards are finally refitted to the vehicle. The extension of the club roof over these two tramcars has been completed enabling restoration to proceed to completion.

New Association

A new association known as the Melbourne Tramcar Preservation Association Incorporated was formally incorporated on 26 April, 1984 under The Associations Act. The new group will take over the assets of the unincorporated Haddon Tramway Workshops and will be responsible for the construction of an operating museum at the Haddon site.

Ford Hercules Bus No. 165

The State Transport Authority of South Australia has acquired former Municipal Tramways Trust Ford Hercules bus No. 165 and plans to restore it. Hercules 165 was purchased from a farmer near Mt. Macedon in Victoria and towed to Adelaide recently. The bus is in very good condition, and had been used as a caravan before being purchased by the farmer.

Restoration will be made possible with a Federal Government Community Employment Programme grant of \$26,000. Some missing seats will be replaced with originals from another

Hercules bus. The only other Hercules in South Australia is at a Port Wakefield wreckers yard and is considered unsuitable for restoration. Six tradesmen will be employed in the restoration work.

The fifteen Ford Hercules buses, Nos. 151-165, were purchased by the MTT during the Second World War. Wartime conditions had made it difficult to obtain new mororbus chassis. However, under the American Lend-Lease Act, an order was placed with the Ford Motor Company in November, 1941 for the buses. The lend-lease scheme enabled the US Government to supply equipment to the United Kingdom and its allies in return for use of military bases.

Three of the buses became available in December, 1942, but the rest did not arrive until January, 1944. They were fitted at various times with Hercules diesel and Ford, Mercury and Chevrolet petrol engines, depending on what was available. The bodies were built by the Melbourne firm of Cheetham & Barwick. They were painted in the cream and brown colour scheme previously reserved for Mack buses. Seating capacity in these small vehicles was 27 with room for 15 standing. They were withdrawn from traffic in the mid 1950s.

When restored Hercules 165 will be used by the STA of SA for promotional work along with Garford double-decker 208 (see *TW* Oct '83).



A Ford Hercules bus in Municipal Tramways Trust service. No. 151 was photographed in 1942.

COURTESY STA OF SA



Bendigo tramcar 26 trundles wrong-line towards the city centre along the outbound track during November, 1983 when it was being used for two-way running. The inbound track (far left) had been removed to enable construction of a centre-of-the-road single line along the east section of McCrae Street which now includes a new crossing loop near the Depot branch. The rails shown in the centre of the photo have since been encased in concrete and are in use. The track on the right has also been removed.

DON POTTS



Five months later, maximum traction bogie car 26 proceeds along the new concreted single line which replaced the former double track along McCrae Street, Easter Sunday, 1984.

DON POTTS



Bendigo Birney No. 30 stands outside the depot decorated for Christmas, 1983. A familiar sight in Ballarat and Bendigo during the pre-Christmas period for quite a number of years before the tramways closed, the trams were decorated for the festive season by Myer, the department store chain. It would seem that the custom has been revived by Myers in Bendigo.

BOB GIOIA

Glenelg Tram News

Tram services on the Glenelg line were halted between 9am and 2pm on 15 June, 1984 while motormen held a stopwork meeting. The motormen were concerned about the two 'unsafe' stops at the intersection of King William, Hallifax and Sturt Streets which they considered to be unsafe. Passengers alighting from and boarding trams at these stops must cross two lanes of city traffic. The State Transport Authority of SA had sought per-

mission from the Adelaide City Council to erect safety barriers but the Council had refused.

As a result of the stopwork meeting, motormen are refusing to stop at the intersection. The STA General Manager said the Council would allow the Authority to paint warnings on the road. The STA would add warnings to the tram stop signs and the rear of the trams themselves. These would warn car drivers that it was an offence to pass a stationary tram at more than 10 km/per hour.



W2 280, now an arts 'n' craft shop, faces a bleak future perched on top of a wind-swept hill near Mickleham just west of Mt. Aitken off the Hume Highway north of Melbourne.

DON POTTS



Sydney R class tramcars 1804 and 1884 at Albion Park, NSW, where they are now being restored to feature in a commercial project at Kiama. 26 May, 1984.

KEN MCCARTHY

Kiama Development

On Saturday, 19 May the bodies of two Sydney R type tramcars, 1804 and 1884, were transferred from the Newcastle Tramway Museum collection to Albion Park near Wollongong. Alderman Warren Steel of the Kiama Municipal Council purchased these cars and is at present restoring the body of the one which was in poor repair, No. 1884. It is Mr Steel's intention to expand his business interests in the Collins Street area of Kiama where restored quarrymen's terrace cottages already form a nucleus of tourists shops.

Although future plans have not yet been finalised, the tramcars will be restored externally and the interior possibly used for restaurant purposes in the manner of C car 29 at the Spaghetti Factory in Sydney.

The Newcastle Museum group collected the bodies of four R type trams some time ago. The one in best condition, R 1892, will be retained for complete restoration, leaving 1804, 1884 and 1744 to be released for commercial restoration and use.

ALBION PARK . . .

Illawarra Light Railway Museum Society



During the Queen's Birthday Weekend of 9th to 11 June the Shellharbour Municipality celebrated 125 years of local government. During the three days the ILRMS was opened to the public, the main steaming day being on Sunday, 10 June. On that day the picnic area was crowded for most of the operating period and over 1,000 rides were taken on the museum railway.

Saturday, 9 June was planned more as an enthusiast's day when almost 200 visited the

museum during the afternoon. On that occasion many items which rarely ventured out of the store sidings in the main compound were marshalled into trains and operated around the main line circuit.

Several times on that Saturday double headed trains were operated with 0-4-0ST locomotive *Kiama* and 0-6-0- engine *Cairns* in the lead hauling a four-car passenger train consisting of



Cars 430 and 2 bring up the rear of the four car passenger train operated at Albion Park on 9 June, 1984.

KEN Mc CARTHY

former Queensland rail motor trailer 119P, semi open-sided bogie car No. 1, former Melbourne cable trailer 430 and c. 1918 vintage saloon car No. 2. Unfortunately due to the wet seasons and the resulting bush growth it is now impossible to take a photo showing a train of this length in its entirety.

The operations on Monday, 11 June were restricted to diesel haulage and over 200 passengers were handled during that day.

Motive Power

During May new oil seals were fitted to the transfer box of the elderly Leyland-Krauss petrol loco enabling this unit to perform in the Queen's Birthday operations.

Work is now progressing on the boiler restoration of the Perry steam loco (0-6-2T 7967/49/1 of 1949). The provision of a new firebox as well as repairs to the smoke box barrel is being carried out at the Fabrication Shop at the Australian Iron and Steel plant at Port Kembla. Joe Bruni, boiler-maker, and Jack Buffolin, leading hand boiler-maker, have considerable boilermaking experience and the opportunity is being taken to pass on this expertise to young apprentices.

Rolling Stock

The former International bus body of c. 1918 vintage was transferred to its permanent steel underframe and bogies on 26 May. Although this vehicle operated on 9 June, brake rigging and platform steps must still be completed before it is available for regular service.

A gloss coat of varnish was applied to the oak stained ceiling of former Melbourne cable tram

trailer 430 on 19 May. Since then, work has continued on the restoration of the interior above seat level.

The last major step in the restoration of this 94 year old vehicle will be the seat reconstruction. The ILRMS was fortunate in receiving a car in which the pierced ply seat backs were restorable. Seat bottoms and legs, however, will have to be newly constructed. When this is concluded the car will be available for regular service although some minor projects, such as the restoration of the clerestory windows will have to be completed. Much of this can be carried out away from the museum.

Around the Museum

During early June the Water Board was carrying out excavations at the front of the museum property for the sewer extension to the Albion Park town area. The Shellharbour Council has approved the ILRMS plans and specifications for a \$15,000 toilet block and it is hoped that work can proceed on this project when the sewer mains are completed.

The ballasting and levelling of the back platform road was completed on 12 May following the cutting in of the main line points on 24 April. This new facility will enable additional passenger rolling stock to be easily added to the trains at times of heavy loading.

The fork lift recently purchased in Sydney for \$100 operated for the first time on 2 June. This task occurred earlier than first thought possible, due to the location and purchase of a Meadows engine head gasket. The worn tyres are now being replaced by spare ones received with the unit.

Work is proceeding on the fitting up of plumbing and accessories to the Brownhoist vertical boiler in the new stationary engine enclosure. As soon as

this project is completed the concrete slab in that area will be extended and the items from the old display area transferred to the new boiler.

BYLANDS . . .

Tramway Museum Society of Victoria

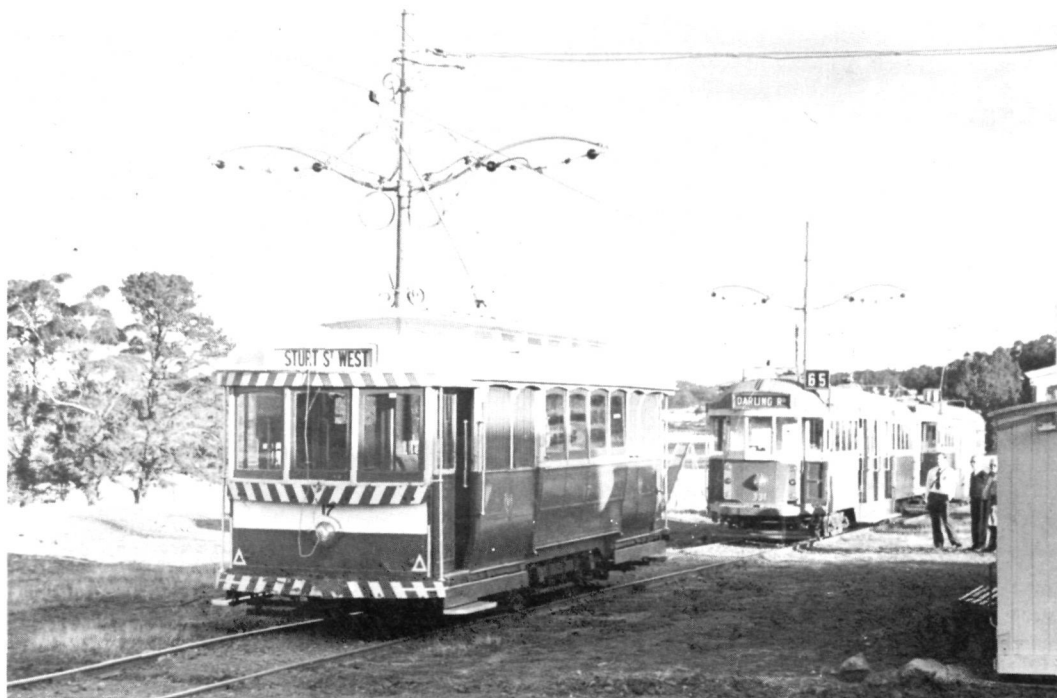


Community Employment Grant

The Society has received a grant of \$79,030.00 from the Ministry of Employment and Training under the Community Employment Programme. This has enabled the Society to employ a clerk, a fitter and two labourers, each for 52 weeks. The labourers began work on 30 April, while the other two started on 7 May. The labourers, under George Wilcock's supervision, have worked miracles with the trackwork leading into the two depots and abutting areas.

W2 220

Arthur Ireland has this project well under way, to the extent that by the end of June the W class format will be very evident in the dropcentre. The air pipes and backs of the controllers have been cleaned and can be painted more easily as the aprons have been removed. As soon as the painting has been completed the aprons from car 221 will be fitted as these do not have the holes for the multiple marker and tail lights.

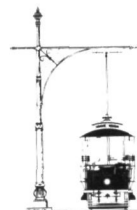


Ballarat 17, W2 331 and W3 667 at the south end of the main line at Bylands on 13 May, 1984.

KEN MCCARTHY

LOFTUS . . .

South Pacific Electric Railway



King Street Cable Trailer

The restored bulkhead wall on one end of the saloon body of the cable trailer was fitted on 30 May bringing the side frames into alignment. During June work was progressing on the restoration of the remaining bulkhead wall. When this is completed the queenpost truss system can be renewed and retensioned, allowing the plywood side panels of the saloon to be prepared and fitted.

On 22 May an ABC TV film team produced a 10 minute segment on continuing education under the Participation and Equity programme in which the cable tram restoration project at Warrawong High School was featured and the students involved in the task interviewed. This went to air on 13 June in the nationwide programme "The Class of '84".

By mid June the trenches to take the halved joints on the 48 upper and lower side body ribs were being prepared in the side fender rails.

The true identity of the cable car has been revealed during paint removal on the end bulkhead. This vehicle was car 23 and not No. 3 as originally thought. It would seem that the retrievers of the car from Lilli Pilli in 1968 jumped to the conclusion that car 3, used as the Sutherland steam tramway breakdown car, was the only vehicle in the district. Several former cable trailers are known to have been used as beach-side huts at Cronulla Beach in 1905 and car No. 23 must have been one such vehicle sold into the Sutherland-Cronulla district in the early years of this century for summer-house use.



W3 392 being test driven at Loftus on 31 March, 1984. The car performed perfectly but was taken into the workshop for end apron modifications and minor body repairs.

BOB MERCHANT



W2 392 at West Maribyrnong terminus in October, 1963.

DICK JONES

New Site

Some track laying within the Society's area has recently been undertaken, giving the appearance of some progress at last. While many man-hours have been spent on the rather complex piece of special work, the amount of work is not as readily apparent as some relatively simple trackwork, such as the laying of a few lengths of rail.

Approximately 20 metres of rail was laid as part of the ladder track, commencing from the special work, toward Pitt Street, and a further two lengths of rail were added to the grooved rail at the site of the Railway Square waiting shed. Portion of the curve, which will form the triangle connection from the ladder track to the main line, has been bent using the jim crow, in readiness for laying permanently.

The steel tie bars have now been installed and welded beneath the special work in readiness for forming up for concreting. This work should be completed soon. The petrol welder has certainly been giving good service and has enabled all the rail joints to be welded.

A start has been made on drainage work and some pipes have already been laid. The sandstone in the area was apparently more than a match for the backhoe hired to dig the trenches, however.

Old Site

Selective track maintenance is continuing on the main line and in the depot yard. It is hoped to have

this track strengthening programme completed as soon as possible to enable the track gang to transfer to the new site as soon as we are in a position to commence tracklaying on the main line at the new site.

Bill Parkinson has commenced restoration work on the W2 to make it ready for re-entry into revenue service within the next few months. This work includes the removal of the marker/tail lights fitted in the early 1970s to the end aprons, and the rewiring of the lighting circuit. This work will at least improve the looks of the car, the ends of which could hardly have been described as aesthetic. Beauty is, however, in the eye of the beholder. There was some dry rot in some of the windows and in the interior framework and this is being repaired.

392 arrived from Melbourne with several parts missing or damaged and we have been fortunate in being offered parts from one of the W2 cars brought up recently from Melbourne by the Newcastle Tramway Museum. Through the generosity of the NTM, and specifically Stan Shorte, we will be able to replace many of the parts missing from 392.

It is expected that the rust in the frame and panels of the car will be cut out with little effort and following the other repairs, the car will receive a repaint.

25th Anniversary Dinner

On Saturday evening, 5 May, 62 members and wives/friends gathered at the Sutherland Shire Masonic Club for what proved to be a most enjoyable evening. We were privileged to have as our guests the President of the Shire of Sutherland, Councillor Kevin Skinner and Mrs. Skinner. It was very rewarding to have some of our long-standing members and their wives join us on the occasion of the 25th anniversary of the incorporation of the South Pacific Electric Railway Co-operative Society.

After a short speech by Councillor Skinner, Ken McCarthy have an erudite talk on how it all began, with the frustrated attempt to preserve the remains of an ex-Parramatta steam tram motor, in the days when there was no respectability in preserving trams.

The evening's activities concluded with a showing of Barry Tooker's movie films of the Society's early days and, of course, a screening of that perennial favourite "The Elephant Will Never Forget".

PARRAMATTA PARK . . .

Steam Tram & Railway Preservation Society



Additional Rolling Stock

On 7 June an additional item of rolling stock was placed on the Parramatta Park Tramway. Louvred van L116 (formerly LV1478) was purchased by a group of enthusiastic members to enable the concept of the "Camden Tram" to be eventually filled out in a more convincing manner. Meanwhile, its interior will provide valuable storage space.

LV1478 was built by the Railway Workshops in June, 1910 with a composite underframe and it had a capacity of 8 tons. It is in reasonable condition bodywise but, naturally enough, is in need of a new paint job.

KA778

A recent inspection of this car at the Apprentice Training College, Chullora, revealed a steady level of progress being made. Roof ribs have been returned and fixed after a thorough cleaning off. Window sills, interior panelling to the waist band have been installed and primed. Plywood to be used for letterboards and arch-rail facias was purchased recently for \$550. An order for \$1100 worth of roof boards has also been placed by the Society.

Perway

With the knowledge that our new circular track (see map) probably won't become a reality until 1985/6, the existing track has had some 'bandaid' work done on it in recent months. Several sunken sections have been resleepered and packed. The latest section to be done is the crossover between roads 2 and 3, thence back to the depot. Un-

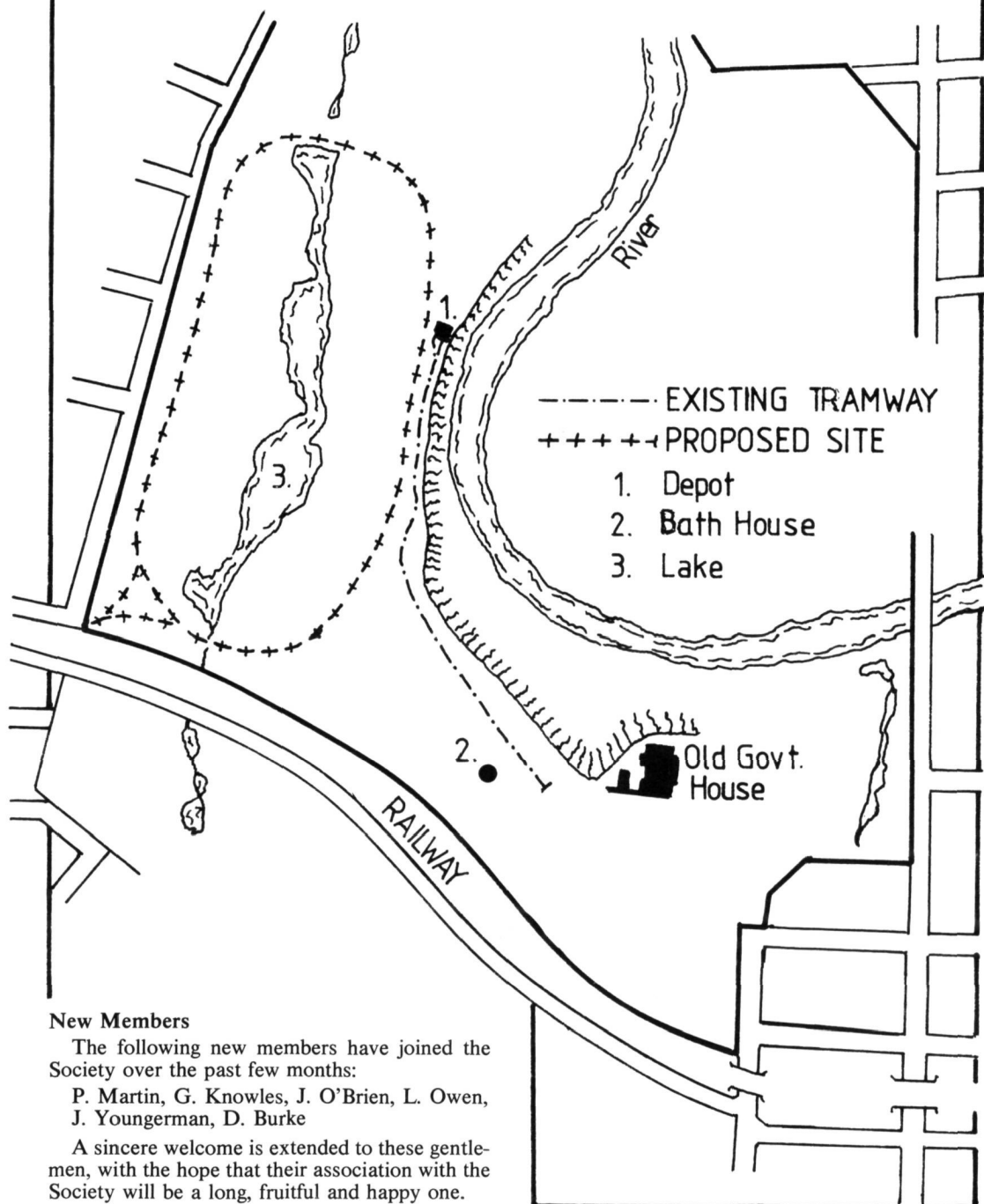
rewarding though it may seem, as it will have only limited life, the work must go on.



Loftus lads Les Coghill and Dennis O'Brien conducting on the real tram. There is no truth in the rumour that he is posing for the camera — just looking backwards to keep the cinders out of his eyes.

PETER STOCK

PROPOSED RELOCATION OF THE TRAMWAY IN PARRAMATTA PARK



New Members

The following new members have joined the Society over the past few months:

P. Martin, G. Knowles, J. O'Brien, L. Owen,
J. Youngerman, D. Burke

A sincere welcome is extended to these gentlemen, with the hope that their association with the Society will be a long, fruitful and happy one.

ST. KILDA . . .



Australian Electric Transport Museum

Dropcentre 264

Work continues on the restoration of car 264. Roof crossribs for the trolley planking are being prepared while new trolley planking has been purchased. The trolley towers have been painted and a front bumper has been reinstalled on the eastern end. Various steel components have been grit blasted and painted. Rotten floor timbers have been removed from the drop-centre section and gangways. This will assist mechanical and electrical work under the tram in the near future. A line breaker has been installed and resistance boxes have been restored and fitted. Cleaning of the exposed framework is also in hand.

Depot Re-arrangements

The recent return to traffic of tram No. 1 has enabled car 264 to be moved into the workshops for major restoration. Car 282 is usually stabled in front of 264 so that the restoration team can make comparisons between the two cars. Glenelg tram

360 (which is not used in passenger service) has been transferred from road 7 to road 8 in the new depot. The roof height of this tram is ideally suited as a platform from which to erect trolley troughing on this road. Birney 303 is now on road 7 (the wired road) and has returned to passenger service. Tram storage on these roads is now: Road 7 — Tower wagon, 186, 362 and 303; Road 8 — 118 and 360.

Trackwork

The short extension of road 6 to the rear of the depot for storage of trucks is now complete. Ballast has been laid to rail level to allow members to drive their cars across it. A supply of new jarrah sleepers has recently been purchased by the Museum. This has enabled road 4 to be completely relaid inside the depot. Good 41 lb/yd rail has also been used. A major sleeper replacement programme for sections of the main line has also begun. The first section of track to be laid in 1973 (from the Depot to



Three of the newer members of the AETM fleet, Glenelg car 362 and Melbourne W2 cars 294 and 354, stand in the sunshine outside the depot.

JOHN RADCLIFFE



Leyland 'Canton' trolleybus 488 was used recently in publicity photos with the latest Scania diesel bus.

COURTESY SCANIA DISTRIBUTORS

Samphire Road) contained many sleepers of poor quality. These had been part of a disused railway siding at the Edinburgh RAAF base nearby and obtained by the Salisbury Council. Much of this section now contains the new sleepers and a side benefit for members working on the project is a good supply of firewood!

Trucks and Equipment

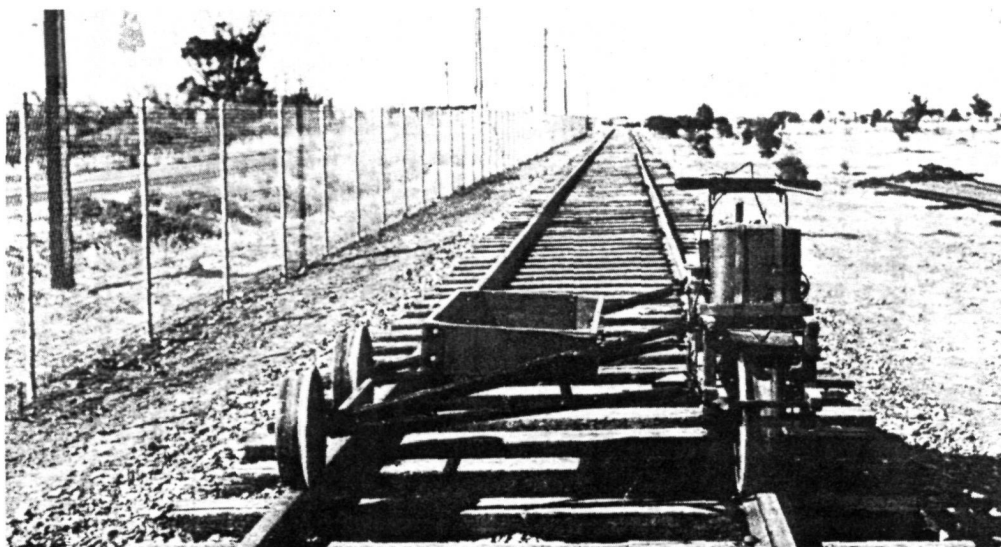
An additional pair of W2 trucks has been obtained from the MTA of Vic. They are M & MTB type 1B trucks with spur gears and are compatible with the trucks under our W2 cars 294 and 354. Dropcentre 264, however, is fitted with M & MTB No. 1A trucks (modified) with double helical gears. There are now six W2 trucks on hand with more on order. Unlike many Museums, the AETM received no spare trucks and little spare equipment for its trams upon the closure of the Adelaide tramway system. The Museum finds it desirable to stock up on Melbourne equipment as it becomes available. As well as being required for Melbourne 294 and 354, and Adelaide 264, W2 trucks can also be used under Adelaide dropcentre 282 if necessary.

Other spare parts obtained recently include four compressors and eight GE K35JJ controllers.



Adelaide D type car 192 leaves the St. Kilda playground to return to the Museum.

JOHN RADCLIFFE



The Villiers quadricycle during the construction of the St. Kilda tramline in 1973.

JOHN HOFFMAN

Railway Quad Goes

The AETMs railway quadricycle has been obtained by the Steamtown Peterborough Railway Preservation Society who operate steam excursions on part of the Peterborough to Quorn narrow gauge railway. The Villiers quad was purchased from the South Australian Railways in 1971 and subsequently became the first vehicle to operate on the St. Kilda Tramway. The petrol-engined vehicle was used extensively during the construction of the main line. Perway work is now carried out using W2 works car 354, resulting in the quad becoming redundant at St. Kilda. The unit had been converted from 3'6" to 4'8½" gauge by the SAR for use during the construction of the standard gauge railway from Broken Hill to Port Pirie, completed in 1969.

COTMA Conference

Three AETM members journeyed over the Tasman to attend the Bi-Annual COTMA Conference hosted by the Museum of Transport & Technology in Auckland. Ian Seymour was the Museum's official representative.

Tram No. 1

Although Adelaide's first electric tram, A type No. 1, which recently returned to service, has been refurbished to more closely represent its original 1909 appearance, there are still some minor differences. When the A type trams were originally built they had:

- * no side destination boxes
- * no arc blowout chute on the roof

- * J. G. Brill pattern couplers with permanently attached bars
- * lifeguard trays attached to the truck ends
- * all enamel notices in the saloon attached to veneers not wall timbers
- * no straprails above the crossbench seats
- * special lighting circuit with low wattage lamps in the saloon, dropends and destination boxes, but high wattage headlights
- * white porcelain light fittings in the saloon with possibly two lamps in them
- * Brill portable motorman's seats (a wooden seat with a metal leg which locked in a floor socket which the motorman took with him when changing ends).
- * full glass in the middle motorman's bulkhead window and continuous brass window protectors.

Opposite: Drawing of F1 Type Tram (251-284).

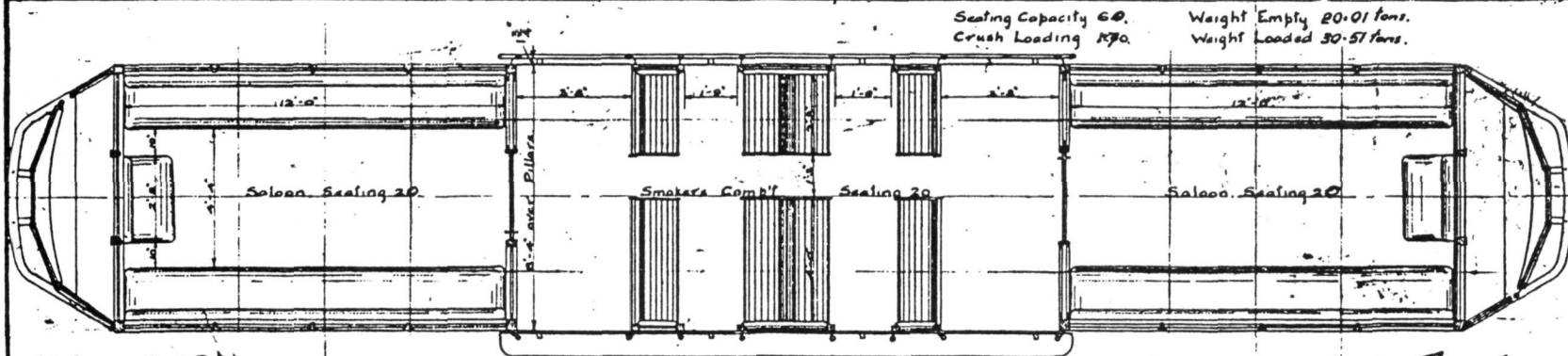
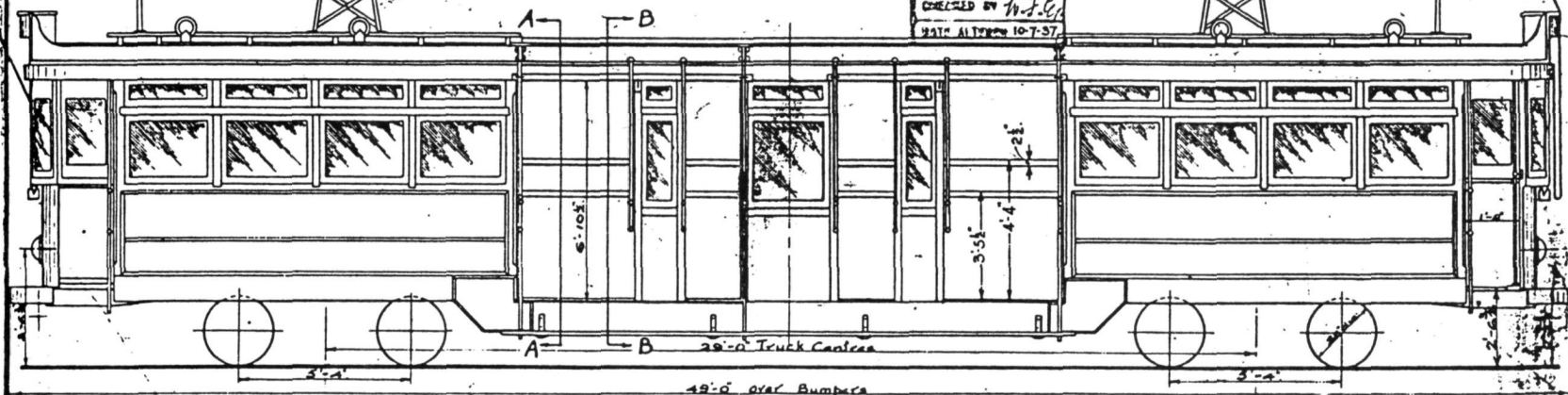
Copy of original drawing of F1 type trams (such as Museum cars 264 and 282) dated 1 March, 1924. Most of these cars had the small seats at the end of each saloon removed when motormen's emergency exit doors were fitted in the mid 1950's. The signature of Sir William Goodman, General Manager of the Metropolitan Tramways Trust for 43 years, is clearly visible.

Modellers please note that this has been reduced from the original and the scale shown on the drawing no longer applies. STA of SA

THE MUNICIPAL TRAMWAYS TRUST.

ADELAIDE. S. A.

ALTERATION No. 1.
CONSISTS OF
ADDITION OF SECOND
GUARD RAIL.
ALTERED BY H.L.B.
CHECKED BY W.J.C.
DATE ALTERED 10-7-37



Nº 2407
SECTION H
DRAWER NO 7

TYPE F-1 DROP CENTRE CAR.

Scale 1/2 inch = 1 Foot

1.3.24. Chief Eng. & Gen. Mgr.

BALLARAT . . .

Ballarat Tramway Preservation Society



No. 26

Single truck car 26 has been moved from No. 1 road, where it has been for several years, to No. 5 road. While on road 1 it was close to the northern wall, which naturally hampered restoration, but in its new position can be easily worked on from either side. Four long footboards have been installed on the dropends; shortened footboards had been used during the tram's many years as a one-man car. Drop windows have been installed in the motorman's bulkheads and these can be raised or lowered when desired.

Trackwork

The trackwork and overhead for No. 6 road is now complete and ready for traffic. Only No. 1

road at the southern end of the depot remains to be laid and the points are already in position.

The curve leading to Nos. 4 and 5 roads has been relaid to a larger radius. The previous curve was very sharp and the maximum traction bogie cars had trouble negotiating the curve without derailling.

May Holidays

Trams ran every day from the 5th to 20 May during the Victorian school holidays. After a quiet first week, the second week of the holidays saw over one hundred riding every day. The service was halted early on Tuesday, 8 May after loose span wires short-circuited the overhead, but the overhead was restored in time for the following day's running.



Several spectators used car 38 as a grandstand for viewing the Begonia Festival procession on Labor Day, 12 March, 1984.

ALAN BRADLEY

NEWCASTLE . . .



Newcastle Tramway Museum

Melbourne W2 tramcar 637 arrived at Forestville on 16 May, 1984 to provide parts for the restoration of Sydney R1 1995. After bolster alterations the trucks from 637 were fitted under 1995 on 28 May and by 15 June the anchor points had been prepared on 1995 for the fitting of the air compressors, air tank and resistors. The museum members have been surprised at the degree of standardisation which has enabled many parts from the Melbourne car to be readily fitted to existing mountings on the body of the Sydney vehicle.

The restoration of Brisbane Phoenix car 550 has reached the stage at Forestville where the body

has been completely restored and by May the seat components were being refitted.

At Warabrook a slightly undergauge wheel set was removed from the bogie of W2 245 and re-gauged at the Commonwealth Steel plant at Mayfield. The corrected wheel set has now been refitted to the bogie.

At Wallsend, work is progressing on the restoration of LP 284. The first seat set restored has been refitted into the smoking compartment and interior work is progressing on the replacement of ceiling slats in the few locations where water damage occurred to the original pieces.



David Davidge (left), Russell Phemister (centre) and Frank Bugby replace a restored bulkhead seat in LP 284.

NEW ZEALAND . . .



News from across the Tasman

Christchurch

The Tramway Historical Society at Ferrymead returned their Kitson steam tram to service on Saturday, 14 April, 1984, at a short ceremony performed by the Chairman of the Christchurch Transport Board, Mr. P. V. Neary.

The ceremony took place in the Ferrymead Township and was followed by a light afternoon tea served in the tram barn at the conclusion of the ceremonial steam tram run.

The Kitson steam tram was built in 1881 in Leeds, England, and of more than 300 constructed, is the only operating survivor in the world. Originally purchased for and operated by the Christchurch Tramway Company, the steam tram passed to the Christchurch Tramway Board

early this century. The Board maintained the vehicle in running condition until entrusting it on loan to the Society. The saving of this unique vehicle for posterity was the result of the foresight of Mr. J. F. Fardell, General Manager of the Board at that time.

The Society, after operating the steam tram at Ferrymead for ten years, undertook a complete rebuild and reconditioning of the vehicle. The rebuilding has been under the direction of Mr. Greg Harris, ably assisted by a small group of volunteers.

The steam tram was in operation during the evening for visitors to indulge in the delights of steam tram riding in the dark. This delectable pastime was followed by supper at 9pm.

PORT KEMBLA . . .



Port Kembla Museum Project

The three W2 tramcars obtained for this museum venture arrived at Port Kembla from Preston Workshops during May. Car W2 577 was delivered on Friday, 11 May and the other two vehicles, 370 and 560 arrived during the following day. The bogies followed as a separate consignment on Tuesday, 15 May. The bogies and two of the tramcars were placed under covered storage on 29 May and the third body has been covered with a tarpaulin.

The vehicles are in sound condition, but it is intended soon to repaint one through an employment programme in preparation for public operation in October.

During the Labour Day weekend the "Put Into Port" annual festival will be held. The billycart derby along the main street on the Monday public holiday usually draws around 15,000 visitors. As this year marks the centenary of Port Kembla as a port, the Festival has special significance. At

present, initial plans envisage the operation of one or two trams along the harbourside tracks for the three days. The terminus will be located near number 3 and 4 jetties where a considerable length of railway track is located in the roadway complete with tramway type point pits. An investigation of the possible operating routes was conducted on 10 June with the aid of a motorised quadricycle provided by the Newcastle Tramway Museum.

On Saturday 16 June the Port Kembla Task Force and the Port Museum Project Committee conducted representatives of Norgaard Consultancy on a familiarisation tour of the Port Kembla port and surrounding area. Mr Eric Norgaard, Director of the Company, accompanied by his wife; Vice President Francis Carson (Alaska); and Garrey Maxwell, Manager of the Australian Branch, were briefed on initiatives planned for the future, including the Museum and tramway concept.

Also in the party was Mr J Kjaergaard of Frederikshavn, Denmark, the General Manager of the State Ports Authority in Denmark.

This firm of consultants of world-wide experience is presently engaged on port developments at Fisherman's Wharf, San Francisco; Erie terminal basin redevelopment at South Brooklyn; Daytona Marina in Florida; and port redevelopment between Charlestown and Savannah in South Carolina. Many of these locations are now

under utilised due to new container handling techniques and all are to be redeveloped with recreation and tourism in mind. The firm has also been involved in fishing port development as well as cargo handling and processing in Europe.

Norhaard Consultants are presently carrying out initial investigations in Australia on the redevelopment of port facilities at Darwin and at Port Melbourne in a joint commercial-tourism direction.



W2 577 being unloaded from the semitrailer at Port Kembla on Friday, 11 May, 1984.

KEN MCCARTHY



W2 cars 577, 560 and 370 at Port Kembla on 16 May, 1984.

KEN MCCARTHY

