

TROLLEY WIRE



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SYDNEY'S DOUBLE DECK ELECTRIC CARS

TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM
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*Sydney's Railway Square waiting shed with its
elevated signal cabin in its final form. Single
and coupled L and O class trams are prominent
in this view. See pages 30 and 31 for earlier scenes
from this vantage point.*

R.I. MERCHANT Collection

Front Cover:

*N class 728 leaves the Sydney Tramway Museum and crosses Pitt Street, Loftus with a full
load of passengers on 24 February 1991.*

R.I. MERCHANT

Back Page:

*Top: Sydney R class 1740 on a northbound journey from the Sydney Tramway Museum
on 24 February 1991.*

R.I. MERCHANT

*Bottom: Bendigo Trust's single truck car No. 7 preserved as it ran in Bendigo in th 1960s
for the SECV. Formerly PMTT 76 and MMTB J class 76, it was built in Sydney by
Meadowbank Engineering in 1915.*

IAN WILLIAMS

RIDING ON TOP OF THE CAR

Sydney's Double Deck Electric Cars

By V.C. Solomons

For the financial year ending June 1900, the first year during which electric trams were introduced onto the main city system, and June 1906, the passengers carried increased from 63,500,000 to 137,200,000 per annum. Trams of increased capacity rather than additional vehicles were required to handle this continuing expansion.

Due to the close track centres and restricted loading gauge, the largest tramcar able to operate on the Sydney electric routes at that time was the 70 seat N type cross bench car which was 8ft 6in. wide across footboards and 37ft 6in. long.

Three solutions were available:

- a. Increase the capacity of the tramcars within the existing loading gauge by the use of double deck vehicles.
- b. Increase the size of the loading gauge by major track relocations.
- c. Construct tram tracks along more city thoroughfares.



Mr. H. McLachlan, Secretary for Railways.

The first option was the least expensive and this initiated the double-deck electric tramcar experiments and trials in Sydney during 1907. These trials are related in this article.

The cheapest option, however, did not prove successful, and the Tramways Department reached the decision to increase the loading gauge in 1907 which cleared the way for the introduction of the larger 80 seat O type tram in 1908.

The tramway authorities were thus able to avoid the construction of major relief routes along further city streets until the 1920s... The growth of city traffic was finally arrested with the opening of the city underground railway from Central to St James in 1926 and Wynyard in 1932.

* * * * *

Between 25 March 1907 and 17 January 1908, two four-wheeled C class electric trams of the NSW Government Tramways operated in Sydney as double-deck electric cars. The two cars were numbered 33 and 82 in the Sydney fleet and were built by Hudson Bros in 1898 and Clyde Engineering Co. in 1899 respectively.

The C class trams were small, single-truck, end-loading saloon cars which were built for the pioneer electric lines at North Sydney, Rose Bay and along George Street, Sydney. In all, 97 C class cars were built with a variety of body variations.

On 6 February 1906, the Secretary for Railways, Mr H. McLachlan, wrote to the Tramways Electrical Engineer, Orlando W. Brain, and Tramway Traffic Superintendent, John Kneeshaw, requesting them to investigate and report to the Railway Commissioners on the question of the introduction of double deck cars. The Chief Commissioner wished to know whether it would not be practicable to make an experiment either by building a double deck car, or converting some of the existing cars to double deckers, using them as trailers. Their use as trailers would "avoid entirely the difficulties that would have to be met with the (overhead) wiring and any other difficulties that might arise in consequence of the height of the double car".

Mr Brain directed a memorandum to the Secretary on 13 August 1906 in which he advised the only car that could be equipped with a double

deck without excessive weight on the axle would be the enclosed four-wheeled (C class) car, either as a trailer or a motor car coupled to another motor car which could carry the trolley pole for both motor cars. He estimated that the cost would be £140 for an open deck or £180 for a glazed-in upper deck. He further advised that, as the platforms were so short, the stairway would not be very satisfactory and it would be necessary to lengthen the platforms at an additional cost of £35.

In a joint submission on 15 August 1906, Messrs Brain and Kneeshaw elaborated on the proposal. Both men felt that no great difficulty would be experienced in converting and operating a few trail cars, but the experiment would necessarily be of a limited nature as there were only a few ways in which trail cars of such height and carrying capacity could be utilised.

Mr Brain felt that where two coupled motor cars were run on Railway to Circular Quay service, one of the cars might consist of a double deck car. This would enable motor power to be provided under each car and only one pole would be necessary on the single deck car, thereby overcoming the need to raise the overhead wires if a pole was placed on the double deck car. He considered it advisable that the double deck car be run in the trailing position. Both men were of



Mr Orlando W. Brain MIEE, Tramways Electrical Engineer.



Mr John Kneeshaw, Tramway Traffic Superintendent.

the opinion that it would be found necessary for the upper deck to be glazed-in.

As a consequence of this submission, the Commissioners granted approval on 20 August 1906 for two cars to be altered as proposed and tried on the Dulwich Hill line.

The Chief Commissioner inquired as to the cost of increasing the seating capacity of the proposed double deck cars. The Electrical Engineer reported on 23 August that the only means by which this might be done would be by putting cross seats on the top of the car, at an additional cost of £50, making the total cost for an enclosed upper deck car £263. It would be necessary to reduce the lower saloon floor-to-ceiling height from 7 feet 7 inches to 7 feet, and increase the total height of the car from 16 feet 3 inches to 16 feet 5 inches, which would not, however, affect the question of the trolley wire. By this means the seating capacity would only be increased by two, or at the most four passengers, bringing the total up to 56 passengers. Brain pointed out that this arrangement had the advantage of permitting passengers on the upper deck to face forward instead of sitting sideways, "as the latter may lead to some public criticism and unfavourable comparison with the double deckers elsewhere".

The Commissioners replied immediately that the additional seats did not warrant the additional expenditure.

The Traffic Superintendent wrote to his Electrical colleague on 14 September 1906 advising that the retention of the 'Lantern Roof' in the conversion rendered the 'back to back' seats necessary on the upper deck and also limited the space between the seat and the window. He felt that, in these circumstances, only the saloon should be enclosed, which, he noted, "seems to be the practice with four-wheeled cars". It would provide the conductor with more freedom of movement, keep passengers away from stair heads, and reduce the pitching movement of the car. He suggested drop sashes should be provided to all windows in the upper deck sides and these be fitted with blinds. The bulkhead glass could be fixed between the end doors.

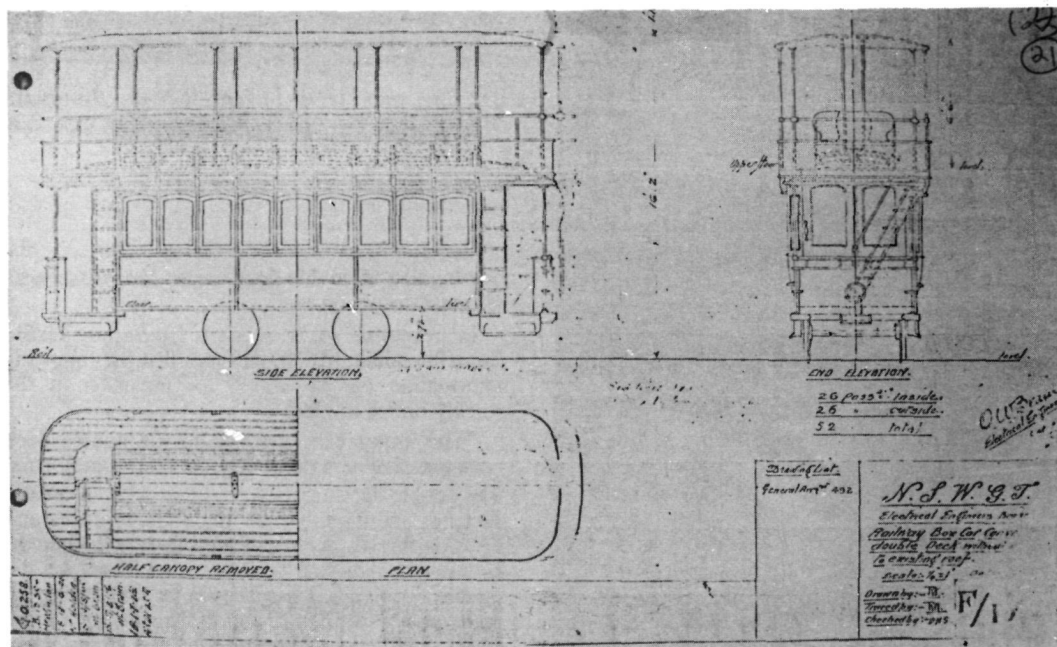
In a further memo to the Commissioners on 18 September, the Electrical Engineer advised that the weight on the axle would be excessive if any other type of car other than the four-wheeled enclosed type were made a double deck vehicle. He further advised that by a modification with cross seats, the total car seating capacity could be brought up from 56 to 58. However, he was

unable to reduce the increased cost of £263 per car previously advised. He also pointed out that the clearance between two double deck cars with longitudinal seats passing in Lower George Street would be 14-1/2 inches between side pillars. By adopting cross seats on the upper deck with a 19 inch wide centre aisle, the clearance between the cars would be increased to 17 inches. However, as the cross seat car would be 5 inches higher than the longitudinal seat car, it would be necessary to raise the trolley wire in places on the Dulwich hill line at a cost of from £15 to £20.

The Commissioners approved Mr Brain's suggestions on 24 September 1906.

On 13 October, the Electrical engineer forwarded a blueprint of the proposed alterations to the C class car to convert it to a double decker. He pointed out that the bulkheads on the top deck should be in line with those on the lower deck as the stanchions at the end of the car would not be satisfactory for carrying the weight of a fully enclosed top deck. The lower platforms also were not built to support so heavy a weight at the ends of the car. The five wide glass frames on the top deck were made to drop when required. The Commissioners approved the proposed alterations two days later.

The Traffic Superintendent advised on 18 December that the double deck cars would be

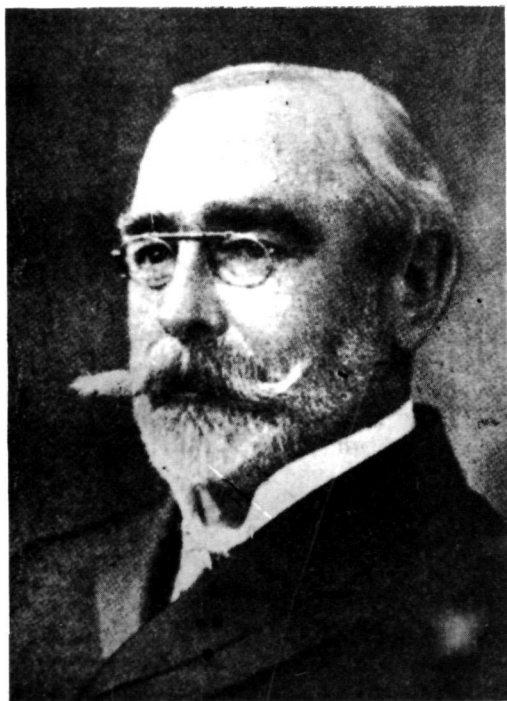


Tramways drawing showing the 'Railway Box Car conversion to double deck without alteration to the existing roof.' This proposed conversion had an open top deck with longitudinal seating.

stabled at Newtown Depot, but may occasionally be run to Fort Macquarie Depot.

The *Daily Telegraph* feared that the experimental cars would take too long for passengers, particularly ladies, to come down the steps in order to leave the cars. "Certainly the ordinary time now allowed will not be sufficient, but in view of the lightning speed shown by some conductors in starting a car from a stopping place, that fault will perhaps not be a serious one. They will be compelled to wait a reasonable time with the double decker".

Mr Kneeshaw informed the Commissioners on 8 March 1907 that he had been advised by Mr Brain that one of the double deck cars would be ready for trials during the ensuing week coupled to a four-wheeled enclosed (C class) car. He was of the opinion that the best line on which to test the car would be between Circular Quay and Enmore via George Street. The Commissioners approved this alteration to the test route. Double deck car 82, coupled to C class motor car 93, entered service on 25 March 1907 on Run 424 from Circular Quay to Enmore, under the control of Driver Porter. Double deck car 33 and its accompanying motor car 92 entered service the same day. Starter Owen at Circular Quay reported that the cars were running four minutes to eleven minutes late at the Quay, "caused by



Mr Charles Oliver CMG, Chief Railway Commissioner.



Driving end view of car 82 at Randwick Workshops.

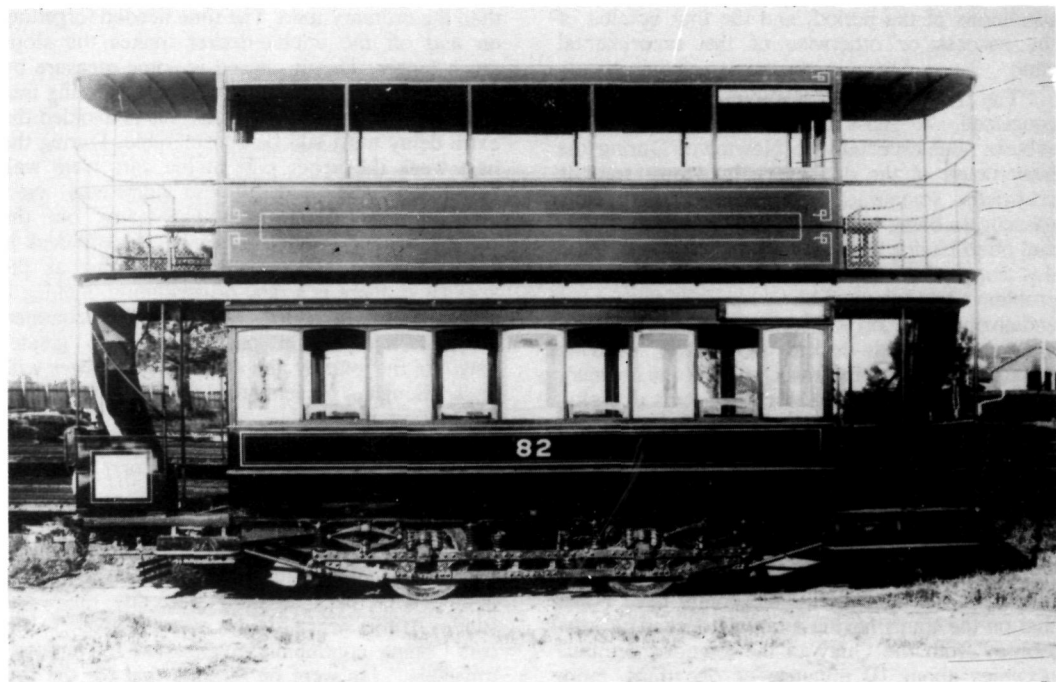
GOVERNMENT PRINTER, R.I.M. Colln.

overloading of double deck car on top, passengers all make to get on top".

In response to a request from the Traffic Superintendent, Mr Brain forwarded the following information on 26 March for inclusion in the weekly notice to staff:

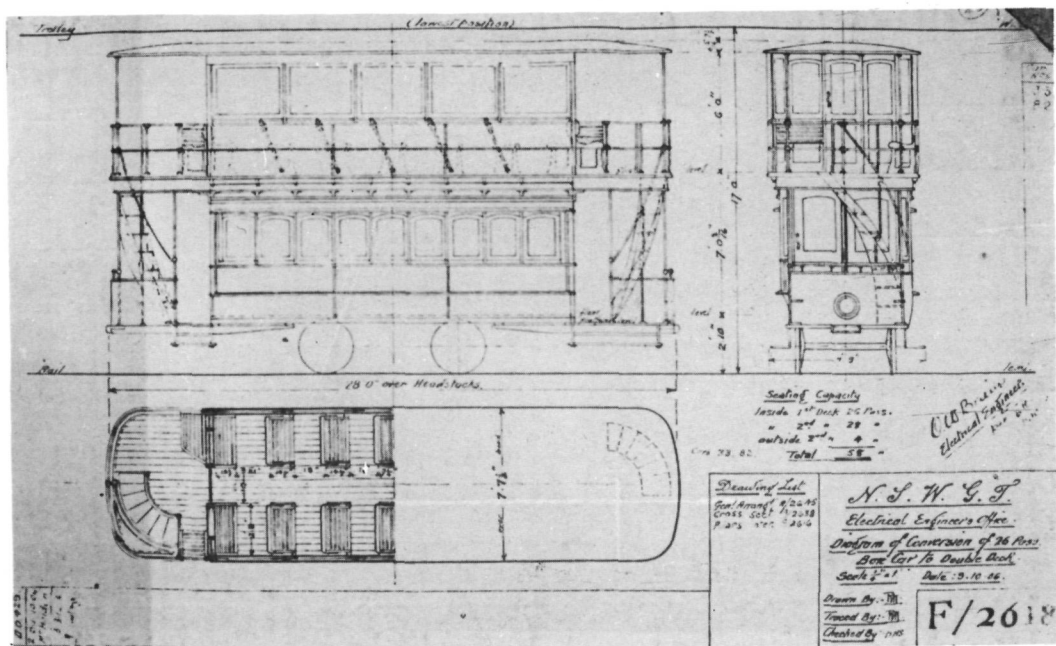
"The motor cars attached to the double deck cars are similar to ordinary coupled motor cars. The double deck cars are not fitted with automatic switches and fuses but the automatic switches and fuses on the No. 1 ends of the cars attached are in circuit when driving with the controllers on the double deck cars. Care should be taken that the main power couplings under the canopy of the single deck cars are fastened by the straps when the cars are in traffic".

The congested tram traffic was the subject of a item in the *Daily Telegraph* on 1 April 1907. It gives an interesting insight into tramway traffic



Official photo of car 82 at Randwick Workshops taken on a full plate glass negative.

GOVERNMENT PRINTER, R.I.M. Colln.



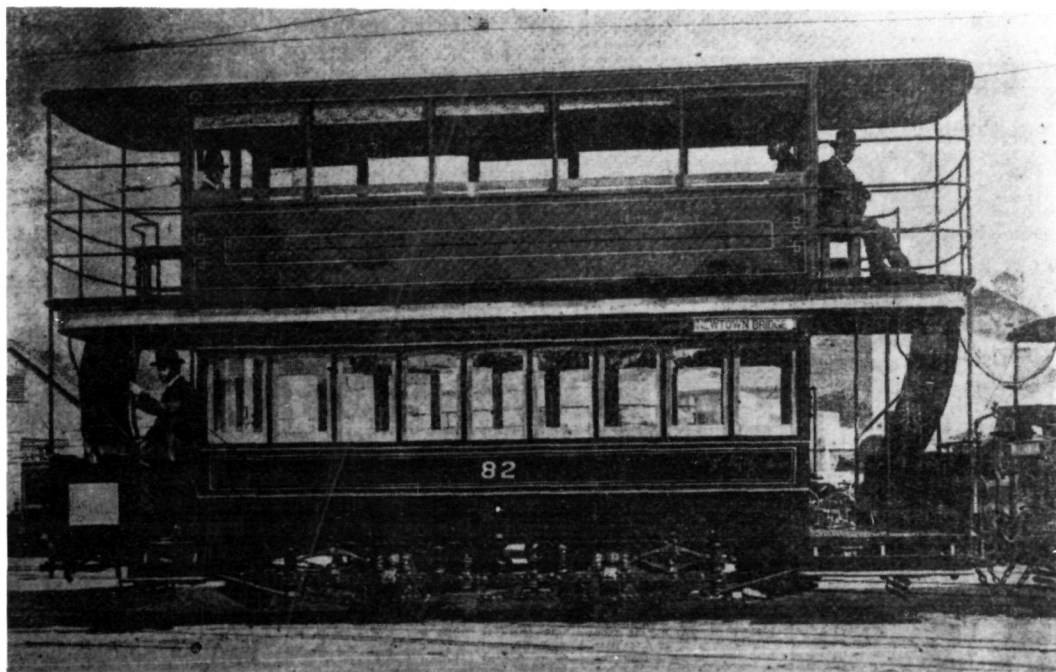
Tramways drawing No. F/2618 shows the conversion of the 26 passenger Box (later C class) to double deck with cross seating on the upper deck.

conditions of the period, and the first opinion of the success or otherwise of the experimental cars:

"The tram traffic is becoming more and more congested, at least in the thickly populated suburbs and especially to Newtown. During the busy hours of the day every Newtown tram is crowded, sometimes dangerously so, many passengers being unable to find seats in the cars, and often having to stand on the footboards. How this congestion may be prevented is a difficult problem to solve. The commissioners have endeavoured to do so by returning to the old system of double-decked cars. The carrying capacity is thereby increased without the ordinary cost of additional rolling stock. It seems doubtful, however, whether the effort will prove successful. The experiment has been tried for about a week, the double-decked cars being put on the line from Circular Quay to Enmore. Traffic along this route being always very great, it was well suited for the trial, especially during the busy holiday season. Experience, however, shows that there are serious drawbacks to the system. Observers have noted that on the trams having a double-decked car, the journey from the Quay to the Enmore terminus occupies about 10 minutes, or one third, more

than the ordinary time. The time needed forgetting on and off the double-decker makes the stops much longer. This is caused in some measure by the stairways being often crowded, hindering free access and exit; but even when this is avoided the extra delay must still be considerable. During the past week the upper part of the cars were well patronised, the novelty and improved view obtainable no doubt attracting many; but the general opinion seemed to be that the top deck is by no means as comfortable for riding as the lower one. there is a deal of oscillation, making it almost impossible to read, a habit common amongst many tram passengers. The greater length of the journey and other disadvantages will, it is thought, prevent the double-decked cars becoming popular."

Chief Traffic Inspector Herrman wrote to the traffic superintendent on 13 April 1907, giving an official view of the first two weeks' operation of the converted cars. During this period the cars were out of traffic four whole days and two half days. Mr Herrman felt it inadvisable to use the double deck cars on busy Saturday night and Sunday traffic when delays were caused by the cars "being continually overloaded by curiosity travellers." He went on to state that for the first



Another view of car 82 at Randwick Workshops with tramway officers posing as passengers. It is coupled to its motor car, No. 93, just visible at right.

V.C. SOLOMONS Collection



A double deck C class car leading its single deck partner along George Street at Park Street. The two-car set is passing the Town Hall, outbound from Circular Quay. This is portion of a postcard published by the New South Wales Bookstall Co.

R.I. MERCHANT Collection

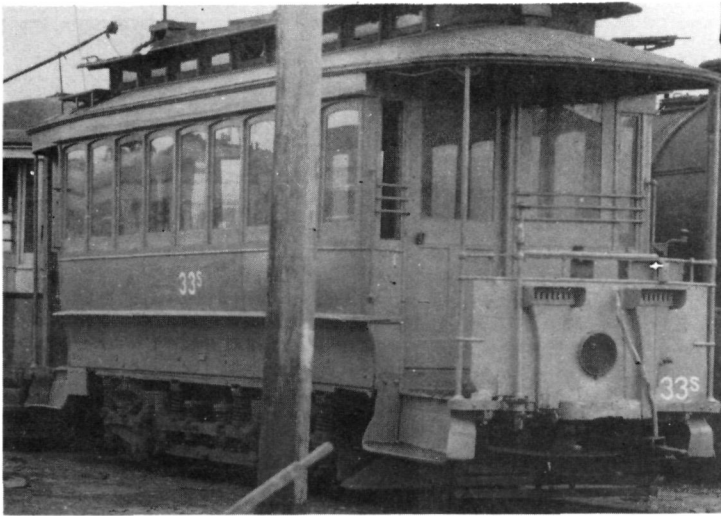
week the cars ran up to 19 minutes late, losing from 6 to 11 minutes during crush traffic, and it was necessary to prevent passengers standing on the upper platforms and stairways. This enabled the cars to keep good time and, in fact, to keep to the scheduled time. Mr Herrman noted that during the time the cars were in service, adverse comments had been made on their unsteady riding. He also had noticed the fore and aft motion which was similar to the action of the steam-hauled double deck cars which had generated public complaints. He felt that this movement was not so noticeable in the single deck cars.

Mr Herrman's concerns were subsequently conveyed by the Traffic Superintendent to the Commissioners in a memo dated 22 April 1907. In that memo, John Kneeshaw reported that the double decked trail cars were put into traffic on 25 March and "have continued up to date, car No. 432 being off the run 2 days and car No. 434 off for 5-1/2 days for repair or overhaul purposes." His reference to the two double deck sets by their run numbers would indicate that the cars ran the same run each day, each making thirteen round trips if the full run was completed. Double deck car 82 and motor car 93 operated on

run 434 as mentioned by Starter Owen, so double deck car 33 and its motor car 92 must have operated run number 432.

Mr Kneeshaw went on to say that although the cars ran very late for the first few days during the crush loading in the evening, the staff and the public had become more familiar with them and they were keeping better time. Lost time from two to three minutes was still occurring on busy trips, particularly between Circular Quay and City Road junction where the double decked cars ran as much as two blocks behind the tram in advance. He attached returns showing the number of minutes late or early the cars were at the Cleveland Street bundy clock.

On 6 May 1907, the Traffic Superintendent had an interview with the Assistant Railway Commissioner and advised the Secretary for Railways that arrangements were being made to run the double decked cars between Central Railway Station and Enmore during the busy traffic each evening, and they would be withdrawn from ordinary traffic in George Street during the remainder of the day. He advised the Secretary on 12 May that the cars ran two trips each evening between Enmore and the Railway, and that the loading was fair. Even in this service the



Two views of haulage car 33s at Randwick Workshops. The multi-pin power sockets on the apron of the coupling end for the double deck car are clearly visible in both these views.

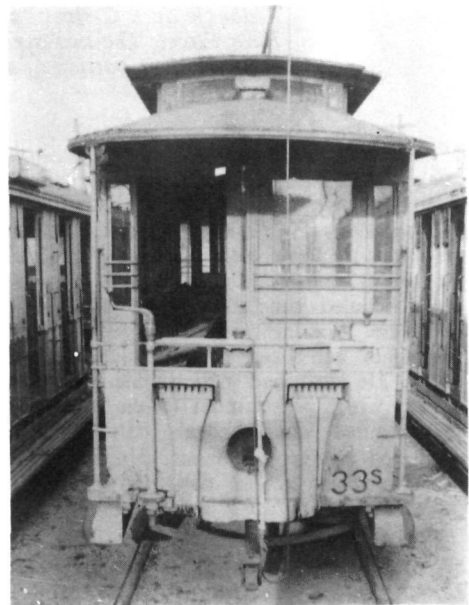
Top: D. STEWART, N.L.C. Colln.
Bottom: V.C. SOLOMONS

trams lost from 2 to 4 minutes on the outward journey, thereby to some extent interfering with the other trams which were following.

Mr Kneeshaw recommended to the Commissioners on 28 October 1907 that both double deck cars be converted back to single deck cars. In support of his request, he stated that the cars caused interference with ordinary trams owing to the extra time taken to load and unload passengers at stopping places, and that they had limited use over the system due to the insufficient height of the trolley wire in several places.

Approval was given for the cars to be withdrawn and they were taken out of service on 17 January 1908. Both cars were then rebuilt to their standard four-wheeled saloon form and operated from Fort Macquarie Depot.

Both cars ended their days as tramway service vehicles. Car 82 was converted to a welding car in 1917 and renumbered 121s in the service stock roster. it was attached to Leichhardt Depot until scrapped in 1926. Car 33 was withdrawn on 11 November 1924 and was used as a haulage car at Randwick Workshops. No. 33 was not renumbered into the service stock roster in numerical sequence, although it became 33s with the addition of the "s" to its passenger number. 33 was retained at Randwick workshops until 1959 when it was withdrawn from service. It was sold for use as a studio-workshop at Mt Victoria, west of Sydney. From there it was purchased privately and taken to Springwood for restoration. Little progress was made and the car ended up at a proposed narrow gauge tourist railway in the Megalong Valley. It became surplus to the railway's needs and was finally acquired by the



then Newcastle Tramway Museum and stored at Maitland.

Although its restoration is in the distant future, this last relic of Sydney's double deck electric tram experiment will one day run on the new line being constructed by the Maitland Tramway Park and Museum at Rutherford.

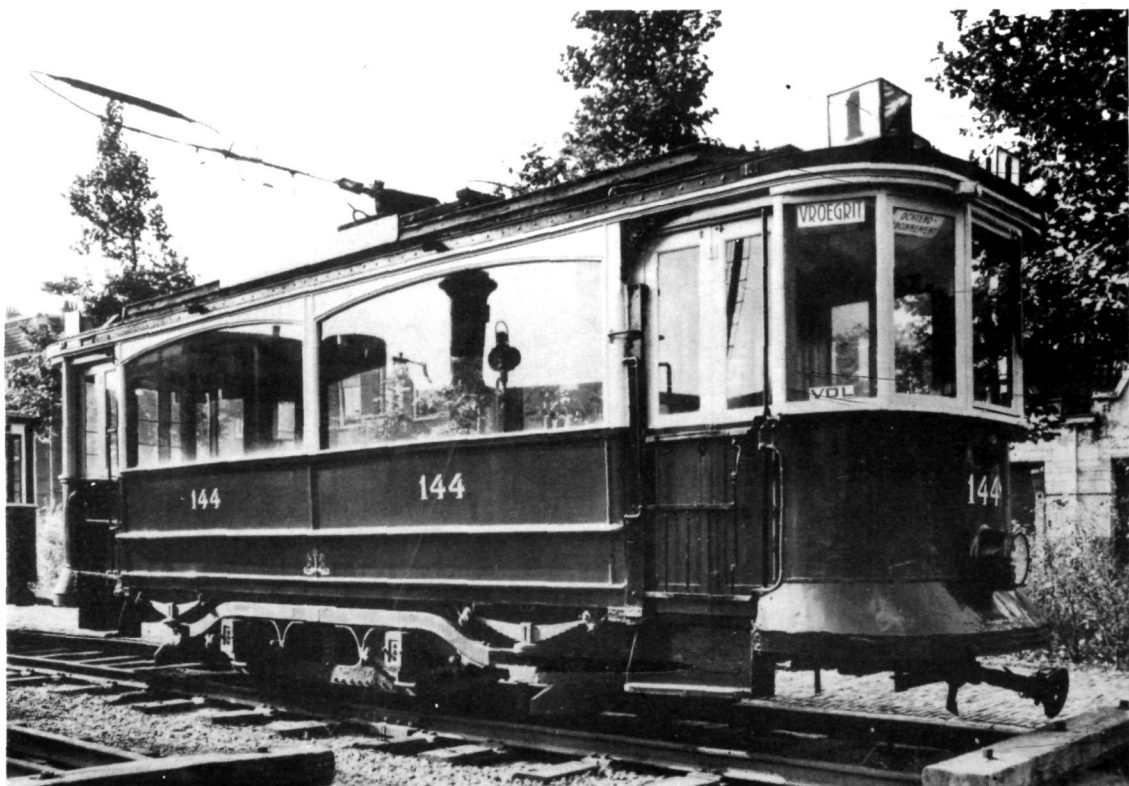
TRAMCAR PRESERVATION IN THE NETHERLANDS

By Otto Dijkstra

Nearly twenty six years ago, on 11 August 1965, initiatives taken by the *Nederlandsche Vereeniging van Belangstellenden in het Spoor- en tramwegwezen*, the Dutch association of rail and tramway enthusiasts, more commonly referred to as the NVBS, led to the creation of the *Tramweg Stichting* (TS) or tramway society. The stated purpose of the new organisation was to acquire Dutch tramway equipment and restore it to good condition. It is, therefore, an organisation which is devoted to preserving Dutch technical and cultural heritage.

From STA via NVBS to TS

Some time before the founding of the NVBS in 1931, a number of tramway enthusiasts succeeded in saving a carriage, a goods wagon and a small two-axle open goods wagon from being scrapped. This rolling stock had been used on the last horse-drawn tramway in The Netherlands which ran between Makkum and Harkezijl, and the intention was to house it in a museum which was to be set up. In 1932, steam tram engines A 1, named *Haarlem*, and A 15 of the *Noord-Zuid-Hollandsche Tramweg Mij*



Amsterdam Union motor car 144 at the Dutch Railway Museum in Utrecht.

STICHTING NEDERLANDS SPOORWEGMUSEUM

(NZH) were obtained with the same objective in view.

Unfortunately, the original plans were thwarted by military operations which took place in 1943. Only the two goods wagons from the horse tramway and tram engine A 15 survived and, following their restoration, now reside in the Dutch Railway Museum in Utrecht. A 15 was restored by the *Nederlandse Spoorwegen* (Netherlands State Railways) as *Rhijnlandsche Stoomtramweg Mij* (RSTM) No. 2.

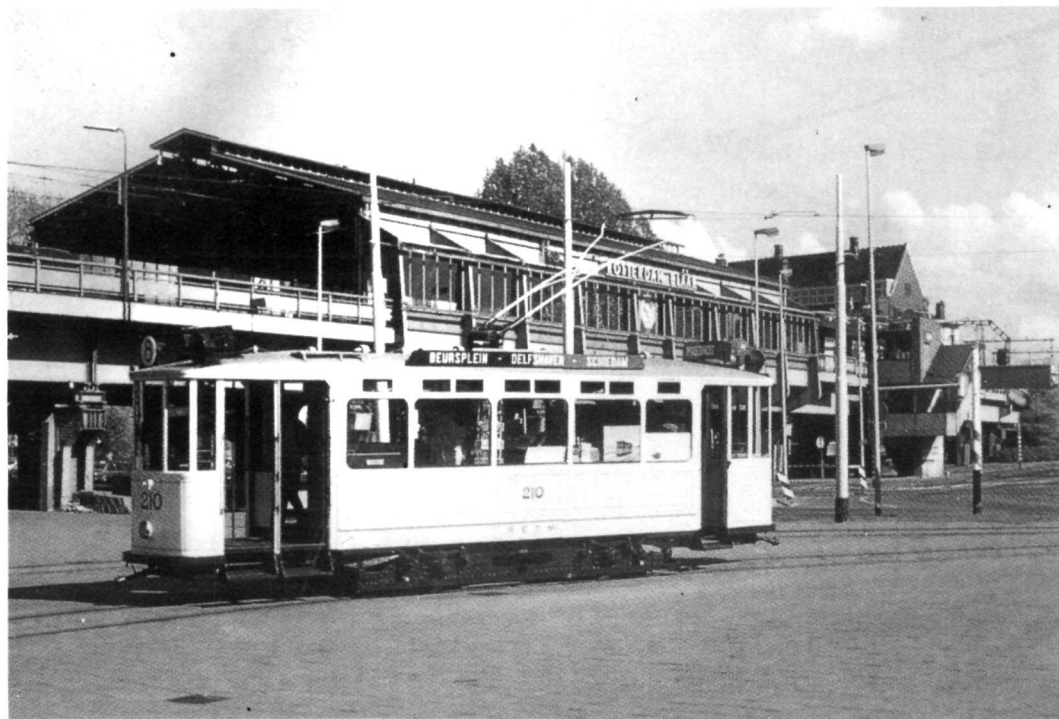
After the Second World War, some NVBS members working together in the Tram Archive Society (STA), came into possession of a trailer from the former Vlissingen to Middelburg electric tramway. The Vlissingen-Middelburg tramway was doomed after the wilful flooding of the Walcheren island in 1944. The trailer was transferred to Utrecht-Zeist and it even took part there in an NVBS excursion. There was nowhere for the vehicle to be housed, however, and it eventually was scrapped when the *Nederlandsche Buurtspoorweg Mij* (NBM) became a bus company. In the years following World War II, nothing could be done if such a change occurred as old trams then had some export value or could be used as emergency dwellings. Despite this setback, a number of these members set to work again and, as a result of their efforts, we are now able to admire Amsterdam's Union motor car 144

of 1903 and Utrecht NBM horse tram 23 in the Dutch Railway Museum.

Meanwhile, the Dutch Tram Museum in Weert, a private collection, was acquiring rolling stock such as Amsterdam motor car 307, trailer 946 and NZH trailer B 32, stock which the TS was later able to take over in an exchange.

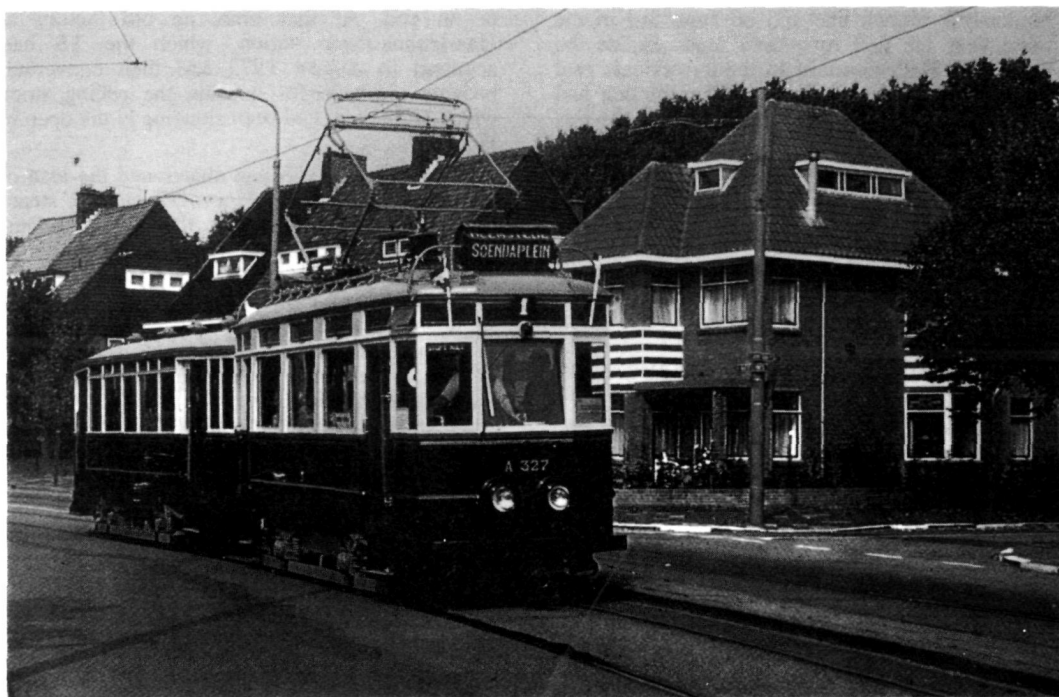
But the NVBS was also stepping up its activities. When the NZH's Leiden to Noordwijk/Katwijk tramline and the city line closed in 1960, the NVBS persuaded the NZH to part with city motor car A 327 and trailer B 26 with its very rich history. The two vehicles were allowed to spend another year in the NZH depots in Rijnsburg and Voorburg, after which the NVBS had to take charge of them. It was at this time that the NVBS decided to set up a museum committee headed by its former chairman, Mr F.C. Weider.

In Amsterdam, the committee succeeded in getting the municipal transport company to set aside Grootbordesser 236 and Utrechtenaar 301 until a home could be found for them. It also managed to persuade the *Haagsche Tramweg Maatschappij* (HTM), the tramway company in The Hague, to donate to the NVBS motor car 164 and interurban trailer 118, the second of which had been used on routes to and from the city. With the closing of the last NZH tramway, the interurban line between The Hague and



RETm motor car 210 of 1924 outside Rotterdam Blaak station on 2 May 1987.

TRAMWEG-STICHTING



Blue and cream liveried NZH motor car A 327, built by Beynes in 1919, and trailer B 26 operating in The Hague on 10 September 1989.

J. de GRAFF

Leiden, in 1961, however, things started to go wrong: trailer B 26, mentioned above, was sold for scrap because no accommodation could be found for it. At the last minute, fortunately, the NVBS was able to buy it back and house it in the former Netherlands State Railways' locomotive shed in Hoorn. An attempt to purchase NZH motor car H 303, a working motor car of the Budapest type and originally A 508, failed through lack of funds.

The retirement of old rolling stock in the tram cities of Amsterdam, The Hague and Rotterdam prompted the NVBS to make the committee independent and transfer the NVBS rolling stock to it. The Tramweg Stichting was born.

On 10 December 1965, notification was received from the *Rotterdamsche Tramweg Mij* (RTM), that the TS could make a bid for the steam tram rolling stock which was destined for scrapping. Following an urgent appeal for donations, the TS was able to buy three steam tram locomotives and a large number of carriages and goods wagons for around forty thousand guilders. Events then followed at a rapid rate.

The yard at Hellevoetsluis was acquired for ten thousand guilders. At the same time, the TS obtained bogie trailers 769 and 780 from The Hague. The Wesel-Rees-Emmerich narrow gauge

railway made its ex-NBM rolling stock available and the *Cooperative Suikerfabriek Dinteloord*, a beet-sugar company, donated steam tram locomotive 18 (built by Henschel in 1922) from the *Gooische Tramweg*. The equipment owned in Rotterdam also grew: it even proved possible to buy trailer 1355, which had been retired in 1959, from a scrap merchant. Within a couple of years trailer 1355 was completely restored. The TS was a fact.

Destitute though it was, it existed. On 15 July 1967 the society ran its own rolling stock for the first time. To celebrate the 40th anniversary of Route 11 in The Hague, runs were made with motor car 810 and trailer 769, which had been restored to their original condition. Thanks to the extraordinary efforts of a great many helpers, this was followed on Friday, 15 December 1967 by the operation of the first TS steam tram, in the Westland region. Here, too, the occasion was a celebration, the anniversary of the Delft 'Leeghwater' student society.

From TS to SHM/SMS, RTM, EMA/RETM and SHTM

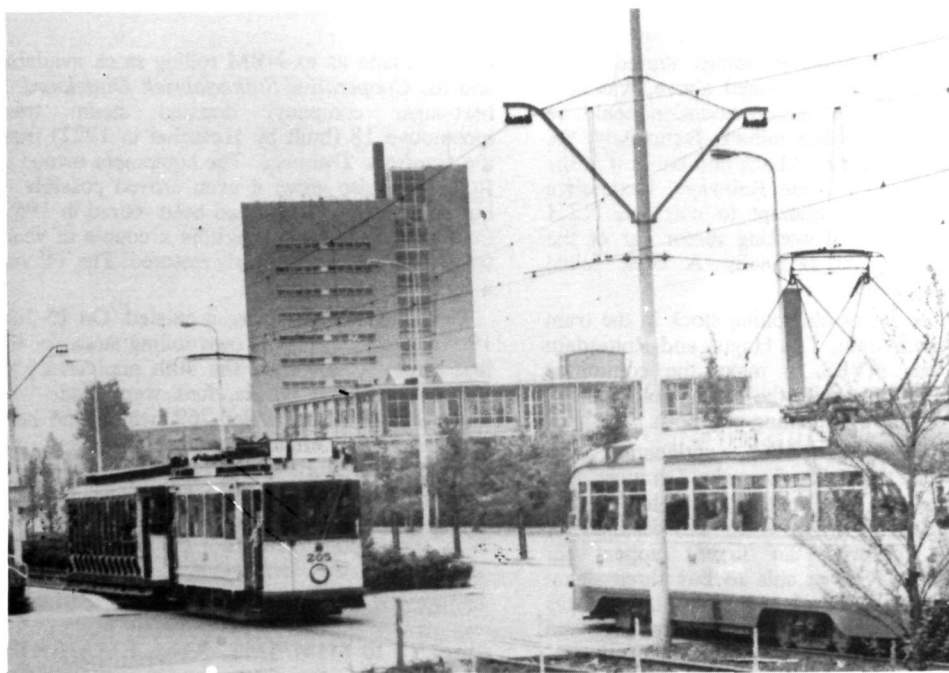
Even more activities took place after 1967. On 23 May 1968, for example, the first steps were taken to operate steam trams on the Hoorn-

Medemblik branch line and on June 3rd of the same year the first runs were made beside the harbour in Hellevoetsluis. In the former case real steam was used; in the latter, diesel traction had to be accepted. Where available, stock was purchased to make it possible to run an historic steam tram service on the Hoorn-Medemblik line. This was because there was a fairly large quantity of narrow-gauge rolling stock without a tramline and roughly twenty kilometres of normal railway type line without tram rolling stock. Carriages of Amsterdam origin, which were acquired in haste, did not bring about any improvement in that situation as they had narrow rims and low flanges. In the end, branch line railway rolling stock was bought in The Netherlands and abroad.

The NVBS jubilee in 1971 prompted the first public appearance of the TS in Amsterdam. Unfortunately, that first public performance did not turn out well because motor car 236 bumped into the back of an articulated tram and suffered considerable damage. This was, however, the first step towards the establishment in January 1973 of a permanent TS location in Amsterdam, which enabled a small part of the Amsterdam museum collection to be returned to the capital. Not until the spring of 1974 did the problem of accommodating rolling stock in Amsterdam come

to an end. At that time, an old factory at Haarlemmermeer station, which the TS had acquired in August 1973 and then converted, became available for housing the rolling stock which, until then, had been standing in the open in Hoorn.

Meanwhile, the TS had abandoned the idea of electrifying part of the Hoorn-Medemblik steam tram line. The reason was that the Haarlemmermeer branch railway line became available. The celebration of 100 years of trams in Amsterdam in 1975 provided an enormous stimulus to create an electric museum line on a section of just over a kilometre in length. Thus it was on 20 September 1975 that the first electric tram rode on its own electrified line from Amsterdam's Haarlemmermeer station to Ringweg, the provisional terminus. By the mid 1980s the line had been extended to Amstelveen, a distance of 5.7 kilometres. Prior to that, in 1973, the running of the Hoorn-Medemblik line had been transferred to an operating company, the *Stoomtram-Hoorn-Medemblik bv* (STM), which is a fully fledged TS subsidiary. The historic rolling stock was placed in the care of the *Stichting tot Behoud van Stoomtrammaterieel* (SBS), which was renamed the *Stichting Museum-Stoomtram* (SMS) in 1989. In 1976,



Motor car 265 and open trailer 505 pass a PCC car in The Hague. Museum trams operated on Sundays from 3 June to 2 September 1990 leaving Franz Halsstraat from 11am to 5pm.

TRAMWEG-STICHTING

the *Rijdsdend Tram-Museum* (RTM) was set up. This organisation would be able to look after affairs at Hellevoetsluis better than the TS could do from a distance. Amsterdam followed in 1979 with the creation of the *Vereniging Rijdsdend Electrisch Tram Museum* (RETM). Operation of the Amsterdam trams was entrusted to a separate society, *Stichting Electrisch Museumtramlijn Amsterdam* (EMA). In 1988 the *Stichting Haags Tram Museum* (SHTM) was set up in The Hague, with the result that there are at present four management companies (SMS, RETM, RTM and SHTM).

Operating companies present a bankruptcy risk. The management companies, as well as the NVBS, are represented on the TS board and are the owners of the Dutch historic trams used by the operating companies. This solution should prevent our tramway heritage disappearing abroad should an operating company get into financial difficulties.

Vanished Working Groups

Some working groups have grown into a complete museum. Others no longer exist and are in danger of being forgotten. A prime example is the former Voorburg working group, a group that succeeded in restoring a splendid Blue Tram, the Budapest control trailer B 412, out of a fairly forsaken beach cabin. This vehicle is now in the NZH company museum, where its future as one of the representatives of our technical and cultural heritage is secure. A working group which has almost been forgotten is the former Geldermalsen group, which performed miracles in very primitive conditions. Trailer 22 of the Gooi tram company, now in the SMS collection, will be a monument to this group. Finally, mention must be made of the North working group, whose members restored the *Nederlandse Tramweg Maatschappij* (NTM) converter van K 16 and mail/luggage van D1 for the SMS.

These are not the only places where work had been done on museum trams over the years. For

example, even the NZH on the Leidsvaart (Haarlem) played host to NBM trailer 43. Outside, it is true, but hosted nevertheless!

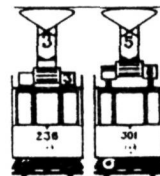
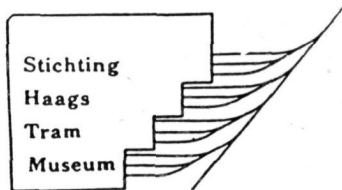
Similarly, RTM steam locomotives were worked on in a very old and dilapidated factory shed in Zaandam and there was also a location in Enschede. Unfortunately, the latter was destroyed by fire in 1971, together with the rolling stock.

The finest tribute to all involved is the fleet of beautifully restored rolling stock which exists today.

The Future

Following a number of bleak years, the future now looks brighter for the SHM as subsidies are now being granted. The same applies to the developments in The Hague. The conversion of the former Frans Halsstraat depot into a public transport museum is in full swing. In Amsterdam a lot of effort is going into the creation of the extension to Bovenkerk. The developments at the RTM are even more impressive. The Hellevoetsluis site was abandoned in 1989 because it offered no opportunity to expand. That opportunity did exist, however, in the municipality of Goedereede. A depot has been built there and a tram line roughly five kilometres in length will be laid between De Punt, in the southwest of Goeree, and Kabbelaarsbank. The tram line will run along Brouwersdam, thus bringing together the old (RTM museum trams) and the new (Delta works). The construction of the Delta works made the tram operations of the former RTM superfluous. Thanks to those same Delta works a completely RTM museum can be built up.

In Amsterdam, work has commenced on extending the museum tramline another 1.1 kilometres from Amstelveen to Bovenkerk. The 1903 vintage Union car 144 has also joined the EMA collection from the Railway Museum in Utrecht. The museum fleet now stands at 36 Dutch motor trams, 33 trailers, and 17 works cars, and 21 foreign motor trams, 11 trailers and 5 works cars.



The Dutch Tramway Museum in Weert will close after the 1990 season. Its three trams will be returned to their cities of origin but all other items in the collection will be transferred to the recently opened public transport museum in The Hague.

What else the future will bring is uncertain. The coming of articulated and double-articulated rolling stock is already in sight. These long trams cause many people concern, because of the space these vehicles take up. Nevertheless, these also belong in the museum collections.

The ever active TS working groups are also increasingly making an impact. The group operating in Rotterdam was given the use of the former Delfshaven depot, where it is exhibiting not only part of the TS rolling stock collection but also that of the RET, the Rotterdam tram company. The working group in Scheveningen is engaged in restoring ex-NZH and other rolling stock. The restoration of one of the electric trams used on the first NZH electric tramlines, which almost involves starting from scratch, will surprise everyone. The other group which was active there until recently is known for its exemplary

conversion of HTM motor car 805 to trailer 905.

The nearly 6000 members of the NVBS (the mother society of the Tramweg Stichting and covering all aspects of the rail hobby) will be celebrating its 60th anniversary with two big public events. TRAM'91 on Sunday, 5 May 1991 is a two-hour tram parade between the NS railway station at Sloterdijk in Amsterdam and the tram terminus at Slotterplas. The municipal tramway systems of Amsterdam, Rotterdam and The Hague, as well as the tramway museum societies, have promised their co-operation to delegate a total of between 20 and 25 trams for this parade. STEAM'91 will be held on 5 and 6 October and there will be two parades of more than 20 steam locomotives from The Netherlands, Belgium and Albion, as well as passenger trips on shuttle services.

Thanks to the Tramweg Stichting, museum trams have developed from a passionate hobby and obsession of a few individuals into a piece of national cultural heritage whose disappearance would be unthinkable. It is, in fact, a hobby which got out of hand.



Amsterdam two-axle motor car 465 running on the EMA museum line in Amsterdam.

TRAMWEG-STICHTING

THE CONUNDRUM OF THE FOOTSCRAY "M" CLASS

By Michael Norbury

The seventeen tramcars forming the M class of the Melbourne and Metropolitan Tramways Board, one of the several types of single truck open Californian combination car used in Melbourne, were numbered by the Board in two groups: ten cars in the 107-116 range, and seven cars in the 183-189 range.

When the Board took over the undertakings of the various municipal trusts on 2 February 1920, it found itself with cars bearing similar numbers. In the renumbering that this necessitated, the 106 cars (including those on order) of the Prahran and Malvern Tramways Trust, the largest pre-Board system, retained their numbers. The next group of numbers was allocated to cars of the Hawthorn Tramways Trust. Each Hawthorn car number had 106 added to it to arrive at the Board's unified fleet number. Thus, HTT No. 8 became Board No. 114.

The other trusts' cars were allocated numbers higher than Hawthorn. Cars from the Footscray Tramways Trust were numbered in the range 183-189.

Because of the basis of the car numbering system, the owner of any particular car immediately prior to takeover by the Board can be deduced. However, that owner is not necessarily the original owner of the car.

The fourth edition of *Destination City* (AETA, Sydney, 1981) states that Board Nos 107-116 were built in 1916 for the HTT by Duncan and Fraser, and Board Nos. 183-189 were built in 1920 by Duncan and Fraser to the order of the FTT, but were delivered after takeover by the Board.

In respect of cars Nos. 183-189, the clear inference is that these cars were ordered by the FTT prior to February 1920, were built by Duncan and Fraser in 1920, and delivered after takeover by the Board.

This is wrong.

This view is apparently based on the Board's first Report and Statement of Accounts, that is for the year ended 30 June 1920, which contains the following statement:

"Seven new cars originally purchased by the Footscray Tramways Trust have been temporarily transferred to the Eastern system...."²

This statement indicates that the cars were purchased by the FTT, but adds nothing in connection with building date nor the time of delivery of the cars by the builder.

On 18 May 1914 a conference of representatives of the Melbourne City Council, Richmond City Council, Hawthorn City Council, and Camberwell City Council, the four constituents of the proposed Hawthorn Tramways Trust,³ met to consider a report prepared by Messrs McCarty, Underwood and Co., consulting electrical engineers,⁴ in relation to that Trust.

This reports dealt with, amongst other matters, the potential traffic on the line and the number and type of cars needed to operate the line. In essence, it recommended that the proposed Trust could expect an average daily revenue of £84/14/8 for the entire line⁵ and that the Trust should purchase ten single truck combination cars and ten bogie cars⁷ to deal with the traffic.

Subsequently, tenders were called, and by 14 April 1915, the HTT had received three tenders⁸ for single truck car bodies:

Duncan & Fraser — £550 per car, delivery in 7 months; Chas Rush — £557 per car, delivery in 10 months; A. Pengelly — £585 per car, delivery in 20 months.

After some negotiations, Duncan and Fraser were persuaded to supply nine bodies at a price of £548/2/6 each, with delivery in six months.⁹

The reduction in price was achieved by substituting Queensland maple for ash. (Why the contract was for only nine bodies is a mystery. There are vague suggestions relating to a "sample car"; perhaps Duncan and Fraser already had one car built as a 'demonstration' model necessitating the construction of only nine bodies.) British Westinghouse was successful in tendering for the supply of ten sets of motor

1 p.18.

2 p.22.

3 Melbourne to Burwood Tramways Act, 1914.

4 Hawthorn and Camberwell Citizen: 22 May 1914.

5 A copy of the report is held in the TMSV archives.

6 p.8.

7 p.5.

8 HTT minute book: 14 April 1915.

9 *Ibid*: 22 April 1915.

equipment and magnetic brakes for the single truck cars.¹⁰

The first portion of the HTT's line, from Princes Bridge to the Depot at the corner of Wallen Road and Power Street, was opened on Thursday, 6 April 1916. Six bogie cars¹¹ were in use that day. While the single truck car bodies were complete, they could not be used that day as they required further equipment: the motors arrived in Melbourne by steamship on 3 May 1916.¹²

By that time, it had become apparent that traffic was much heavier than anticipated. The revenue for the first few days was as follows:

Friday, 7 April	£73/12/9
Saturday, 8 April	£101/16/2
Monday, 10 April	£138/6/2

It had been expected that the first two sections of the line (i.e. from Princes Bridge to Power Street) would not pay well.¹³ However, the average of the daily receipts for the first four weeks operation was £73.¹⁴

The trend continued; with the opening of the line to Auburn Road on 7 May 1916 the revenue was:

Sunday, 7 May	£104
Monday, 8 May	£93
Tuesday, 9 May	£89 ¹⁵

It was apparent that the Trust would have too few cars to serve the traffic offering when the line was open to Burwood. In May 1916,¹⁶ it was estimated that the Trust would need 40 cars to operate the line when completed.

By 6 June, at least one single truck car was in service;¹⁷ by 14 July 1916, at least six single truck cars were operating.¹⁸ Tenders were called for the supply of additional cars, and on 24 July 1916, the Tender and Works Sub-Committee of the HTT decided to recommend acceptance of Duncan and Fraser's tender for eight bogie car bodies and seven combination car bodies.¹⁹ The price per combination car body was £595.²⁰ British Westinghouse successfully tendered to supply motors (at £441 per car) and spares (total price £897) for the single truck cars.²¹ By 1 September 1916, all remaining ancillary tenders for the new cars had been let.²²

The new car bodies were complete by 18 May 1917. Industrial action had delayed the supply of material for the extension of the car shed necessary to house the new cars. The new bodies were therefore stored in Adelaide until such time as the extensions to the car shed were complete.²³

By the end of June, materials had again become available for the extension of the car shed.²⁴ The first of the new bogie cars was in service by 6 July 1917.²⁵

Two more such cars were in service by the first week in December 1917, but the remaining bogie car bodies and all the single truck bodies were stored in Adelaide awaiting the completion of the car shed.²⁶

Furthermore, owing to wartime disruptions, the HTT had no idea when the electrical equipment for the remaining single truck bodies would arrive.²⁷ In December 1917, the HTT requested that the FTT increase its order for electrical equipment by a further seven sets.²⁸

By late February 1918, the motors from British Westinghouse remained undelivered. The HTT decided to cancel the motor contract and call for further tenders.²⁹ A tender to supply motors was granted to Australian General Electric on 12 March 1918.³⁰ British Westinghouse, however, refused to cancel its contract without the payment by the HTT of some £95 to cover "out of pocket expenses". The HTT refused to pay and insisted on British Westinghouse completing its contract.³¹ Thus, the HTT risked being supplied with two sets of motors for its second order of single truck cars.

For reasons totally unrelated to a shortage of cars, the HTT was soon to find itself critically short of funds.³² A statement made in early September 1918 relating to the commitments of the HTT and the funds available as at 1 October 1918 showed two things:

1. Provision of £1,100 for motor equipment from the U.S. 2. There was a shortfall in the funds available to meet commitments of some £5,136.³³

The HTT took action to put itself in funds. In late September, it offered for sale to the FTT

10 *Ibid*: 23 April 1915.

11 Hawthorn and Camberwell Citizen: 7 April 1916.

12 *Ibid*: 15 May 1916. *Argus*: 4 May 1916 p.4. Whether the expression "further equipment", as used by the *Argus*, included something in addition to motors is not clear.

13 Hawthorn and Camberwell Citizen: 14 April 1916.

14 *Ibid*: 5 May 1916.

15 *Ibid*: 12 May 1916.

16 *Ibid*: 12 May 1916.

17 *Argus*: 6 June 1916 p.5. Letter to Editor from "Richmond Resident".

18 Hawthorn and Camberwell Citizen: 17 July 1916.

19 HTT Tender and Works Sub-Committee Minute Book: 24 July 1916.

20 *Ibid*: 13 July 1916.

21 *Ibid*: 13 and 18 July 1916.

22 Hawthorn and Camberwell Citizen: 1 September 1916.

23 *Ibid*: 18 May 1917.

24 *Ibid*: 29 June 1917.

25 *Ibid*: 6 July 1917.

26 *Ibid*: 7 December 1917.

27 *Argus*: 1 January 1918 p.4.

28 FTT Minute Book: p.128, 13 December 1917.

29 FTT Tender and Works Sub-Committee Minute Book: 27 February 1918.

30 *Ibid*: 12 March 1918.

31 *Ibid*: 9 April 1918.

seven unused single truck car bodies for £615 each.³⁴ A report from its engineer suggested to the FTT that the bodies offered by the HTT were vastly superior to anything offered by the PMTT.³⁵ The FTT tried to negotiate a reduction in the purchase price. The HTT refused to reduce its original offer of £615 per car body, but did agree to "alter name on the cars and do painting necessary".³⁶ By late October 1918, the Trusts had agreed to the sale of the bodies at £615 each, cash within seven days, bodies to remain at HTT's depot at risk of FTT, no charge for storage. The FTT decided to reimburse the HTT a portion of the cost of insuring the cars while they remained at Hawthorn.³⁷

The car bodies remained at Hawthorn until September 1919. On 11 September that year, the FTT took delivery of two of the bodies. On 18 September, the last of the bodies was delivered, the remainder having been delivered in the interim.³⁸ The bodies were shifted by Thos. Warr & Co.³⁹

Councillor Johnston, a member of the FTT, to a public meeting of the Footscray and District Tramways League said in respect of the Trust's cars:

"Mr Sewell, of Cross Street, made the undergear, the wheels and axles (the first made in the State) were made at Thompsons Castlemaine."⁴⁰

However, that was not the end of the matter. FTT claimed that certain parts were missing from the cars. This was denied by HTT. Correspondence ensued right up to the absorption of both Trusts by the M&MTB.

Thus, M class cars of the M&MTB were ordered by the HTT. The second series, that is M&MTB nos 183-189, were ordered in July 1916. Their arrival at Hawthorn was delayed until 1918 because extensions to Hawthorn Car Depot had not been completed. To raise urgently needed cash, the HTT sold the car bodies to FTT in October 1918, that Trust taking delivery of the bodies in September 1919 and arranging for underframes, wheels and axles to be made locally.

The conundrum is solved.

32 The track of the HTT was in very poor order. Two independent engineering reports, one prepared by Mr Henderson of the Prahran and Malvern Tramways Trust, and the other by Mr Robertson of the Melbourne, Brunswick and Coburg Tramways Trust indicated that extensive and costly repairs were essential.

33 HTT Inward Letter Book No. 4: Statement dated 12 September 1918.

34 FTT Minute Book: p.243 3 October 1918.

35 *Ibid*: p.247 10 October 1918.

36 *Ibid*: p.250 17 October 1918.

37 HTT Finance and Traffic Minute Book: 25 October 1918, FTT Minute Book: p.259 31 October 1918.

38 FTT Minute Book: p.389 11 September 1919.

39 *Ibid*: p.396 2 October 1919.

40 Footscray Advertiser: 22 November 1919.

HERE AND THERE

NEWS ITEMS OF INTEREST FROM ALL OVER

News from Melbourne

Prototype LRV 2001 has seen very little service since the early months of the light rail service which opened late in 1987, and has spent most of its time at Preston Workshops. The main problem was a tendency to roll back when starting on steep hills. The tram returned to South Melbourne Depot around 9 January, but has seen very little service since. 2002 did see much more Light Rail use than 2001 but it too has spent

much of the last year or two at Preston. More recently it has returned to light rail duties, but also is not used a lot. Although the appearance of these cars is rather similar to the production B2 class cars, they are in fact non-standard, especially as far as braking and lack of air conditioning is concerned. Although the prototypes are driven in the same way as the B2 cars, their brakes are released by compressed air rather than

hydraulically, and most tram drivers develop a disliking for non-standard trams.

Therein lies some of the problems with the operation of the historic tram fleet. For example, although W2 class 646 is a standard car of that class, its existence is in effect that of an orphan, and consequently 'non-standard' compared to the more modern W types and some drivers find the smallest of excuses to not run it in traffic. At one stage the operation of historic trams on route 16 was in jeopardy as a result of the actions by some drivers to have them banned. The matter was eventually solved by preparing lists of drivers who wanted to drive these trams, those who did not care either way, and those who refused to drive them. For Sunday work, rosters are arranged so that historic cars are not rostered to those drivers who do not wish to drive them.

On a happier note, L class 104 is nearing completion of repair work following its collision on 6 January. Its sister, L class 106, suffered a traction motor fire on Sunday, 10 March while working the Zoo service, but was seen in service again on 1 April.

Pop-art W2 class 504 was still in the paint shop at Preston as at February, awaiting a decision on its future painting following the death of Clifton Pugh. W5 class 774 is in the body shop at Preston, undergoing restoration. It will be returned to 1930s condition, except that it will retain the multiple head and tail lights to facilitate operation at night. The restoration is being undertaken as a fill-in job.

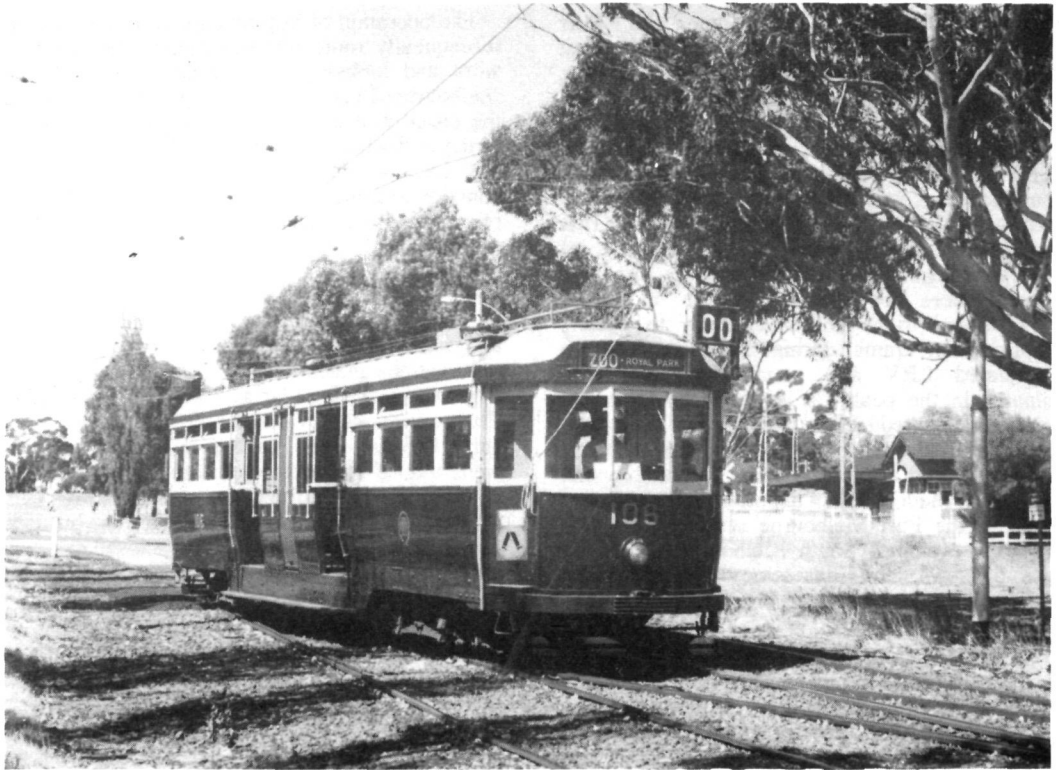
For much of February and March, a mobile theatre called "Storming St Kilda by Tram" was in operation. A 900 series W class car, with all seats facing the centre of the tram, was used. Various actors got on and off along the way, playing the part of 'passengers', while the audience occupied the rest of the tram.

Two 2-door W5 class cars were observed in operation in February - 685 in St Kilda Road and 821 in Collins Street.

The ban on the disposal of withdrawn cars continues. As new B2 articulated cars enter service, older cars are being withdrawn and stored at depots. Because of the generally good condition of the recently rebuilt SW5 cars, trams being



W2 class 510 carries a sign reading "1928 Vintage Tram" whilst working the heritage tram tourist service from St. Kilda Beach.



L class 106 traverses the Zoo crossover in Royal Park before returning to the city.

withdrawn may be from any of the remaining W classes. Some of those withdrawn are SW6 cars. A number of Z trams are also in store.

Paul Class and his partner visited Melbourne in December/January and arranged to buy four trams for shipment to the USA. These were exempted from the bans on disposals because of their condition. The cars concerned were 756, which had been sold early in 1990 and had been partially stripped, but the original buyer did not complete the sale; 751 and 839, which had been heavily stripped including removal of drivers cabs; and 533, the former pantograph test car which was damaged by fire in December 1989.

Further to the item in the February *Trolley Wire*, the main shed at Hawthorn Depot contained W2 class trams 684, 650 and 547, prototype all-electric car 1041, W5 class cars 772, 795, 878 and 823, and nine Z1 cars displaced by B2 articulated cars from routes 19 and 86. The second shed contains several single truck cars and possibly one or two more W2 cars.

Advertising tram 976, which was damaged in the near head-on collision with another tram last year, returned to service in February. At the time of the accident it was advertising the Medical Benefits Fund of Australia, but now is in the colours of the Capital Building Society and includes, probably for the first time, red and blue fluorescent tubes.

The introduction of the usual Christmas period reduced peak hour timetable on 24 December brought to an end the operation of A2 class trams on the light rail routes. The last A2 car in this service was 261, while 265 had been at South Melbourne Depot for some time with wheel problems. Thus all A type trams are allocated to Kew Depot which retains just a few W type trams for route 79 service, supplemented by the few A1 class trams which retain trolley poles also for that route. In fact new drivers at Kew are no longer trained on W type trams.

The resumption of normal schedules on 21 January saw the introduction of a new timetable

for the light rail routes. Route 111 Port Melbourne now has a weekday daylight headway of 12 minutes (including peak hours), formerly the morning peak enjoyed a 10 minute frequency. Route 96 was somewhat more affected, with peak hour headways reduced from every 6 minutes to every 8 minutes, the official reason being that now that the route was 100% articulated trams, the reduced frequency had sufficient capacity and that the greater spacing would make 'bunching' of several trams together less frequent. The new service does occasionally result in badly overcrowded trams and is contrary to posters displayed in trams during 1987 showing an articulated LRV and announcing "Every 5 minutes in the peak", a goal which was never reached. The reduced service meant less trams were required, thus the A class cars were no longer required at North Fitzroy Depot. No staff cuts were made at that depot, which now does some of the Port Melbourne services, including weekday evenings. South Melbourne Depot did lose 6 crews, but after two weeks of limited industrial action won back 2 crews for light rail duties.

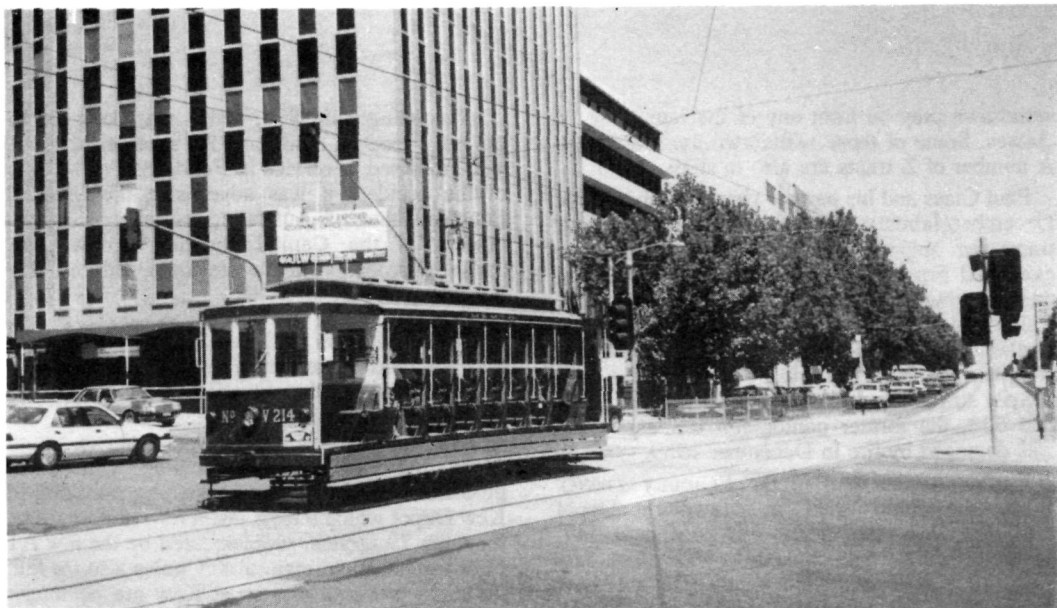
Articulated tram 1014 was decorated for the Australian Tennis championships in January, and that car was one of several used on a shuttle service from the Batman Avenue (route 70) terminus to the venue some distance down that avenue. When a second tram from South Melbourne was required, often historic fleet car Y1 class 613 was used.

The operation of historic cars on route 16 (and subsequently route 69) was largely the result of work and lobbying by a small group at South Melbourne Depot. Further negotiations between the group and St Kilda Council resulted in the hiring of 4-wheel trams V class 214 and X2 class 676 for a Sunday shuttle service from St Kilda Junction to Luna Park at St Kilda Beach. An area of parkland near the junction was set aside as a car park, and the \$2 parking ticket included free transport on any tram between the two points operated by the shuttle service. The purpose was to encourage motorists to stay away from the congested beach area on Sundays. Casual observations indicated that the car park became more and more popular as the weeks progressed. The service was to run for eight Sundays from early February, and for this purpose 17 drivers were trained for two-motor tram operation. The operation of historic fleet cars was to cease with the return to winter rosters after Easter, but it is expected that some of the more enclosed cars will operate all year through due to the popularity of St Kilda with visitors all year round.

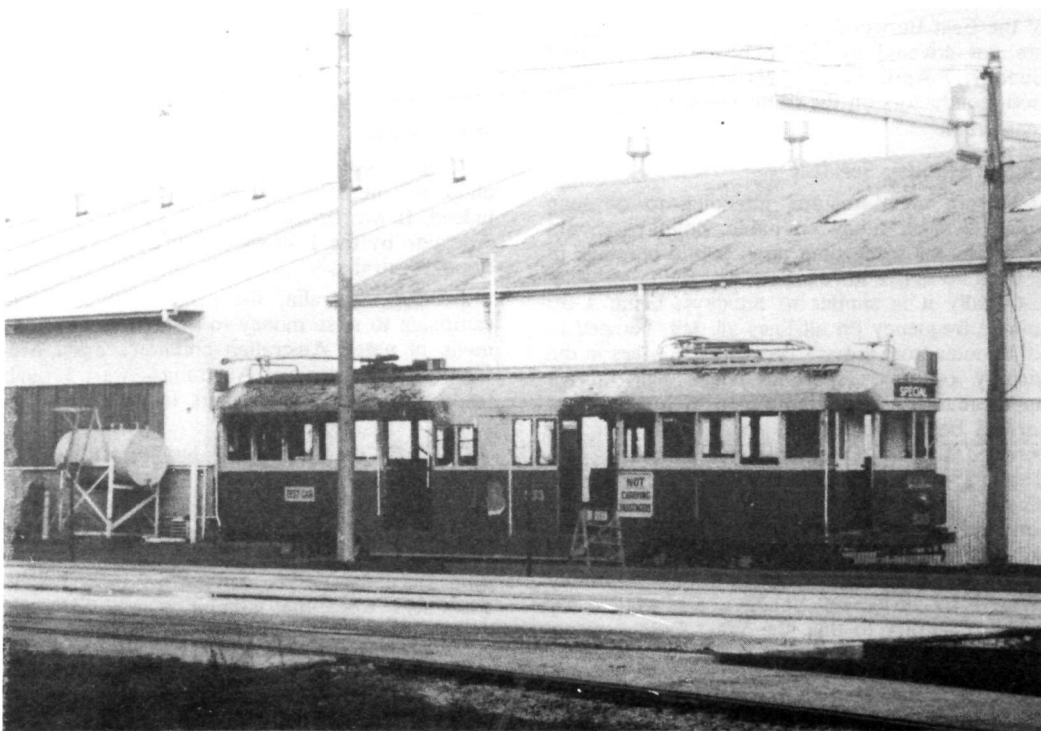
On Easter Monday, Essendon Depot ran L class 106 on the Zoo service, but South Melbourne ran no historic cars on the St Kilda service...

Track and Overhead

The weekend of 23/24 February saw the replacement of the H crossing at the intersection of Bourke and Swanston Streets in the city centre



Melbourne heritage car V 214 enters Fitzroy Street, St Kilda on its way to Luna Park on the first day of the 'Park & Ride' service which commenced from the next tram stop.



Pantograph test car 533 at Preston Workshops after being damaged by fire in December 1989.

DALE BUDD

with a new crossing cast in hardened steel. Trams stopped running through this intersection from 6pm Saturday and resumed with the first trams on Monday morning. Southside Swanston Street services terminated at Flinders Street, while northside services terminated at Latrobe Street, although no replacement bus services were scheduled, buses were on occasion commandeered from regular services to perform a shuttle service in Swanston Street. In Bourke Street, Bundoora trams terminated at Russell Street, while Port Melbourne trams terminated at Queen Street. Route 96 (St Kilda to East Brunswick) services were diverted via Latrobe Street.

After the completion of the trackwork on route 12 before Christmas, the track gang spent a week on the St Georges Road job before the usual Christmas holidays. After the break, Elizabeth Street, City was relaid between Victoria Street and Flemington Road. No temporary track was laid, work being carried out between trams. On occasion, a replacement bus service was provided in the evenings and at weekends. The next job, starting 4 March, was route 12 at Albert Park

Beach, which rarely sees a tram. The final section of approximately 400 metres has been relaid, and the terminus lengthened. Once again buses were used, although on occasion they were blocked by machines doing the job. One bus was used for the shuttle, with a second in the peaks. Normal services resumed on schedule on 29 March, but only after weekend and evening overtime was worked.

A span pole on Princes Bridge (over the Yarra River) collapsed onto the roadway around 4pm on Thursday 28 February, bringing down the overhead which scorched Malvern tram 831. Services were disrupted for over an hour while a temporary spanwire was erected between the two adjacent poles, and the overhead repositioned. A new pole was installed the following week.

Melbourne Fares Rise

Fares on Melbourne's public transport rose on and from Sunday, 10 March 1991. The Daily Adult tickets, used by most tramway enthusiasts, rose from \$3.00 to \$3.20 for the Zone 1 ticket and from \$5.00 to \$5.40 for the Zones 1 & 2 ticket. (The Zones 1 & 2 ticket includes the ends

of the East Burwood and Bundoora routes which are not covered by the Zone 1 ticket.) From Sunday, 7 April these tickets are again available from conductors on the trams (or drivers on one-man cars).

Public Holiday Services

Visitors to Melbourne intending to do long hours of tram riding on public holidays should note that for some time now, public holidays in general no longer have a Saturday style timetable. Generally it is similar to Sundays, being a 30 minute frequency on all lines all day, boosted to 20 minutes from around 1pm to 6pm. Lines in the vicinity of major sporting events will receive appropriate service, while in summer, lines serving beaches will also see a more frequent service. Labour Day, with its Moomba procession, was an exception, with frequent service all day, including 20 minutes at night. There are some differences, however, from the Sunday type service. First and last cars run at the same time as weekdays, while those tram routes normally worked by buses on Sundays are worked by trams. Contrary to this, the West Coburg trams

run in Elizabeth Street and thus William Street is not served by trams on public holidays.

Bib and Bub

A link between historic house preservation, childrens' nursery rhymes, and tramcars? Yes indeed. It was brought out at a recent display in Adelaide by the Friends of the State Library of South Australia.

Around Australia, there has been a strong campaign to raise money to save "Nutcote", the home of noted Australian children's artist May Gibbs. Generations of Australians were brought up on her nursery characters in the 1930s and 1940s.

Recently, the Friends of the State Library of SA assembled a collection of old cartoons, books and other memorabilia associated with May Gibbs and her work. These items were displayed in the foyer of the State Library for three months from December 1990. Among her most notable characters were the gumnut twins, "Bib and Bub".



X2 class 676 operating the Park 'N Ride service along Ackland Street, St. Kilda.



Y1 class 612 in Glenferrie Road operating the heritage service on Route 69, St. Kilda Beach to Kew Cotham Road, on Sunday 10 March 1991.



The tramway shelter in Elizabeth Street, City as it now appears. The protective awnings over the tracks were removed to allow clearance for the pantographs fitted to the B2 articulated cars.



Z2 class 176 displays the new roof advertising boards now being fitted to this class. The car is in Elizabeth Street at Bourke Street.

When the Municipal Tramways Trust coupled many of its original A type electric trams permanently in pairs in 1941 to save labour during the war, these cars became affectionately known as "Bib and Bubs". To show the social impact of May Gibbs and her work, the Friends sought a model of this type of tram, and found that John Radcliffe had made one many years ago. Its inclusion in the display rekindled memories for many people of travelling to school in these bouncing little sets of cars which made such a great contribution to helping to carry the very large numbers of passengers during the war when petrol was in very short supply for private motorists.

Manly Tram Depot

Want to buy a tram depot? The *Financial Review* for 21 March 1991 carried an auction sale advertisement which included an investment property being offered by the State Transit Authority of NSW. The property, with secure tenant on long lease, was being auctioned on 23 April and is the former Manly Tram Depot in

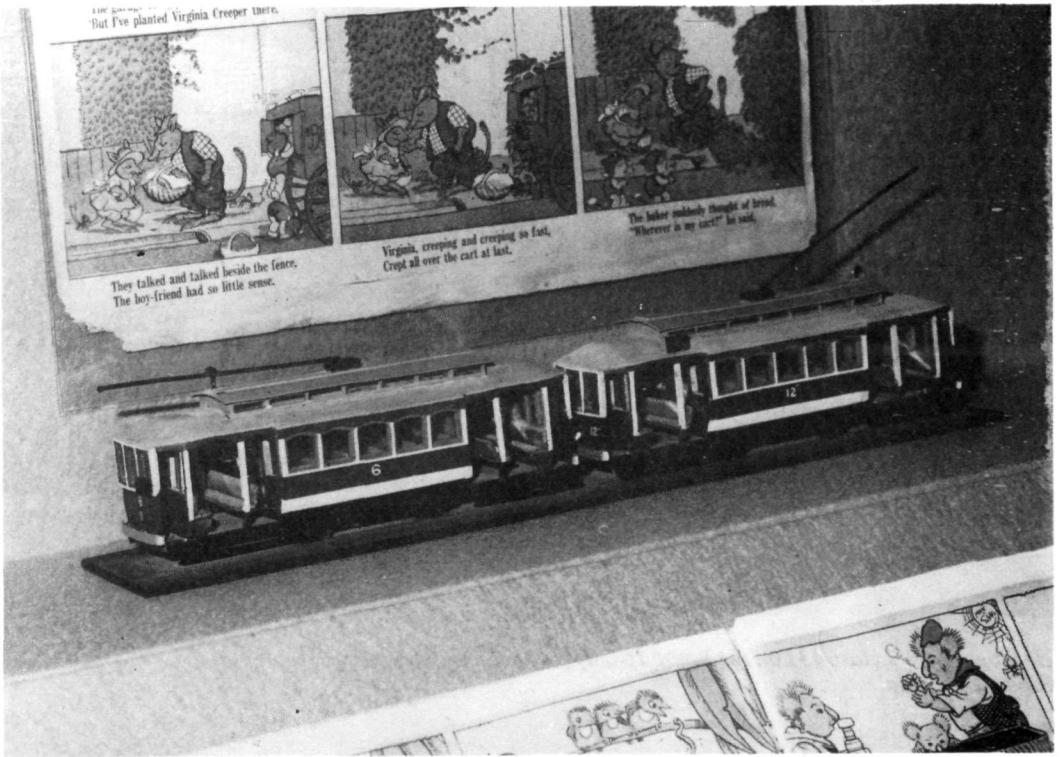
Pittwater Road at Balgowlah Road, last occupied by trams in 1939.

Small Town Preservation Under Way

In the October 1984 issue of *Trolley Wire* we mentioned the efforts being made to restore one of the three trams of the Nelson Street Railway Company in British Columbia, Canada.

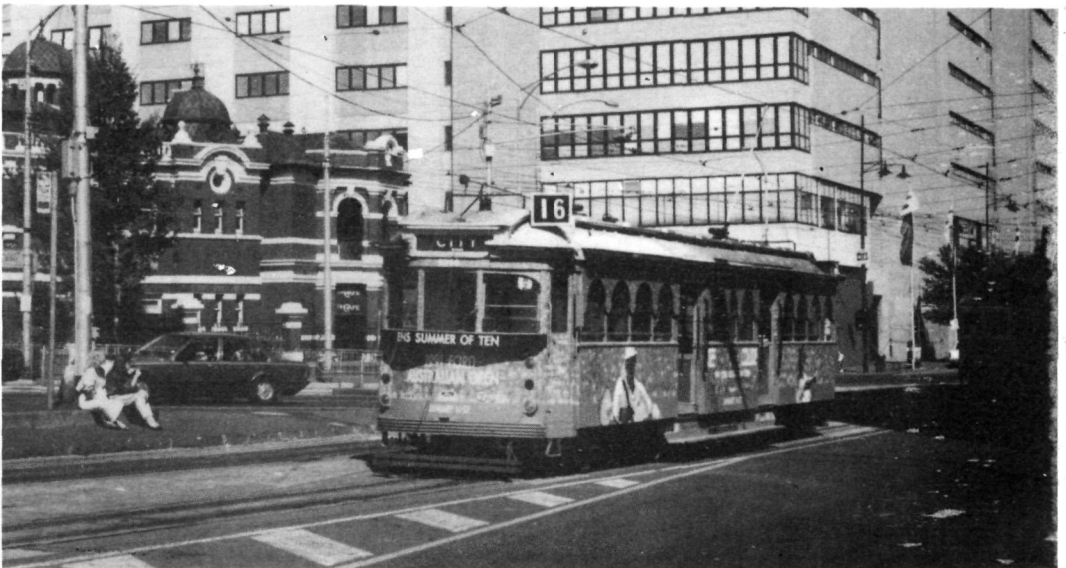
S.J. Morgan reports that plans to construct a heritage tramway in this small town will now come to fruition thanks to grants approaching \$C1 million. In phase 1, a line about a kilometre in length will run from Lakeside Park along the shore of Kootenay Lake. The line will be extended into the city along Baker Street at a later date. The body of car 23 is being restored to operating condition using replica Brill 276 trucks built at Fort Edmonton. Tracklaying took place through the spring and summer of 1990 and a depot has been constructed. It was hoped that part of the line would be ready for use by October 1990.

Toronto PCC 4504 has been acquired and is in open storage. It is to be used as a source of parts to be traded.

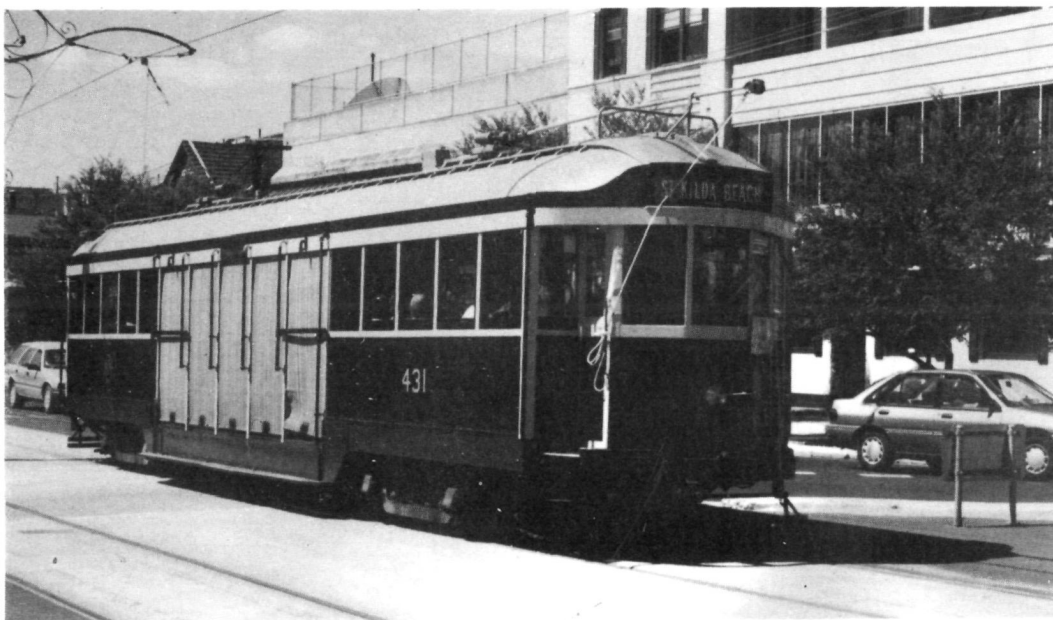


A model of Adelaide A type tramcars numbers 6 and 12, which ran as a coupled set from 1941 until withdrawal on 30 November 1950, brought back memories of another aspect of Australian life influenced by May Gibbs and was included in a recent display in the State Library in Adelaide.

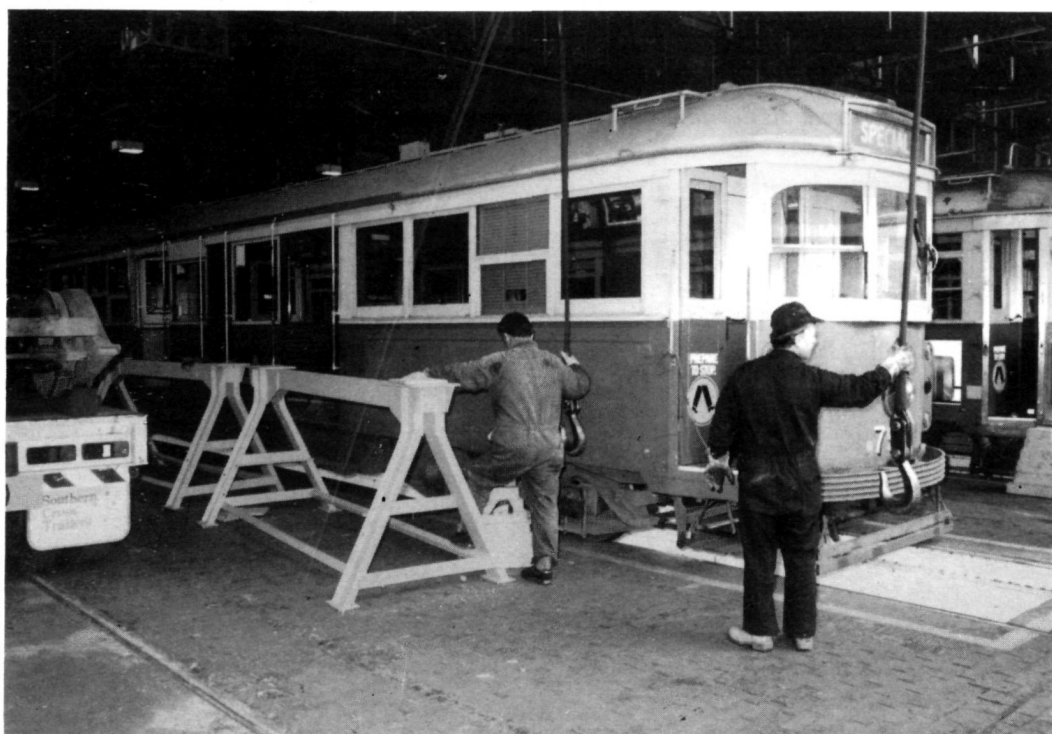
State Library of South Australia



Advertising car 1014 in Australian Open Tennis Championship livery at the top of Swanson Street on 10 March 1991.



Heritage car W1 class 431 on the Route 16 City to St. Kilda Beach service in Ackland Street, St. Kilda.



W5 class 792 being prepared in Preston Workshops for transport to the Sydney Tramway Museum on 14 December 1990.

NEVILLE WOOLNOUGH

Subscriptions to Overseas Museum Magazines Available

By a special exchange arrangement known as Oldtimer Tram Interchange (OTI) organised by our friends in The Netherlands, *Trolley Wire* is able to offer subscriptions to three magazines published by overseas tramway museum groups with payment being made to *Trolley Wire* in Australian dollars.

Details of the three magazines are:

Country	Sweden	France	Netherlands
Magazine Title	Ringlinien	Voie Etroite	Op oude Rails
No. of Issues per Year	4	6	4
Average No. of Pages per Issue	28	44	16
Average No. of Photos per Issue	50	100	22
Page size	A4	A4	A4
Yearly Subscription — Surface	\$25.00	\$42.00	\$25.00
Yearly Subscription — Airmail	\$30.00	\$? ?	\$27.00

Note: Subscription rates are in Australian dollars.

Readers desiring to subscribe to any of these magazines should forward their name and postal address, name of magazine required and payment, payable to *Trolley Wire*, to:

R.I. Merchant (OTI), GPO Box 1241, Sydney NSW 2001.

Note: This address is to be used for subscriptions to OTI magazines only and must not be used for subscriptions to *Trolley Wire*. See Page 2 for details of *Trolley Wire* subscriptions.



W5 class 792 in Preston Workshops. It has been loaded onto the low loader in preparation for its transfer to Sydney.

NEVILLE WOOLNOUGH

Railway Square Waiting Shed and Signal Box

The large passenger shelter (passenger shelters were always known as 'waiting sheds' on the NSW Tramways) now re-erected at the Sydney Tramway Museum, was built around a tramway signal box in the centre of Central Square, later renamed Railway Square. This railway-style signal box was located at the western end of Devonshire Street at the entrance to the Redfern railway station, a site known as Railway Gates.

The construction of the waiting shed became necessary with the alterations to the area due to the opening of the new Sydney Station in 1906, the construction of which replaced the old Redfern station and closed Devonshire Street. The waiting shed was opened on 18 November 1907.

Trams to the western and south-western suburbs passed to the west of the waiting shed

until the last George Street service closed in November 1958; the eastern side served trams to the eastern and south-eastern suburbs. Trams continued to operate past the eastern side of the shed until 25 February 1961 when the last eastern suburbs and Sydney trams ran.

Passengers for buses which replaced the trams were sheltered by the waiting shed until 9 June 1973 when it was dismantled to make way for a new bus interchange in the area.

The original signal cabin was replaced by an elevated structure over the waiting shed and was placed in service on 18 October 1909. The signal box controlled trams to the Ryde line via Quay Street Junction between 1910 and 1953, George Street trams to and from Broadway until November 1958 and the eastern suburbs trams to and from the terminus loops and Regent Street lines until decommissioned in February 1961.



Central Square showing the original signal cabin. The C class car and trailer on the left are crossing the junction to Devonshire Street and are about to turn into the terminus at Redfern station. The F and N class cars on the right are proceeding to and from Parramatta Road, the first mile of which was later renamed Broadway.



Railway Square with the completed waiting shed and the signal box under construction. The Devonshire Street junction and the tracks to the railway terminus have been removed. The former terminus junction now leads to new terminal loops and a newly constructed Lee Street connecting to Regent Street.



N class cars arriving at the completed Railway Square waiting shed and signal box about 1910. The signal box roof was later altered to provide a clerestory with opening hopper type windows for ventilation.

All Photos from V.C. SOLOMONS Collection

C.O.T.M.A.



Council of Tramway Museums of Australasia

From Executive Officer Bill Kingsley:

Order of Australia Medal to Norm Chinn

COTMA is quite thrilled to be able to announce that in the 1991 Australia Day Honours Norman Leslie Chinn of Loftus NSW was awarded the OAM for "service to the community, particularly through the preservation of historic rail transport". Congratulations Norm. It couldn't happen to a finer bloke. Norm was one of the four folk who preserved L/P tramcar 154 and so commenced our tramway preservation movement. I have known Norm for many years now and have always enjoyed his company, his enthusiasm, his smile and his dedication. He has been to all a steady, diligent and inspiring example. Surely all members of all our museums will join me in saying "Good on ya, Norm". Norm now joins our Chairman, John Radcliffe in the wearing of the gong. But what it really shows is that the community out there now has a real respect and appreciation for what we are all doing, and an increasingly higher expectation. Let us all support each other by keeping up and improving our good work.

Glenorchy on TV

For those who watch the TV ads, the one showing the Colonel, addressing his troops before an assault on Tasmania, on a railway station and surrounded by hissing steam engines is actually standing on the platform of the reconstructed Newtown station at the TTMS museum in Hobart.

Incidentally, for those who have seen "Ratbag Hero", the paddlewheeler *Hero* is actually the *Adelaide* restored and working after many years high and dry in Hopwood Park at Echuca.

BTMS praises BTMS

In the May 1990 issue of the now deceased *Baby Dreadnought* one reads "Recent visitors to the Ballarat Tram Museum were most impressed, describing it as 'a must for all tram enthusiasts' - an opinion I am sure would be shared by all those who have had the privilege of visiting there. Well done, Ballarat!"

It is beaut to read such intermuseum praise. There should be more of it, more mutual support for each other.



Bendigo

A
magical
history
tour!



Ride the Talking Trams. Descend the Central Deborah Goldmine. Every day of the week you can have the experience of lifetimes!



For further details contact:
The Bendigo Trust,
Violet Street, Bendigo 3550.
Telephone: (054) 43 8070.
Bendigo - just up the Calder Hwy.

*Celebrating 100
years of trams
1890 - 1990*

Mercury Arc Bulbs

While we remain in such a thankful and appreciative mood, Bendigo wants to publicly thank the AETM and the STA for a big blue wonder which arrived safely and in good order. If there is one thing that this Executive Officer enjoys, it is promoting intermuseum assistance.

After sharing with the BTMS at a General Meeting in January, I am eager to report that, following a devastatingly cataclysmic period, the new team at BTMS is up and running with a joy, eagerness and exuberance which was great to experience. To Troy Thomas and the new gang, keep it up chaps. We are all behind you.

Haddon Turns It On

MTPA have the power on and the trams are moving at Haddon. It has been a long hard road for this small band of very dedicated and thorough preservationists. Well done, fellas. We all know how great you must feel. Cloud 9 is beautiful.

More Milk Cartons

In the November 1990 issue we mentioned the Ideal Dairy's promotion of Melbourne trams on their milk cartons. Not far from Melbourne, Sandhurst Dairies went one better, with a locally patriotic promotion helping to celebrate the Centenary of Trams in Bendigo, and featuring toastrack 14 on the famous

'Talking Tram' service outside Central Deborah Mine. Thanks Sandhurst for your great and continuing support for one of our museums. For those who don't know, 'Sandhurst' is the best known of the many former names of Bendigo.

Brasses for W2 Cars

PETS is manufacturing brasses for W2 bearings. Please contact the chaps at PETS if interested.

BALLARAT . . .

Ballarat Tramway Preservation Society



A new ticket policy came into force during January, with the issuing of tickets in the pre-decimal values identical to the SEC Tramways design of the day. Face values are 1/- for adults and 6d for children, in green and dark blue respectively. Permanent use of these values will remove the necessity of having all tickets reprinted whenever there is a price rise. Shortly after the system began there was consternation when six pennies turned up in a conductor's pay-in, but it turned out to be a put-up job by another staff member.

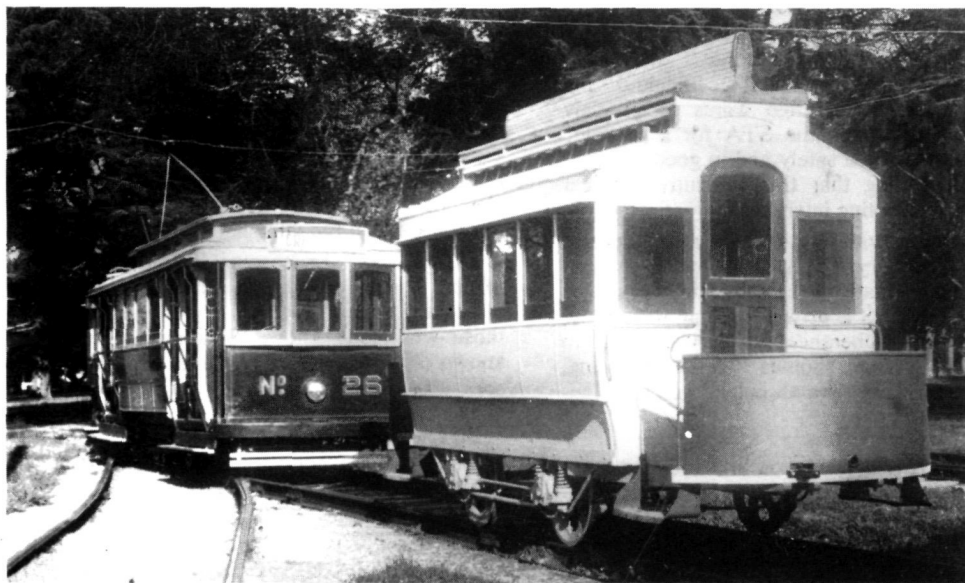
Calendar year 1990 returned a passenger figure of 20,990, making it the best year since 1978. It's not all economic doom and gloom in Victoria! During the December/January holiday period, no less than eleven different cars were used in revenue service - another record. The good figures continued over the Begonia Festival period, with 2820 passengers carried in nine days. Highest one day total was 913 passengers on Sunday, 10 March. Easter produced over 1000 more passengers.

The new museum display area being built around No. 39 is now structurally complete, and

needs only finishing and fitting out. Display lighting is being installed and the selection of photographs and artefacts can proceed. Carpeting is being delayed until the depot floor outside the display can be sealed.

The society's ex-Melbourne ex-Sydney Bedford tower truck has been refurbished, requiring repairs to a leaking radiator and a replacement clutch. In the best traditions of British engineering, mating up the engine and gearbox required a maximum of precision with a minimum of accessibility, and ended up taking three days, with many skinned knuckles and some appalling language. During the week before Easter the now greatly improved tower truck earned its keep when 350 metres of worn trolley wire was replaced in two days. This covered the section from the loop to Depot Junction. An English visitor who looked in for five minutes was press-ganged into two days work on the overhead.

Car 27 is out of service with a motor failure. Some minor binding wire near the armature has given up the ghost, but it won't be known how much damage has been done until the armature has been removed for a closer inspection. This



Horse tram No. 1 and single truck car 26 outside the Society's depot in November 1990.

DAVE McCARTNEY

will be the first time the SEC pit jack has been used for this purpose since the system closed.

One of the drawbacks to record passenger figures is that the car floors need constantly repainting. During the weeks before the Christmas rush floors were repainted on Nos 13, 14, 18, 26, 38, 40 and 661. This has become a regular job each December.

Work has started on the restoration of No. 671, which has had little done to it over the past fifteen

years. It is to be restored to the early 1950s M&MTB style, with green window frames and full lining.

Painting and lining of the horse tram proceeds. Up to six coats of paint have been needed on the sides, and lining and lettering is now proceeding. Only the sides are being done at the moment, as work is still going on with stairs and canopies on the ends. The first spiral staircase is almost complete after a couple of false starts.

FERNY GROVE . . .

Brisbane Tramway Museum Society



The past few months have seen a number of alterations made to Museum displays and arrangements, as part of the Museum's continuing policy of providing additional displays and ensuring visitors get 'value for money'. It has been a slow process, made more difficult by the extraordinary heat and humidity that Brisbane has endured for the last three months.

The area around No. 2 depot has been tidied and roads 4 and 5 rearranged to enable the depot doors to those roads to be opened during public hours, revealing replica horse tram 41 and trolleybus 1. The trolleybus was towed from the depot recently, given a thorough clean and returned to the head of the depot.



The depot area in February 1991. In the foreground motorman Bill Daniells explains the working of the overhead to two interested gentlemen.

TROY THOMAS



Combination car 47 about to tackle the hill at Ferny Grove.

TROY THOMAS

No. 1 depot has been neatened with all track maintenance equipment stored further back in the depot, while a similar process is now under way in the workshops to ensure all doors to that building can be opened to the public.

The terminus area has seen attention too, with piles of kerbstones neatly stacked in one area, while a large mound of surplus soil from earthworks constructed over 12 months ago has finally been removed. The footpath on the southern side of our 'street' has been levelled, turfed in part and a number of Australian native trees planted to form a screen between the terminus and the members' car park.

The area between the Museum's storage building and the Museum's western boundary has been totally cleared, with the perway yard rearranged. As *Trolley Wire* goes to press, six of the Museum's buses will be re-sited to behind the storage building. The remaining buses will remain on display, but rearranged.

In the workshops, work continues on drop-centre 341 with a new malthoid floor being

installed. So far, both motorman's cabs and saloons have been fitted, leaving only the dropcentre section to be attended to.

In early March, Clyde Engineering (Qld) donated to the Museum two General electric 247A traction motors. They are in excellent condition and are ex-New South Wales Government Tramways. Clyde had used them as motor-generators to enable electrical circuits on new diesel-electric locomotives to be tested. The motors should fit very nicely into the Museum's Sydney R class bogies, acquired some time ago from the Parkes radio telescope.

Another acquisition by the Museum was a large pneumatic power hammer, donated to the Museum by the Brisbane City Council Department of Transport. The hammer, some 10 feet high, was manufactured by B & S Massey Ltd of Manchester, England and was initially installed in the Tramway Workshops at Boomerang Street, Milton and later moved to the bus workshops at Dean Street, Toowong. The department also donated a furnace, two hearths, quenching tanks and a large number of blacksmith's tools.



Trolley bus No. 1 outside No. 2 depot in February 1991.

TROY THOMAS

PARRAMATTA PARK . . .



Steam Tram and Railway Preservation Society

The restored KA class tramcar was used for the first time in revenue service on our steaming day in March, Sunday 17th. The car proved to be very popular with our visitors. Peter Stock took the two photographs of the car in service, reproduced below.



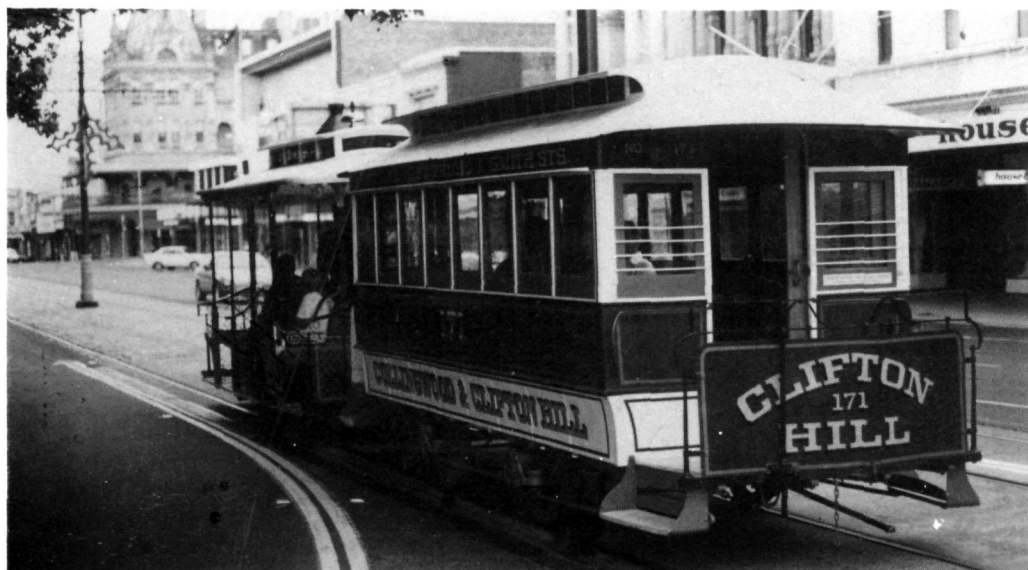
BENDIGO

THE BENDIGO TRUST



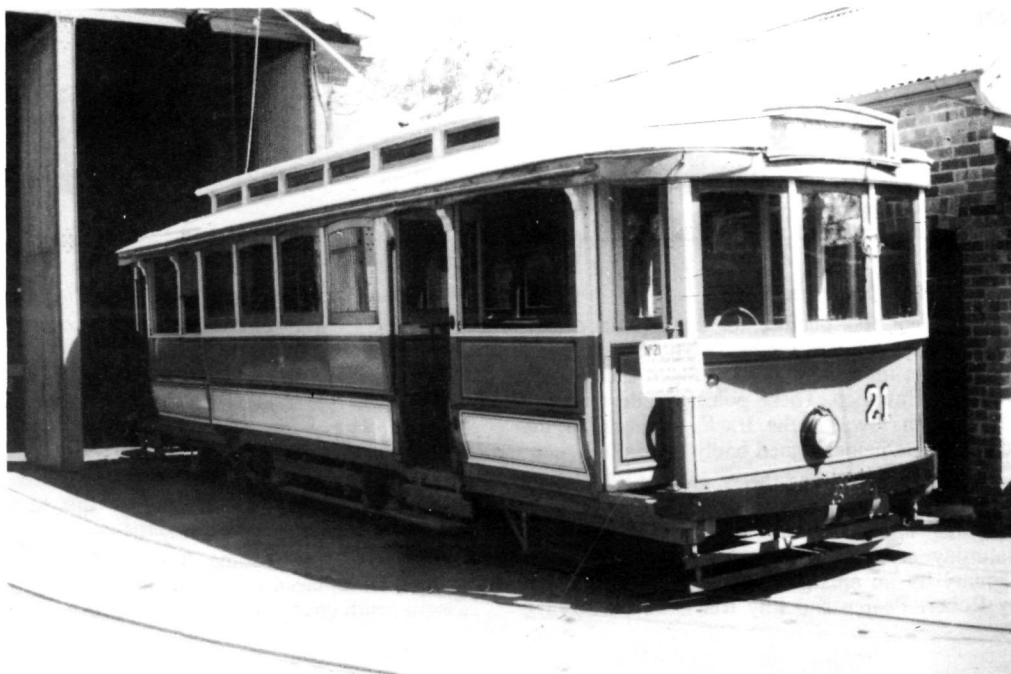
Horse car 256 in Bendigo's tram depot on 25 July 1990.

KEN MCCARTHY



The cable tram set in Pall Mall, Bendigo during its evening running in January.

DENNIS BELL



Single truck car 21 is preserved as it ran for the SECV in Bendigo in the 1930s. It is a sister of car 19 (below); both are former Melbourne M class cars.

IAN WILLIAMS



Single truck car 19 was rebuilt to original combination style and wears the Bendigo Trust's "Talking Tram" livery. It was built by Duncan and Fraser in Adelaide in 1920.

IAN WILLIAMS

WHITEMAN PARK . . .

Perth Electric Tramway Society



Overhead Improvements

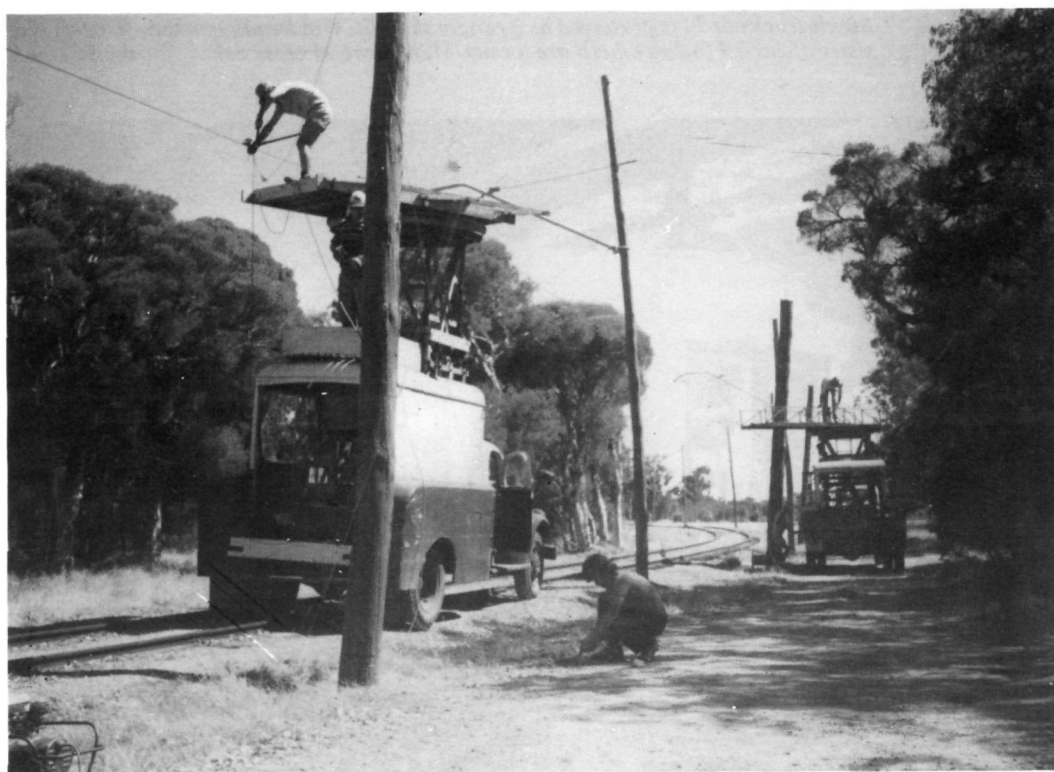
The major task planned for the February shutdown of services was the replacement of the very inadequate, thin poles along Bullpen Curve near the Park Entrance. These poles had developed a severe lean towards the track, resulting in the running wire being aligned badly off-centre.

Ten new poles had been erected (*TW* Feb 1990) at a closer spacing than the originals. Good use was made of the January suspension of Saturday services and work was started on 5 January by an enlarged overhead line team, led by Robert Pearce and Ray Blackmore. The rake

of the new poles was adjusted and the running wire suspended from each by two new pulloffs, instead of only a single bracket-arm on the old poles.

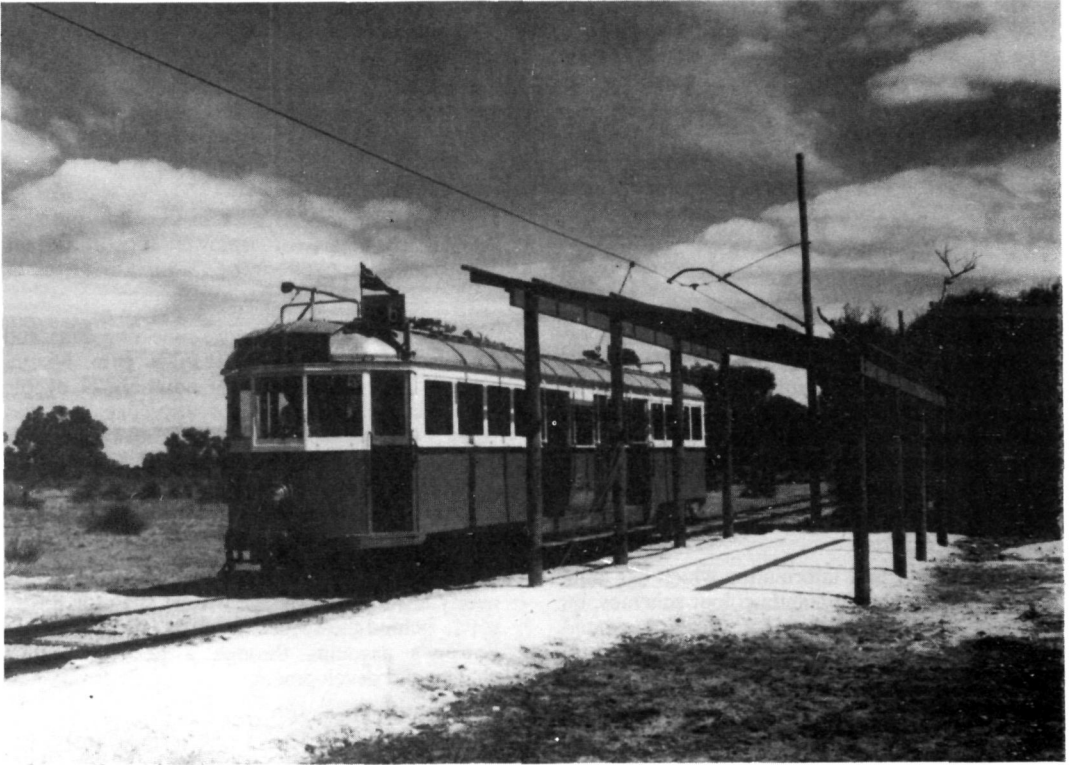
This has resulted in a considerably tighter running wire with a much gentler curvature through each ear. The transfer was completed on 9 February and the old poles removed the following week. A test run proved this to be a greatly improved section of overhead.

Next, the troublesome frog at the Entrance points was replaced with a Melbourne-style brass casting, with good results. The team then checked



On 5 January, the overhead line team began the job of transferring the wiring at Bullpen curve to the ten new poles. In this view from Bullpen Crossing towards the Park entrance, the contrast between the old poles (with bracket arms) and the new is clear.

LINDSAY RICHARDSON



Construction of the shelter at the new Mussel Pool terminus was well advanced on 31 March, as W4 class 674 runs through to begin the day's services. The new terminus is expected to be in regular use by the end of April.

MICHAEL STUKELY

all overhead bracket-arms between Bullpen Curve and Mussel Pool, lifting and tightening as necessary.

Meanwhile, Noel Blackmore has installed independent DC feeders to the Car barn troughing on roads 1, 2, 3 and 4, which can now be isolated from the rest of the system when required.

Extended Services - New Stop

In late February, work commenced on the construction of a new Mussel Pool tram terminus some 300 metres from the existing stop towards the western end of Swamp Straight. This is being installed by the Park Administration to serve the popular western picnic areas at Mussel Pool. It will also provide a close link to the WA Light Railway Preservation Association's Mussel Pool Station and will make the trams far more visible to the public at Mussel Pool.

A major part of the Car barn - (old) Mussel Pool section will now again see regular public services, rather than functioning simply as an

access route to and from the depot complex. (Since the opening of the sections east of Mussel Pool to the Entrance and Central Station in September 1986, the old Mussel Pool stop has been the western terminus for service cars).

The old Mussel Pool tram stop will continue to serve the eastern picnic areas and will be re-named Bennett Brook.

First Public Night Operations

A "Family Twilight Fair and Bush Dance" was held at Whiteman Park on the Labour Day holiday, Monday 4 March, to celebrate the centenary of the Australian Labor Party in Western Australia.

Tram services were provided between 2pm and 9pm. W2 class 368 commenced running at 2pm ex Entrance and was soon loaded to capacity. The second car, W4 class 674, entered traffic at 2.45pm, with a third, W2 class 393, following after 4pm. The three cars operated until about 7pm, then two were again sufficient.

The first use of the yet to be completed Mussel Pool terminus was made on this day, and a different operating pattern was tried. All three cars ran singly, rather than in tandem, with three-way crossings occurring at Triangle Junction.

This was the first occasion when public night running has taken place at the Park, and it was a great success. Passengers were also able to get a good look at the Park's resident kangaroos, which are rarely seen during normal operating hours.

Fremantle 29

Noel Blackmore has completely stripped down, cleaned and re-assembled the line-breaker (ex Melbourne 6W) and it has been fitted under 29. The three resistor banks have also been thoroughly cleaned ready for fitting. Ric Francis has fabricated a new bracket from which to hang the resistors on the underside of the car.

The installation of seats in the saloon was completed in February and final adjustments are being made *in situ*.

As a result of new information which has come to light concerning Fremantle colour schemes, the interiors of the end platforms are being repainted. Some modifications are also planned for the exterior livery of the saloon.

SW2 Class 426

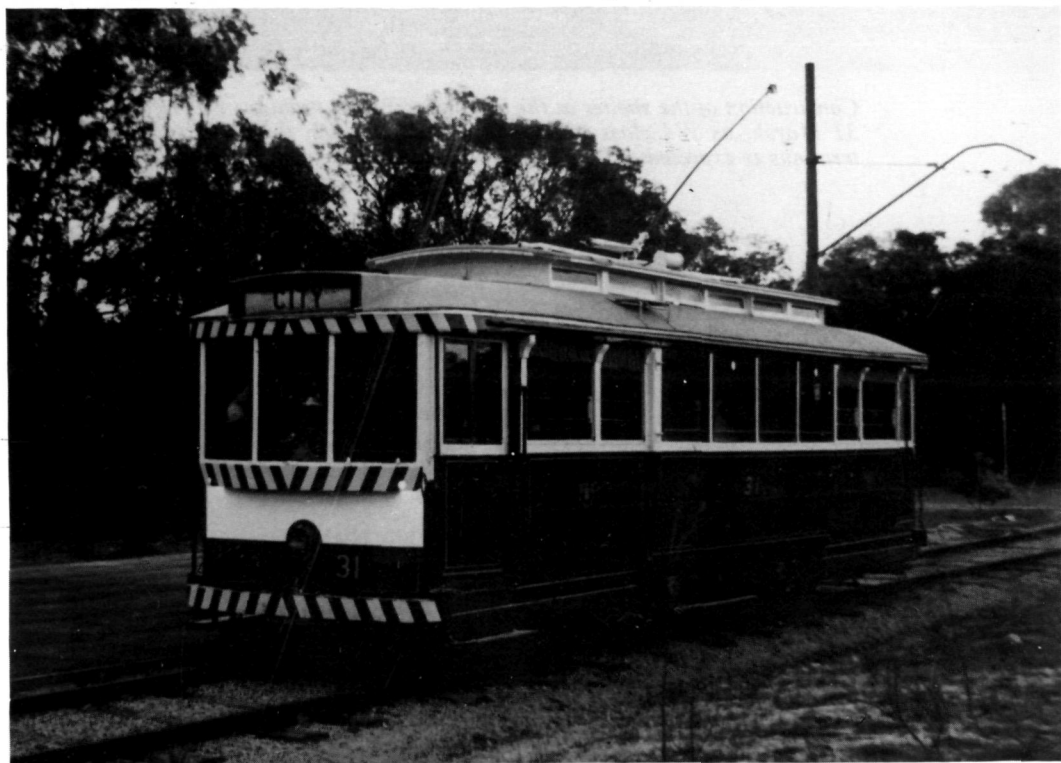
Kevin Clarke reports that the gutters on this car are now fully waterproof. Once the repainting is finished, 426 is expected to re-enter service for 1991 winter operations.

Other News

- November 30, 1990 was the fifth anniversary of the start of tramway operations in Whiteman Park, between the Car barn and Mussel Pool.

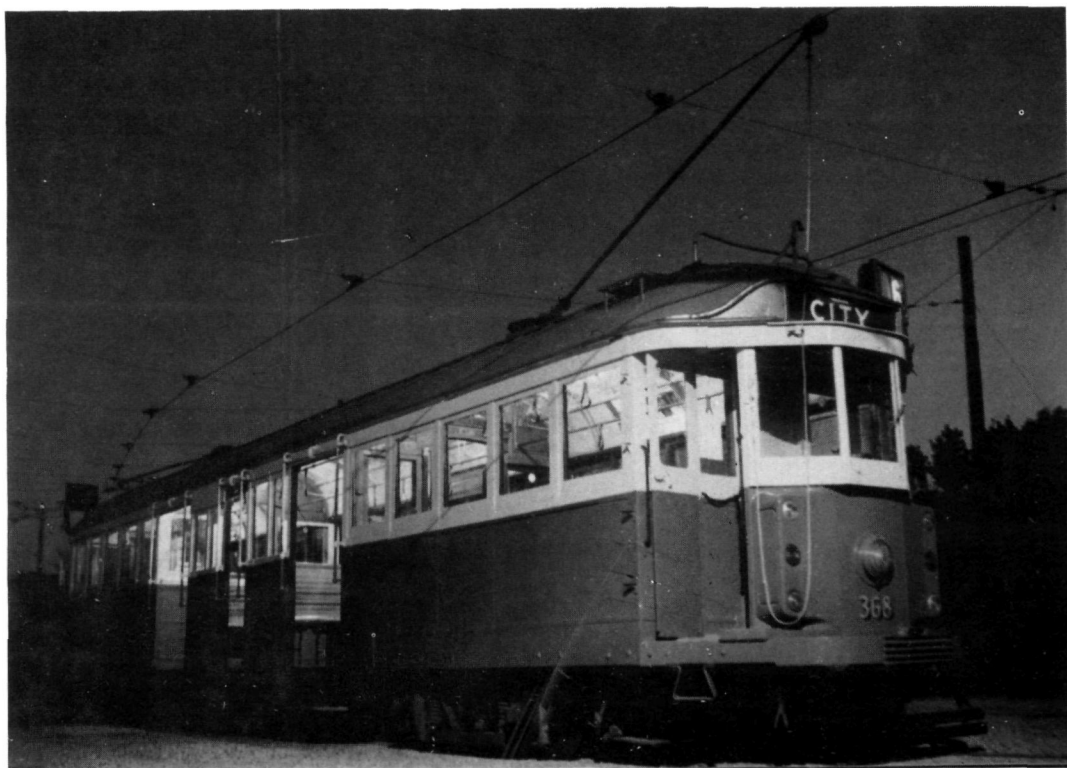
- Martin Grant continues collecting cans and bottles to raise funds for the Museum. Martin laments that with increasing numbers of people out collecting materials for recycling, he was "only" able to raise \$600 in the last year. His total over four years has reached \$3530 - a truly great effort!

- Due to family and employment obligations, PETS Treasurer, Frank Damen has reluctantly resigned from this position which he has held for nearly eight years. Sincere thanks to Frank for his solid, behind-the-scenes work in structuring the Society's accounts through a period of great change and development.



After a heavy day's work erecting new overhead wiring between Mussel Pool and Triangle Junction, members enjoyed a ride on Ballarat 31, seen here about to return from Mussel Pool to the Car barn on 31 August 1986.

MICHAEL STUKELY

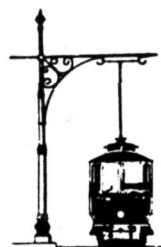


W2 class 368 waits on the Car barn fan at dusk. The first public night-running at Whiteman Park took place on 4 March 1991.

MICHAEL STUKELY

LOFTUS . . .

South Pacific Electric Railway



Works Report

With the weekend of 23/24 February being chosen as the goal for completion of the Railway Square waiting shed and various associated projects, the progress made in previous months continued during February, particularly with the waiting shed itself and the scissors crossover.

On 12 January, the checkrail clearances in the scissors crossover were tested using R1 class 1979 and L/P 154. This testing showed where further adjustments were required and these were made over the following weekends.

On Saturday, 8 February we were fortunate in gaining assistance with the welding of the scissors

crossover. The assistance came from a member of the Sutherland Shire Historical Society, who kindly donated his services for the day and considerable progress was made. Overhead wiring was erected over the trailing section of the scissors crossover on Saturday, 16 February and this was tested during the afternoon, using R1 class 1979 and Brisbane 548. The testing of the overhead wiring was successful but final tying off will not be carried out until other types of cars have been run over the crossover.

Further work on the crossover resulted in additional testing being carried out on Saturday, 23 February using R1 class 1979, R 1740, P1497, N 728 and Brisbane ten bench car 71,



L/P 154 proceeding over the scissors crossover during testing on 12 January 1991. Some minor adjustments to a check rail were made the following Saturday.

BOB MERCHANT

following which approval was given for limited use of the crossover for the special operations on Sunday, 24 February. However, it will not be fully re-commissioned until welding and minor modifications have been completed and it has been set in mass concrete. During testing, the opportunity was taken to test the western track with a single truck car and Brisbane 71 was run over the line from the waiting shed to the end of the grassed track in Tramway Avenue.

Paint stripping and sanding of the Railway Square waiting shed was completed by 16 February and the rush was on to complete the repainting by 24 February. It was originally intended that the rededication ceremony would take place on 23 February but the State Minister for Planning and Local Government was not able to make it that weekend. This was fortunate in that it gave us an additional week to complete the restoration, which included the manufacture of new seats of the style originally installed. Work was actually completed on Friday, 1 March after some very long days work by Bob Cowing and Norm Chinn. Special thanks are due to Derek

Butler, who initiated the restoration work with the rebuilding of the signal box and to Bob Cowing for his overall supervision of the project.

The long awaited commencement of the retaining wall along the north-eastern corner of the display building took place during the second week of March. The formwork for the concrete is being erected by building trades apprentices employed by Building Apprentices Training Ltd, an apprentice training establishment, with materials supplied by the Museum.

Car News

The weather has badly affected the paintwork of the cars which have been stored in the open for the last two years. Some work was commenced on the eastern side fascia of P 1497 to repair the peeling paintwork and cracked timber, which was made worse by the discovery of a crack in the car's fibreglass roof. This work commenced on Tuesday, 5 February but was delayed due to the amount of filling and preparation work required and the Railway Square waiting shed taking precedence. This resulted in the car operating on



Both tracks were in use at the museum's southern terminus for the special operations held on 24 February to mark the 30th anniversary of Sydney's last trams.

BOB MERCHANT



L/P class 154 passes through the gate on its way north on 24 February 1991. It is being followed by N class 728, loading at the Display Hall stop. R class 1740 can be seen in the distance.

BOB MERCHANT

Sunday, 24 February with the affected area still in undercoat. However, as this work had been carried out on the 'highway' side, this minor detail went unnoticed by most visitors and photographers.

Further progress has been made with the re-wiring of R1 class 1971 and the overhaul of the car's trucks and motors. Additional interior refitting has also been undertaken and the exterior is now being prepared for repainting.

30th Anniversary of Sydney's Last Tram

Monday, 25 February marked the 30th anniversary of the closure of the Maroubra Beach and La Perouse tram routes and the end of the once extensive Sydney tramway system. A special operating day was held on Sunday, 24 February to commemorate this event. Although both Sydney daily newspapers sent reporters and photographers to the museum during the preceding week, there was almost no publicity given to the event. Despite this, we had a most successful day with more than 1800 passengers carried on the trams.

As with last year, the Historic Commercial Vehicles Association again joined us for the occasion, operating their buses from Pitt Street to Sutherland and Engadine, and added to the success of the day's operations.

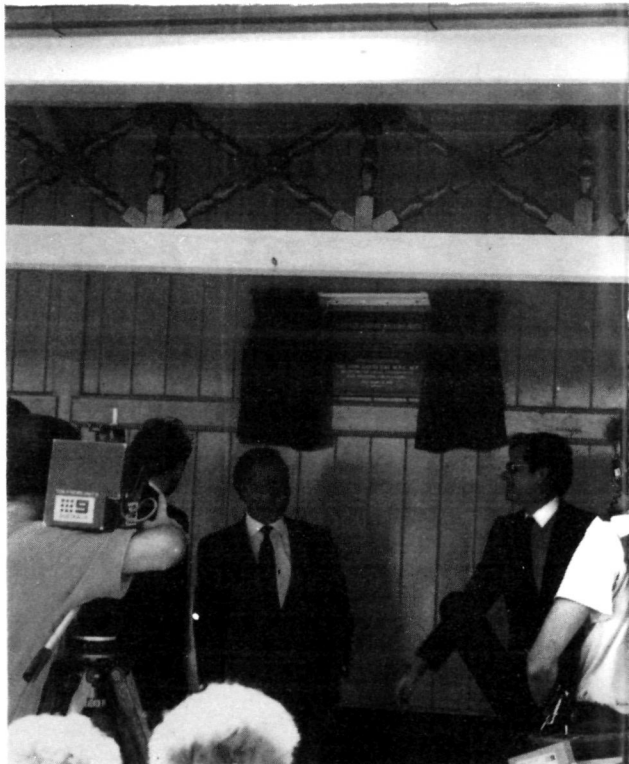
Once again, Bill Denham compiled a special timetable for the day's operations and the availability of the second track at Railway Square ensured that everything went off without a hitch, as shunting was very simple.

A highlight of the day was the convoy of five cars, comprising N 728, L/P 154, P 1497, R 1740 and R1 class 1979. On the return trip, at approximately the same time as Sydney's last tram, 1979 re-enacted the last journey made by R1 class 1995, when it entered Randwick Workshops for the last time and the gates closed behind it. Unlike that event 30 years ago, however, we did not place a bus across the entrance gates!

We must thank Frank McQuade and Vic Solomons for providing a excellent photographic display which was very well received by our visitors. The display was mounted in the front of the traffic depot, part of which was open for inspection during the day.

Railway Square Waiting Shed Rededication

With completion of the waiting shed restoration anticipated by Saturday, 23 February, efforts were made to have Mr David Hay, MBE, MP, Minister for Planning and Local Government, attend the museum on that date to perform the rededication ceremony. While he was not available on that date, he was able to attend during



NSW Minister for Planning and Local Government, Mr David Hay, and SPER Deputy Chairman of the Board, Howard Clark, face the TV camera after the unveiling of the plaque marking the rededication of the Railway Square Waiting Shed on Saturday 23 February 1991.

BOB MERCHANT

the morning of Saturday, 2 March and arrangements were made accordingly. Guests present at the rededication included representatives from the Heritage Council of NSW, Sutherland Shire Council and Sutherland Shire Historical Society.

The event was commemorated by the unveiling of a plaque by the Minister which has been permanently attached to the wall on the highway side.

Channel 9 Television attended and took a large amount of videotape which, after editing, was shown that night after the evening news. This, together with an item in a newspaper the following (sunday) morning, resulted in a greatly increased number of visitors over the following weeks.





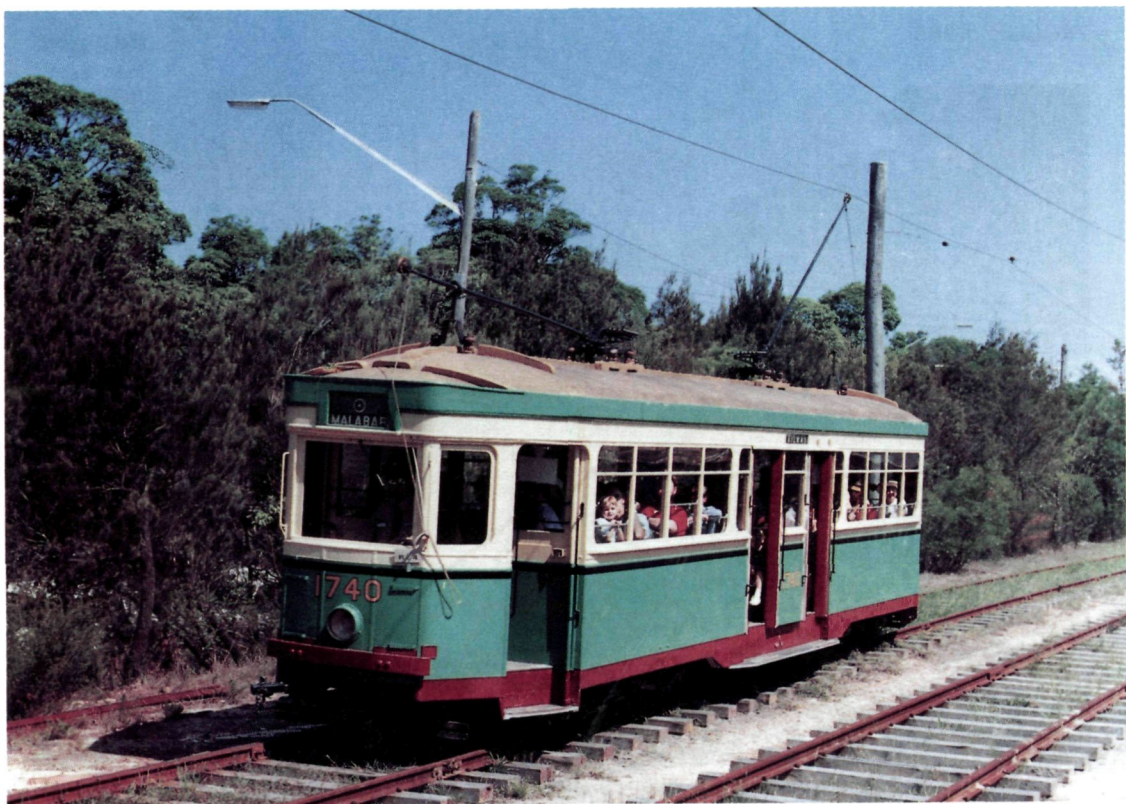
The scissors crossover nears completion. Here Brian Muston (left) and Mike Giddey (right) supervise CSO workers assisting with the project.

BOB MERCHANT



The completed Railway Square waiting shed from the western side. Picnic tables supplement the waiting shed seating on this side.

BOB MERCHANT



a sper magazine