# TROLLEY WIRE



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A RUNAWAY TRAMCAR

TROLLEY WIRE

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### AUSTRALIA'S TRAMWAY MUSEUM MAGAZINE

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The Tramway Museum Society of Victoria dismantled the former bus wash building at Elwood Depot. In this view, the dismantling is well under way with roof and side sheets already removed.

DAVID WHITE

### Front Cover:

A recent visitor to the AETM from Japan so enjoyed his day's tram riding that after returning home, he sent a memento of the occasion back to Australia. His photo shows motorman John Radcliffe and Conductor Travis Jeffery about to leave the St Kilda playground with D type car 192 for the final run of the day back to depot at the Tramway Museum.

TOMOYA OGUCHI

### Back Page, Top:

All remaining W class in service in Melbourne have been painted in the "heritage" green and cream colours. W7 class 1013 is seen on a Latrobe Street shuttle operating from East Preston Depot on 8 March 1996. After the Grand Prix, East Preston Depot reverted to operating only B2 and Z3 classes.

RAY MARSH

#### Back Page, Bottom:

Bendigo's SW5 class 808 passes Ballarat's W3 class 671 in Latrobe Street near Swanston Street while operating on Melbourne's City Circle service in February 1996.

RAY MARSH

### A RUNAWAY TRAMCAR

### From Colin Seymour

#### Introduction

In the AETM Archives there are a number of very large volumes of newspaper clippings collected by the Municipal Tramways Trust on issues which related to the Trust. From one of these volumes (14 March 1916 to 16 November 1918) comes the fascinating story of a runaway tram on the Prospect tram line in Adelaide in 1918. This article recalls the incident as recorded by three newspapers of the day. Each newspaper extract relates the incident according to the wonderful journalistic styles of the day.

### From The Register, 6 June 1918

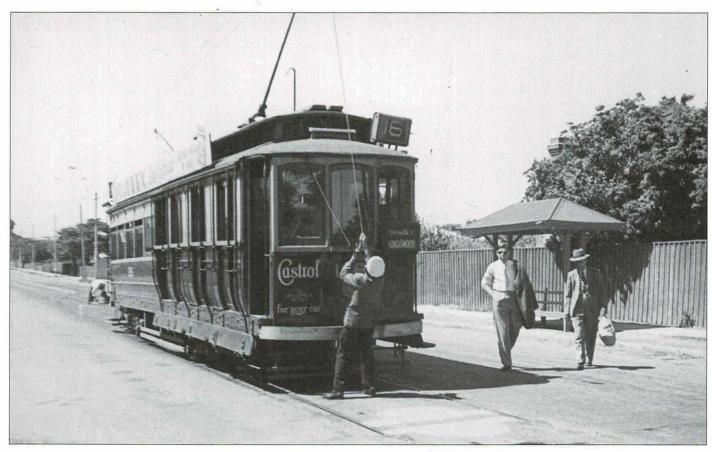
One of the most extraordinary tramway accidents which have occurred in Adelaide, and perhaps elsewhere, happened at North Adelaide on Wednesday evening. At about 6:30pm that evening Motorman T. Cameron and Conductor A. Hayman started tramcar No. 126 at the Prospect terminus to run into the city. There were no passengers on board. It was what is known as an 'empty'

D 126, the runaway tram, survived and provided many more years of service. It is seen at the Kingswood terminus in the 1950s.

P. LAMBERT

trip, because at that hour the suburban bound cars are crowded, and those going towards Adelaide often do not carry a single paying traveller. When the tramcar had gone about 300 or 400 yards Motorman Cameron had occasion to look out from the side of his box, and in doing so slipped and fell to the roadway. The car was travelling at half speed - between 12 and 14 miles per hour - and in spite of his efforts he was unable to catch it, or attract the notice of the conductor. He then boarded another tram, and later transferred to a motor car, and set out in pursuit of the runaway, which proceeded along the track uninterrupted. There was no one on the line so all went well.

The most astonishing feature of the whole incident was that the conductor did not miss the motorman, until the car began to descend the sharp declivity near the Children's Hospital, notwithstanding that the conveyance had passed four compulsory stopping places. Apparently it was only when the speed of the vehicle accelerated as it descended the curve on the Brougham Place hill gradient that Conductor Hayman suspected that something was amiss. Then he hastened to the front of the car, and was alarmed at finding no motorman. Before, however, he had time to take any steps to stop the car, it had crashed into another tram which was just leaving the compulsory stopping place on



Fortunately Motorman Carpenter on the front car, realised the position before the runaway was upon him, and he let his car out. This action to a considerable degree, lightened the impact, which might otherwise have resulted in the total wrecking of both trams and loss of life. There were few passengers on the leading tram.

The only persons injured were Mrs Carter, of Main North Road, Prospect, and her five years old daughter, Melva. They were standing in the front car at the time of the collision. Mrs Carter's face was cut, and the child sustained injuries to the head. The sufferers were conveyed to the Children's Hospital, where Dr. Gilbert inserted several stitches in Mrs Carter's wounds, and she was then taken to her home in a police ambulance. The child was detained at the hospital. Late last night her condition was reported to have improved satisfactorily, but it was expected that she would have to undergo an operation. Both tramcars were damaged, but it is believed that they can be repaired at an expense of 40 pounds. After the collision Motorman Carpenter, whose car was being pushed along by the runaway, shut off power and brought both vehicles to a standstill. He then towed the fugitive to Hackney Depot. Trouble was experienced in drawing the rear car around the bend at North Terrace, and the service was suspended for several minutes before this operation could be performed.

D 126 in Hutt Road, about to enter George Street, Parkside, on the Kingswood line. Note the crowd on the footpath watching a car being pushed out of the way of another D type tram - another accident involving car 126?

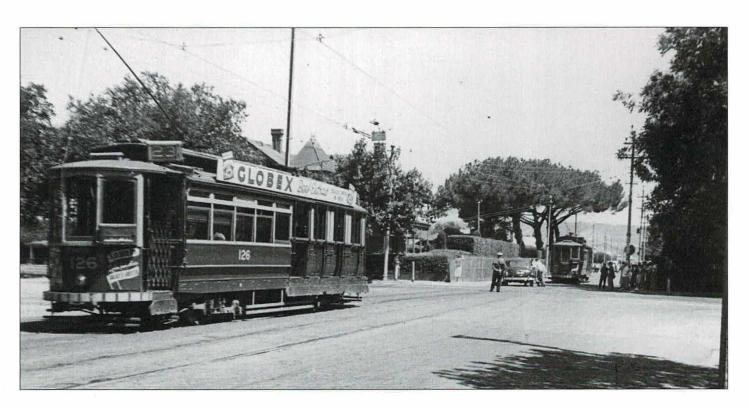
P. LAMBERT

A man who saw the bolting car passing through O'Connell Street, North Adelaide, described its career as "marvellous". "If the episode had happened half an hour earlier," he said, "it would have been almost impossible for the car to have come down the road like that without killing somebody. As it was, everybody on the roadway seemed unconsciously aware that the tram had bolted, and kept out of its road. At the intersection of streets people sometimes cross in front of oncoming cars, believing that they will stop at the street. So far as I could see tonight, no one took these chances. In fact, the tramcar had a wonderfully clear run. When one considers the "might have beens" and the possibilities, one can't help shuddering."

The Tramways Trust proposes to conduct an inquiry into the affair immediately. All employees on the cars are given explicit instructions regarding what course to take in the event of such a happening. For instance, they are told to pull off the trolley pole and apply the brakes. In Wednesday night's sensation, the car travelled about two miles before Conductor Hayman apparently realised his predicament.

### From The Daily Herald, 7 June 1918

A more serious accident was averted at the intersection of Prospect and Main North Roads. An Enfield car, fully loaded, was about to cross the points when the driver saw the runaway approaching, and as he noticed that it did not appear to be pulling up, although it was a compulsory stopping place, he waited until it had gone by. If he had attempted to cross the points his car would have been struck about the middle, and the consequences might have been serious.



### From The Mail, 15 June 1918

The Acting General Manager of the Tramways Trust (Mr. E.S. Moulden) stated this evening that the conductor of the recent runaway tramcar on the Prospect line had been suitably dealt with for his negligence. He would be relieved of his duties as a conductor and given a position in another department of the service. Mr Moulden said he had not unduly pressed the enquiry in view of the fact that the conductor had been suffering from the effects of a sprained ankle, injuries to his right eye and face, and severe bruises which had resulted from the impact of the bolting tramcar with another tram.

The explanation of the incident given by the conductor was that his mind had become engrossed in making up his cash and getting ready to pay in - although extra time is provided for this duty at the depot - that he was actually unaware that the car had passed the compulsory stopping places and travelled more than two miles.

In regard to the driver, Mr. Moulden remarked that his falling from the tram was found to be purely an accident, and consequently he would retain his position as a motorman. The Acting Manager added that both had proved to be steady men throughout their connection with the service.

### MUSEUM TRAMWAY FOR LAUNCESTON

### From John Radcliffe

Launceston is the latest Australian city to join the ranks of those developing or already operating a tramway museum. Considerable infrastructure has already been set in place.

With "Better Cities" funding from the Australian Government, the Launceston City Council has been undertaking a major redevelopment of the former North Esk Railway Workshops site, just across the North Esk River from central Launceston.

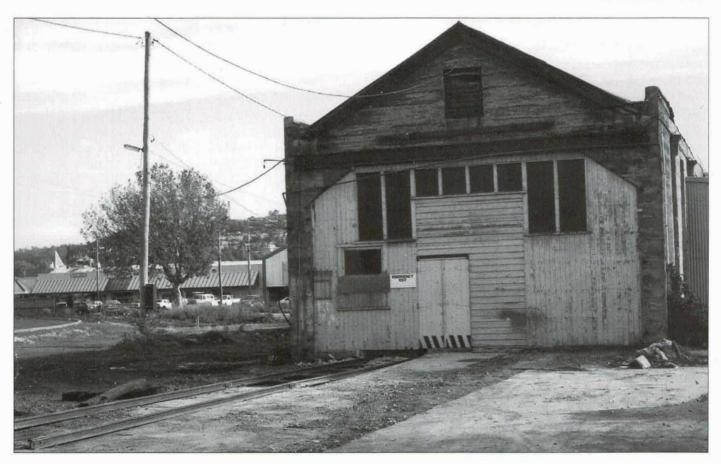
The site initially required major land remediation as a result of a long history of oil pollution from locomotives. This involved "land farming" under the auspices of the University of Tasmania, using microbiological techniques, cultivation and aeration to treat the problem.

A major recreation and public facilities area is now being developed. The Launceston Show Society is relocating to one of the former workshops buildings. A rail connection is being built back into the site from the current Tasrail (Australian National) terminus at

Tracks have been finished with patterned brick paving. The new station is visible immediately to the right of the line in the far distance. The building at left will become home for the Launceston Show Society. Portion of the tram depot can be glimpsed at the far right.

IAN KERSHAW





excursion steam trains to operate into a newly-erected period style railway station. A tramline (narrow gauge) turns off the railway near the station and runs the length of the site. There are longer term aspirations to loop the line around the entire site. Rails are set in concrete to railway profile standards, and are finished to railhead with patterned brick paving. A very large car park has been provided in the centre of the site.

The Launceston Tramway Museum Society Inc. has been established, with Ralph Proctor as its President. (Ralph was responsible for the production of a delightful little 32 page booklet *Launceston Municipal Tramways*, which gives a short illustrated history of the city's trams.) Other office-bearers are Leon Colgrave (Vice-President), David Scott (Treasurer), Graeme Davis (Publicity Officer), and Ian Kershaw (Secretary/Chairman). John Walmsley is Project Manager.

As a result of an initiative by Launceston teenager Marcus Hall, the body of Launceston dropcentre bogie car 29 was located and brought into one of the former railway workshops where its restoration has been commenced. Meanwhile, the Society has been able to gain access to the former Invermay Road tram depot, which is on the western side of the development. This was the main Launceston tram depot in the early years, but in 1929 it was subject to major flooding. Fortunately this event was foreseen, and all the Launceston trams were driven into the city, and were operated from the Launceston Public Library from 5-8 April 1929. A new depot was opened on the other side of the city in 1932,

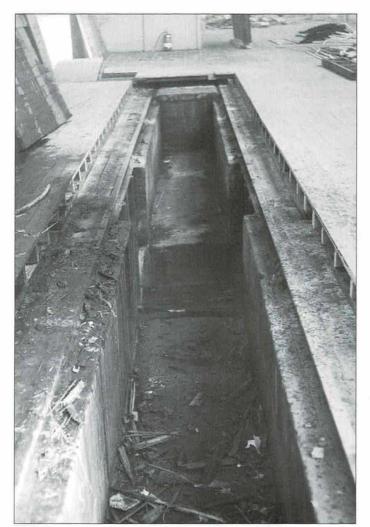
Trams will enter the rear of the old Invermay Road Depot. Rails are already being laid into the depot. The wooden wall can be removed when necessary to gain access.

with all trams being transferred there. The Invermay Road Depot was passed to the then Tasmanian Government Railways.

When the Society began removing the wooden floor in the old depot, it found that the pits and rails were still in position. A track connection has now been laid, and car 29 transferred to its old home. The site is now protected against further flooding by a major levee, on which a wooden-decked walking path has been built.

As yet, no provision has been made for overhead or a power supply, neither does the Society have running gear for car 29. An approach is being made through the Tasmanian Minister of Transport to the Victorian Minister, Alan Brown, to try to seek the release of sufficient equipment to allow the construction of narrow gauge trucks to operate car 29. However, a diode equipped DC power unit has been located in one of the former railway buildings and may be suitable for relocation and re-use.





Considerable work has already been done on car 29. One end saloon is being rebuilt before the other saloon is dismantled.

IAN KERSHAW

There are a number of other Launceston bodies preserved. Car 1 is in Canberra, car 2 is held by Launceston's Queen Victoria Museum and Gallery and is stored in one of the North Esk railway buildings along with the bodies of two trolleybuses in quite poor condition, car 11 is beautifully restored and is in the first floor bar of the Great Northern Hotel, car 13 is in the collection of the Tasmanian Transport Museum Society in Hobart, while car 26, powered by a diesel hydraulic motive unit, runs daily on a short section of track at the Launceston "Penny Royal Gunpowder Mills" tourist attraction.

We wish the group well with their endeavours, and hope to report progress from time to time.

When the wooden floor in the depot was removed, the original pit and rails were revealed. IAN KERSHAW

### **OSAKA TRAMWAY MUSEUM**

### By Junya Yamachi

In Japan, the preservation of tramcars by enthusiast groups has not been possible due to the lack of suitable locations and the high cost of obtaining a site to establish a tramway museum. However, tramcar preservation has being carried out by some of Japan's transit systems which once operated trams. The Osaka Municipal Underground Railways is one such operator which is preserving a selection of tramcars.

The industrial city and port of Osaka is situated at the head of Osaka Bay and the Yodo River delta. It is the third largest city in Japan after Tokyo and Yokohama, with a population of more than 2.5 million.

Osaka's first tramway was a horse-powered line in South Osaka operated by Osaka Basha Tetsudo (Osaka Horse Railway), a private undertaking, from 20 September 1900. In 1907, the undertaking changed its name to Osaka Densha Tetsudo (Osaka Electric Railway) in anticipation of electrifying the line, but this was delayed due to economic conditions. The line was taken over by the Nankai Tetsudo (Nankai Railway) in 1909 and the new company commenced electric operations on 1 October 1910. The tramway section of the company trades today under the name Hankai Denki Kido (Hankai Electric Tramway).

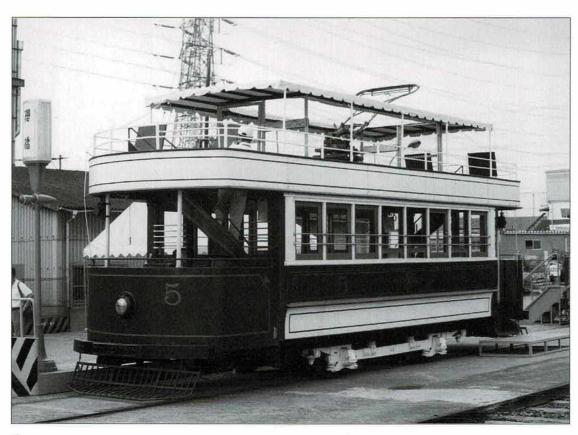
Osaka's municipal tramway opened on 12 September 1903, with three single-deck single-truck trams operating at 600 volts dc over 5.1 kilometres of 1435mm gauge track between Hanzonobashi and Chikko. It was the first publicly-owned system in Japan. The tramway was operated by the Osaka Municipal Electric Supply Bureau, which later became the Osaka Municipal Transport Bureau (Osaka-Shi Kotsu-Kyoku).

Expansion followed in the early years, with trackage increasing to 43km in 1920. The number of tramcars in service on the municipal tramway increased to 200 in 1910 to 694 in 1920 and 873 in 1930. In 1943, over 700 tramcars carried 1,427,000 passengers per day. By 1944, routes totalling 115.6 kilometres were being operated.

The municipal tramway system gradually grew to be the second largest in Japan. On 1 April 1944, the Municipality took over from the Hankai Dentetsu (Hankai Electric Railway) a 13.8km section of line from

Replica No. 5 has rear loading similar to most British double-deck cars. The double-deck cars would have originally been fitted with the twin trolley poles used in Japan before the 1920s.

JUNYA YAMACHI





Car 30 of the 11 class is typical of single-truck saloon cars around the world. It retains its twin trolley poles and early life guards.

JUNYA YAMACHI

Another view of car 30 showing the life guard and canopy-mounted destination box. The car number and line work on the apron are in gold. JUNYA YAMACHI



Ashiharabashi to Hamadera built between 1927 and 1935. All lines were double track laid in the street.

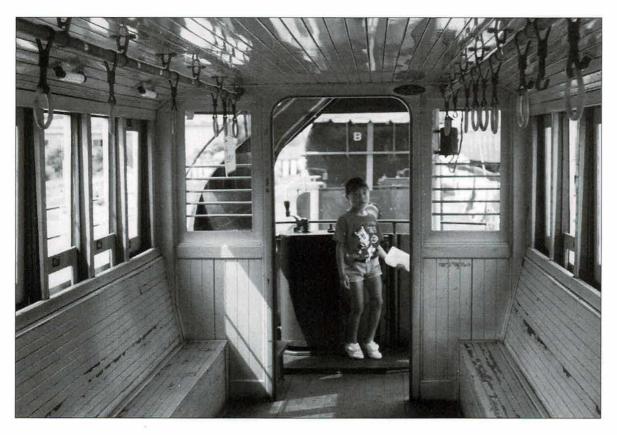
Trackage reached a maximum of 119km in 1957, the peak year, and 555 tramcars were in service in 1960.

Trucks and electrical gear for the first tramcars came from Germany, the trucks from Herbrand and motors from AEG. Experiments were made with English-style double-deck cars which operated between 1903 and 1910. They were the only double-deck trams in Japan and were sold to other tramways for use as single-deck cars.

Seventy-five bogie cars were obtained as early as 1911. Small steel-bodied bogie cars of the 801 and 901 class started to replace the single-truck cars from the late 1930s. Delivery of larger types of the 1601, 1701 and 1801 classes completed the replacement programme. All single-truck cars had been removed from traffic before the Second World War.

Following tests with 3000, an experimental PCC-influenced high performance car built by Kawasaki in 1953, Osaka received fifty cars numbered from 3001 in 1956. These high performance cars were built by Teikoku Sharyo, Naniwa Kok and Hitachi. Subsequently, the 2601 and 2701 series cars, which had the same appearance as the 3001 series cars, reverted to traditional electrical equipment.

To mark the 50th anniversary of the tramway system, single-truck car 720 of 1923 was rebuilt as a replica of No.5, the original single-truck double-deck rear-loading saloon car with open top deck, by Osaka Sharyo Co. in 1953.



An interior view of No. 5 which is probably the original interior of car 720, unchanged but for a new ceiling. Note the very narrow seating provided.

JUNYA YAMACHI

The original No.5 was built by Kisha Co. in 1903 with German equipment. It had hand brakes, a fully loaded capacity of 66 passengers and weighed 9 tonnes. Cars 9 and 10 were built in 1906 as double-deck cars, and possibly single-deck car 3 was later rebuilt as a double-deck car.

On 20 May 1933, Osaka's metro was inaugurated with the opening of the first 3.25km line from Umeda (adjacent to Osaka station) to Shinsaibashi. The line was extended several times and by the 1960s it was decided to vastly expand the metro and close the street tramway operation.

On 31 March 1969, the last 15.24 km section, between Hankyu-Higashiguchi and Moriguchi, was abandoned. During the municipal tramway's 65 years of operation a total of 1701 tramcars were operated. After the closure, a number of cars were transferred to other cities, including Hiroshima and Kagoshima, and Nagasaki obtained some equipment. Eleven trams were retained for preservation, the largest collection in the country.

The Osaka Tramway Museum is located in the Midorigicho Car Depot of the Osaka Underground Railways. During 27 July to 5 August 1993, six preserved tramcars were displayed in the open to mark the 90th anniversary of the municipal transport system in Osaka. The cars were placed on a siding within the depot. A new

exhibition building was completed on 31 March 1993. The preserved tramcars placed on display in the open for the anniversary were:

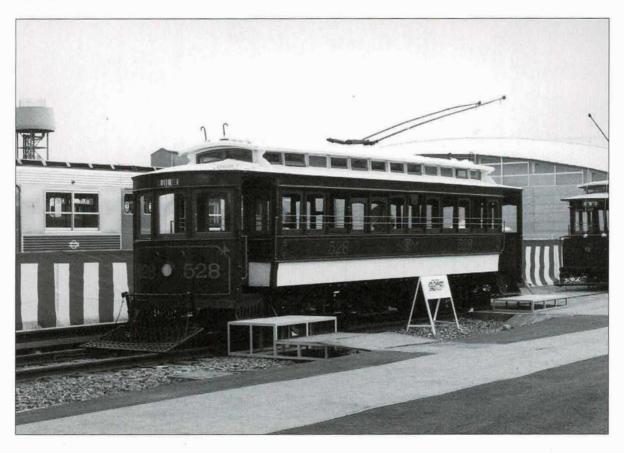
### Class 5 No. 5

This car is a replica of No.5 of 1903 constructed for the 50th anniversary of the municipal tramway system. It is a single-truck double-deck rear-loading saloon car with open top deck reconstructed by Osaka Sharyo Co. in 1953 from single-truck single-deck car 720 of 1923. It has a Brill 21E truck with Mitsubishi motors. No.5 has GE controllers and both air and hand braking. The 1903 car had two 35hp motors and hand braking only.

#### Class 11 No. 30

No. 30 is a single-truck wooden-bodied end-loading saloon car built by the Umebachi Iron Works in 1911. It has a Brill 21E truck with two GE 25hp motors, GE controllers and hand brakes. No. 30 weighs 8 tonnes and has a fully loaded capacity of 42 passengers.

It was restored to its original condition in 1955 and renumbered from No. 285 (Umebachi Iron Works, 1911). No. 285 was written off in 1923. 280 cars of class 11 (numbered from 11 to 290) were built during the years 1907 to 1911.







### TOP:

Maximum traction bogie car 528 follows typical American streetcar design of the early 1900s.

JUNYA YAMACHI

### ABOVE:

Car 528 is carried on Brill type 21E maximum traction trucks.

JUNYA YAMACHI

### LEFT:

An end view of car 528 with its twin trolley retrievers, lifeguard and varnished window frames.

JUNYA YAMACHI

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Japanese tramcar practice standardised on front and centre doors and steel-bodied 1644 reflects this design. It also had rear doors when built in 1929.

JUNYA YAMACHI



### Class 501 No. 528

Car 528 is a bogie wooden-bodied end-loading saloon car built by Amano Sharyo in 1911. It has Brill 22E maximum-traction trucks with GE motors, GE controllers, and air and hand brakes. No. 528 weighs 12.7 tonnes and has a capacity of 62 passengers.

### LEFT:

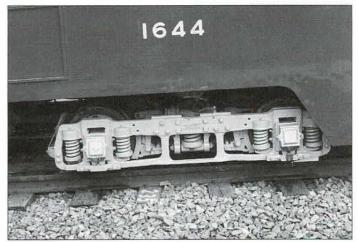
Car 1644 has roof gutter downpipes at each corner of the car body, a prominent tail light and a steel slat pilot.

JUNYA YAMACHI

### BELOW:

A view of the equal wheel mono-motor Osaka type truck under car 1644.

JUNYA YAMACHI



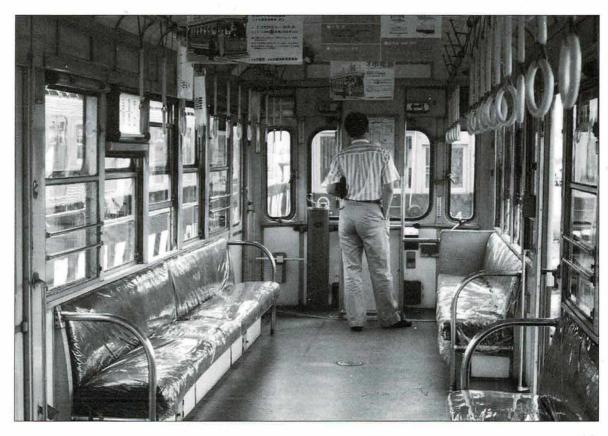


Car 3050 is the last of its class and the last car built new for the Osaka Municipal Tramways. JUNYA YAMACHI

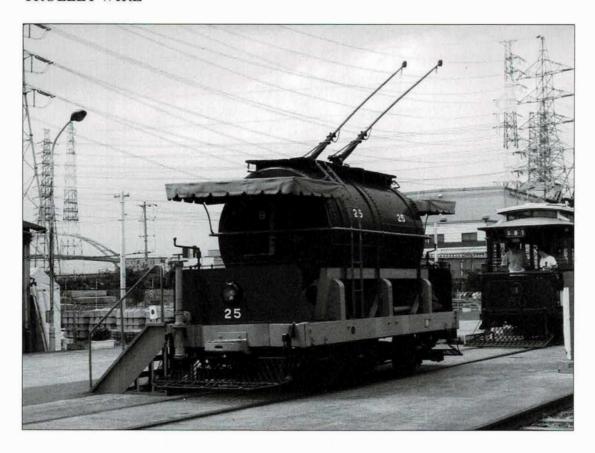
An interior view of car 3050. The seats are wrapped in plastic sheet for protection. The hanging advertising describes the tramcars in the museum collection.

JUNYA YAMACHI

One hundred of Osaka's first bogie tramcars were built during 1911 to 1913 as the first air-braked tramcars in Japan. No. 528 was written off in 1951 but the Morinomiya Workshops of the Transport Bureau restored 528 back to its original condition in 1968.



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Sprinkler car No. 25 comes complete with driver's protection awning.

JUNYA YAMACHI

The controller, goose-necked hand-brake handle and water release valve are all visible in this end view of sprinkler car 25.

JUNYA YAMACHI

### Class 1601 No. 1644

Car 1644 is a bogie steel-bodied front-and-centre loading saloon car built by the Umebachi Iron Works in 1929. It has Sumitomo-built Oasaka Municipal Tramway trucks with two AEG 45kW motors, Hitachi controllers, and air and hand brakes. No. 1601 has a capacity of 40 seated passengers and 60 passengers fully loaded. It is 13.71 metres in length, 2.488 metres wide, 3.962 metres high and weighs 16.7 tonnes.

The one hundred members of the 1601 class were built by Umebachi Iron Works and Fujinagata Shipbuilding Co. in 1929 and 1930. The class was originally built as front, centre and rear-loading cars with four trolley poles (two at each end). The rear doors were filled in, and the trolley poles exchanged for a bow collector after the Second World War.

### Class 3001 No. 3050

Car 3050 is a bogie metal-bodied front-and-centre loading saloon car built by Hitachi in 1956. It has Hitachi KL6 trucks with four Hitachi 30kW motors and a gear ratio of 43:6. No. 3050 has Hitachi controllers, and



The Hitachi truck with track brake under car 3050. The truck is fitted with Koyo roller bearing axle boxes.

JUNYA YAMACHI

magnetic track and electric brakes. The car has a capacity of 40 seated passengers and 60 passengers fully loaded. It is 12.48 metres in length, 2.469 metres wide, 4.029 metres high and weighs 15.5 tonnes.

Car 3050 was the last member of its class and the last tramcar built new for the municipal tramway system.

Additional tramcars in the collection are 644, 801, 1740, 2201 and 3045.

### Sprinkler Car Class 21 No. 25

Car 25 is a single-truck sprinkler car fitted with a cylindrical water tank and was built by the Fujinagata Shipbuilding Co. in 1925. It has a Brill 21E truck and General Electric motors and controllers. It weighs 9.7 tonnes and has a capacity of 8.1 tonnes of water. It is fitted with hand brakes only.

No. 25 is the last single-truck sprinkler car built in Japan. Twenty-five single-truck cars with cylindrical water tanks, numbered 1 to 25, and five bogie cars built with rectangular water tanks, numbered 26 to 30, were used to sprinkle the unsealed road surface along the tram tracks.

The Transport Bureau intended to reconstruct all five cars of the 21 class into passenger cars during the Second World War. The rebuilding proposal was not carried out and No. 25 still remains in its original condition.

## HERE AND THERE

### NEWS ITEMS OF INTEREST FROM ALL OVER

### Blacktown Tram Plan

It has recently been reported that some time ago a Mr John Harrington suggested a tram line looping the central business district of Blacktown, a suburb in western Sydney, to promote various local businesses and help the flow of pedestrian traffic.

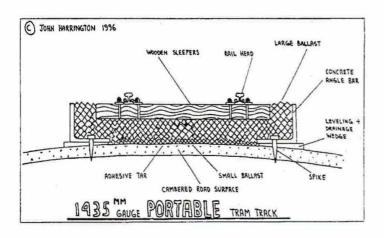
The initial plan was to run from Blacktown railway station in Main Street, through a mall onto Newton Road, thence Patrick Road back to Main Street to complete the loop. The track was to have been set in mass concrete.

The support of the Blacktown Transport Coalition, a group formed to look at a variety of issues relating to local roads, including light rail, was sought. The Coalition had suggested a shortened straight route which would see the tram run from the railway station to Blacktown Hospital. After leaving the station and passing through the mall, the route would continue down Blacktown Road to the hospital.

Mr Harrington reports there are a number of blocks to overcome before a finished proposal could be devised and the issue of cost would continue to be at the fore. Several track types have been quoted on, and the cheapest is a so-called portable track where the rails, sleepers and ballast are laid in a concrete angle edged trough fastened to the road surface. "It only requires a small hump at intersections and would greatly reduce time and costs associated with labour." Such track construction is reported to cost \$700,000 per single track kilometre.

Mr Harrington said the R class trams currently held by the CityTram Association at Rozelle would be ideal for the operation due to cost and heritage value.

We will keep readers posted on developments, especially on the "small hump" required at intersections. A cross section diagram of the proposed "portable" track shows the rails fastened to timber sleepers with between six and nine inches of ballast between the bottom of the sleepers and the road surface.



Roadbed construction in Hay Street on 20 April. This view looks east from Quay Street towards the Capitol Theatre which can be seen in the distance. The light rail line crosses George Street and curves to the right to pass behind the theatre. The roadway at that point is just wide enough to take a double track tramway and a footpath.

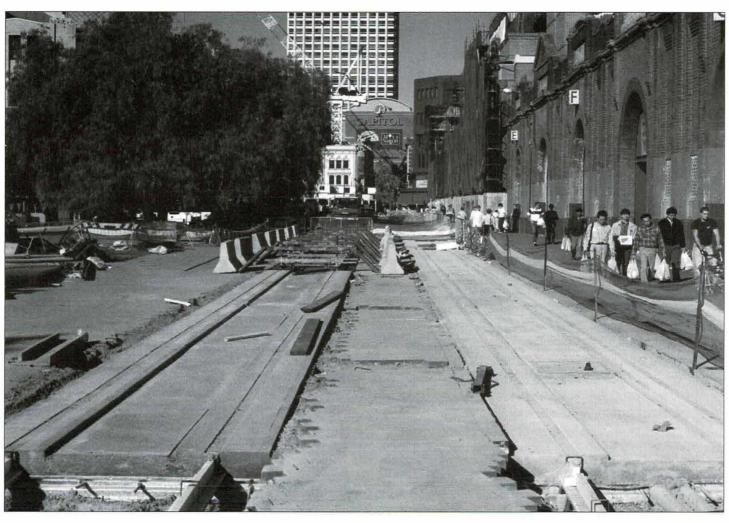
BOB MERCHANT

### **Sydney Light Rail**

Construction of the concrete roadbed in city streets for Sydney's light rail line is nearing completion. In mid-June, only a short section between Quay Street and Darling Drive requiring the removal of two sets of traffic lights, and the section between Parker Lane and Pitt Street behind the Capitol Theatre, are still under construction.

Work commenced on the roadbed through the former tramway colonnade at Sydney Terminal Station during the week commencing 14 July. Construction of the curves connecting Hay Street to the eastern and western ramps to the station is being held in abeyance pending the decision to extend the light rail line to Circular Quay along Pitt and Castlereagh Streets. These curves would be replaced by turn-outs at the Pitt Street - Hay Street and Hay Street - Castlereagh Street intersections.

Foundations for bolting down overhead masts have been completed along the two station ramps, and are being constructed along the former railway right-of-way behind the Powerhouse Museum. Rail for use along the reconstructed right-of-way was also being stockpiled at



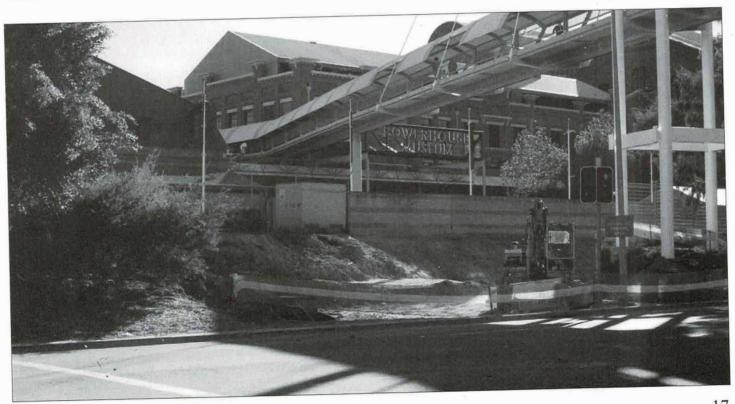
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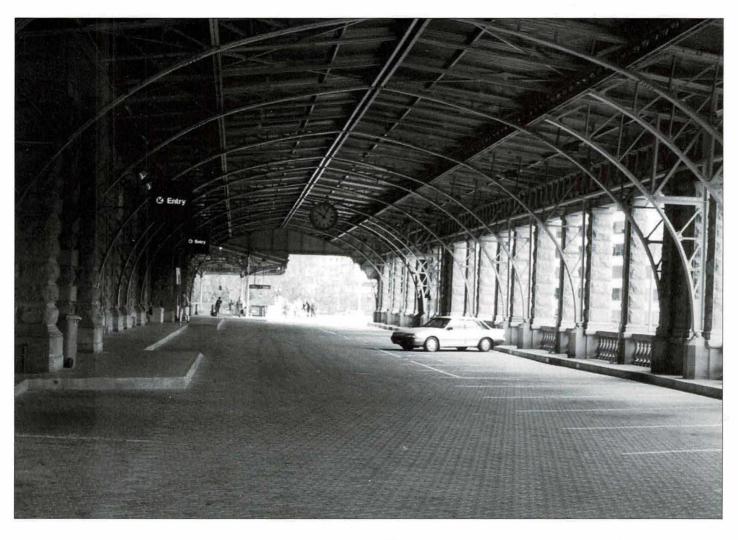


From Hay Street, the light rail line will cross Darling Drive and enter the former railway reservation. The grade from street level to the railway right-of-way is under construction on 20 April 1996. BOB MERCHANT

A view looking down the eastern ramp from the bridge over Eddy Avenue on 20 April 1996.

**BOB MERCHANT** 





### Reviews

### Les nouveaux tramways et métros légers de France et d' Europe.

Hors série La Vie du Rail et des transports, Paris, 1996. 100 pages, price 50 French francs plus postage (Letter FRF 72, economy (air lifted) FRF 42, sea mail FRF 14).

Published by La Vie du Rail, 11 rue de Milan, 75440 Paris, Cedex 09.

The French railway magazine *La Vie du Rail* has just published a hundred page special issue on new tram and light rail systems and vehicles in France, and, accessorily, in other European countries.

This profusely illustrated glossy publication presents in glowing terms how the tram in its various modern forms has become one of the most favoured means of weaning French car drivers from their beloved Renaults and Peugeots. The first part of the book is devoted to the systems. Pride of place goes to the three surviving lines in Saint-Etienne, Marseilles and Lille-Roubaix-Tourcoing, and their radical modernisation. The new systems are then presented: Nantes, Grenoble, Strasbourg and Rouen, followed by descriptions of planned networks in a variety of middle-sized French cities, some of which may

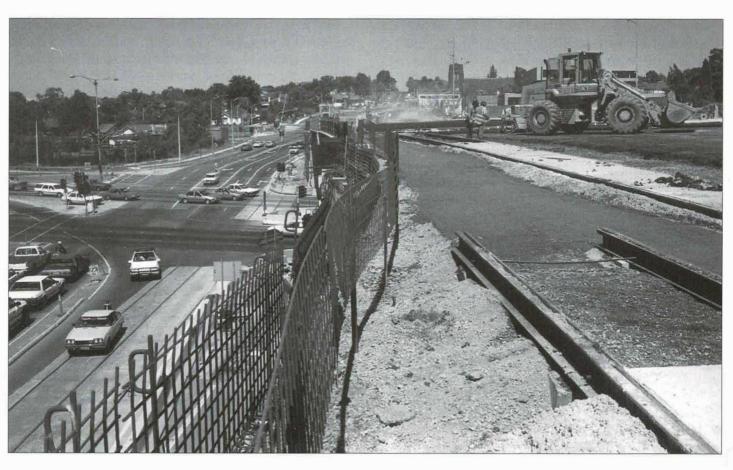
The former tramway terminus on the colonnade at Sydney Terminal Station will once again see trams when Sydney's light rail line terminates here. The last tram ran through here on 29 September 1957. BOB MERCHANT

eventually opt for other forms of transport, notably a mini-tramway system on rubber tyres. A quick look is given at some other European networks, Karlsruhe in particular, as the idea of running trams along railway tracks is making headway in France too. Finally, the three entirely automatic VAL metro systems are presented.

The second part of the book is given over to manufacturers and their products, and special attention is given to low-floored cars, which virtually every maker now provides.

At FRF 50, this book is particularly good value for anyone interested in the renaissance of the French tram.

-John Humbley

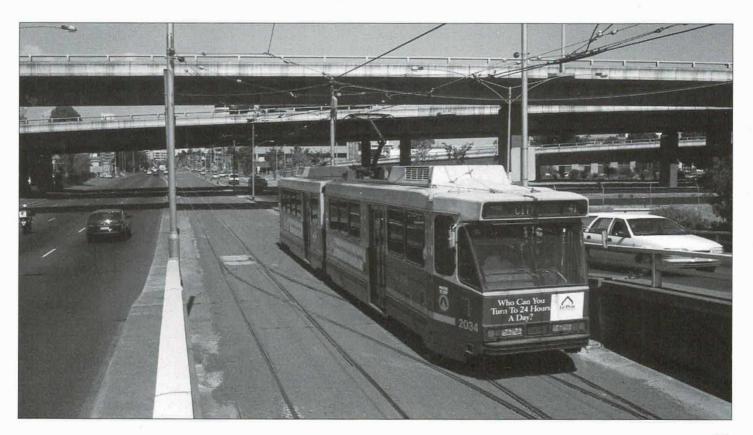


Melbourne B2 class 2034 runs into service from South Melbourne Depot to take up route 96 light rail running in February 1996. Red scoria has improved the appearance of this section of track along Kingsway.

RAY MARSH

The new flyover on Melbourne's route 72 in Burke Road near Gardiner railway station is nearing completion. This view, taken in February 1996, shows the abandoned tracks to the left of the viaduct structure. The section of route 72 from Gardiner to Camberwell has been operated by buses since 1995.

RAY MARSH



### Around Auckland by Tram in the 1950s

By Graham Stewart, author and photographer. Size 285mm depth x 210mm width, 124 black and white photos, three colour plates on cover, 48 pages plus covers, laminated limp bound with flaps. Price NZ \$24.95 including GST and postage, ISBN 1 86934 053 1, Published by Best Collector Books, PO Box 17-256, Wellington 6033, New Zealand. International Phone 644 476 4625, Fax 644 476 3048.

The baby boomers are all turning 50 years of age! Their decade - the 50s - was the decade when the baby boomer generation were at school - many travelling by tram to their studies, to their sports fixtures, to the flicks in town. These photographs vividly illustrate Auckland - how it was...

The city of Auckland has changed dramatically in recent decades. Auckland is now a large international city and this unique photographic portfolio of the streets is within living memory for thousands when Auckland was still a close knit city with the outer boundaries only a tram journey from Queen Street.

Everyone had taken the tram to town - to Queen Street or Karangahape Road, the heart of Auckland in those years - for major household purchases, or for a day out in town, a big event if you were a child. The North Shore was still a ferryboat journey away while the construction of the harbour bridge slowly reached out across the harbour like a giant Meccano set. Motorways and suburban shopping complexes were only at the embryo stage. With a tram service averaging a three to ten minute timetable to the suburbs, there was always a tram in sight. If you missed one, "there was always another one along in a minute," as people in those years used to say.

It will be 40 years this Christmas since the last trams made their final journeys. These photographs, taken by Graham Stewart over 40 years ago, bring back recent history - of the trams, the people, the suburbs, the streets, the shops and the advertising of the period. This reviewer found the images captured by Graham very nostalgic - trams from Sydney of the 1950s would feel at home in many of the scenes pictured here. This publication maintains the usual high standard expected from this publisher and is highly recommended for a place in any tramway enthusiast's library.

- Bob Merchant

### **LOFTUS**

South Pacific Electric Railway Co-op Society PO Box 103, Sutherland, NSW 2232

From Bob Cowing and Dick Clarke

### **Works in Progress**

Further concreting has been carried out at the rear of road 7 in the display hall. This area has a section of sleeper track which is to be part of a way and works display.

Concrete footings have been laid at the eastern end of the traverser pit for the wall behind the substation. This work is in preparation for the footpath leading to the upstairs office. Cable conduits are also being laid as the work progresses.

The excavation of the Cross Street curve continues in preparation for check railing and concreting. Mike Giddy is being assisted on this project by some of our CSO workers. A compressor has been installed in a small roofed enclosure near the side entrance of the workshop building. The compressor will supply compressed air to various points within the building and air lines serving half the workshop have already been installed.

A hydrotherm Zip type hot water unit has been installed in the workshop mezzanine meal room. It replaces our hot water urn which was commandeered for use as a steam producer for our timber steaming unit. The urn has provided steam for steam bending timber used in rebuilding the platform canopies for C class cars 29 and 290, and freight car 24s.

The last of the original level crossing signs at the Princes Highway level crossing has been changed over. All signal posts have now been replaced with new material and all now meet the new standard for these signs.

Brickwork over the kerb drain at the corner of Cross Street and Tramway Avenue, which has been damaged by trucks on three separate occasions, has been repaired.

Trackwork has been extended to service the new depot building which contains roads 11 to 14. In preparation for moving C class 290 to the new building for painting, road 11 was slewed to connect with road 12. The movement is expected to take place on 20 July 1996.

### Car News

Ballast motor 99u has had its south end drivers platform rebuilt and cab replaced. Much to our surprise, the cab did not sit vertically, but had a distinct lean to the rear. It turns out that when the enclosed cab was fitted in 1935, it was constructed to sit on a platform which had a distinct droop! The cab was removed and quite a bit removed from the front, tapering towards the back of the cab. It was refitted and now, for the first time, the cab sits squarely on the platform.

Work on converting C class 290 back to passenger configuration is continuing. It is being rebuilt with the No. 1 end with drivers protection, and with the No. 2 end with open platform. Car 290 will eventually run coupled with a D class car to replicate coupled C and D operation.

Further concreting was carried out in the display hall on 22 June 1996. The length of sleeper track is to be part of a display of trackworking equipment in front of ballast motor 93u.

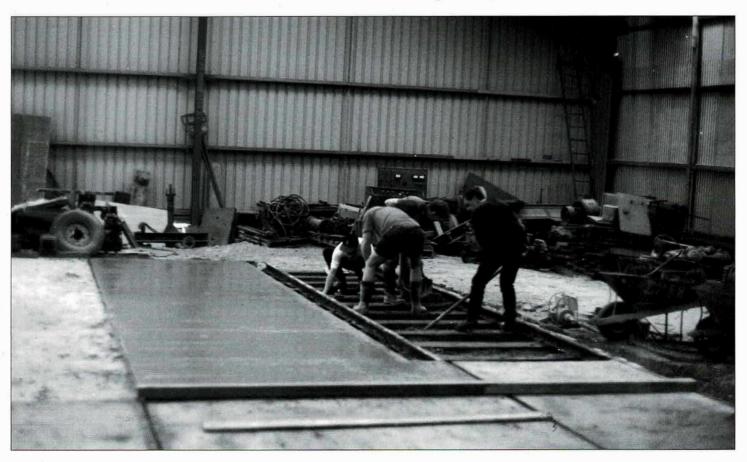
BOB MERCHANT

The interior ceiling has been laboriously cleaned back by Ian Hanson and a seemingly tireless band of assistants. The exterior has been primed ready for painting. Removal of a conduit cover strip located under the canopy at the southern end revealed some of the original paint colours. The cover strip was installed when the car was motorised in 1911 after seeing service as a steam trailer. Car 290 turns 100 in October 1996.

Freight car 24s has been cleaned out and a number of surprise finds were uncovered in dark corners. The southern cab has been rebuilt and work is now concentrated on rebuilding the cab at the northern end. Traces of the original deep purple brown body colour and lining found under the drivers canopy has been recorded. A full restoration to working condition is not planned at this time due to workshop space being required to finish partly completed O class 957 and O/P class 1089.

### Bright Ideas or Why the Bulbs Shine Brightly

There is a long-held practice of having the lights on in our tramcars when in operation at the museum. It started in 1965 at the commencement of operation at the Royal National Park site to indicate when the limited power from the 20hp motor generator was on. It also served an essential purpose of indicating when another tram was operating by the dimming of the lights. The initial power supply was only capable of powering one tram at a time!



The practice continues today, but power on and limited capacity are no longer considerations. Rather, the lights reinforce the theme of the museum being an operating electric tramway, improve tramcar visibility at level crossings and give immediate indication of any trolley pole dewirement.

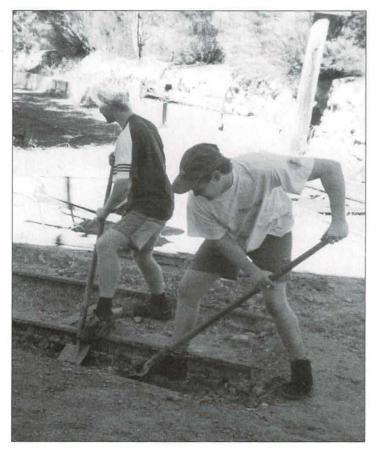
However, the lights on the tramcars waiting between trips at the depot have been shining too brightly and consequently having a short life. We have plenty of Sydney 100 volt 56 watt RC bayonet cap bulbs; a Kellogg's Corn Flakes carton full was obtained from Randwick Workshops at the closure of the system, a kindly employee collecting them from each tram as it was scrapped over a period of six months.

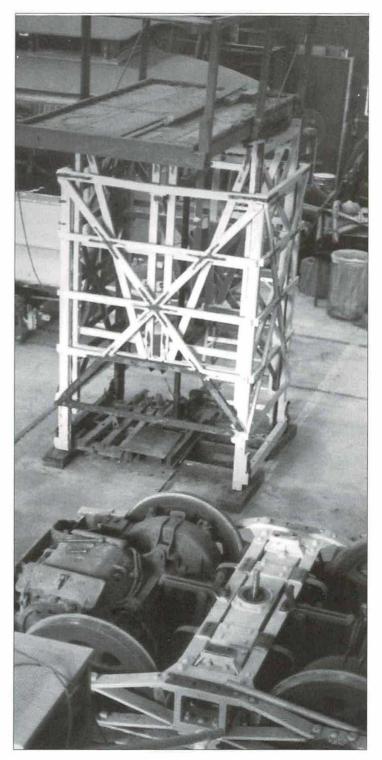
The reason for the brightness is that the museum DC power supply gives out 675 volts at no load instead of the nominal 600 volts. This is a perfectly normal practice for tramways, indeed the Australian Standard allows up to 750 volts for a nominal 600 volt supply.

The reasons for this higher voltage are interesting and reflect the attitudes at the time of the power supply manufacture in 1958. Firstly, the rectifier transformer was designed for an input voltage of about 415 volts with tappings to allow for reduced voltage supply (known as

Digging out the Cross Street trackage ready for levelling, check-railing and concreting continued apace during June.

BRUCE WIRRELL





Ballast motor 99u's trucks and tower are also receiving a much needed overhaul before being reunited with the refurbished body.

BOB MERCHANT

brown-outs) that were prevalent at the time. There was no provision for an increased supply voltage; they were real pessimists! Now Energy Australia supplies us with 440 volts and declines to reduce it to 415 volts. This accounts for the first 30 volts increase in DC voltage.

The rectifier was originally fitted with glass bulb mercury arc bulbs (very pretty when operating) but with a big voltage drop instead of the minuscule voltage drop of the

present silicon diode rectifiers, hence another 20 volts increase. To top it off, the transformer is fitted with a double star secondary winding with interposing reactors which, under very low electric current draw, think they are something different and give out an extra 25 volts. All these add up to 675 volts.

Of course the voltage drops to a little under 600 volts when our tramcars are operating.

If we cannot change the power supply, then some lateral thinking is required. Light bulbs have an extended life if operated a little below their normal voltage. Remember, Sydney cars have six 100 volt bayonet cap bulbs in series, Brisbane cars have five 120 volt bayonet cap bulbs in series, and Melbourne cars have six 100 volt Edison screw bulbs in series.

After much discussion and mental arithmetic by electrical staff Wayne Armitage and Geoff Olsen, we

A view of the workshop on 6 July 1996. Ballast motor 99u has had its cab refitted and freight car 24s has had its cab reconstructed and roof repaired and recanvassed. To the right, the interior of C class 290 is receiving muchneeded attention.

BOB MERCHANT

were able to purchase from a specialist supplier in Adelaide 120 volt bulbs (made in China) for Sydney cars, 130 volt bulbs (made in Korea) for Brisbane cars and 114 volt bulbs (made in Japan) for Melbourne cars, all at prices lower than household bulbs at supermarkets!

### Sydney Tramway Museum on the Internet

You can find information and/or comments on the Sydney Tramway Museum at the following sites on the Internet:

http://minyos.its.rmit.edu.au/~s840157/tram/loftus.html

http://www.he.tdl.com/~netking/tramwrld.html

http://www.abc.net.au/rn/trammit/museum.htm# anchor2173860



### ST KILDA

### Australian Electric Transport Museum

GPO Box 2012, Adelaide, South Australia 5001

### From Colin Seymour

#### **LEAP Scheme**

The LEAP Scheme (Landcare Environment Action Program), providing training for the long term unemployed, has consumed much of our time over the last few months.

The relaying of 96 metres of track from the playground stop towards the terminus in concrete was completed to a high standard by the end of April. The trainees then moved on to the overhead poles and fittings. Nine rusted poles between the playground stop and the terminus have been replaced. At the time of the construction of the line in 1973 it had not been possible to obtain sufficient good poles and these poles had always been considered to have a shorter life. The job was facilitated by the lack of overhead wire from the playground stop to the terminus. Following the theft of nearly a kilometre of our overhead in May 1992, there was insufficient replacement wire for this last section of our track. Replacement wire has since been obtained by the Salisbury Council.

The replacement of one pole at the playground stop, however, required the existing wire to be cut back from pole 50 to the wire join at pole 46. This work was carried out on 11 May 1996.

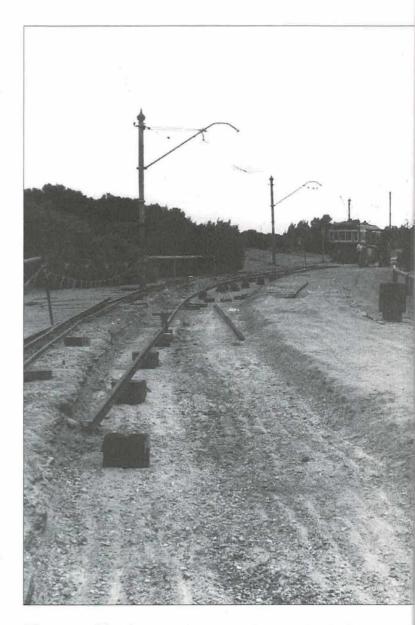
The pole fittings were removed by the trainees using scaffolding. The poles were felled two feet from ground level by oxy cutting and lowered to the ground by ropes. Replacement poles were selected from museum stocks, grit blasted and painted, and transported to the beach for re-erection.

The remaining stubs were ground clean and painted before the replacement poles were lifted into place. The replacement poles were then welded onto the stubs and the welds painted over. Meanwhile the fittings removed from the poles were cleaned and cold galvanised before re-erection.

Towards the end of May the trainees commenced relaying the Shell Street curve in concrete - a distance of 34 metres. This section of track, which is just past the Mangrove Street crossing, was not relayed during the 1993 relay because of insufficient funding. Completion of the Shell Street curve now gives us a continuous length of concrete track through the St Kilda township and playground area, measuring 420 metres.

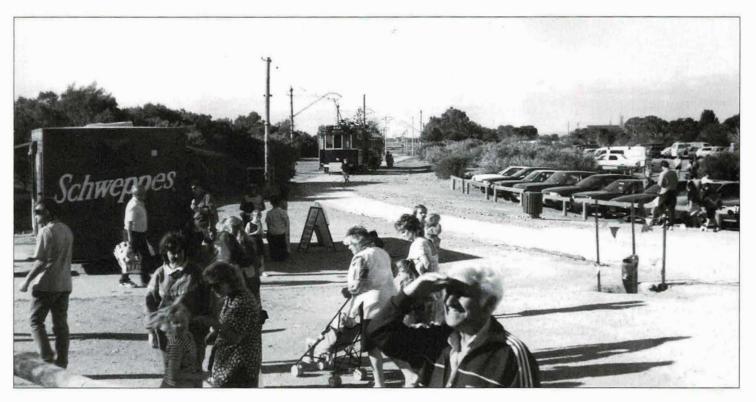
The Shell Street relay meant that trams terminated in Shell Street immediately after the Mangrove Street crossing for the three weekends from 26 May 1996 to 10 June 1996. Trams resumed running to the temporary playground stop at pole 46 on 16 June 1996.

After completion of the Shell Street relay, attention turned to the erection of the nine overhead poles between the playground and terminus and all their fittings.



This view of the playground curve track excavation looks back to the temporary playground terminus where works car W2 354 waits.

PAUL SHILLABEER

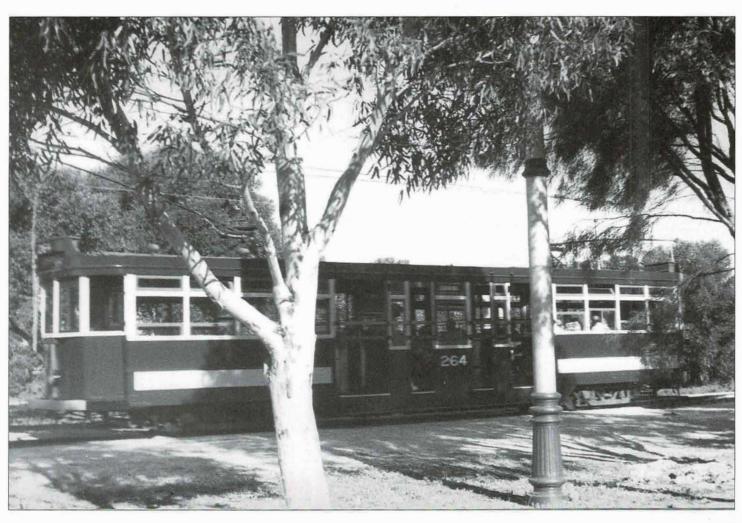


Freshly painted dropcentre 264 sporting its side numbers for the first time since reconstruction in 1986 leaves the museum grounds for the St Kilda playground on YMCA Day.

JOHN RADCLIFFE

Cars 282 and 34 at the playground stop on YMCA Day, 5 May 1996. The new concrete track can be seen in the right foreground, however, the absence of overhead poles indicates that the track is not yet re-opened.

JOHN RADCLIFFE



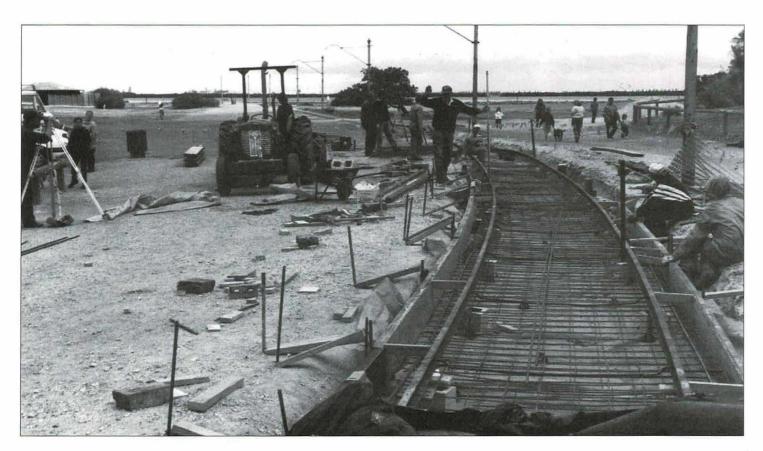


Dave from TransAdelaide and Kym Smith restore the overhead wire at pole 46 using the TransAdelaide overhead truck. This is the pole from which the new wire was run to the beach terminus on Friday 28 June 1996.

GLEN PAULL

A further section of playground curve being prepared for concreting. The remaining 200 metres of sleeper track to the beach terminus can be gauged by the number of overhead poles, most of which have now been replaced.

PAUL SHILLABEER



Although most of the ears and insulators remained after the overhead wire theft, the galvanised wire between them was showing signs of weathering, so the decision was made to renew all fittings, including those on three poles which were not replaced. Car 264 was towed by the tractor and used as a mobile scaffold for the erection of the bracket arm fittings.

On Thursday 27 June 1996 a major event occurred. Approximately 500 metres of new trolley wire was strung from pole 46 to the terminus. This task enabled trams to return to the terminus for the first time in over four years. Fortunately, TransAdelaide made their overhead tower truck and a driver available for the day. Kym Smith had previously delivered our 800 metre reel of trolley wire to TransAdelaide's Mile End Depot for fitting to the truck. The hydraulics on this vehicle enable it to be driven along the tram line like a railed vehicle, the rubber tyres being raised above the ground for this process. The Museum also hired a cherry picker for the day and used it on the preceding days as well.

Works car W2 354, driven by Kym Smith and 'conducted' by Glen Paull cautiously reached the beach terminus under its own power at 1:00pm on Friday 28

Lots of trams and lots of picnickers on YMCA Day at St Kilda.

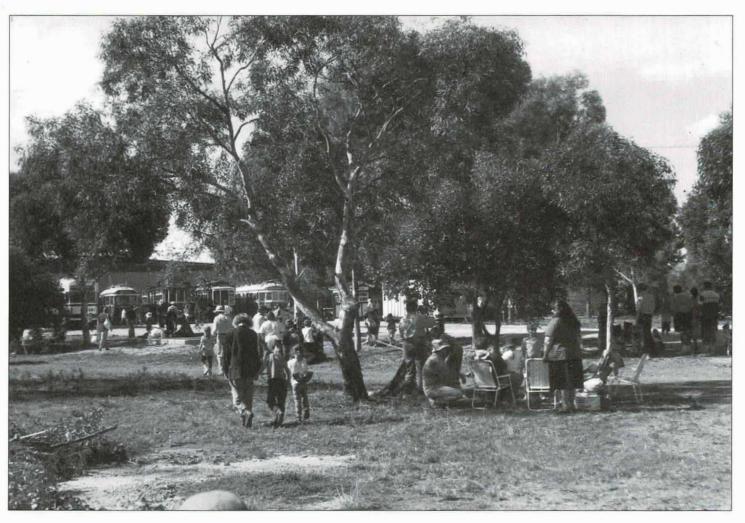
JOHN RADCLIFFE

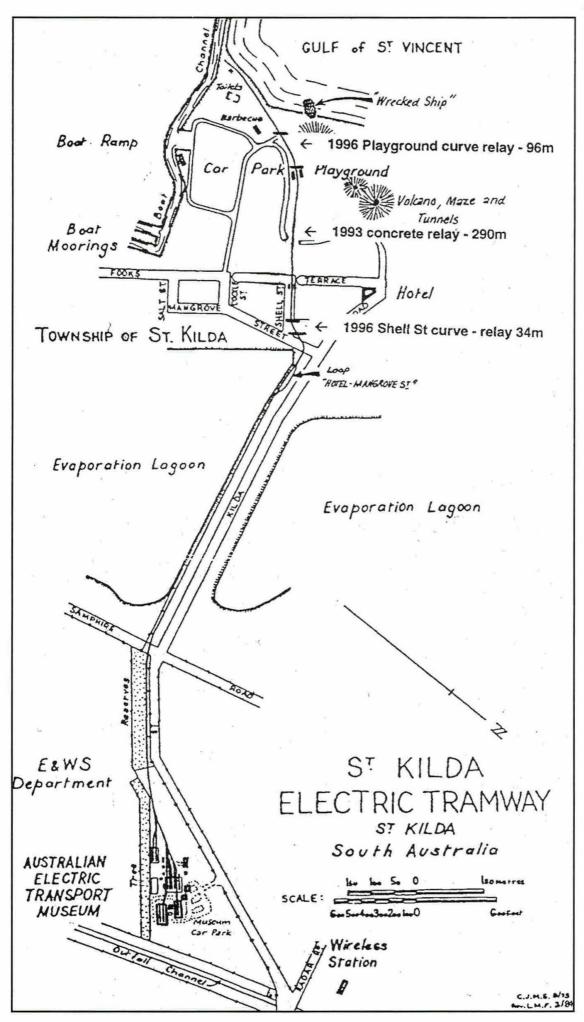
June 1996, ending a four and a half year wait. This allowed passenger trams to run to the playground stop from 30 June 1996.

By the time this issue of *Trolley Wire* is received the official re-opening ceremony will have taken place (28 July 1996) and trams will once again run the entire length of the line to the Beach terminus. In the preceding weeks work will be carried out to bring the few hundred metres of sleeper track at the terminus into useable condition.

### A Record 43 Trips

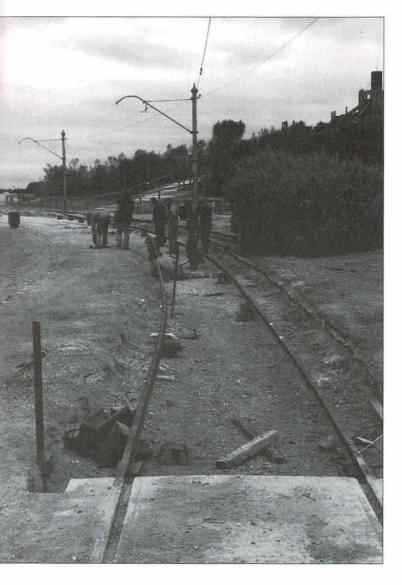
Fine and mild weather resulted in a record number of 43 tram trips being run on Sunday 5 May 1996 for a visit by YMCA Explorers. The first trip of the day at 10:20am carried a load of 57, while an extra last trip at 5:20pm still had 16 passengers. The crowd of 689 visitors for the day resulted in total passengers carried on trams for the day of 2577 - or did we lose count? Trams ran in convoys of two for nearly all trips and crossed at Mangrove Loop on nearly all trips, resulting in four cars on the line almost all day. Within a few minutes of a convoy returning, the next convoy was being despatched.





Map of the museum tramline at St Kilda showing the three concrete relays which make up the 420 metres of concrete track from Shell Street to near the Beach terminus.





A common sight on YMCA Day, four trams at Mangrove Loop. F1 264 and Ballarat 34 head back to the Museum while D 192 and F1 282 are on their way to the St Kilda playground. JOHN RADCLIFFE

A pleasing sight on the day was two Adelaide dropcentres in traffic at the same time. As previously recorded, F1 car 282 returned to service in October 1995 after a repaint. It has now been joined by F1 car 264 which returned to service for the YMCA Explorers after a repaint. Car 264 is sporting its numbers on the dropcentre side panels for the first time since being reconstructed in 1986. Until last year, SA Jubilee 150 logos appeared on these panels acknowledging that the car was reconstructed for the State's 150th birthday. These were replaced by Australia Remembers logos for its return to the Glenelg line for the Australia Remembers celebrations. The floor slats in the dropcentre section were also replaced.

LEAP workers preparing the 96 metres of track on the playground curve at St Kilda to be relayed in concrete. The concrete track in the foreground has been the temporary terminus for four years - the playground tram stop.

PAUL SHILLABEER

### **Annual General Meeting**

The 1995-6 Annual General Meeting of the AETM was held at the Museum on Saturday 25 May 1996. The committee remained the same as last year (see *Trolley Wire*, November 1995) except that Paul Shillabeer has taken over the Vice President's role.

After the meeting, a few rides and the barbecue, Peter Letheby showed us his film of the 1994 COTMA Conference in Bendigo and of the Pichi Richi Railway.

### **FERNY GROVE**

Brisbane Tramway Museum Society PO Box 94, Ferny Hills, Queensland 4055

### From John Lambert

### **Electrical**

The overhead in the depot area has been cut over to the new timber span poles and raised to 5.6 metres as per specifications. This total rearrangement of the traction overhead is almost complete with only one span still to be erected near the depot curve at Roads 3 and 4. Following this work, it is planned to remove the tower wagon from active service to allow some mechanical restoration work to be performed in readiness for future overhead work. The museum's first bracket arm has been erected in the depot area and now supports the trolley wire above road 4 into depot 2. The bracket arm is ex-Ascot Doomben, suitably restored and repainted in a good shade of silver paint.

### Engineering

The Society has engaged the services of a consulting civil engineer to assist with the design of the proposed 600 metre extension from the museum to parkland near the Ferny Grove railway station and intends to present the Brisbane City Council with a formal proposal for this tramline late this year, with proposed construction to commence during 1997. The design work for this tram line is being performed by the Society's Engineering Division using Brisbane City Council Transport Department specifications that are held in the museum archives, together with current specifications available from the Public Transport Corporation in Melbourne. Additional assistance and advice is being supplied by the Society's consulting engineer, Bill Kingsley who is a civil engineer experienced in traffic and transport engineering.

As part of the initial design process, the Society is conducting a traffic survey (vehicle movement and speed) in Tramway Street near the proposed tramline crossing on Sunday 14 and Tuesday 16 July. The data from this survey will be used to prepare a traffic study to determine the impact the tramline crossing will have on

the traffic flow in Tramway Street. This traffic study will then form part of the formal proposal to go to the City Council.

### **AMRA Display**

This year the Society made its second appearance at the show held at the exhibition grounds. Our display consisted of a mock-up tramcar front platform (class indeterminate) comprising the front platform from Baby Dreadnought 96, a controller, handbrake handle and operable gong. A photographic display and video completed the scene. Members who generously donated their time handed out about 3500 brochures, 2000 discount vouchers (valid to 31 August 1996) and 30 membership application forms. The "tram" stood up well against the onslaught of children (for which it was designed) and we established that the maximum carrying capacity is 15 children and one adult.

### **Group Charters**

Business is brisk in this area with the museum averaging one charter every two weeks during recent months. As well as the usual school groups and seniors clubs, the Society hoisted the annual general meeting of the Queensland Branch of the Australian Institute of Non-Destructive Testing, this being a very successful evening charter for approximately 35 members of the Institute.

### End of an Era

Friday 14 June saw the retirement of Alan Marment from the Brisbane City Council's Bus Workshops at Toowong. Alan's final position was that of Senior Production Officer and with 44 years of service he was the last person at the workshop with significant tramway experience. His knowledge of 'what goes where and which does what' in trams is extraordinary, and he has been an invaluable source of information to the museum since its foundation. We wish him a happy retirement and

### WHITEMAN PARK

Perth Electric Tramway Society PO Box 257, Mount Lawley, Western Australia 6050

### From Michael Stukely

### Spare Parts Storage Shed

Building approvals for the shed were finally received in May, and a work schedule was drawn up by the contractors. Rapid progress was then made with its construction, with work starting on 31 May. The roof trusses had been erected by 5 June and the structure was complete on 11 June. This was not achieved without incident, however; while manoeuvring to lift the front trusses into position the contractor's crane became bogged to the axles in the soft sand. Fortunately, Victor Sweetlove and Robert Pierce were on hand to free it with the Society's tow truck.

The floor is now to be concreted and suitable shelving installed, after which the long-awaited relocation and sorting of our large quantities of stored materials from various spots around the museum can proceed.

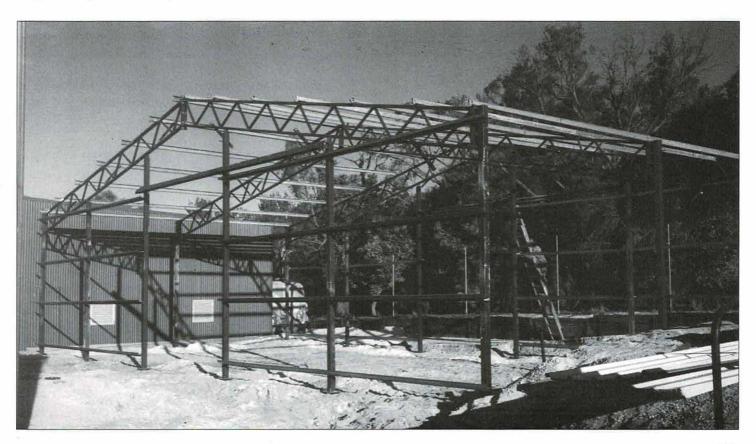
The framework of the new spare parts storage shed was completed on 5 June. The western wall of the Engineering Shed is at left. LINDSAY RICHARDSON

A concrete retaining wall is to be built along the south and west sides of the shed to shore up the adjacent open storage area in the rear compound. The opportunity will also be taken to build a similar wall some 25 metres long on the north side of this area to replace the present sleeper wall which has been badly weakened by termite activity.

#### Maintenance Pit

On 17 April a mini-excavator was used to dig a trench two metres deep along the south side to enable the sheet-piling to be put in place. Here again the sand caused problems, with subsidence occurring below the edge of the concrete floor of the engineering shed. However, after the sheet-piling was installed, successful backfilling and consolidation of the sand was carried out without damage to the floor.

On 19 May, the surveyor installed the 'sets' for establishing measurement reference points for the main pit excavation. Final preparations were being made by Noel Blackmore in June.



### **Electrical Earthing System**

Tests of our electrical earthing system carried out by Noel Blackmore have shown that its performance has deteriorated overall, after over ten years of operation.

### WAGT E class 67

With the stripping of the body of car 67 having reached the stage where all of the sub-floor timbers are readily accessible, an assessment of the main beams and end-platform bearers has been carried out. Weaknesses have been identified in the transverse beams at each end of the saloon, and in some of the platform bearers. A program for remedying these problems is being developed.

### **Other Projects**

Lindsay Richardson reports that the new perway and overhead hardstand area is now about two-thirds complete following the spreading of 25 tonnes of roadbase over the limestone. The opportunity was also taken to clean up the area south of the Lindsay Richardson Carbarn ready for future extensions.

The new diesel fuel tank is now in use with the first delivery arriving on 12 June. Victor Sweetlove is delighted that his car will now no longer smell like a fuel depot!

Ric Francis has continued the preparation of the Brill 39E truck and sandblasting of the sideframes and bolster have been done ready for the computer-designing of the patterns. Work is also continuing on Perth G class 35 with the replacement of components of the end platform underframes and apron framework.

Frank Edwards has continued preparations on Ballarat 31 prior to the lifting of the body from the truck.

#### General

Perth had an unusually late break of season this year, with fine conditions persisting until mid-June. The high levels of patronage experienced in early autumn continued as a result. Numbers of passengers carried in May showed an increase of more than 100% over the May 1995 total.

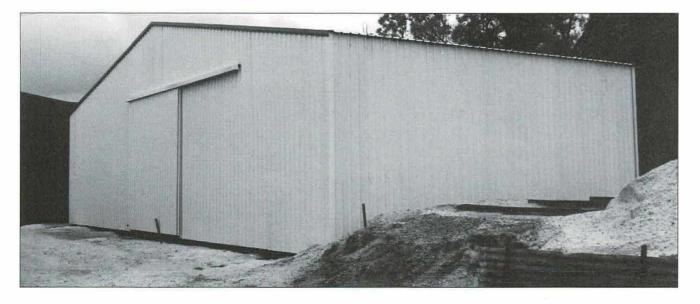
Track maintenance work has been carried out at Farmgate Curve, north of Red Dam, east of Bennett Brook and over Horse Swamp culvert. Trevor Dennhardt reports that on one workday (28 April) he, Lindsay Richardson and Craig Winslow lifted and packed 100 metres of track between the carbarn and Bennett Brook, using the pneumatic packer which runs off the mobile compressor - this unit works very well and will assist the track team greatly in keeping up with their never-ending job. The welding of rail bonds between the carbarn and Stockmans Triangle is progressing, and those on the loop have been completed. Trailable spring switches are being made for the two sets of points at Stockmans Loop, to replace the temporary "little David" levers.

The No.1 truck overhaul is progressing, with the first motor having been transferred; the suspension bearings are being fitted to the wheel-set. The second motor- axle unit is very dirty and is undergoing a major clean-up.

The overhaul of the controllers of W5 class 766 is progressing well.

The completed spare parts storage shed in mid-June. A concrete retaining wall is to be built around the two sides of the open storage area at right.

RAY WEBSTER



Trials are being done with new electrode installations to improve the ability of the system to cope with the demands placed upon it by our operations both now and in the future. It was found that the earth rods are too shallow for local conditions. New ones are being driven to a depth of 12 metres, which has produced a dramatic improvement.

Ex-WAGT tower wagon No.1 has been transferred by Trevor Phillips to the Narrogin Agricultural College, where it is to be rebuilt as a flat-top.

A screw threading machine has been donated to the Society by Cockburn Cement Ltd. We are grateful to Graeme Churcher for arranging for the acquisition of yet another most useful piece of equipment.

Two more ex-Tramways steel span poles have been delivered to the Museum by Western Power following their removal from streets in Victoria Park and Northbridge. The Wednesday group has commenced stripping the assortment of old brackets, insulators, etc., from our growing pile of steel poles, which will be used to progressively replace the wooden poles which are nearing the end of their lives.

PETS participated in the annual Australian Model Railway Association exhibition over the June long weekend at Clermont Showgrounds. Scott Parker provided his model tramway layout as a centre-piece to complement our display, and several model trams were loaned by members. Sales of the Society's souvenirs were brisk, and overall it was a very worthwhile exercise thanks to Scott and several other members who assisted.

Laying of tram track in central Hay Street, Perth, was in progress at the end of June - well, 7.5 metres of it, anyway! The City of Perth is upgrading the Hay Street Mall (between Barrack Street and William Street), and is installing the single panel of tram track and a plaque to commemorate the role played by the tramways in the early development of the city. The rail is located towards the west end of the Mall between Coles Store and Piccadilly Arcade, and is positioned off-centre and close to the alignment of the original eastbound track opened in 1899. The rail was supplied by PETS and is genuine ex-WAGT grooved rail, dated 1947.

#### Corrections

May 1996 issue:

Page 30: In the third paragraph, W4 class 647 should read 674.

Page 32: In the left-hand caption, Ray Blackburn should read Ray Blackmore.

(My apologies, Ray. - Editor)

### **BENDIGO**

The Bendigo Trust

1 Tramways Avenue, Bendigo, Victoria 3550

### From Len Millar

### Easter 1996

Under the watchful eye of our Easter OIC, Michael McGowan, our crews worked hard over the Easter long weekend. The annual Easter fair in Bendigo is a big crowd time, and our trams are out in force to cope! In 1994 we carried 1781 passengers over the weekend, 1965 in 1995 and 1840 this year. Well done, troops!

### **COTMA Bendigo Conference Proceedings**

Attendees at the 1994 COTMA Conference in Bendigo will have recently received their copies of the conference proceedings. Keith Kings has spent hundreds of hours chasing up recalcitrant scribes, and all the other work needed to edit, prepare, print and distribute the 128 page book. Keith received welcome help from Trust staff Myra Potter and Mandy Singleton, Tramway Committee Chairman Dennis O'Hoy and COTMA man extraordinaire, Bill Kingsley.

The book contains the usual wealth of detail programme of activities, conference session material, attendees, etc. Our grateful thanks to Keith for all his long hard work to bring the book to fruition. Thank you, Keith!

### The Trust's Annual Report

The 22nd Annual Report of the Bendigo Trust has 'hit the streets' and proudly reports on a pretty successful financial year 1994/95. It records (among other things) major events on the tramway, including details of the cars available for service (12), the overhead renovation, patronage (56,544) and the publicity 'coups' and acquisitions (1 km of trolley wire and car 22).

Thirty-one people volunteered their services on the trams during the year, and of those, 16 people each put in over 100 hours.

### 138 Returns to Bendigo

After an absence of five years, bogie car 138 returned to the fold on 24 April. Built by Duncan & Fraser in Adelaide in 1918 for the Hawthorn Tramways Trust as its No. 32, it became M&MTB P class car 138 until it was purchased by the SECV in 1945 for operation in Bendigo. The car was numbered 24 in Bendigo and ran until the system closed in 1972. The Trust restored it back to its early 1940s form involving a little-used Chrome Green and Cream livery.

Car 138 did a few kilometres of special service whilst in Melbourne, but seemed mainly to have had a long rest in Hawthorn and Preston. The Public Transport Minister, Alan Brown kindly allocated \$2,000 for the return trip to Bendigo, and it will be good to get the tram back into local service, and perhaps soon to finish its restoration.

At the same time as 138's return, the opportunity was taken to shuffle trams about at the Gas Works Depot, which enabled car 22 to be put under cover.

### Alan Brown visits the Tramway

Perhaps just to make sure 138 did land back in Bendigo, Mr Alan Brown, accompanied by local member Michael Johns, visited the tram depot on 29 May. Dennis Bell took the visitors for a run down Pall Mall in the beast. As the *Bendigo Advertiser* reported two days later...

"Wonder if the tourist outside the Shamrock [Hotel] the other day who asked the driver of a Talking Tram for directions knew to whom he was talking? For the driver was, appropriately enough, Transport Minister Alan Brown.

"Tramways Superintendent Dennis Bell said the Minister held an Honorary Tram Driver's Certificate and had been in town for a refresher course.

"When the passer-by stopped him, it took very little encouragement for the Minister to swing into tourism mode, he said."

Car 138 at the end of its journey from Melbourne on 24 April 1996. Car 138 had been on holiday in the Victorian capital since 1991. DENNIS BELL





Tramway Superintendent Dennis Bell with Transport Minister Alan Brown and local member Michael Johns on 25 May 1996. DENNIS BELL

Reshuffling the cars at the Gas Works Depot on 5 May. On the left are cars 5 and 456, with car 4 in the doorway. Cars 16, 421 and 20 can be seen on the right.

DENNIS BELL



### "Surround-You-Sound"

Car 18 (as modified by the Trust to a long saloon format with folding doors, BCC RC1 controllers and self-lapping brake valves) is a delight to drive. It may well take 18 notches to get moving, but it's all very nice ander, noisy! Our passengers have a hard time in this car hearing the commentary because all those trammy noises we like seem to reverberate right through the tram interior. That's while the tram is moving. When it stops

en route, say at traffic lights, the speaker volume gets to be over-powering!

So volunteer Bill Winn has started to install twelve "Sound Saturation" speakers down the length of the saloon. We look forward to the finished product. And the joy of it all to your humble correspondent will be that come Christmas this year when car 18 becomes the Myer Santa Tram again, twelve speakers may just hold their ground against the voices of 50 or 60 excited kids. What joy!

### **BALLARAT**

**Ballarat Tramway Museum** PO Box 632, Ballarat, Victoria 3353

### From Dave Macartney

### Car 671 Returns

City of Ballarat liveried 671 returned to Ballarat on 13 May, having been in Melbourne since 23 February. Its last run on the City Circle service was on about 24 April, when the temporary insurance policy ran out. Apart from its City Circle activities, it ran a fan trip on Saturday 13 April, jointly operated by the BTM and the Rail Tourist Association.

Getting the tram to Melbourne by the time honoured method of separating trucks and body had proved unsatisfactory, due to the removal of facilities at Preston, so for the return the whole car, complete with trucks, was conveyed on the vehicle the PTC use to carry their own trams around. This enabled the whole tram to be offloaded onto home rails in about two minutes, and driven away immediately.

The most noticeable sign that 671 has been away is the condition of the floor. Freshly painted before the move, it is now ready to be done again. Amazing what a difference real crowds make! It is unlikely that 671 will again return to its home town, as there were rumblings of discontent about the lack of sliding doors, while the K35 controllers were a total mystery to a number of drivers!

### **Passenger Figures**

June 30th produced some good news - passenger figures were up! For the 1995/96 year 17,773 passengers travelled, the best figure for five years, and well up on the 15,791 of last year. Surprisingly, the bulk of this increase (1527) was from the July to December period, rather than January to June (455). This despite a record Begonia Festival, when 5826 were carried during the Festival and 6451 carried overall in the month of March. The new

financial year has started slowly, with the July school holidays providing little to cheer about. With the temperature failing to reach double figures at any time during the second week of July, it was a toss-up some days whether the passenger count would beat the temperature!

#### Car 28

A start has been made on a comprehensive overhaul of car 28 to eliminate some problems that have plagued the car for many decades. The body sags down in one corner, caused, it is thought, by the failure of the horizontal timbers underneath one of the corner posts. This causes the post to sit down too low, thus twisting the whole body.

By placing a jack under the offending corner, and jacking up from the ground, it is possible to momentarily straighten the whole thing out, but of course, you cannot move the car until the jack is removed. Much to our surprise, when removing a couple of pieces of panelling around the problem area, a length of steel was discovered attached to the inside of the corner post, obviously an SEC remedy of many years ago to solve the same problem, with little success, it must be said.

As well as the body problems, car 28 will receive a truck overhaul, as it has low flanges and is slightly over gauge at one end. It is intended to repaint the car into the ESCo red colours, similar to No. 26, though still with the enclosed ends of the body. This particular combination hasn't previously been represented in the fleet. No doubt the purists will again point out that windscreen wipers were not used at this period, which would sound a bit lame in a Coroner's Court. Perhaps crews could be issued with half a raw potato to rub on the windscreen, which apparently was the method used by motormen in pre-war days.

#### Parade Works

The southern third of the Wendouree Parade trackage received some long overdue asphalting during May and June. The City Council were constructing a path in the vicinity, and at the end of the day would seal up the much eroded road surface with the remaining asphalt. This has certainly improved the whole look of the Parade, though the first few trips over the new work were a little hazardous for the crews, given the reduction in electrical return where the tar had splashed on the rails. The fireworks display off the wheels was something to see, though!

### **BYLANDS**

Tramway Museum Society of Victoria PO Box 27, Malvern, Victoria 3144

From David White

#### **DEETYA Scheme**

The Society is pleased to announce that it is the sponsor of a New Work Opportunity employment scheme, funded by the Federal Government under the auspices of the Department of Employment, Education, Training and Youth Affairs. The Society is also making a significant contribution in materials and monetary terms to this project.

The scheme was originally to start on 20 March 1996, but due to the change in Federal Government, all New Work Opportunity schemes were frozen shortly before this date. However, our scheme was fortunate enough to be given the go ahead, and work commenced on 20 May. The scheme will supply employment for eight long term unemployed, together with a supervisor for a period of 26 weeks, and will contain a significant training component supplied by Goulburn Valley TAFE. Scheme participants will work a thirty hour week at Bylands.

Significant work has already been carried out, with the flooring in the kiosk building almost complete under the direction of our supervisor who is finding the work at Bylands to be a challenge, and quite different to the general range of work he has previously undertaken in the building trade as a qualified tradesperson.

Over the period of the scheme, we expect that considerable change will become apparent at the Bylands museum site. Components of the scheme include completion of the kiosk, erection of the vehicle storage shed and other infrastructure projects at Bylands. The Society should see a significant advance in its plans for Bylands as a result of this project. In addition, we have the privilege of assisting local long term unemployed back to the workforce.

### **Elwood Tram Depot**

The TMSV was given the opportunity to recover various items from this former Victorian Railways tram depot and subsequent bus depot for the Melbourne & Brighton Bus Company and the PTC. This opportunity was arranged through the Department of Treasury and Finance who granted us access to the site from 25 May to 8 June.

This large project was centred on two main objectives. The first was to recover as much of the original overhead troughing out of the former tram sheds, which we needed so desperately at Bylands. The second objective was to dismantle and remove the former steel bus wash building, which was sited between the two former tram sheds. This building, when re-erected at Bylands, will be used as our tram and motor vehicle maintenance facility, complete with a service pit.

In addition, a number of sundry items were obtained from around the site. This included carpet squares that now cover the Bylands kiosk floor, building items of a practical and historical nature which will be incorporated in the Bylands museum, and other useful acquisitions.

Our usual team of workers was augmented by several members who helped out on various days. We also had the loan of the Bendigo Trust's Hino tower truck which helped speed things up considerably with Bendigo's tower truck and our own working in tandem. Graham Farrar also contributed his prime mover and a forty-five foot trailer from Brambles Sea Cargo. At the height of activities on Sunday 2 June, we had the two tower trucks, our tipper and Ford Trader tool truck and Graham Farrar's semi-trailer rig all on site, with all trucks and crews working together. This drew quite some attention from the neighbours walking down Head Street as the

The troughing is now stored under cover in the tram sheds to be erected at a later date. The dismantled bus wash shed is also at Bylands waiting to be re-erected. These two projects will keep work parties busy for some time to come. We are very grateful to the Department of Treasury and Finance for the opportunity to recover so many useful items for the museum at Bylands.

### **Trams**

April saw the addition of three vehicles to our tramcar collection. On 3 April the Society took delivery of SW6 class 887 at Bylands. This acquisition has fundamentally completed our collection of the W class series of tramcars at Bylands. To make room, Geelong 9 was shunted from the south end of road 6 where it had sat for many years, to make it ready for transport to the vehicle storage shed. This required road 6 to be cleared of cars such as L class 101, and W 220 which saw daylight for the first time in several years. During the following week, car 9 was transferred by crane to the vehicle storage shed at the same time as 887 was delivered to the museum.

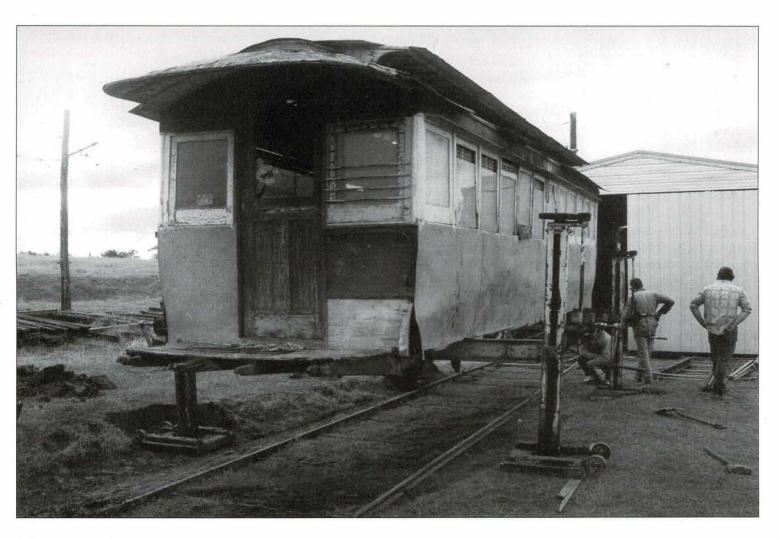
On Anzac Day, the remaining chassis and ironmongery of a cable grip car was recovered from Wantirna. The number of the grip car is unknown as this stage. On the same day, we also picked up a set of cable tram trailer wheels and axleboxes from Cranbourne. This will assist in the restoration of car 336 recovered from Armadale earlier this year.

Two days after the tram recovery at Wantirna, our now well practised tram recovery team started on the recovery of the body of bogie cable trailer 485. This car had been resident in a backyard at Sunshine in use as a sleep-out and shed since its withdrawal from service in 1935. The car is in a reasonable condition as it had been placed on sleepers and covered by fibro cement over the roof and sheet metal over the rest of the body.

The recovery took place over two weekends. The body had to be jacked up from the timber supports ready for lifting out onto our cable tram transporting trailer by a walking crane. While this was taking place, a timber and fibro garage that lay in the path of the movement was dismantled and taken to Bylands. Also, a full truck load of rubbish was gathered and taken to the tip.

Bogie cable trailer 485 is on jacks ready to be re-united with cable tram bogies for the first time in 50 years.

DAVID WHITE





Seven Melbourne trams on display in front of the depot at Bylands for a visit by members of the Swedish Tramway Society on 12 March 1996. The cars are 467, 644 (hiding 996), 739, 795 and 643. Cars 427 and 782 were at the south terminus.

KEITH KINGS

The body of 485 is now on cable tram bogies ready to be displayed in our cable tram shed. This acquisition and other cable tram acquisitions in recent years have been made possible by kind donation. The Society acknowledges the valuable part in tram preservation played by people who contact us when they wish to dispose of Melbourne cable tram bodies they no longer want.

### **Public Events**

Once again the Society has been busy with charters both at and away from Bylands.

### RAIL EXPO SEYMOUR:

The Seymour Loco Steam Preservation Group held a rail expo in April over a number of days at Seymour railway station and at the SLSPG depot. The event consisted of displays at the station, steam train and railcar trips to and from Melbourne, and public access to the SLSPG depot. The Society was represented by AEC Mk IV 624, which took people for short tours around the district, to the Spotted Jumbuck farm and the Alpaca farm.

#### SWEDISH MUSEUM VISIT:

A contingent of the Swedish Tramway Museum paid a mid week visit to Bylands in May. They inspected our museum and rode on several of the trams. The visitors were most impressed by the hospitality shown to them. The visit also gave us the opportunity to run a lot of our trams.

### STEAMRAIL VISIT:

On Saturday 18 May, Steamrail Victoria, in conjunction with the TMSV, held a special tour to Bylands and the Puckapunyal Tank Museum. Steamrail operated the Vintage Train, hauled by steam locomotive K183 from Spencer Street to Wallan and Seymour. At Wallan half the train's passengers alighted to join buses provided by the TMSV for the journey up Pretty Sally Hill to Bylands, the other passengers travelling to Seymour to do the tour in the reverse direction.

While at Bylands the groups rode the trams and saw the former Ballarat Tramways road roller running outside the bus shed. This was the first time the roller had operated during a public event at Bylands and provided one of the highlights of the day. In addition to our normal sales items, specially prepared Devonshire teas were served in the kiosk.

At around lunchtime, the first group rejoined the buses and headed for the Puckapunyal Tank Museum while our members prepared to receive at Bylands the second group coming from Seymour via the Tank Museum. The two groups passed each other on the Hume Freeway near Tallarook. Our buses took the first group on to Seymour to rejoin the train. After leaving Bylands the second group continued on to Wallan to rejoin the train for the homeward journey. The day was very successful thanks to all who contributed their time and effort on the day.





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