

# TROLLEY WIRE

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- Press Reports from 1890 to 1901
- Sydney's F class tram 122

# TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM  
MAGAZINE

AUGUST 2012

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*Sydney O class 1111 carried flags at the southern end  
of the car to mark the occasion of its centenary on  
29 July.*

Greg Sutherland

### A Thank You to Alan Pritchard

An important behind-the-scenes member of the  
Trolley Wire team has stepped down from his role.

Alan Pritchard was responsible for the detailed  
layout of the magazine for every issue from  
August 1996 to February this year, 63 issues in all.  
Over that time the appearance of the magazine  
progressively improved, not least as a result of  
Alan's work. He put a particular effort into the  
reproduction of photographs, sometimes achieving  
miracles with low-resolution pictures taken on  
mobile phones. Innovations in the use of colour  
have also been a result of Alan's input.

We warmly thank Alan for his efforts and wish  
him well in retirement.

### Front Cover:

*The new paint on Sydney L/P class 154 gleams in the noonday sun at the Sydney Tramway Museum on 30 June.  
Joseph Spinella was responsible for applying the gold leaf numbers and the reproduction dash advertising.*

Martin Pinches

## SETTING THE STANDARD FIRE PROTECTION AND THE PMTT

By Andrew Howlett

In the history of passenger tramways in this country, there have been several disastrous tram depot fires.

On 7 March 1907, the recently opened Victorian Railways electric tram depot and offices at Elwood burnt to the ground, destroying the entire fleet of nine trams and eight trailers. In a truly remarkable effort, the system re-opened at the end of March using ex-Sydney C class bodies on recovered and refurbished 5ft 3in trucks. Early in the morning of 10 October 1909, the Sebastopol horse tram depot was also destroyed by fire with the loss of 5 trams, 13 horses and the unfortunate death of night watchman Andrew Angus. This tragedy was described in greater detail in an article by Alan Bradley in the February 2008 edition of *Trolley Wire*. Over 50 years later, on 28 September 1962, fire engulfed Brisbane's Paddington Depot destroying 65 trams. This event was a factor contributing to the eventual closure of the system in 1969. None of the three structures was equipped with a fire sprinkler system.

A fire sprinkler system comprises a large number of sprinkler heads that are placed strategically on the ceiling or roof space of a building. Sprinkler heads have either a fusible link or glass bulb that melts with the rise in temperature resulting from a fire allowing water to spray onto the fire. In most systems, the heads operate individually so that the deluge falls only on the fire affected area. They were first patented in 1874 with two systems being developed. The firm of Dowson and Taylor in Lancashire, England, produced the Simplex sprinkler while in Rhode Island, USA Frederick Grinnell patented his system in 1882. The Grinnell system was introduced to Australia in 1886. A significant advance on automatic fire sprinkler systems came in 1909 when Australian inventor, Edward Kirkby, produced an alarm that transmitted a signal to the fire brigade when the system began to operate. Kirkby grew up and was educated in Bendigo.

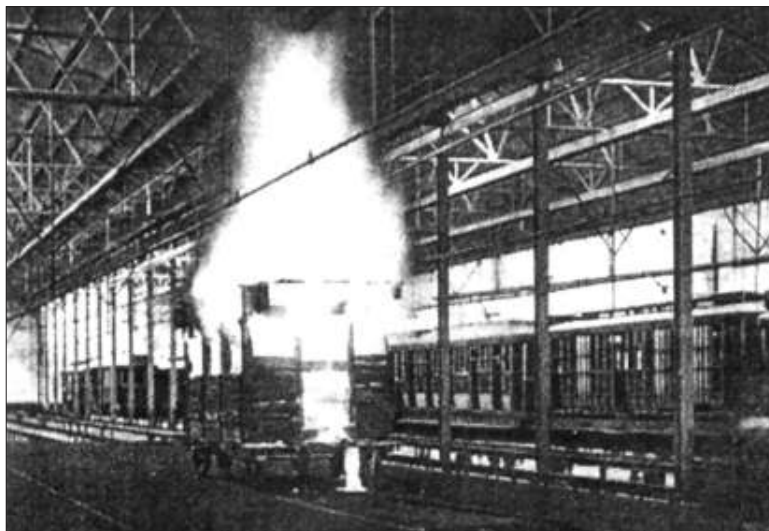
The Prahran and Malvern Tramways Trust began construction of its tram depot, substation, offices and workshop in Coldblo Road, off Glenferrie Road, Malvern in 1909. The complex was completed in time for the opening of the Trust's first route on 30 May 1910. The depot was extended in 1911. At considerable expense, the Trust had both the depot and the workshop (situated on the north side of Coldblo Road), fitted with a Grinnell Fire Sprinkler Protection system with the recently invented Kirkby Alarm to alert the fire brigade. The size of the installation can be gauged with the depot alone having a total of 530 sprinklers in the roof and another 390 suspended in the aisles between roads. Water came from a 150mm connection to the water main and a 22,500 litre (5000 gallon) overhead tank. These overhead tanks were common features at tram depots for many years but have been made redundant by improved pressure in the water mains and, where necessary, electric pumps backed up by diesel pumps.

In the early twentieth century, the positioning and number of sprinkler heads to best protect a building and its contents was not an exact science. There was certainly no computer simulation available. One way to demonstrate the effectiveness of a sprinkler system was for the sprinkler company to conduct a field test which was simply to light a fire in a building and observe how the sprinklers worked. Such a field test took place on 3 June 1915 in the PMTT's Malvern depot. The test was carried out by engineers from Wormald Brothers at the request of the Trust to determine their future policy about protecting depots with sprinklers, as sprinklers were an expensive item to both install and maintain.



*Wormald Report for PMTT showing the mock-up tram fire.*

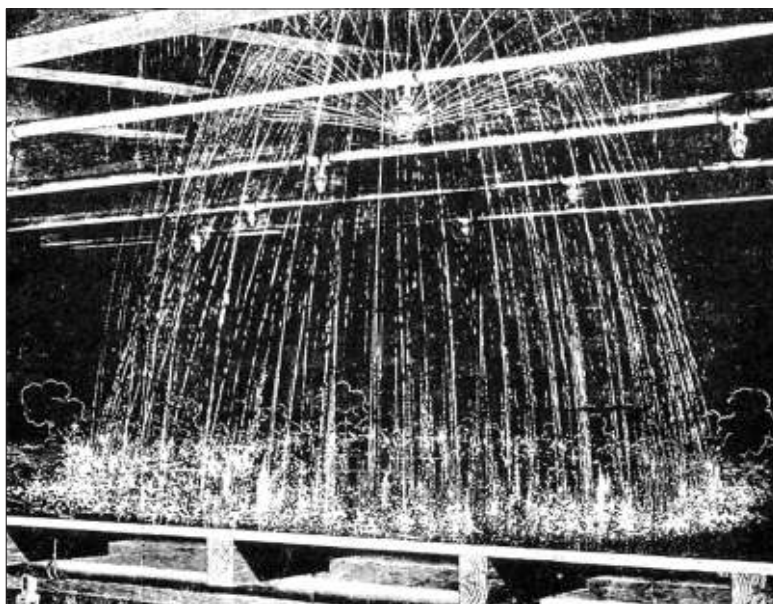




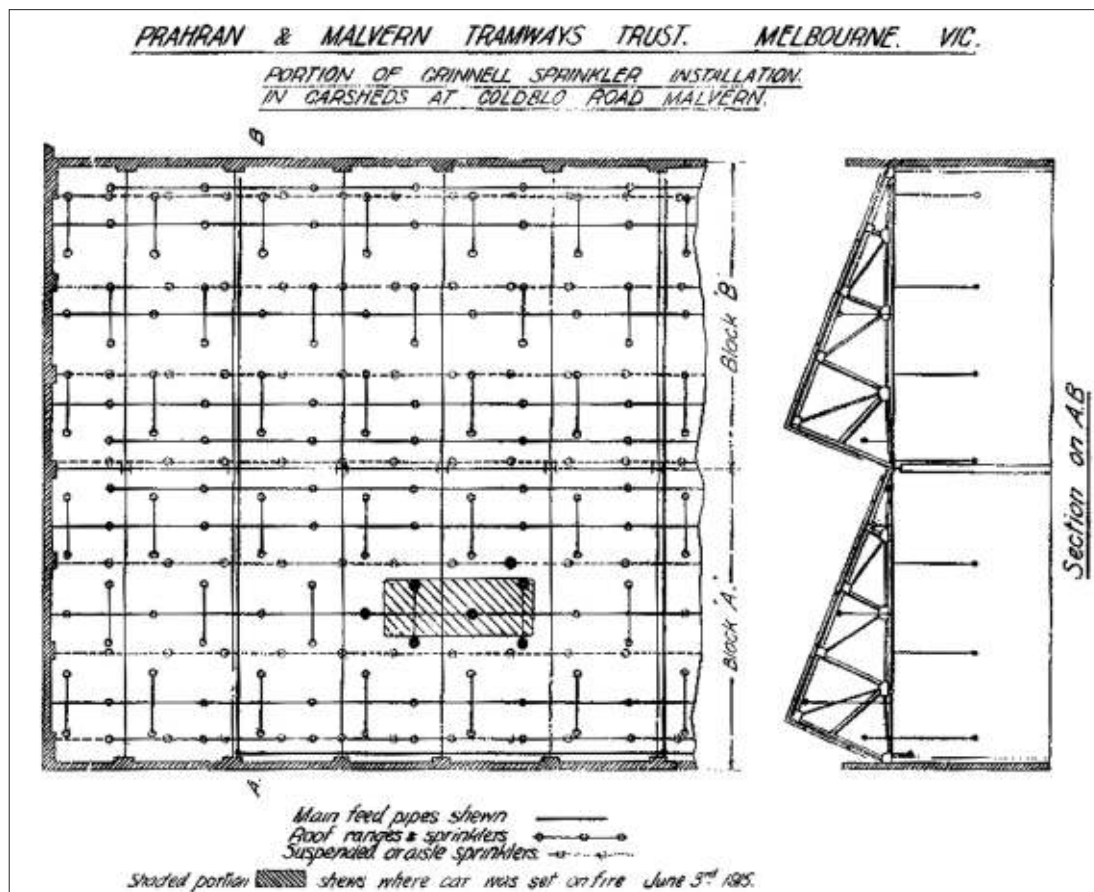
*The mock-up tram on fire in Malvern Depot on 3 June 1915.*  
Wormald Bros report

For the test, a mock-up of a tram was built by the PMTT out of packing cases and filled with wood shavings and kindling to a depth of 60 cm. It is likely that the mock-up was built on a workshop dolly allowing it to be moved into the depot. It was placed towards the rear of No. 2 Road, and after a liberal dosing with kerosene was ignited by the Trust's manager. There must have been considerable confidence in the sprinkler installation as there were still trams stabled on 5 and 6 Roads less than 10 metres away. Flames rose some 9 metres into the air, as can be seen

from the photograph, and immediately seven sprinkler heads opened (see diagram). Thirty seconds later, the Kirkby Alarm activated the call to the fire service, with the brigade from the nearby Malvern fire station in attendance 2½ minutes after the fire started. The fact that the Chief Officer of the Melbourne Fire Brigade, Harrie Lee, was observing the test may have quickened their response. Wormalds recorded that the sprinklers extinguished the fire in 3¼ minutes. The only damage comprised slight discoloration of the roof iron and purlins, with the overhead troughing requiring scraping



*A Grinnell sprinkler in action.*  
Wormald Bros report



*Location of sprinkler heads and the mock-up tram.*

Wormald Bros report

and repainting. Four and a half thousand litres of water were used to extinguish the fire.

After the test, H C Dix PMTT's Engineer and Manager wrote to Wormalds, saying "In buildings such as this Depot housing a large number of tramcars, the results of a big conflagration would be so disastrous, not merely on monetary loss, but in the paralysis of a great public utility that it appears to me no provision to guard against such an occurrence can be neglected." The test fire certainly reinforced the fire protection standards set by the PMTT, with the Trust's Kew Depot, completed in November 1915, having a sprinkler system. When the Melbourne and Metropolitan Tramways Board took over the Trust on 2 February 1920 many of the Trust's senior staff took up positions with the new Board. The Chairman of the PMTT, Alexander Cameron, had already become the MMTB's first Chairman. It is well documented that the standards set by the dynamic

PMTT had a major influence on the way the Melbourne tramway system developed, with the provision of fire sprinklers in all later depots being one of the legacies of the PMTT's early fire mitigation work. It is significant to add that an important part of the upgrade to Australia's oldest operating tram depot (1903) at Bendigo was the installation of a fire sprinkler system.

#### Footnote

Some readers will remember TMSV work parties at Malvern Depot where four cars (164, 182 replaced by 180, 217 and SEC 3) were stored at the rear of the shed where the test took place. One regular task was washing the cars that were coated in dust from the wheel grinder. An adapter was used to connect a garden hose to the fire hydrant system. Care needed to be taken to turn on the hydrant slowly as a rapid decrease in pressure was thought to set the fire alarm off.



*Modern sprinkler controls at the entrance to Bendigo Tram Depot. Operation of the sprinkler system is on the right, with the fire panel to alert the fire brigade on the wall on the left.*

Andrew Howlett

## References

Breydon, Graeme (1970), *Feeding and Filling – the story of the PMTT in Running Journal*, June 1970, TMSV.

Bradley, Alan (2008), *Beyond the Control of the Management in Trolley Wire*, February 2008, SPER.

Lee, Barry (2006), *The History of Automatic Fire*

*Sprinkler Protection in Fire Australia*, Winter 2006, FPAA, AFAC & Bushfire CRC.

Wormald Brothers Ltd (1919), *The Grinnell Sprinkler and Automatic Fire Alarm for the protection of Railway and Tramway Carriage Shops, Car Sheds, etc.* Wormald Brothers.

*A typical Grinnell sprinkler head. This one is installed in the Starter's office at Bendigo Depot.*

Andrew Howlett



*Sprinkler installation at the rear of the Bendigo Depot paintshop.*

Andrew Howlett



## FROM THE ARCHIVES

### PRESS REPORTS FROM 1890 to 1901

**THE SYDNEY MORNING HERALD**  
**THURSDAY, 6 NOVEMBER 1890**

#### **The Waverley-Randwick Electric Trams**

The system of electric trams which, with the approval of the Railway commissioners, has been constructed to run on the cross section between Randwick and Waverley has reached the stage of completion. Public attention has of late been closely directed to the need for improvement in the method of interurban and suburban transportation, and, as is well known, efforts have been made by private individuals to acquire the existing system of tramways, and to institute in its place a more convenient method of propulsion. Some months ago, it will be remembered, the railway authorities called for a series of reports upon the methods of traction in vogue in various parts of the world. Horse tramways, steam and compressed air locomotives, cable and the more modern electric tramways – each was reviewed. The system most favourably reported upon was the electric, and of the different electrical systems – the overhead, the underground and the storage battery – the “Thomson-Houston overhead system” was preferred. Arrangements were entered into with the Boston Company for plant and necessary fittings for experimental purposes; and in June of this year Mr M. H. Ballou, the representative of Messrs Thomson and Houston, arrived in Sydney and

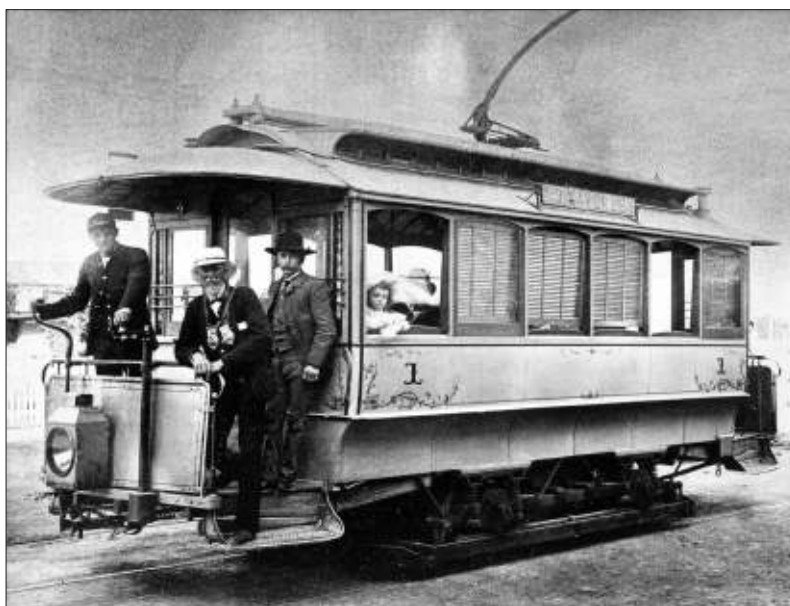
commenced operations. His work is now practically completed, and the general public will soon be permitted to judge its merits. Considerable interest attaches to the experiment, for on the success or otherwise of the venture will depend the decision of the Public Works Committee on projected extensions of the Sydney tramway system.

The operation of street railways by electricity has attained the greatest perfection in America, where it has been demonstrated to be more economical than either horse, steam or cable. The overhead system is exceedingly popular, and the one generally in use. More than 600 miles of the Thomson-Houston electric railways have been laid in different parts of the States, and over 400 more miles are in process of construction. For rapid transit, it is claimed that no system is better than this, and that it is successful is proved by the extent to which it is being adopted. In England only about two roads have been laid; but the innovation, whilst proving of interest from a scientific point of view, was disappointing in its practical results. Victoria, with its desire to keep in touch with the times, has also adopted in one or two instances the electric tramway.

In Sydney the trials, as before stated, are taking place on the cross section of line between Waverley and Randwick. This road is little over two miles in length, and from its formation inflicts a severe test on the new

*Sydney's first electric tram to draw power from overhead wires, No. 1 is seen on the trial electrified line between Waverley and Randwick where it worked in public service from November 1890 to April 1892.*

Govt Printing Office  
 R.I. Merchant Collection



system. There is scarcely a level stretch over the whole distance. Curves varying from half a chain radius to two chains, and all on heavy grades, are constantly met with; while the grades vary from 1 in 16 to 1 in 30. Further difficulties are also imposed in that the existing line, without any alteration, is made to do service. The power station is located at the steam tramcar sheds, Randwick. It comprises accommodation for four cars - three, so far, have been imported - an engine room, tool room, and boiler house, and it is equipped with two locomotive boilers, each of 30 hp capacity, an Armington-Sims high-speed 120 hp engine, with an especially sensitive governor, and a dynamo or generator of 80 hp at 500 volts pressure. The generator is driven direct from the engine, which makes 800 revolutions without intermediate shafting. It is automatic in its action, the output of current being proportionate to its varying load. A neatly-appointed switchboard, conveniently placed, carries the necessary controlling apparatus. The whole of the electrical plant has been supplied by the Thomson-Houston International Electrical Company of Boston, and it has been installed by Mr Ballou.

To prepare the road for electrical traction it has been necessary to suspend and lay wires to carry the current. The manner in which the conductor is maintained in position overhead varies according to the nature of road through which the tracks pass. In the present case pairs of poles are placed at distances of 120ft along the line, and from these are stretched span wires which in turn carry the copper conductor, properly insulated, over the centre of the tramway. The return lead is placed underground, and connected by branch tie-wires to each rail, thus assuring perfect continuity of electrical contact and utilising the rails as a conductor. This alteration, it may be remarked, in no way interferes with the running of the ordinary steam motor and cars. The electrical current is conveyed from the dynamo generating machine to various parts of the road by the overhead wire, and it is transmitted to the motors within the cars by a trolley wheel and rod on the roof. To keep the wheel in constant contact with the wire the arm on which it is mounted is pivoted flexibly to the car; but, at the same time, it is sufficiently yielding to allow it to overcome any inequalities in the level of the wire or of the road. The coaches themselves are of American build, light and easy running, and designed to afford a maximum amount of comfort to the traveller. Each coach is fitted with two 10-hp motors (or 20-hp per car nominal), one being placed over each axle, and each weighs about four tons, as compared with five for the cars at present in use on the main lines. On heavy grades or when overcrowded they can be made to develop 60-hp. Twenty-six passengers can be accommodated with seats, and standing room can be found for many more. A motor-car is capable of towing another carriage of lighter build. In general appearance

the cars are not unlike those which obtain on the Melbourne cable lines. They are thoroughly ventilated, and are fitted with sliding windows and sun blinds. The roof is perforated as to admit free air, and in order to further ensure a pure atmosphere five incandescent lamps are inserted in the roof and to give light at night. The driver stands on a platform in the front of the car and with two handles he has the carriage under complete control. Without entering into details concerning the motors, it may be stated that they are constructed with a view to securing the greatest economy in wear, and that they are practically indestructible. The intensity of the electric current required to propel a car is not sufficiently great to be dangerous to life, so on this ground the public need have no fear.

Judging from a trial which took place yesterday, the new system is likely, when publicly tested, to fulfil the hopes that have been formed of it. By special arrangement the members of the Parliamentary Standing Committee on Public Works and of the Royal commission on City and Suburban Railways rode over the section during the afternoon. Among the many gentlemen present were Messrs J. Lackey, Dr Garran, F. H. Humphery, and J. Macintosh, Ms L C; S. Burdekin (Mayor of Sydney), J. Garrard, Copeland, Tonkin, Dowel, O'Sullivan, Lee, M'Court, Hayes, Martin, and Paul, Ms L A; C. Lyne (secretary to the Public Works Committee), Neilly (secretary to the City Railway Commission), P. B. Elwell, Norman Selfe, Trevor Jones, R. Hickson (Engineer of Roads and Bridges), H. Deane (Acting Engineer-in-chief for Railways), G. Fischer (Assistant Engineer for Tramway Construction), E. C. Cracknell (Superintendent of Electric Telegraphs), and Professor Threlfall. The visitors were conveyed to Randwick by special tram, and on arriving at the sheds they boarded the two cars which were awaiting. The trial of the system as a whole was not as complete as it might have been, inasmuch as the visitors had little or no opportunity of inquiring into the efficiency of the service or of acquiring a knowledge of its details; but at the same time the opinions expressed were distinctly favourable. In all probability a more minute examination will shortly be conducted. The cars were propelled with great steadiness both up and down hill and round the most severe curves; and though the speed attained was not equal to the 12 to 16 miles per hour, with a limit of 8½ on steep gradients, which it is claimed is the average, a fair idea was obtained of the possibilities of electricity as a motive power. Little or no noise was created, and no noxious smoke was discharged. As has already been stated, the driver easily controls the car - indeed, the merest tyro could learn the duties in a few moments. A noticeable point in connection with the electrical system is that the motor cars can be driven forward or backward on the same line. It is possible also to stop them at once, both on a level and on a



gradient. An inspection of the system has been made by experts, and it only now remains for the Railway commissioners to decide when the line shall be thrown open for [the] public.

**TOWN AND COUNTRY JOURNAL**  
**8 NOVEMBER 1890**

**An Electric Tram System - Official Trial**

The members of the Public Works Committee, together with a number of members of Parliament and officials of the Works Department, went by special tram to Randwick on Wednesday afternoon to witness an exhaustive trial of the Thomson-Houston system of electric tramways between Randwick and Waverley.

The station from which the motive power is generated is situated in a special shed at Randwick, where there is a 100 hp engine driving a dynamo of 500 volts of electromotive force. From this centre the power is carried along overhead wires for the distance now being utilised 2½ miles. There are wires on either side of the line with a wire running in between connected with the sides by latitudinal wires at each set of posts, which are situated at about an average of 20yds apart. The electricity is conveyed to the car by means of an arm fixed on the top and attached to the end of it is a grooved wheel which fits into the centre wire, thus forming the connection. The electricity thus passing into the car is controlled by levers at either end, according to the direction travelled. The cars are of light wood, have a very handsome appearance and are constructed to carry about 22 passengers, and underneath between the two sets of wheels the electric motors are fixed which cause the motion. At the trial each car carried about 40 passengers, and as the section has many sharp curves and inclines, the trial must be

considered a satisfactory one. The double journey was run, and on the return to Randwick the party proceeded to the engine-house, where the whole system was explained, from which it appeared that the whole length can be controlled from this point. The whole party appeared much impressed by the trial, and with the fact that though the present power is calculated to run four cars with ease, a much greater number could be run with very little increase in the present plant, as each car helps another. The motor cars weigh 5 tons when full, and as this is less than half the weight of an ordinary tram motor, and a light car can be attached to each motor car, there will certainly be much less wear and tear on the permanent way. It is understood that the cars will carry the general public very shortly in order to ascertain whether the system is a commercial as well as a scientific success.

**THE SYDNEY MORNING HERALD**  
**FRIDAY 24 FEBRUARY 1894**

A handsome car was on exhibition at the tramway sheds yesterday. It is a sample one for the use on the new cable tramway to the Eastern Suburbs. The car will seat 24 passengers and 21 passengers can be accommodated on the dummy. It is prettily fitted throughout a novelty being a number of handsome photographs of picturesque resorts. The wood used is blackwood, ash pine and cedar. The outside panels of cedar show up very prominently. The service will be a four minute one, so that a large number of passengers will be accommodated. The car has been constructed at the tramway workshops at Randwick. Mr George Downe, the locomotive engineer for tramways, is practically responsible for the design and execution. The car is fitted with self balancing windows and in addition to the usual wheel brakes there is a "track brake", which should obviate the chance of a breakaway,

*King Street cable trail car No. 25 at Coogee Beach in February 1893. This was a sample vehicle, 4ft 6in longer than the standard cable trailers, manufactured at Randwick Workshops for tender purposes. This design was not adopted.*

Railway A831  
 V.C. Solomons Collection



and it is specially designed for dealing with steep grades. The cost of the construction was £300, but the probable actual cost of a number would be less than this and in all probability the car will be used as a pattern from which to call tenders.

### THE NEW SOUTH WALES RAILWAY BUDGET 19 DECEMBER 1898

#### The George-street Tramway

Complaints have been made as to the delay in completing the George-street electric tramway. Shopkeepers in Lower George-street say that the inconvenience to traffic has seriously affected their business. At this outset it was stated that the tramway would probably be completed before the end of the year. This is now seen, will be an impossible feat. Mr Henry Deane, Engineer-in-Chief for Railway construction, when interviewed on the subject stated that it would not be before Easter. After all, it is not so much the delay in completing the line that is complained of as the inconvenience to business resulting from the practical blocking of the streets. The contractors say they have done all they can to minimise this inconvenience. Mr Deane said that it was impossible to carry out a work of this kind without causing a certain measure of inconvenience, as would be the case if the street were being wood blocked. Asked if the work could not be facilitated by working night and day, he explained that there were insuperable difficulties to night work. Making the electric connection and mixing the cement

needed a very fine light, which could only be secured in the daytime. The contractors had had experience of this work, and had found that where work had been done at night it had to be pulled up again in the morning. "Recognising its importance, we are anxious to have good work put into this line," Mr Deane remarked. It was also pointed out that the cement has to lie six days before it can be touched, a fact unrecognised probably by people who are not experts. A great deal of delay has arisen, however, in connection with the machinery, and if the line were completed tomorrow, nothing further could be done until the arrival of the machinery.

### THE NEW SOUTH WALES BUDGET 19 DECEMBER 1898

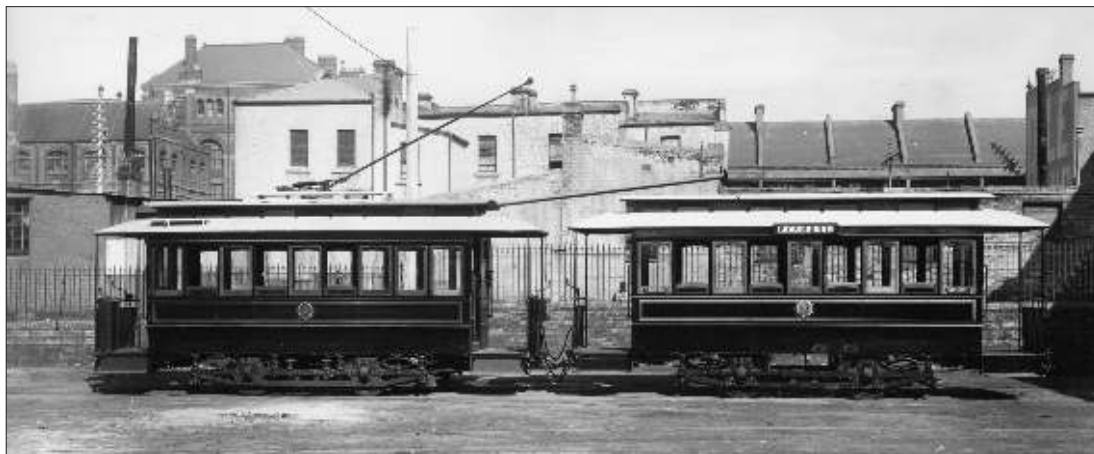
#### Electric Tram-Cars – The different types

The *Australian Star* says that "a good deal of public interest is aroused just now in the question of the type of cars to be used on the Sydney tramways when the electric traction system is brought into operation. The Railway Commissioners are making provision for the necessary rolling stock, and a number of cars built in anticipation of the George-street line, which it was expected would be opened about the present date, are now running on the steam lines. It is known that they are not so comfortable on the steam lines as those specially adapted for that traction, but as a matter of economy it would have been a mistake to continue building the steam car, which would not be practicable on the lines when converted to electricity.



*Erecting overhead poles in George Street at Wynyard Street.*

Archives Office of NSW 465  
J.A. Matts Collection

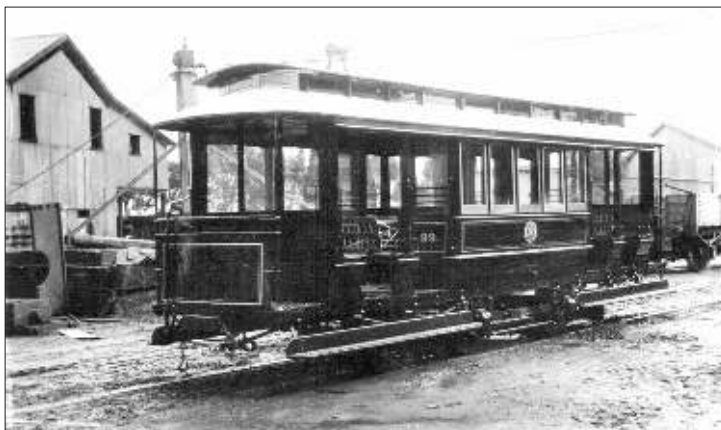


*Closed type car and trailer (later C and T class) in Ultimo Depot yard prior to introduction into service on the George Street line in 1899.*

Govt Printing Office  
R.I. Merchant Collection

*Combination type with centre saloon (later D type) No. 99 at Clyde Engineering Co's works in 1899, awaiting delivery to Randwick Workshops for fitting out with electrical equipment.*

Clyde Engineering Co  
R.I. Merchant Collection

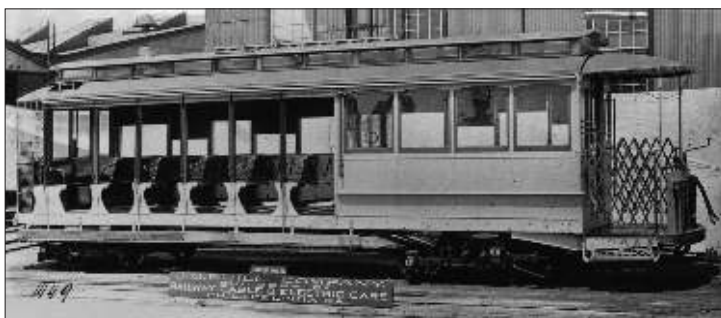


"So far the electric cars completed are what is known as the closed type, smokers being accommodated on a trail-car provided for them especially. It is proposed to provide cars which shall have open accommodation, and those now being built are what is known as the combination type. These combination cars are of two designs, one having the closed portion in the centre and the open platform with seats across at either end. This is the class now being constructed, and which will be

ready in a few months. The other combination has the closed part at the back, and the open platform with seats at the front. The department has already had experience of purely open cars, such as are largely used in America, one having been secured for trial. It is stated, however, that this type running on the steam trams did not give general satisfaction, and the department expects that the combination car will be more generally favoured by the passengers. The electric

*A combination type with rear saloon at the J.G. Brill Co's works at Philadelphia USA. These cars were shipped 'in the white' and assembled and painted at Randwick Workshops.*

J.G. Brill Co  
H.R. Clark Collection







*An enclosed saloon car (later C type) on an early morning trial run in George Street at King Street in early 1899.*

A.J. Perier

R.I. Merchant Collection

cars will be slightly higher from the ground than the cable tram dummies, this being rendered necessary by the gearing, which has to be affixed to the axles.

“A point which has received considerable attention from the authorities is the necessity of arranging for cars which will meet the requirements of traffic both in wet and fine weather, and to get the car which will be the most comfortable in both seasons. Apparently it is hoped that the combination type will meet the case best.”

#### **THE NEW SOUTH WALES RAILWAY BUDGET 20 OCTOBER 1899**

##### **George-street Tramway**

Work in connection with the George-street Tramway is being pushed forward to completion, several trial runs having been made with the cars, and it is probable that it will soon be handed over to the Railway

commissioners to operate. The following description of some of the rolling stock which it is proposed to use on this line will be of interest.

The motor cars are all of the closed type. The body of the car is 18ft long over the outside framing, with platforms 3ft 6in in length at each end. The latter are carried on sills under the body to reduce the height of the steps, and give easy access. The total length of the car over the buffers is 25ft 7in, the width being 6ft 0¼in at the sills and 6ft 8¼in at the waist rails. The seats are longitudinal, and the doors are placed in the ends near the side to admit of easy access and exit when the platforms are crowded. Burrow's car shades are fitted to the side windows; also Greenwood's Sash Holders to regulate the opening of the windows as required. Eight of the lantern roof windows are pivoted to swing open, thereby ensuring good ventilation. Electric headlights are fixed in the dasher plates at each end, as well as an ingeniously designed destination box, so arranged that



*An enclosed seven-window saloon (C class car) at Moore Park. The enclosed saloon cars built for the George Street electrification were fitted with destination boxes with linen rolls. Cars for the Edgecliff-Rose Bay electrification had no destination indicators, or were fitted with roof-mounted four-sided blocks showing destinations.*

Railway P7042

R.I. Merchant Collection

it can be lit at night with the electric light, the destination of the car being always visible at a glance. Four electric push buttons are fixed in each car inside, and one in each end platform for signalling purposes between the motorman and the conductor. The seating capacity is for twenty-six passengers but there is also standing room on the platforms for twenty more. Peckman *[sic]* trucks with 6ft 6in wheel base and 33in steel tyred wheels are used under the car. There are two GE 1000 motors. Air brakes are also fitted. The total weight of the motor-car fully equipped is just under eight tons. Twenty six of the trail cars are of the same type as the motor cars; the remaining fourteen are of what is known as the combination type, being made to seat twenty passengers in the open portion and fourteen in the saloon.

the sills of the enclosed type and the glass frames and doors. They are varnished in the natural wood and decorated on the waist panels with gold and white lines, and the Australian coat-of-arms - also numbered with gold letters on each end of the body. The trail cars weigh 5 tons each.

It is also intended to place on this line eight imported double bogie combination motor cars, by the American Car Co, of St Louis. These will be run in four trams of two cars each. This type of car, which appears to be regarded with much favour by the tram travelling public wherever used, presents a handsome and imposing appearance. The length of the car over the corner pillars is 28½ feet, the length over the head-stocks being 37ft 4in. It is 6ft 9½in wide at the sills and 7ft 1¾in at the



*A combination trailer with centre saloon (later D type) at Moore Park.*  
Govt Printing Office  
R.I. Merchant Collection

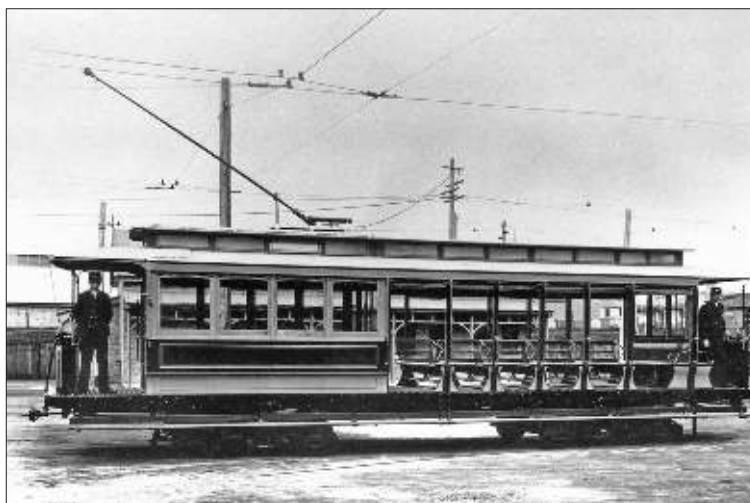
The engraving shown above gives a good idea of these latter cars.

The length over buffers is 28ft 6in and the width over the waist rail 6ft 8¼in. All the cars are of colonial manufacture and are built of colonial timbers excepting

waist rails. The closed section is 11ft 4in over the end panels and has two double doors; it is finished in ash with three ply veneer basswood ceilings; the seats are longitudinal, seating fourteen passengers. The open compartment is also finished in ash and has seven cross seats accommodating 35 passengers, the total seating

*A brand new combination car with end saloon, built by the American Car Co of St Louis, in the Ultimo Depot yard in 1899.*

Railway P7081  
R.I. Merchant Collection



capacity of the car being for 49 persons. The painting is finished in brown and buff with gold and white lines on the top panels and brown lines on the bottom - polished brass fittings are supplied throughout - 'Peckham' maxim [*sic*] traction trucks with 4ft 6in wheel base are used under the car. The weight of the car, with motors, brake equipment, etc, is about 11½ tons.

## THE NEW SOUTH WALES RAILWAY BUDGET 20 JUNE 1901

### A New Electric Car

With a view to providing improved accommodation for their tramway patrons the Railway Commissions [*sic*] have recently had an electric motor car specially constructed at the tramway workshops, Randwick, which is sure to attract considerable attention from its handsome appearance, comfort and adaptability to the service.

The car is suitable for fine or wet weather traffic, being of the closed type with cross seats and side entrance, and fitted with sliding doors, similar to the standard car of the steam lines. The seating capacity is for sixty-six.

The principal dimensions of the car are as follows:- Length of car body over headstocks, 36ft 1in; over draw bars, 38ft 2ins; width of car over floor frame, 6ft 9ins; over waist rails, 7ft 3½ins; over weather rails and side handles, 7ft 9½ins; height of car from sill to underside of cant rail, 6ft; from floor to top roof stick in centre, 7ft 7¼ins, and from track to top of trolley bridge, 10ft 9½ins. The side sills and floor boards are of pitch pine, the intermediate and draw timbers of tallow wood, the side and seat framing of blackwood, and the panels and seat slats of cedar. A galvanised iron gutter is carried along over the weather rails, and a bent blackwood

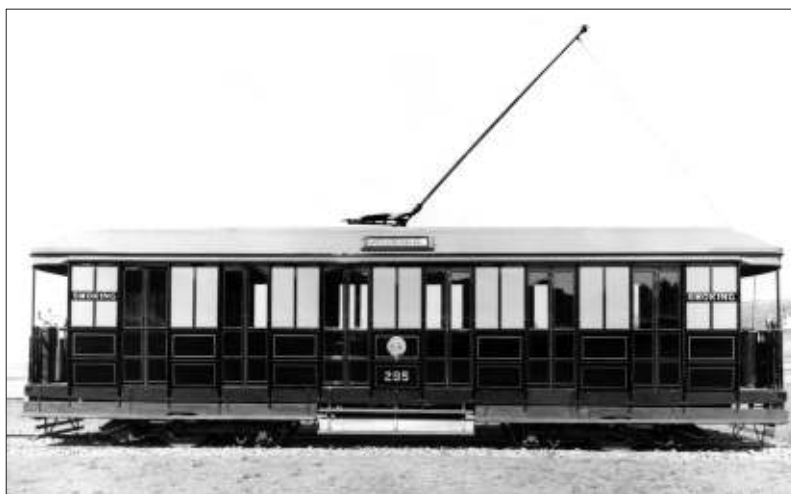
gutter rail is carried around each hood and the rain water carried off by down pipes, these latter being so arranged as to afford suitable handles for passengers entering or alighting from the car.

Internally the car is varnished in the natural woods excepting the ceiling, which is painted and finished in white enamel; while externally the wood work is painted in standard brown and buff colours suitably relieved with gold and buff lines and finished off with the best durable body varnish, and the roof is of the fashionable khaki colour. The brake equipment consists of the Standard Air Brake Company's appliance, and the ordinary hand brakes, while in addition suitable gear for discharging sand on the rails in front of the driving wheels to enable better adhesive power on gradients to be secured, is also provided.

Each end of the car is divided into a smoking compartment by glass partitions, accommodation for 30 smokers being afforded. The arch rails are framed and Muranese glass is inserted in lieu of panels, which assists in producing the bright and pleasing effect apparent in the interior of the car.

Complaint having been made that the high step of the present type of electric car causes inconvenience to ladies and aged persons, an effort has been made to overcome this in the new car by providing a second step at the entrance to the centre compartments.

The car, which runs on eight wheels, is mounted on bogie trucks of the "Brill Maximum Traction" type, and is equipped electrically with two GE 1000 motors. Automatic life guards or shields are fitted in front of the wheels. The lighting power consists of eight incandescent electric lamps of sixteen candle power each. The total weight of the car (empty) is about 12 tons.



*Trial high seating capacity bogie car 295 was built by Randwick Workshops and entered traffic on 8 June 1901. It had a partial centre aisle linking two sets of centre compartments, and double footboards serving two centre doors. It was fitted with air brakes and later classified N class. The partial aisle and centre footboards were not adopted. Railway A882 R.I. Merchant Collection*



## SYDNEY'S F CLASS TRAM 122

By Ross Willson

If anyone should ever compile an anthology of Australian trams, a conspicuous entrant with incontestable claims would be Sydney No. 122, the prototype of the 250 bogie combination cars (Nos. 140-288, 294 and 296-395). All these trams were constructed for the Sydney tramways between 1900 and 1902 by the Clyde Engineering Company Limited, which had been registered on 30 September 1898 (late Hudson Brothers).

On 2 August 1899 a trial was conducted using 122 on the line which had been opened on 3 October 1898 from the cable tram terminus at Ocean Street, Edgecliff to Rose Bay Wharf.

It was the second electric (using overhead wire) bogie tram in Australia; the first was Brisbane No. 101, constructed by the Brisbane Tramways Company Limited at its Countess Street workshops. This centre aisle car had entered service on 21 January 1899.

In terms of column inches, the occasion was a public relations triumph for the NSWRT. The events of 2 August 1899 received extensive coverage in, *inter alia*, *The Sydney Morning Herald*, *Daily Telegraph*, *The Sydney Mail*, *Australian Town and Country Journal*, as well as the *New South Wales Railway Budget*.

A supplement accompanying the NSWRT annual report for 1898/99 (*Ten Years' Retrospect* covering the period from 22 October 1888 to 20 October 1898) records No. 122's dimensions as:

Length over headstocks.....	37'6"
Length over bulkhead pillars.....	30'3¼"
Length over saloon body.....	12'1¼"
Width.....	7'1½"
Height from floor to ceiling in saloon.....	7'4½"
Tare, including motor equipment.....	10 tons 10 cwt
Seating capacity.....	48 passengers

It was stated that: The car is arranged with a centre saloon and open compartments with bulkheads at each end. The seats between the bulkheads and saloon are reversible. The saloon seats are placed longitudinally. Sliding doors are provided at each end.

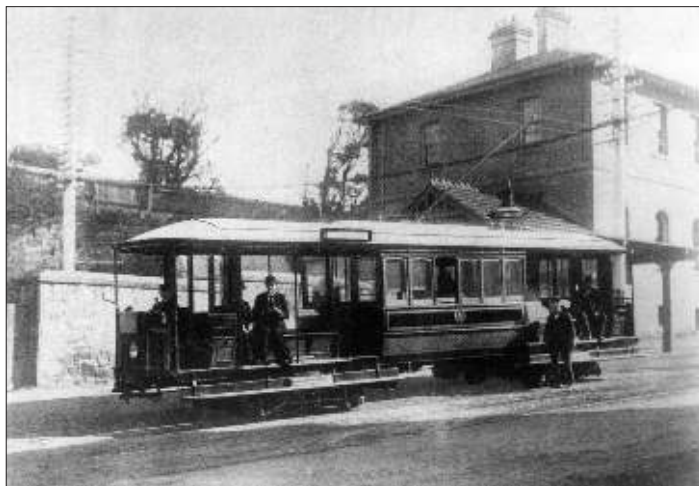
It is obvious that the press accounts were based on material issued to journalists by the NSWRT. The comprehensive description of the car's design, together with an excellent photograph published in *The Sydney Mail* of 12 August, with its curious references to a 'dummy' included the following:

The car, which is of excellent design and workmanship, is carried out on what is known as the double-bogey pattern, and contains three compartments, viz., the centre saloon, having a dummy at either end, the total dimensions being 36ft long by 6ft 3in in width, with seating accommodation for 48 persons. Although a number of portions used on the construction are now in use on some of the principal electric tram cars in America, a number of improvements have been made which stamp the new car as the first of

*Car 122 at Elston's sidings, Redfern, later known as Eveleigh Carriage Works sidings. It is likely the tram was sent here for weighing.*

Railways A884  
R.I. Merchant Collection





*'The new electric tram for Sydney' is seen at Edgecliff in August 1899.*

R.I. Merchant Collection

its kind that has been built. In designing the car the convenience of the travelling public has been fully studied. In addition to the seats within the dummy proper (which are reversible) there are seats on the outside which will be gladly availed of in fine weather. The idea of having the seats on the dummy ends is entirely new in tram car construction enabling the passengers to either seat themselves facing outwards or inwards, as in the saloon portion.

One account noted that the idea of having the seats between the bulkheads and saloon reversible originated with Mr Henry Hudson of Clyde Engineering. The capacity of the side seats was quoted as 14 each.

It was reported that the panels were painted dark green, picked out with yellow lines. On one of them, at each side the arms of New South Wales were painted.

Other features variously noted by correspondents include:

- 35 horsepower axle mounted motors
- Underframe manufactured of pitch pine, pillars of Tasmanian blackwood, and bass wood for the panelling
- Ceilings of kauri painted 'pure white, richly varnished'
- Large and easily worked oilcloth cushions (in the saloon section)
- Waterproof roller curtains, and
- Pneumatic brakes.

The car reached Ocean Street at 2:30pm from Rose Bay. A stellar cast was waiting. In addition to the Chief Commissioner and his two colleagues, the party comprised: the secretary of the Commissioners, chief mechanical engineer, locomotive engineer (tramways),



*Bogie combination car 122 in service on the Rose Bay line in August 1899.*

The Sydney Mail, SLNSW  
V.C. Solomons Collection

tramways manager, manager Ocean Street line and O. W. Brain, then a senior officer of the Electrical Engineer's Branch.

The report in *The Sydney Morning Herald* stated that 122 had been in ordinary traffic and "will continue to run" between Ocean Street and Rose Bay following the official inspection. Its date of entry into service is recorded as 19 March 1900, while the first of the 250 production cars entered traffic on 24 April 1900. It is possible that 122 returned to Clyde Engineering as a pattern car. Between 1906 and 1912, 250 of the bogie combination cars were converted to a 55 passenger design. In circa 1911 they were identified as the F and L types (or classes). No.122 was so converted on

16 May 1911 (record date). On 7 June 1929 it was rebuilt as an L/P cross-seat type with seating for 70.

By 1934 No.122 was reported as having Brill 22E maximum traction trucks, GE275F 60 hp motors, K6 and K10 controllers, CP27 compressor and emergency and quick service brake valves.

It is worth mentioning that the concept of longitudinal reversible seats in an open section was copied by the Melbourne and Metropolitan Tramways Board when it introduced 30 trams of the W1 design during 1926-1928. They proved to be unpopular with the travelling public and all were converted to the enclosed W2 class between 1936 and 1938.

## HERE AND THERE

### AUSTRALIAN AND OVERSEAS NEWS

#### Perth light rail

The latest proposed route for Perth's first light rail system has been released on a Federal Government website, showing a line that begins on the border of Balga and Mirrabooka and runs along Alexander Drive and Fitzgerald Street to the city.

It also shows another proposed line through the city along Murray Street – not Hay Street as first proposed or Wellington Street as suggested by some planners – and extending from the Causeway in East Victoria Park to the University of WA.

The light rail project has been described by Transport Minister Troy Buswell as 'transformational' and about \$8 million has been set aside for its planning. He has indicated the first stage, from Balga to the city, should be completed before 2020.

The WA Government has confirmed the latest route plans are 'basically correct' and based on the current status of the project planning. However Mr Buswell said on 19 June that the route was still being decided and would be released in coming months.

The route begins on Mirrabooka Avenue, between the John Septimus Roe Anglican Community School and the Polytechnic West Balga campus. It runs past the Mirrabooka Shopping Centre and down Dianella Drive. It then follows Morley Drive to Alexander Drive, though there is a potential alternative alignment down Grand Promenade. After travelling along Alexander

Drive and Fitzgerald Street, the route cuts across at Roe or Aberdeen Streets before heading along William Street to Murray Street. It would cross the Fremantle rail line near the Perth City Link.

Shadow transport minister Ken Travers said there were still many unanswered questions about the route and how it would be incorporated with existing transport links. One of the issues would be parking, especially as light rail became more popular. Mr Travers raised concerns about using Murray Street through the city, especially in relation to passing Victoria Square and the Royal Perth Hospital's emergency department.

#### Parramatta light rail proposal

Parramatta City Council proposed a light rail network for Sydney's western suburbs at the Parramatta Economic Development Forum held in Sydney in May.

Although urban transport is normally a state government responsibility, on this occasion Parramatta City Council decided to spend \$1 million of its own money on the project. The council's chief executive, Dr Rob Lang, said the council aims to produce a fundable project plan in 2013.

The Western Sydney Light Rail Network is planned to be segregated from the existing road and rail networks, with virtually no sharing of road space. The first section, costed at \$1.83 billion, is proposed to run from



Castle Hill in the north, through Baulkham Hills, Northmead, Parramatta North, Granville, and Chester Hill to Bankstown in the south. Eventually, the network could be expanded to take in other nearby suburbs, including Westmead, Rydalmere and Carlingford.

#### Adelaide tram news

Flexity tram No. 114 arrived from Melbourne and was unloaded at Hindmarsh in the early hours on 26 May. It entered service on 14 June. Flexity No. 115 arrived on 18 June and entered service on 13 July. This completes the order of four additional Flexity trams, with cars 112 and 113 having arrived in mid-2011. Current state government budget constraints mean that there are no plans to expand the system in the near future. The current operational fleet comprises Flexity trams 101 to 115 and Citadis trams 201 to 206. H cars 351 and 367 are stored at Glengowrie with 351 having recently received an external repaint and some internal tidying up.

On Saturday, 19 April, 17 out of the 19 trams available for service were used to convey patrons to Morphettville Racecourse to see champion race horse Black Caviar win for the twentieth time from 20 starts. The service frequency was approximately every 7.5 minutes, some trams being used as 'sweeper' trams to cope with crowds. The procedure was repeated on Saturday 12 May 2012 for Black Caviar's twenty-first win.

#### Melbourne SW6 946 overhauled and upgraded

Victorian Premier Ted Baillieu visited Preston Workshops on Sunday 22 July, where he announced that the first W series tram to be restored as part of an \$8 million refurbishment program for these cars is expected to return to service by the end of October.

Mr Baillieu inspected car 946 and said that extensive work had been carried out to restore the tram to its former glory and ensure it meets strict safety standards.



*Adelaide Flexity 114 has been unloaded from the MV Giovanna Juliano at Melbourne's Appleton Dock and is awaiting delivery to Adelaide, on 23 May 2012.*

Jeff Bounds



*Flexity tram 115 being unloaded at the Entertainment Centre, Hindmarsh terminus on 18 June 2012.*

He announced that the refurbished tram will be reintroduced onto the City Circle service.

According to the official announcement, No. 946 has been completely rewired which will improve reliability, the braking system has been overhauled, new seating has been installed, the driver's cabin has been reinforced to improve safety, and extensive work has been done to improve the tram's structural integrity.

"Restoration works on the second tram, No. 959, have started at the Bendigo Trust and the tram is expected to be reintroduced onto the network in March 2013," Mr Baillieu said.

An inspection of car 946 at Preston late in July revealed that it has been fitted with new drivers' cabs with steel framing. The car, which was not previously used on the City Circle, was withdrawn after a minor underfloor fire on 15 January 2009. It is expected to be fitted with chopper control similar to the most recent restaurant tram conversions, cars 935 and 964.

No. 946 is reportedly to be reclassified to the W8 class. This designation was informally applied to car 922, which was the subject of an experimental upgrade some years ago which was halted before completion. No. 922 is currently among the many trams stored at Newport Workshops.



*Car 946 undergoing its overhaul and upgrade at Preston Workshops late in July. It appears that the door on one side of the driver's cab – the right hand side facing the direction of travel – will be blocked off and replaced by an electrical cabinet below window level. The tram has yet to be painted in City Circle colours.*

Dale Budd

## LOFTUS

### SOUTH PACIFIC ELECTRIC RAILWAY CO-OP SOCIETY

PO Box 103, Sutherland, NSW 1499

[www.sydneysteamrailwaymuseum.com.au](http://www.sydneysteamrailwaymuseum.com.au)

From *SPER News*

#### Obituary – Norman Leslie Chinn OAM

The Sydney Tramway Museum is sad to report the passing of one of its founders and its first General Manager, Norm Chinn.

Norman Leslie Chinn was born to Eileen and Archie Chinn on 3 August 1929 at St George Hospital, Kogarah. Norman attended primary school at Mortdale and Penshurst, and Marist Brothers High School, Kogarah.

A serious accident at the age of 12 caused the loss of one eye and he sustained a loss of vision in his other eye. His schooling became spasmodic as he had to attend hospital for treatment daily for nearly two years. This resulted in Norm only reaching grade seven before leaving school early. The injury also prevented Norm from following the occupations of his grandfather, chief storeman at Eveleigh Locomotive Workshops, and his father, a linesman and cable tester with the Tramways.

Norm followed his uncle and went to work as an apprentice pastry-cook, serving the full three year term at several locations. He ended up in the central business district of Sydney where he encountered employees of the Sydney City Council, who persuaded him to leave cooking for the healthy outdoor life of the Council's Parks Department where he stayed for 19 years. During this time he worked on the Anzac Parade garden plantations, the tennis courts and golf course at Moore Park, and finally as groundsman at the E.S. Marks Sydney Athletic Field where he had the pleasure of hosting several international events in both athletics and tennis.

During his first year with the Council, Norm married Marjorie Ryan on 10 November 1951, a lass he had known since primary school. This was a happy marriage which has resulted in three daughters, Karen, Noreen and Lyndell, and seven grandchildren.

For reasons associated with his wife's health, it became necessary to leave the Council and find work he could do at home. After much discussion, he decided to try bird breeding and sales, and it turned out to be a good choice. Norm became one of the largest fauna dealers in Australia and the only one permitted to deal in every state without a permit. He supplied most large commercial outlets in Sydney with birds.

Norman was a founding director of the Pet Industry Joint Advisory Council of Australia, a trade association representing the entire pet industry, and Treasurer of the Bird Dealers Association of NSW. He worked closely with government in the early days, assisting with drafting rules and laws governing the industry.

The great success of the family bird business did not prevent Norm from pursuing his lifetime hobby of rail transport. As a result of the influence of his grandparents, he developed a keen interest in all manner of rail transport, particularly street tramways.

While not being able to attend school, Norm spent much of his time at home leaning all he could about the subject of rail industrial history. He joined the Australian Electric Traction Association, which advocated the use of modern trams, and in 1952 with friend Ken McCarthy formed a History Section of the Association.

Several old types of Sydney tram were being phased out and Norm decided to see what could be done to retain some for future generations to study and learn of the important part trams played in shaping Sydney. A request was made to the Commissioner of Road Transport & Tramways for an L/P class tram be made available for preservation. It was originally planned to house the tram in Norm's parents' backyard at Mortdale. In November 1950 their request was granted resulting



Chinn Family collection

in a complete tram being set aside for preservation in 1951. It was the first electric tram to be preserved in Australia.

Preserving trams was outside the aims of the AETA, so the History Section broke away in September 1955 to become the Australian Electric Transport Museum, later incorporated under the NSW Cooperation Act in April 1959 as the South Pacific Electric Railway Co-operative Society Ltd. The Society subsequently adopted the trading name Sydney Tramway Museum.

The fledgling museum group obtained a site at Loftus on the northern edge of the Royal National Park and Norm became its first general manager, responsible for construction of a depot to house a growing fleet of preserved tramcars and laying tracks on which to run them. He was a forceful leader and as a result gained a fearsome reputation, but it was necessary to keep members working. A museum is not built by people standing around talking! He held this position until 1963, and continued to be active in the museum for many years thereafter.

Norm co-founded the magazine *Trolley Wire* with Ken McCarthy, now in its 60th year of publication, and



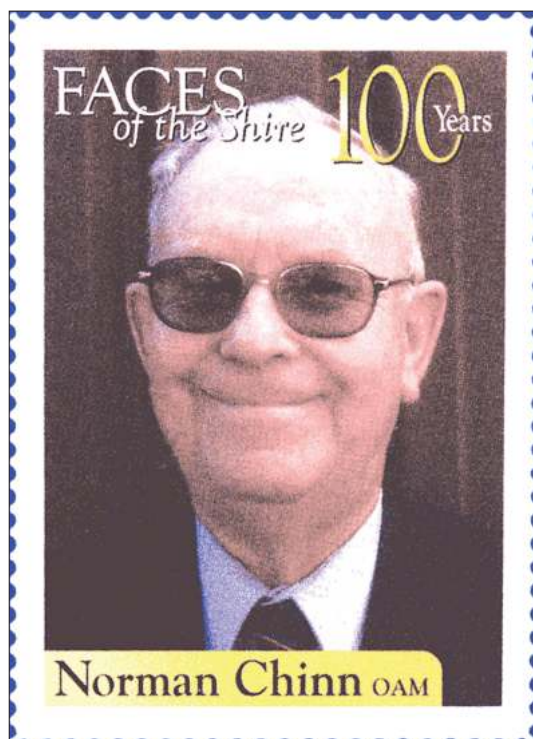
co-authored five books on trams. He provided input to the May 2012 issue of *Trolley Wire*, the last to be prepared in his lifetime.

Norman Chinn was awarded the Medal of the Order of Australia in the General Division in the list of Australia Day honours announced on 26 January 1991. His citation was for service to the community, particularly through preservation of historic rail transport. Norm was also proud to be a founding member of the Sutherland Shire Historical Society. He became a Justice of the Peace in July 1999.

Norm was one of 100 residents of the Sutherland Shire to represent the Faces of the Shire in a booklet and on specially produced billboards in a roving exhibition to mark the centenary of the Sutherland Shire in 2006.

Norm passed away peacefully at home in the early hours of 30 June. His funeral service on 4 July was attended by over 200 family, museum members, friends and neighbours. The tramway museum fraternity has lost one of its most successful pioneers.

*From Faces of the Shire  
Sutherland Shire Council*



## Sydney's Toastrack Tram Centenary

The tragic loss of RMS *Titanic* was still fresh in everybody's mind when tram 1111 entered service on 31 July 1912. While 100 years on, maritime historians may have been mourning the loss of *Titanic*, here the Museum was celebrating the centenary of a lucky tramway survivor. *Sydney's Toastrack Tram Centenary – 1912-2012* was the Sydney Tramway Museum's centenary celebration of O 1111, a legendary Sydney tram.

### Saturday 28 July

Celebrations started on Saturday afternoon with a 'trams after dark' style event featuring 1111 and four other centenarians: F 393, O 805, C 29 and C 290. Visitors were treated to tram services running through to the Royal National Park from 3:00pm until around 4:45pm when failing light stopped access across the Princes Highway. While the weather was fine, very cool temperatures reminded both crews and visitors of the mettle of our forebears as they rugged up against the cold that rushed through the open sections of the trams and even seeped into their closed saloons. Geoff Olsen's work was again appreciated with additional lighting appearing around the museum and at the temporary southern terminus near the Princes Highway level crossing. Tram services continued until around 9:00pm when our well-satisfied visitors began making their way home.

### Sunday 29 July

Tramway Avenue was turned into an Edwardian Sydney street, filled with our late Victorian and Edwardian trams running in passenger service, costumed gentle-folk, veteran cars courtesy of the Veteran Car Club of Australia and music courtesy of the NSW Railways Band. However, the real stars of our Edwardian recreation were our own members and friends who really entered into the spirit of the weekend. As well, most of the traffic crew dressed in Edwardian style uniform shirts, vests, bow ties and watch chains, which added to the enjoyment of the occasion. Katie Strancar, Andy McDonald, Meg O'Brien, her husband, Peter, and father, Dennis O'Brien, were resplendent in Edwardian costume. Waterfall Public School provided a sausage sizzle to feed our hungry visitors.

During the celebrations to mark the centenary of O class No. 1111, the Museum welcomed two important visitors: Gladys Berejiklian, NSW Minister for Transport, and one of her predecessors and the Museum's Patron, Milton Morris AO.

The purpose of the visit was twofold. First, the Museum wished to unveil a plaque in recognition of the support given to the Museum over more than four

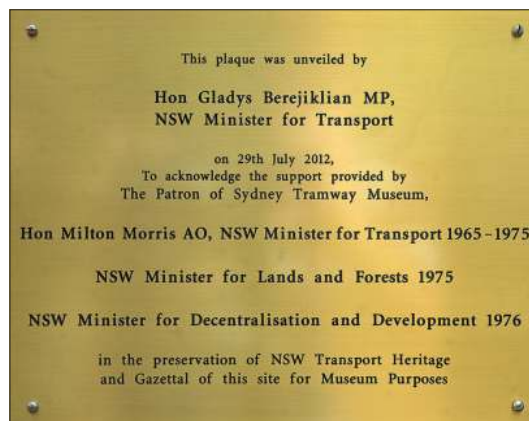


*The morning crowd in Tramway Avenue assembles for the plaque unveiling. The crowd disappeared at various time during the day as they rode trams towards Sutherland and into the Royal National Park.*

Peter Neve

decades by Milton Morris. Second, Milton wished to present the Museum with a small plaque for affixing inside 1111, to mark its centenary.

For the benefit of our readers it may be helpful to have a little background outlining some key examples of support given to the Museum by Milton Morris. In the early 1970s when we were given notice to vacate our old National Park site, Milton, at that time the Minister for Lands, supported the gazettal of our present site for 'museum purposes'. This ensured security of tenure for the Museum at a very convenient location adjacent to Loftus railway station. In the decades that followed, members and friends have turned a virtual wasteland into the precinct we have today.



*The plaque unveiled by the NSW Minister for Transport, the Hon Gladys Berejiklian MP.*

Bryce Pender

*The plaque has been unveiled and Transport Minister Gladys Berejiklian shakes hands with museum patron and former Transport Minister Milton Morris AO.*

Peter Neve



*The ministerial special moves off towards the Royal National Park. The official party travelled in the last compartment.*

Martin Pinches



By the late 1980s Milton was Chairman of the Hunter Valley Training Company. He worked with the Museum to set up training projects for the benefit of apprentices that would enable restoration of some of our tramway heritage. He remains an active director of HVTC today. The rusted bodies of our counterweight dummy, and weed burner car were restored at the HVTC workshop at East Greta. Using the truck from the weed burner as a pattern, new bogies were fabricated for O/P 1089. As well, the rusted underframe of 93u was saved and subsequently rebuilt. Unfortunately a change in government funding arrangements prevented the completion of two other projects, the building of a replica water car and the restoration of SW2 432.

It was a delight to welcome Milton when he arrived at the Museum at 10:00am. He spent time chatting to various members and friends, whilst we awaited the arrival of Gladys Berejiklian at the appointed time of 11:00am. She duly arrived and was welcomed at the front gate by Milton, who introduced our Chairman, Howard Clark, other directors, and 'the Mr Clarke with an 'e'', who Milton knew from his role in the Hunter region.

After greeting many others, including the Railways Band who were performing under the signal box where the plaque was to be unveiled, our two guests enjoyed a quick visit to the Display Hall and workshop. As hosts,

*'Inspector' Col Rhodes arrives to give the crew of F 393 (1902) instructions before departing on their journey north.* Dale Budd





*Another centenarian made its public debut on the traverser. O/P 1089 (1912) is undergoing major refurbishment and was in a suitable condition for public display.* Brian Blunt

we were put at ease quickly with a 'Call me Gladys' comment from the Minister. It was clear from the start that Gladys had a great fondness for Milton as a friend and mentor, and she demonstrated a sound support for and understanding of transport heritage as well as her intention to expand light rail in Sydney.

After introductory remarks by Howard Clark, the Minister was invited to speak and Milton was then asked to respond, before they jointly unveiled the plaque. Milton then presented the brass plate for affixing to 1111.

The party then boarded 1111, accompanied by Mrs Marge Chinn and her family. Gladys recalled from the introductions that Marge had lost her husband and our founder Norm, a short time before, and spent much time talking with Marge and seeking recollections of earlier happy times.

Car 1111 moved off towards our park where a banner, prepared by Roy Howarth, and held by Katie Strancar, Andy McDonald and Meg O'Brien, dressed in period attire, was meant to be driven through by the tram. However it refused to separate as planned, which left Gladys and Milton in the driver's cabin, and the photographers laughing, with Gladys later saying that such events "add to the enjoyment and memory of the day".

After reversing at the scissors crossover 1111 set off in convoy with L/P 154, newly out-shopped in Newcastle colours, together with J 675, for a return trip to the Royal National Park.

Upon return, Gladys said her farewells at the Railway Square Waiting shed, whilst Milton stayed for some time to participate in light refreshments and mix with the crowd. This part of the day was an undoubted success, with both Gladys Berejikian and Milton Morris making clear to us what a pleasant occasion it was for them to be a part.

Another guest for the 2:00pm trip was Andrew Grant, senior curator of transport at the Powerhouse Museum, who enjoyed a ride on 805, a car on loan from that museum.

The weekend was an unreserved success by any measure and a big thank you must go to the many members and friends who put very considerable effort into ensuring the success of the event. In particular, special thanks must go to the organising team of David Critchley, Alex Foot, Andrew McCabe, Ian Hanson, Mitchell Skillcorn and Roy Howarth. It was a fitting centenary celebration for a legendary tram. Happy Birthday 1111!

### **New shed**

The site has been largely cleared ready for the new building. Our advising civil engineer, Alan Wright, has been working hard to resolve a few remaining issues before a construction certificate can be issued.

One of the latest obstacles is a requirement to obtain an electrolysis report from a professionally qualified party, for Railcorp. This involves an additional cost of about \$1,000. There are still some landscaping issues to be overcome as well, so further action may still be a couple of months away.

### **Repainting of 154 completed**

After more than a decade in the standard 1933 colour scheme of green and cream, Sydney L/P 154 has been returned to the 'drab' colours of olive, fawn and grey. The works on repainting the tram were completed on 7 July with the finishing touches being applied by Peter Butler and Ian Hanson.

Car 154 represents the standard version of the 'drab' colours as applied to tramcars in Newcastle as well as those tramcars of this type in Sydney.



*Passengers join an already loaded O 1111 in Tramway Avenue in preparation for a journey north towards Sutherland.*

Martin Pinches



*Three centenarians start their journey to the Royal National Park whilst another stands by. J 675 (1904) is followed by C 29 (1898) and C 290 (1896), while D scrubber 134s (ex-D 102 of 1899) waits in Cross Street.*

Brian Blunt

*N 728 (1906) starts a trip north past a line of vintage cars.*

Martin Pinches





*A freshly painted L/P 154 basks in winter sunshine.*

Martin Pinches

Colour photos taken by the late Ben Parle – the only known colour pictures of Newcastle trams – revealed that there were a number of local variations in the scheme peculiar to Newcastle.

The problem of solving what colours went where was ultimately solved by Norm Chinn, whose immense knowledge of Newcastle tramcar colours assisted the paintshop to apply a unique version of this scheme.

As well as carrying out painting works, our resident artisan Joseph Spinella applied gold leaf car numbers to 154. Other members who assisted with restoration and refitting were Michael Kerry and Vic Solomons. The final results are outstanding and exceeded our expectations.

### **Sydney P 1729**

Geoff Spaulding has been busy with this car, and with assistance from Martin Pinches has fitted tie rods to the replica seats installed by the Canberra Tradesmen's Union Club. This was a frustrating and time consuming task involving removal of seat slats, drilling out the steel frame support brackets and replacement of the slats.

All the original windows have been removed in readiness for replacement toughened glass to be fitted, once the car body has been painted. A couple of the

window concertina support mechanisms were found to be broken, and these have been removed for repair.

The main drivers window sashes have been removed and delivered to our joiner, Ross Traeger for repair and replacement, as necessary. Geoff has repaired some of the original floor hatches, utilising the last of the left over floor boards made for C 37 and also used for the cable grip car. Replacement floor slat timbers are in the process of undercoating prior to cutting to size for installation.

### **Sydney C 37**

Rod Burland continues to work on this car, and has refitted most underfloor components removed for the clean and repaint. Rainer Nickel used the lathe to turn up three replacement seat pedestals, and Rod has stained and varnished these ready for fitting. He has also fitted the wall based seat frames to the car interior, made up and fitted floor timber supports for the two air reservoirs, and is attending to the remaining aisle side seat frames, removing old varnish and sanding them prior to revarnishing.

The new truck springs are on their way from Christchurch.

### **Ballarat 37**

The ongoing restoration of this tram is slowly nearing completion. Repairs to the roof and repainting with 'Acrylmeric' have now commenced and will be completed at the end of August. Refitting of destination boxes, replacement glass and other items that need attention have re-started since the tram was moved back into the workshop last month.

### **Sydney C 29**

Work is required to remedy substantial flaws that have developed in the paintwork on this tram. The whole car is to be repainted in the 1890s crimson colour scheme. No. 29 will be moved to the paintshop road during August to allow this work to proceed.

### **Overhead work**

The frog pans at Depot Junction, Cross Street and Road Four have been adjusted on several occasions to accommodate the varying trolley pole geometry of the trams in the fleet.

Brazing and profiling work on another worn ex-Melbourne frog pan has commenced. This frog will be installed over the new track work at the Railway Square waiting shed.

Additional clamps for steel poles associated with the

new trackwork have been ordered. Frog pan levelling plates of 'Speranian' design have been manufactured and will be galvanised at the same time as the pole clamps.

### Trams at Rozelle

Sydney City Council had called for Expressions of Interest relative to four of the six tram bodies located in the former depot. Two were received.

One proposal was for the use of all four as 'Spiegel trams', to be restored and used as mobile retail venues at various festivals. Apart from restoration costs and the cost of storage between such festivals, Council officers held the view that such innovative ideas would fall out of favour after a short time (as was the case with the Melbourne Moomba festival about a decade ago), so this idea was not recommended.

The other proposal involved a representation as an art form of tram 1923, depicting the demise of Sydney trams, enclosed in a glass case partly buried. This idea had merit, except for practical considerations relative to the costs of a glass case, humidity issues and graffiti prevention, etc., compared with costs of other potential art forms. It also failed to score support from Council officers.

As a consequence of the above, the City Council committee declined both Expressions of Interest.

The recommended outcome is that technical ownership of all tram bodies be confirmed as lying with the Sydney Tramway Museum. Council will take responsibility for their external storage (except for car 1995) at an undisclosed location under heavy duty tarpaulins for a period of three years from transfer ex

Rozelle, whilst STM and Council work in the meantime toward finding ways of conserving/ restoring the tram bodies.

The four cars mentioned above have now been heritage listed, viz, R 1753, R 1923, R1 1995 and R1 2050. The remaining two, R1 cars 1943 (last car to Watsons Bay), and 1993 have no long term significance to Rozelle, and thus are not shown as part of a heritage listing.

No. 1993 is a part of an initiative by Council for a 'Mens Shed' project at Woolloomooloo. Ownership will transfer to the Council upon installation. The first proposed project at the site will be restoration of the tram body within the compound. STM will assist with advice towards this project, and earn a consulting fee donation.

R1 1943 (perhaps the most restorable and complete of the cars) is not on the heritage list; however if an alternative conservation use has not been found within the three years it will become the responsibility of the STM.

R1 1995 is required to remain on site at Rozelle to be incorporated into the development.

### Trams at Glenreagh

W2 447 and a quantity of spares have been collected by Mario Mencigar of Australian Train Movers and transferred for storage at his yard.

W2 392 and the spare bogie for the generator unit remain at Glenreagh. Plans are being developed with the heritage rail group at Crookwell to take delivery of this car in due course.

*The main line has been lifted in preparation for new track to be laid, on 26 May.*

Martin Pinches







*Rain did not stop the work. On 26 June, David Canini 'plays in the mud' removing unwanted earth from the track site. Martin Pinches*

### Trackwork

Major trackwork has concentrated on the reconstruction of the section between the new Depot Junction points and the existing concreted track at the Railway Square waiting shed.

After earthworks by our contractor David Canini, the base of the pit for the new left hand points was poured 14 April and the sides were formed and poured on 5 May.

On 16 May the new points were positioned over the pit allowing the in-fill rails to be connected from it back to the Depot Junction points. Check rails were added and a track drain was welded into place uphill from the new points to intercept excess surface water.

The last panel of the old track was removed, allowing David Canini to return on 16 June to lower the excavated area further.

Surplus concrete received at this time was placed in the eastern points of the Pitt Street crossover. By the end of June we were running out of prepared places to take concrete so a 20 foot track panel was set up north of the crossover points for this purpose.

Two Franna cranes were engaged to move the Enfield water tank clear of the site of the new southern shed. Once this was done one crane was used to move the O car underframe, pending an opportunity to have it cut up for scrap, and the spare bogies. The second crane was used to place the 40 foot track panel on the main line at the Railway Square end of the relay work. This



*The first day of a two-day work-a-thon sees the first concrete being poured. Martin Pinches*



*Four loads of concrete totalling 20 cubic metres were used to concrete 57 linear metres of track on 20 and 21 July. It was the largest concrete pour handled by our track team to date.*

Martin Pinches



panel is the one that was built on top of the new left hand points some time ago. As they say in the cooking shows, "Here's one that I prepared earlier".

The rails were then connected from the concreted track up to the new points. Some surplus concrete has been placed along the northern end of the new track up to sleeper level for about six metres.

A major concreting effort was carried out on 20 and 21 July. On Friday 20 July, a special weekday work-a-thon was organised to get the main line in condition to be used for the up coming O 1111 centenary event. Several regular members of the trackwork team took time off from their day jobs to take part – one even flying in from Singapore especially for it!

Unlike some previous big pours the weather for this one was perfect. Sunny, but not too hot, and no rain on the day or the previous few. Twenty cubic metres of concrete were poured in four separate truck-loads. Fifty-seven linear metres of track was concreted, the largest continuous pour ever attempted by the trackwork team.

On 21 July another two cubic metres of concrete was ordered to "top off" the last ten metres of track. The completion of this concrete pour meant that the main line would be available for the 28 July 'trams after dark' event, and for O 1111's centenary party on the 29th.

Now that this track is available to traffic again, the pace will back off somewhat. Current proposed plans are to work on Railway Square on Wednesdays,

*The nearly completed concrete work on 21 July. This view looks south from the Railway Square waiting shed.*

Martin Pinches





*Bricking up around the future lift well in the YMCA building on 21 July.*  
Martin Pinches

fabricating the curve from the points to the western track and concrete that as much as possible with free surplus concrete from our local plant. Saturdays will mostly be dedicated to rehabilitating the Sutherland line past the TAFE crossing.

#### **Other works**

Bricklaying is continuing in the YMCA building on the second floor by Scott Aston and a couple of CSO personnel. A further 4000 bricks and a load of sand were delivered recently and were barrowed up into the building.

A glazier was engaged to replace the broken windows in O breakdown car 141s and that car has vacated the workshop to be once again replaced by Ballarat 37. We again have two trams numbered 37 in the workshop.

Frank Cuddy is working on two O car reversers. Work on the grip car has slowed while Warren Howlett is on holidays. Terry Thomas and Rainer Nickel are making an adaptor to fit an air filter to the new diesel air compressor so it can be brought into use.

Andy McDonald has progressed the rock retaining walls south of the Depot Junction and is keeping the weeds under control.

#### **Other news**

Howard Clark and Warrington Cameron had a meeting with Bendigo Tramways on 11 July to discuss preservation of Y1 611, which has been stored in the open at the Gasworks depot for some time on behalf of STM.

This was a tram which the late Bruce Worthington wished to sponsor for repaint and upgrade, and

eventually to bring to Loftus for use particularly with school groups.

Our visit ensured that 611 is now under cover for the first time in several years. It was clear that the roof materials were still wet from recent rain and under stress, and some canvas had already split. Water had started to penetrate the cracks in the canvas in a few places, and a 'just in time' attitude was required to minimise large roof repair/replacement costs which could be avoided. The car is now expected to remain under cover whilst canvas repairs and seat upholstery works and other repairs are carried out. Some of the navy dressing recently obtained will be used on the roof.

#### **Museum members**

Some of our working members get very little recognition, and deserve our thanks. Vic Solomons would be in this class as he quietly goes about keeping the grounds clean and tidy, removing the rubbish to the skip and taking recyclables off site for collection. He also cleans up the workshop after the workshop boys. As Warren quite candidly says, "If it wasn't for Vic cleaning up after all of us we would be up to our waists in rubbish by now".

Another is Katie Strancar who ensures that the Museum's facilities and meal room kitchen areas are clean for our visitors and members.

Andy MacDonald, apart from building rock walls, in the last few weeks has moved two huge mounds of tree mulch, spreading it over garden beds and around the grounds to enhance the visual impact of the Museum for our visitors. He has quietly undertaken this task using only a wheelbarrow and shovel.

# BENDIGO

## BENDIGO TRAMWAYS

1 Tramways Avenue, Bendigo, Victoria 3550

[www.bendigotramways.com](http://www.bendigotramways.com)

From Len Millar and Anita Bagley

### Hobart 17 and 118

Work on completing the Brill 21E and No. 9C trucks for these two cars has been completed, and we sent a team to Hobart to place the trucks under their respective bodies.

Darren Hutchesson was accompanied by Julie Cain and Don Webb, and they took the 'company ute' to carry all the items and tools that were needed. After crossing Bass Strait on the *Spirit of Tasmania*, they enjoyed great co-operation from their hosts in Hobart.

*Two Melbourne No. 9 bogies and a four-wheel Brill truck being readied to depart Bendigo for Hobart on 13 June.*

All photos: Bendigo Tramways

The Brill truck and the No. 9s exactly fitted under the double-decker and the bogie saloon cars. The team were able to set up basic pneumatic and electrical systems and brake rigging, and fitted two beautifully-restored Clyde controllers to No. 118.

### In the depot

For some time now, the workshop has been on the verge of starting work on Melbourne City Circle tram



*Hobart tram 17 with its new truck on 18 June.*





*Melbourne SW6 891 stands in the yard at Bendigo Depot on 25 July.*

957, which was delivered to us back in January 2011. The good news is that this job has finally begun. And in another Melbourne project, Westmain (of Bacchus Marsh) is working with us on welding the steel underframe of Yarra Trams' 959. The rate of work increased significantly after we received authority to proceed with the replacement of the bolsters and side sills. This key structural work needs to be carried out prior to the refurbishing the cabins and saloons. A works order for the internal panelling has also been received.

A team journeyed to the Central Highlands Railway at Daylesford to work on one of their rail motors, and our Sydney colleagues have authorised works to commence on their Y1 class car 611 and Launceston 14.

Perth Electric Tramway Society is looking forward to taking delivery of its SW6 891 soon, after it was overhauled in the workshops and given trial runs.

#### **All praise to our volunteers**

We celebrated the great work and generous contributions that volunteers make to our organisation on 17 May, with a visit to Bendigo's beautiful Botanic Gardens. Our volunteers were given a guided tour of the gardens, on a truly magnificent sunny morning, followed by a morning tea where they shared their enjoyment at being part of the Trust team. Trust Board members David Wright and Helen Yorsten attended too, and David said "Without our volunteers and the wonderful work that they do, there would be no Bendigo Trust".



*Bendigo's volunteers at the morning tea tour of White Hills garden on 17 May.*



## Vale Bill Kingsley

### From Bendigo Tramways

With great sadness, we join many of our kindred bodies in marking the passing of Bill Kingsley. Bill spent many, many hours in the service of the Bendigo Tramways over our 40 years of existence. Bill was a great driver, a true team player and had a happy knack of dealing cordially with our passengers. He injected a personal note into the Talking Tram Tour experience by conveying our story in a friendly fashion to his passengers. Kids would laugh at his stories, and many an adult would share fond reminiscences with Bill about going to school or to work or to the pictures. He devoted many thousands of hours to tramway preservation and tourist tramway operation over five decades – and we are the poorer for his passing. Thank you, Bill.

### From Perth Electric Tramway Society

PETS members were greatly saddened and shocked to hear of the passing of Bill Kingsley, an esteemed long-time member and active supporter of PETS, some two weeks after his return home to Melbourne from Perth in April. We understand that Bill had returned to hospital in Melbourne as he had planned, to resume treatment for cancer. Bill had been in excellent spirits while here, and enjoyed catching up with his many friends at PETS and driving one of his favourite trams, W2 329, for the four days over Easter. Bill had been a stalwart of our traffic crews at Whiteman Park at Easter for many years without fail, and will be greatly missed.. The Council of PETS has agreed to install a plaque in honour of Bill in W2 329, one of his favourite trams. He will be greatly missed.

# WHITEMAN PARK

## PERTH ELECTRIC TRAMWAY SOCIETY (INC)

PO Box 257, Mount Lawley, Western Australia 6929

[www.pets.org.au](http://www.pets.org.au)

From Michael Stukely

### Traffic operations and service cars

The Easter break and April school holidays produced outstanding levels of patronage on the trams with a period of very pleasant autumn weather being experienced in Perth. Previously, four running days had been lost in March due to the continuing dry conditions and high fire danger. Two trams (Melbourne W2 329 and SW2 426) were in service each day of Easter, with good loadings. Local members Shane Parsons and Trevor Dennhardt were on traffic duties, and they were assisted by three of our eastern states-based members – Bill Kingsley, Hayden Holmes and Sam McGuinness – who again made their annual pilgrimage to the west to help crew our trams. Their contributions were greatly appreciated. The main service cars in April and May were Nos.426 and 329, and Fremantle 29, with occasional use of W4 674 as back-up car. W2 441 returned to service in June. The annual Classic Car Show, always an enjoyable event, was held on Sunday, 22 April.

### Steel sleepers arrive

With our stockpile of about 1,200 steel sleepers (acquired in 2000) now almost exhausted, plans for obtaining a new supply had been 'in the pipeline' for several years. Following completion of track and

sleeper renewal on the Kalgoorlie-Esperance standard gauge railway, we were offered a substantial number of used steel sleepers and fittings. After prolonged difficulties in arranging the hire of the necessary equipment for loading and transporting the sleepers earlier this year, everything was at last in place in mid-June.

On Friday 15 June, a team comprising Garry Barker (driving the hired prime-mover and trailer and accompanied by his wife, Carol), and Tony and Beth Kelly, Bob Pearce and Kim Freind (following by car) travelled to Esperance to collect the first load of sleepers plus drums of fittings from the track-side locations north of the town. Loading was done on the Saturday using an all-terrain forklift hired locally, with operator, Daniel. As Daniel collected loads of the loose sleepers from the line-side pile and dropped them onto bearers, Tony and Bob sorted and lined them up for easy loading. Daniel then lifted and dropped them into the trailer with the fork-lift, where they were stacked by Kim and Garry. Nearly 450 loose sleepers and the three 44-gallon drums of fittings for attaching the rails were stacked neatly in the side-tipper trailer to make the most of the available space, and to enable easy unloading at Whiteman Park.



*A trial batch of steel sleepers is unloaded from the trailer using the crane, early on 18 June. Allan Kelly is driving the fork-lift at left as Tony Kelly (centre) guides Noel Blackmore on the crane; Garry Barker (right) is ready to unhitch the sleepers, and Kim Freind and Paul Pickett are stacking the next batch on the trailer.*

*All photos: Michael Stukely*

The party travelled back to Whiteman Park on the Sunday, the truck arriving at about 3:00pm after a round trip of over 1,600km. Then the fun started. First, the truck and trailer could not be manoeuvred into position to unload in the designated spot in the eastern rail compound due to tight turning clearances and soft sand alongside the narrow road surfaces (the truck's rear wheels had to be dug out once). Plan 'B' was then devised whereby the load would be placed directly alongside the hard surface of the Car barn access/entry road.

However, our worst fears about the functioning of the side-tipper trailer were then realised as it became clear that the hydraulics of the truck (designed for rear-tipping trailers) were not compatible with this side-tipping trailer. We then moved to Plan 'C', where the sleepers would be moved by hand, with our (much smaller) forklift transferring them from the trailer to a stack at right-angles to the entry road. With Paul Pickett and Michael Stukely loading sleepers individually onto



*After W2 329 has passed the Bennett Brook South road crossing, the Bus Preservation Society's Guy Arab bus (formerly WAGT No. 101 of 1951, later MTT No. 325) crosses the tramway on its return journey to the Village on 9 April.*



*SW2 426 rounds the Bennett Brook North curve after leaving Mussel Pool on 9 April.*

Opposite centre:

*On the trailer, Kim Freind (left) and Paul Pickett have tied a batch of sleepers for unloading by Noel Blackmore on the crane, as Garry Barker awaits the return of the fork-lift, on 18 June. About half of the central stack of sleepers (one stack of three) had been unloaded the previous evening. The three drums of rail fittings can be seen.*



the forklift (with the forks on top of the nearly 1.5-metre high trailer sides), Allan Kelly then moved them to the stack where they were unloaded and placed by Garry Barker, assisted by Ric Edwards and Tim Sandhu. Each load comprised only four or five sleepers, and work continued under lights until 7:30pm. By then, over 80% of the sleepers plus the three drums were still on the trailer.

Monday morning saw the crane, driven by Noel Blackmore, first lifting some sleepers from the trailer to clear access to the drums, then unloading the drums, followed by batches of 12-14 sleepers (assembled in slings on the trailer by Paul, Michael, and Kim Freind), from the trailer floor to the forklift, now at ground level. Tony Kelly and Garry Barker assisted on the ground with guiding the crane and unhitching and stabilising the sleepers on the fork-lift. Allan Kelly then drove them to the rail compound where they were dropped off. Timing was very tight as the truck and

trailer had to be returned no later than 5:00pm, to avoid paying for another day's hire. The last load was dropped off at 4:20, allowing Garry just enough time for the return trip to the hire yard. There was a great sense of relief among some very tired PETS members, with over 22 tonnes of steel sleepers having been handled individually and unloaded! We gratefully thank Bill Parker of Brookfield Rail for his assistance in the acquisition of these most useful sleepers and fittings.

### Rollingstock

Following the successful test running of Perth E 66 over all sections of the tramway and the adjustment and bedding-in of its systems in recent months, progress was made on re-installing the modified mechanical brake system. By early July, only minor work remained to be done, prior to obtaining the necessary approval from the Rail Safety Regulator for No. 66 to be available for traffic.

*W2 329, driven by Bill Kingsley, approaches the Bennett Brook North road crossing on the way to Mussel Pool on Easter Monday, 9 April.*





*A very busy scene greets W2 329 as it arrives back in the Village on 9 April, driven by Bill Kingsley.*

Bryan Adcock and team have continued the body restoration work on Perth B class single-truck car 15, with a view to the car being placed on static display by the South Perth Historical Society. With repairs to the roof done, Bryan has sealed the roof and applied a coat of Boston Tan. Two old controllers were removed and their covers base-painted, ready for mounting on the motorman's platforms. David Carling has completed spray-painting all of the seat backs and squabs. Bryan and John Budd are doing the final finishing of the saloon floor boards ready for staining.

On 11 April the positions of B 15 and Ballarat 31 in the Lindsay Richardson Car barn were exchanged, with B 15 being placed just inside the front doors to facilitate the installation of the permanent, specially-

fabricated narrow gauge truck. The truck for B 15 was lifted onto the section of narrow gauge track outside the doors on 30 May. It was rolled under the car and secured on 20 June.

#### **General works**

The body of Ballarat single-truck tram 31 was lifted off its truck in conjunction with the movement of this car and B 15. The truck and body are to be inspected and assessed for repairs. This car has been out of traffic since 1995, due to the worn condition of its wheels.

Final work on replacing the ceiling panels in W7 1017 is being done by Graham Bedells and Frank Edwards. Repainting has been carried out on W2 393 by John



*The track team at work near the Village road crossing on 14 April: Trevor Dennhardt fastens the rail clips on a steel sleeper as Nick Tsiaglis (left) and John Azzaro (in red overalls) hold the sleeper in place, Lindsay Richardson checks the gauge bar, and John Budd (right) is ready to start shovel-packing the sleeper.*



Davies, and preparatory work has been completed on W2 329.

An additional length of check-rail was installed at the north end of Village Junction curve by the track team on 15 April. Further spot replacement of rotted timber sleepers with steel sleepers, with lifting and packing, has been done on the Stockmans Triangle to Village section. A large number of original timber sleepers are in fairly sound condition in this location.

In other developments, Duncan McVicar is refitting bracket-arms to the next batch of steel traction poles that will replace rotted timber poles, and improvements have been made by Pat Ward to our shunt tractor. These include fitting rear-vision mirrors, fitting out the front end, and repairing the roof-mounted flashing light.

The annual Rail Safety Compliance Audit of our tramway and its operation was carried out by the Regulator on 27 April, with an excellent result.

### Vale Bruce Worthington

Bruce joined PETS in 1992 when he visited Perth during the COTMA conference. He was a strong supporter of our work even though he lived a great distance away in Sydney. Because of his support Bruce, much to his surprise, was made a Benefactor Member of PETS in 2002 at the 21st Anniversary of the Society. He and Bob Pearce formed a strong association over the years, often sharing accommodation and drinking time during subsequent conferences, including in Christchurch, New Zealand, where Bob was introduced to one of Bruce's favourite beers: Speight's Dark; and Brisbane and Rockhampton. Bruce was an avid fan of the Amber Fluid, and was well known for his capacity to consume it. He had a vast knowledge of tramways and railways throughout the world, and was always ready to share that information. Bruce will be sadly missed by everyone who knew him.

– Bob Pearce

## BALLARAT

### BALLARAT TRAMWAY MUSEUM

PO Box 632, Ballarat, Victoria 3353

[www.btm.org.au](http://www.btm.org.au)

### From Dave Macartney & Peter Winspur

With the quieter period of the year approaching, the opportunity was taken to eliminate some rough track joints which had developed in Wendouree Parade, immediately north of Depot Junction. Working around the onset of winter weather saw the work carried out on 15 May, 22 May and 12 June. As well as replacement sections of traditional tramway profile rail, a short length of 60 lb. railway rail was laid in order to determine its suitability for use in the future, given the scarcity of serviceable traditional rail.

No. 13 was taken out of service on 28 May for a repaint and a few structural repairs. To address its ongoing problem of hard riding over the rougher sections of track a new set of leaf springs were ordered and have arrived. The tram will return to service in the final SEC livery, as before. Nos. 14 and 18 are on the list for a repaint in the coming year or so.

The display board at the loop which explains the tramway was the victim of a graffiti attack during

April. This board has been there for around 20 years without any problems, so it seems that the Gardens are a bit too remote a location to attract the attention of these delinquents. A quick wipe with a kerosene soaked rag removed the offending item.

Jamie Winton, the lessee of the café *Pipers by the Lake*, was keen to continue the sponsorship arrangement for tram No. 671 and this will see it continue to run in the black and white livery for another three years. We thank him for his continuing support.

The City of Ballarat through its Community Impact Grant scheme has awarded the Museum a grant of \$7,913 towards the purchase of a mobile gantry crane. This will be of great assistance for lifting and moving items such as motors. The original crane which is attached to the building has proved to be inadequate in recent years.



*Ballarat Junior Supporter Rowan Mong celebrated his 7th birthday on No. 671 on 28 April 2012.*

Alastair Reither

To stay viable, renewal needs to be continuous and with the loss of Bill Kingsley this year and the retirement of Dave O'Neill last year our driver ranks were in danger of thinning. The Museum has been fortunate in being able to qualify Aaron McDonald and Greg Robinson to fill their shoes and Greg Gardner's training is proceeding rapidly. As a retired local, Greg Gardner is proving particularly valuable in assisting in many tasks. Meanwhile, we also have two new conductors, David Weate and Michael Foley.

Sydney Tramway Museum member No. 1, Norm Chinn, was well-known in the early days for his disdain for museums other than his own, and professed to have never visited them. Some years ago David Macartney was surprised when he burst through the door at

Ballarat announcing "I'm Norm Chinn. I only have twelve minutes. What can you show me?" It turned out that he was on some sort of package tour, had seen the depot door open and arranged with the coach driver to be dropped off while the other passengers gazed at the begonias. For this he was allowed twelve minutes.

A quick whip around the fleet found us in front of ESCo No. 12, the centre saloon of which had started life as North Sydney cable trailer No. 18. Casually picking up a piece of timber with some decorative paint work on it, Dave explained that this was from the panel above the windows, and had not seen the light of day since 1905. Norm was suitably stunned, and hurried off back to his coach having learned something more than he had expected from such a brief visit!



*Another track joint receives attention. Our workers have almost lost count of how many sections of rail have been inserted to repair broken joints.*

BTM Collection

*Forty years ago: on the weekend of 22-23 July 1972 the last two trams were winched along very temporary track into the depot. It was a laborious process.*

Peter Winspur



## FERNY GROVE

**BRISBANE TRAMWAY MUSEUM SOCIETY**

PO Box 94, Ferny Hills, Queensland 4055

[www.brisbanetramwaymuseum.org](http://www.brisbanetramwaymuseum.org)

From Peter Hyde

Work at Ferny Grove has concentrated on the restoration of FM 400 and Dreadnought 136, with of course the continuation of the usual museum operational routines.

An unseasonably warm and wet autumn and winter has depressed visitor numbers to all heritage rail operations in Queensland. It has also extended the fast growing season for lawns so that we have not had the usual winter respite from mowing and grounds maintenance.

As the photos show, the interior fitout of FM 400 is making good progress with the final seat installed on 26 June. Grab rails and other fittings are also rapidly making their appearance.

On the adjacent track in the workshop all the major external panels have been replaced on Dreadnought 136 and replacement of the wiring for the lights is under way. An interesting discovery after the removal of countless layers of paint was the construction date stamped deeply into one of the exterior steel sections.



*The interior of car 400 showing the refitted seats, stanchions and lights. All Photos: Peter Hyde*





*The final seat is returned to position in car 400.*

The trolleybus display was completed (largely by the efforts of Cam Struble) and opened to the public without ceremony. It has proved to be of quite some interest to the general public, with many visitors spending much time there. Most do not even know that Brisbane ever had trolleybuses!

During routine overhead maintenance, two overhead frogs were replaced as uneven wear was causing dewirements whenever the lesser-used direction was traversed. Several cracked cap and cone insulators were also discovered and replaced.



*The builders of 136 left their mark by stamping the date of construction into a steel section.*



*All major external panels have been installed onto Dreadnought 136.*



Some views of the new trolleybus display. This part has photographs of the trolleybus system.

A destination roll supplemented with photographs of the termini, bus and overhead diagrams, and small items form part of the display.



This part of the display shows how trolleybuses collected power from the overhead.



## ST KILDA

## AUSTRALIAN ELECTRIC TRANSPORT MUSEUM (SA) INC

PO Box 213, Salisbury, South Australia 5108

[www.trammuseumadelaide.com.au](http://www.trammuseumadelaide.com.au)

From Colin Seymour and Kym Smith

**Annual General Meeting and new committee**

The AGM was held at the Museum site on 26 May 2012. The Annual Report was also presented at the meeting. Andrew Gilbertson had advised previously that he would not be able to stand as Track & Overhead Manager for the coming year due to being posted to Sale, Victoria. A vote of thanks was ratified at the meeting to Andrew for his work for the Museum over the past four years.

The following members were elected to the Executive Committee for the 2012-13 year:

President – Ian Seymour

Vice President – Chris Andrews

Secretary – William Adams

Treasurer – Allan Ziegler

General Manager – Kym Smith

Site & Safety Manager – Jack Pennack



*Mike Crabb, John Pennack, Charlie Rodgers and Ian Seymour watch concrete being poured along the southern wall of the new tram shed for the wheel press on 11 May 2012*

Chris Summers



*Workshop machinery being relocated to the new workshop on 20 April.*

Chris Summers



*The Trolleybus Pavilion on 13 April: the two walls viewed by the public have been painted green to match the new depot and the Northern Depot.*

Chris Summers

*This view taken on 8 July shows the much improved interior appearance of the Trolleybus Pavilion after recent structural repairs and cleaning.*

Kym Smith



### New shed

Work is progressing on the new shed, with the floor laid for the workshop and most of the southern wall footing completed. Machinery is being moved into the new workshop and work is progressing on reconnecting

the electrical and pneumatic supplies. Donations are still required to complete the flooring and to erect trolley wire troughing.

### H1 381

Charlie Rodgers, Bruce Lock and Chris Steele are working steadily on the restoration of H1 381. New flooring has been laid and painted, and the re-chromed seats are being repainted on their lower sections and then being reinstalled. The internal aluminium trims are also being cleaned up, ready for reinstallation.

### Trolleybus Pavilion

A working bee was held on 12 May for what was ostensibly a workday on the Trolleybus Pavilion. But after opening the doors and starting work, the amount of pigeon droppings and the generally awful condition of the shed made us rethink our priorities. One of the members present very generously offered to pay for the shed to be professionally cleaned, which we decided to gratefully accept. Not to be deterred from working though, we moved our attention onto the Southern Depot, now the oldest of the operating tram sheds left on site, and the four service cars it contained – B 42, H 360, W2 294 and R1 1971. All were in need of some cleaning, particularly with the COTMA conference fast approaching.

We began by driving the cars out into the open, clearing the shed fully to allow Allan Ziegler to use his electric blower to sweep the shed out after the walls were de-cobwebbed. Meanwhile, the rest of the crew were busily cleaning the four tramcars: windows were

washed; seats wiped down; and floors swept and mopped. No. 42 even had a wash to clean the dirt off its panelling, partly in preparation for a fresh coat of varnish to protect its ornate gold leaf and line work.

### Trackwork

A track working bee was held on 19 May. We removed and replaced 10 sleepers along the lake in the vicinity of poles 24 and 25 using second hand pine sleepers which we had on hand. Nine of them were obtained from the track in the original (and now new) shed, when road six was lifted for concreting in the new workshop, and when roads 4 and 5 were shortened by a few feet to make way for the workshop slab. The Museum tractor proved beneficial in removing the old sleepers from the rails – much easier than breaking them up by hand with crowbars. After lunch we loaded the sleepers on the works car, inserted them into place and drilled, spiked and packed them. We had the job done by 3:30pm!

### P4 Model Railway Club

The Museum has agreed to the Protofour (P4) Model Railway Club leasing a portion of the old car park to establish a model railway workshop. They have funded a new shed for this purpose, and one of their members has also brought a carriage formerly owned by Queensland Rail to the site for their members to use for overnight accommodation. We hope that the presence of the model railway club members will deter unwanted visitors from coming on site and vandalising or stealing equipment.

### Adelaide model railway exhibition

The Museum had a stall at this year's exhibition, held at Greyhound Park at Angle Park. William Adams arranged for a number of members to man the stall over the three days, handing out brochures, selling books and souvenirs, and generally promoting the Museum.



*Getting ready for operations on Sunday, 8 July: car 282 has left the Northern Depot while car 303 is being prepared to follow.*

Kym Smith

*A lovely winter view of the main depot fan during July. Cars on the fan are Birney 303 and Dropcentre 282, with passengers ready for the next trip, and W2 294.*

Kym Smith

## HADDON

MELBOURNE TRAMCAR PRESERVATION ASSOCIATION  
324 Sago Hill Road, Haddon, Victoria 3351 [www.mtpa.com.au](http://www.mtpa.com.au)

## From Kym Smith

The winter months at Haddon have seen a hive of activity doing a large number of maintenance and other tasks, most of which while necessary are too mundane to report in *Trolley Wire*. Instead we take the opportunity

to share some more photos from Anthony Smith's collection showing the early days at Haddon together with some images of trams that while not preserved, have been a part of the MTPA's history.

*W2 505 at Hawthorn Depot on 4 May 1977 awaiting transfer to Preston Workshops for delivery to Haddon. The reason for its decommissioning is not readily evident in this image...*

All photos: Anthony Smith



*... but this picture of the other end of the tram clearly shows why its days in service in Melbourne were over. The car was dismantled for parts at Haddon.*





*The front half of the Workshop building under construction, 11 May 1975. This is now Road 1 of the Workshop, with the timber parts store on the far side.*



*W3 663 and W4 670 are already on site as the body of W3 656 arrives at Haddon on 19 July 1976. No. 656 provided some parts for 663 and was then used to form part of the residence constructed on site.*



*A broad gauge Brill 77E truck in a scrap yard at Corowa on 5 November 1977. Three of these trucks were found and purchased from this yard with the intention of using them under VR 41, but after standard gauge trucks were obtained the broad gauge trucks were sold to the Tramway Historical Society in Christchurch for use under their Brill 178.*

*The Carbarn, showing a view of the rear wall under construction on 4 June 1978. The late William Smith, Anthony's father, is seen fixing the bracing on the corner of the shed. Visible in the shed are W4 670, W3 663 and VR 41, with W2 357 just to be seen behind 670 and 663 gradually being cocooned into the residence.*



*By 10 August 1980 the Workshop building had been completed and the Carbarn only needed sheeting of the doors to be at lock-up stage. By that stage W2 407 had also joined the collection, as had an AEC Mk III bus.*

*The body of VR 37 at Wangaratta on 5 November 1977 prior to dismantling. Many parts from 37 were used in the restoration of VR 41 including both motorman's bulkheads.*







*Three centenary sisters, O 805, O 1111, and O breakdown 141s, pose on the depot fan at the Sydney Tramway Museum on the morning of 29 July.*

Martin Pinches



*Sydney Tramway Museum members in period costume hold a banner marking the centenary of Sydney O class 1111 during the afternoon of 29 July.*

Martin Pinches