

# TROLLEY WIRE

No.302

AUGUST 2005

Print Post Approved PP245358/00021



\$8.80\*



ISSN 0155-1264



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## In this issue

- Neutral Bay trams
- A tram conductor's day
- Half a century of numbers

# TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM  
MAGAZINE

AUGUST 2005

No. 302 Vol. 46 No. 3 - ISSN 0155-1264

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Published by the South Pacific Electric Railway  
Co-operative Society Limited,  
PO Box 103, Sutherland, NSW 1499  
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\*Cover price \$8.80 (incl. GST)

Subscription Rates (for four issues per year) to expire  
in December.

Australia .....	\$A32.00
New Zealand/Asia.....	\$A38.00
Elsewhere.....	\$A42.00

All correspondence in relation to *TROLLEY WIRE* and  
other publishing and sales matters should be forwarded to  
PO Box 103, Sutherland, NSW 1499

The opinions expressed in this publication are those of the  
authors and not necessarily those of the publishers or the  
participating societies.

Typesetting and finished art by National Advertising & Design  
Studios - Canberra Tel: (02) 6231 2565  
email: pritch4711@velocitynet.com.au

Printed by National Capital Printing - Canberra  
Tel: (02) 6280 7477 Fax: (02) 6280 7817



*Sydney O car 1111 stands at the entrance to the Sydney Tramway Museum's depot yard waiting for its turn to be returned to the running shed on the evening of 19 June 2005.*

Mal Rowe

## Front Cover:

*Sydney E class cars 529-530 arrive at Neutral Bay Wharf terminus on 21 October 1952. These trams survived to be donated to the South Pacific Electric Railway on 22 December 1956.*

Noel Reed

## Back Page Top:

*Ballast motor 99U poses for photographers attending the Sydney Tramway Museum's 'Trams after Dark' event on the evening of 19 June 2005.*

Robert Merchant

## Back Page Bottom:

*No. 35 posed outside the head office of its sponsor, the Bendigo Bank.*

Bendigo Tramways

## From the Archives TRAMS ON THE NEUTRAL BAY LINE

By Vic Solomons

While undertaking research at the State Records Authority of NSW, some papers on a file relating to the Neutral Bay tramway were located which contain information relating to trams now in the Sydney Tramway Museum's collection and which had a direct bearing on the future of the trams concerned.

The Neutral Bay tram line included some sections of steep gradients, particularly approaching the ferry wharf at the terminus. As a result, only four-wheel cars of the C, D, E and K classes, which were fitted with track brakes in addition to the normal air brakes, were permitted to operate over the line and a separate wharf was constructed to provide a level terminus for the trams.

Following successful trials of an electrical braking system fitted to R1 class car 1999, a demonstration run using the equipment was provided for the benefit of the Deputy Commissioner for Government Transport on Monday, 7 April 1952.

In a memo to the Secretary dated 9 April 1952, the Chief Engineer sought approval for the sum of £500 to convert with the necessary equipment one R1 class car as a prototype. This sum was approved by the Deputy Commissioner on the same day. In a further memo to the Secretary dated 28 May 1952 the Chief Engineer advised the work was in hand and that the tram would

be available for service in six weeks. The Chief Engineer sought approval to equip a further five cars at a cost of £2500. However the Commissioner declined to approve any further expenditure beyond that for the first car.

The Chief Engineer advised the Secretary on 17 June 1952 that car number 42 on the production line at the Commonwealth Engineering Company's plant at Granville (where the last trams built for the Sydney system were being constructed) was selected "as being the most advanced car on which the minor alterations in body construction required for the dynamic braking of the cars for the Neutral Bay line could be made." The tram selected became R1 class car 2029.

Car 2029 went into regular service on the line from 21 November 1952. It operated all services and was only taken out of traffic during off peak periods on five occasions a week for servicing. (Another document refers to the car being serviced on Tuesday and Thursdays.) At that period, two K class cars (1295 and 1296) and two sets of E class cars (499-500 and 529-530) were available for use on the line.

The Superintendent of Rolling Stock advised the Chief Engineer on 27 January 1953 of details of the trams suitable for service on the line. R1 class 2029 was in regular service and E class cars 499-500 were stored but available for traffic if required. The Superintendent pointed out that should car 2029

*K 1296 stands on the wharf terminus at Neutral Bay circa 1948. The wharf provided a level terminus for the tram to stand.*

Late N. Boxall, Vic Solomons collection





*E cars 529-530 stand on the terminus wharf at Neutral Bay. At left, the driver and conductor are in discussion with an Inspector.*  
John Burgess

become unavailable for any lengthy period, a set of E class cars would be required for the peak traffic. A single K class car could operate the day off-peak or night service. After discussions with other departmental officers, it was agreed to store one of the K class cars and an additional set of E class cars, but they be kept clean so as to be available if required for service. Car 1295 was accordingly placed in store.

In the same memo, the Superintendent of Rolling Stock sought approval to:

- (1) fit two additional corridor cars with dynamic braking;
- (2) scrap the two existing [sets of] E type cars upon availability of the two cars mentioned in (1) above; and

- (3) adapt the two existing K type cars for coupling and uncoupling in traffic and kept in reserve.

With regard to (3) above, the Superintendent noted that the two K cars could not be run coupled as the provision of coupling jumpers and connections for the bell and light circuits would be required. Also, a compressor of the GE CP27 type would need to be installed in car 1295 to replace a troublesome AA6 type compressor.

However, the Chief Engineer proposed two courses of action:

- (1) (i) car 2029 be kept in service;
- (ii) cars 499-500 be kept in store but available for service;

*A passenger passes the time of day with the crew of E cars 499-500 as they wait for departure time at Neutral Bay Junction.*  
John Burgess



*E class cars 529-530 climb away from the terminus up steeply graded Hayes Street. The cars are carrying two conductors, presumably to ensure all fares are collected on the short journey to the junction at Military Road.*

Vic Solomons collection



- (iii) cars 1295 and 1296 be kept available for immediate service and coupling fittings be installed at a cost of £30 so they could be used as a coupled set during peak hours or single cars in the off peak;
  - (iv) cars 529-530 be scrapped.
- (2) (i) car 2029 be kept in service;
- (ii) a second R1 car be provided with a similar braking system to car 2029 at a cost of £500;
  - (iii) cars 1295 and 1296 be fitted with couplings at a cost of £30;
  - (iv) E cars 499-500 and 529-530 be scrapped.

The Chief Engineer recommended the second course of action be adopted.

The Commissioner sought the views of the Chief Traffic Manager who, in his memo of 24 June 1953, considered that only one set of E cars (529-530) be retained as back-up for car 2029 and that both K cars

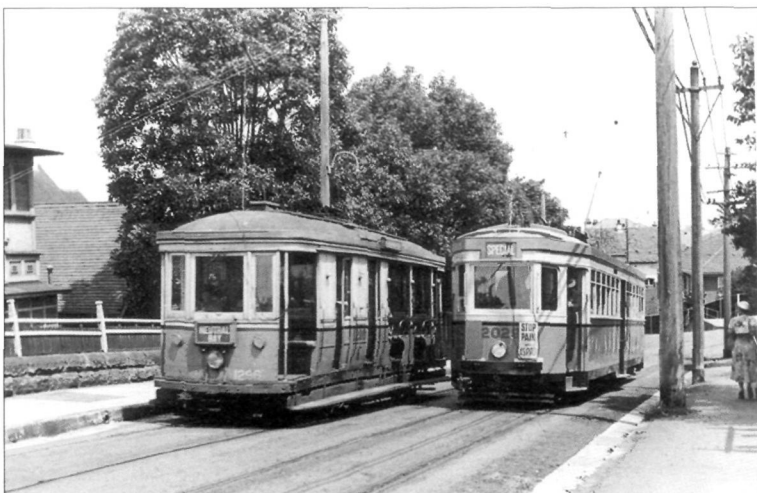
and E cars 499-500 be scrapped. He further advised that in the event of both 2029 and 529-530 being out of service, a single deck bus could operate to within 80 yards of the wharf.

The Chief Engineer in his memo to the Secretary on 4 August 1953 disagreed with the views of the Chief Traffic Manager, especially with the proposal that a bus be used should the trams be unavailable, pointing out that passengers would be required to walk up a steep grade to join the bus. He recommended that E cars 529-530 and K car 1296 be retained as reserves and K car 1295 be scrapped. This course of action was approved by the Commissioner on the basis that the matter be reviewed in January 1954.

On 25 March 1954, the Chief Engineer again wrote to the Secretary maintaining his view that relief trams were still needed in the event of car 2029 being out of service for a lengthy period. He again recommended that E cars 529-530 and K car 1296 be retained as

*R1 2029 on its test run on 4 November 1952 passes at Shell Cove Loop K 1296 operating the regular service to Neutral Bay Wharf.*

Noel Reed





*Running on borrowed time, E cars 499-500 pass through Shell Cove Loop during their last months of operation.*

*John Burgess*

reserve vehicles, the former for the peak periods and the latter for the off-peak periods. The Commissioner approved the Chief Engineer's recommendation on 29 March 1954.

K class car 1295 was withdrawn from traffic and transferred to Dowling Street Depot on 27 August 1954. It was planned to be used for a 75th Anniversary of Sydney Trams tour but was condemned and sent to Randwick Workshops on 22 September 1954 for scrapping.

E class cars 529-530 returned to the main Sydney system on 23 July 1955 and were used on enthusiasts' tours out of Dowling Street Depot until the end of the year.

E class cars 499-500 were sent to Randwick Workshops and scrapped in September 1955. The withdrawal of both sets of E cars was not in accordance with the decisions of March 1954. It left K 1296 as the sole reserve car until the closure of the line.

The Neutral Bay tram service closed in the early hours of 27 May 1956. The replacement bus services ran right to the wharf with a special turning circle being constructed for them at the end of Hayes Street.

K class 1296 lingered in North Sydney Depot until July 1956 when it was transferred to Dowling Street Depot. It ran two enthusiast tours from that depot.

R1 car 2029 was retained at North Sydney Depot after the Neutral Bay tram service closed. The dynamic braking equipment was removed and it re-entered service as a 'standard' tram on 12 October 1956. After the North Sydney system closed in June 1958, 2029 was transferred by the tram-carrying trailer 'The Lizard' to the main system on 1 July 1958 and re-entered service from Dowling Street Depot. It was scrapped at Randwick Workshops and the body burnt on 17 February 1960.

Surprisingly, both K type cars and E cars 529-530 survived.

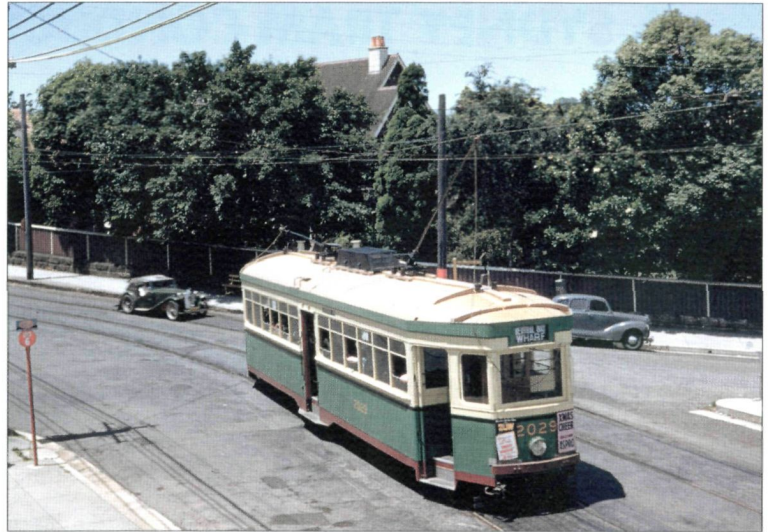
*R1 class car 2029 on a trial trip near Neutral Bay Wharf on 4 November 1952. It entered service 17 days later. K 1296 can be seen at the terminus in background.*

*Noel Reed*



*R1 car 2029 at Wycombe and Shell Cove Roads, Neutral Bay on 20 December 1952. The dynamic braking equipment can be seen mounted on the roof between the two trolley bases.*

Noel Reed



K car 1295 was not scrapped but sold on 11 January 1955 to the late Norman Boxall, Ted Davies and Lewis Nyman, who all contributed to the cost of the tram. Car 1295 was housed in the back yard of the Boxall residence in suburban Marrickville. The tram was used on a float, along with C class 12, also owned by Norman Boxall, on a second float, in the Waratah Festival parade every year from about 1965 until the last parade in the 1970s. The floats were sponsored by Marrickville industry and businesses. Boxall eventually ceded K 1295 (and C 12) to the South Pacific Electric Railway and the trams arrived at Loftus on 26 June 1997. Both cars require extensive restoration.

K 1296 and E class cars 529-530 were donated to the South Pacific Electric Railway on 22 December 1956 and joined other preserved cars in Rozelle Depot. The cars were moved to the tramway museum at Loftus on 19 March 1957. K 1296 underwent electrical trials on 6 December 1964 and was painted in the olive, fawn and grey livery in readiness for the opening of regular museum operation on 13 March 1965. At 11:00am on 14 March 1965, K 1296 departed from the depot terminus to initiate regular Sunday operations on the museum tramway.



*R1 class 2029 and P class 1675 meet a fiery end at Randwick Workshops on 17 February 1960.*

Martin Pinches

# A SYDNEY TRAM CONDUCTOR'S DAY

By G.F. Sutherland

Most articles on tramways focus on the physical aspects such as trams, routes, timetables and infrastructure. This one looks at the human side of Sydney tramway operations.

What was it like to sign on and undertake a day's work as a Sydney tram conductor? Let's follow a conductor through a typical day. We will assume that our conductor is male as Sydney only had a small number of conductresses who worked only on R and R1 class corridor cars.

## Sign on

Our conductor consulted the roster the previous day and knows the starting time of his shift. He arrives at the depot and reports to the 'Sign On' window where he requests his daily journal by quoting the shift number that was shown on his roster. The Sign-On Clerk checks this request against the Green Sheet (called this because of its green printing) which lists the names of conductors rostered for each shift. If the conductor's name is listed, the Sign-On Clerk issues the Daily (or running) Journal. These journals were red in colour until the mid 1950s and then green.

The shift number is written in thick red pencil on the running journal for shifts commencing before midday and in thick blue pencil for shifts commencing after midday.

Depending on his seniority and preferences, the conductor will be working one of the following groups of shifts:

AMs, Broken, Mid-days, PMs, All Nighter or Holiday Relief, colloquially know as the Scrap Heap.

AM shifts start between 0400 hours and 0630 hours and cover an eight hour day with a meal break. Broken shifts are four hours on, an unpaid break of two to four hours and then a further four hours with an initial start time of 0600 to 0800 hours. 'Middays' are straight shifts with a 0900 to 1200 start time. PM shifts are also straight with a 1500 to 1700 sign on, while the All Night shifts started at about 2300. Conductors on the Scrap Heap, usually the newest staff, would be required to work any shift, subject to the minimum break provisions of the award under which they were employed. This involved a minimum of 10 hours between shifts rather than a regular 'Line of Work' on the roster.

Journals are folded and stacked in starting order so that the Sign-On Clerk can readily identify any late staff or 'failures', that is, anyone who failed to report for duty. Failures are covered by advising the Chargeman that a 'Spare' will have to be 'shot', ie. called to cover the missing conductor. The Spare was usually an 'Acting Driver' who could cover both missing drivers and conductors.

Having received his journal, the conductor fills in the slip on the left hand side of the journal with his number, name, signature and 'Ticket Case Number'. He then proceeds to the 'Revenue Room' where he exchanges this slip, which is detached from the journal, for his ticket case which has the Depot identification, its number and its A/B status stamped on it (see below). His ticket case includes the red 'Revenue Journal' which lists the tickets in the case and any spare blocks of tickets. He checks the ticket starting numbers against the Revenue Journal to ensure there are no discrepancies.

The standard ticket case holds twelve blocks of tickets and is issued as either an 'A' case or a 'B' case depending on the week in the fortnight. While one case is being used by the conductor his other case is being tallied by revenue staff to ensure that tickets sold in the week tally with the money paid in. If there are 'shortages' the conductor must make up the shortfall from his own pocket. If the tally is over the conductor is not informed and tramway revenue accepts the surplus! Shortages were paid in by staff on their fortnightly payday.

Should our conductor fall off the footboard in traffic he did not have to pay shortages for that fortnight. It is reported that a lot of conductors 'fell off' the footboard in the days just before payday!

A conductor working on a footboard tram also received a penalty payment of 4d per hour for the time actually worked on the boards.

If the conductor is working at North Sydney, he will have a 'Banana case' which holds eighteen blocks of tickets. This case holds additional tickets such as the 1d child and 2d adult bridge tickets which applied to all passengers crossing the Sydney Harbour Bridge as well as standard section tickets. The case will also contain combined tram and ferry tickets for issue on the Athol, Mosman, Cremorne and Neutral Bay Wharf lines.

If the conductor is working special services to the Racecourse, Cricket or Football grounds, he will obtain a 'Special' case, approximately half the size of the standard ticket case, which will carry the return tickets for these special services. In traffic, the conductor would only use one ticket case at a time. On special services passengers were issued return tickets. These were the only tickets issued on the forward journey on these services.

As an aside, conductors working Racecourse services were required to pay in the revenue collected on forward trips to the racecourse at a special revenue room at the racecourse platforms. This was to prevent the conductor from trying his luck with the money with the bookies!

Our conductor now collects his cash bag, pound reserve (officially 5/- in pennies; 5/- in threepences (3d); 5/- in sixpences (6d); and 5/- in shillings (12d)); and ticket punch from his locker. He proceeds to the meal room where he writes up his green journal,



*A Sydney tram conductor displays his ticket case. The year is 1917 and the notice on the flap of the ticket case reads: "Until the Stocks of one-penny tickets are exhausted, adult passengers will be furnished with a 1d ticket as a receipt for each 1d fare. By Order."*

R.I. Merchant collection

checks his tickets and attaches his punch to his ticket case. Conductors who forgot or mislaid their punch used the corner of the ticket case, which was metal reinforced, to nick the appropriate section number on tickets. In a case of physical confrontation with an abusive passenger the metal edge of the ticket case was also an effective means of self defence! "Honestly constable, he tried to take the ticket case away from me and in the struggle it hit him in the face. I was only trying to protect public revenue!" The tickets in the case were classed as an accountable item.

It was NSW Tramways policy that journals had to be written up with indelible pencil so that starting numbers could not be tampered with. Of course, if the journal got wet, as on a rainy day, it became totally unintelligible!

Writing up a journal consists of entering all the services our conductor will work that day in time order and the starting numbers of each of his ticket blocks on the journal line adjacent to his first trip. The services (departure time and destination or changeover locations) are copied from the wall timetable posted in depot roster cases. He may also, if necessary, return to the revenue room with his revenue journal to request additional blocks of tickets. Blocks over the twelve carried in the ticket case were carried in the cash bag.

Our conductor is now ready to join his tram, suitably attired if necessary. On a cold winter's morning many conductors wore their pyjama trousers under their blue serge uniform pants.

Wet weather gear consisted of an oilskin raincoat, with elastic around the wrist so that rain wouldn't get to the arm when the bell cord was pulled. There was also a pair of waterproof leggings and a cap cover which extended down the neck. This had a transparent panel so that the conductor's cap badge number could still be seen.

### **Onto the tram**

There are a number of ways our conductor can join his tram.

He may join his driver and they could then work a tram from the depot, that is, they would locate a tram on a particular depot road as shown on the 'Dispatch Sheet' posted by the 'shed driver' and take it into traffic as they depart the depot.

Alternatively he and his driver may take over a tram 'on the road' by relieving another crew of a tram already in service, either outside the depot or by riding or walking to a relief point.

On joining his tram our conductor will note, in the appropriate column on his running journal, the number of the tram he is 'working'.

In a further variation, he may be the conductor on the second tram being added to provide a coupled set, peak period service. The conductor-in charge on a coupled set was always on the rear car, so at dead-end termini conductors had to change cars. This necessitated writing the other tram number on the journal for the subsequent trip.

### In traffic

Our conductor is now responsible for the safe operation of the tram and the safety of its passengers as well as collecting fares. It should be remembered that no Sydney tram had rear vision mirrors or internal mirrors for the driver, so what happened 'down the back' was the sole responsibility of the conductor. The Tramway Rules and Regulations specified the conductor was responsible for seeing that passengers were safely on and off both sides of the tram before giving a clear signal to start. The driver was responsible for checking the side opposite to that which the conductor was working to see if all was clear before giving two bells and proceeding. In practice, on R class cars the driver usually checked both front doors.

Along the way the conductor would also be responsible for changing points and, in standard Sydney practice, resetting them at locations where signal boxes were not present or at times when they were not manned. This meant that All Nighter Conductors had to be trained for Signal Boxes.

Arriving at the terminus the conductor would change poles and reset destination rolls unless the terminus was a balloon loop where such duties did not apply.

Prior to departing the terminus on all trips the conductor would write up his daily journal by listing the current starting numbers for all ticket blocks on the relevant line of the running journal. This entry would then be checked and initialled by the driver. On many routes the conductor would also 'rebook' his second section white ticket after the tram had left the second section. The second section ticket was an additional ticket used to remove the need to punch the section of issue in the ticket on heavy loading second sections. Rebooking enabled it to be used for a subsequent heavy loading section later in the journey. For example, on Bondi via Oxford Street services the second section was Market Street to Darlinghurst and the rebook section was Bondi Junction to Denham Street. A full list of rebook sections was listed in the Fares Schedule Book issued to all conductors.

### Meal break

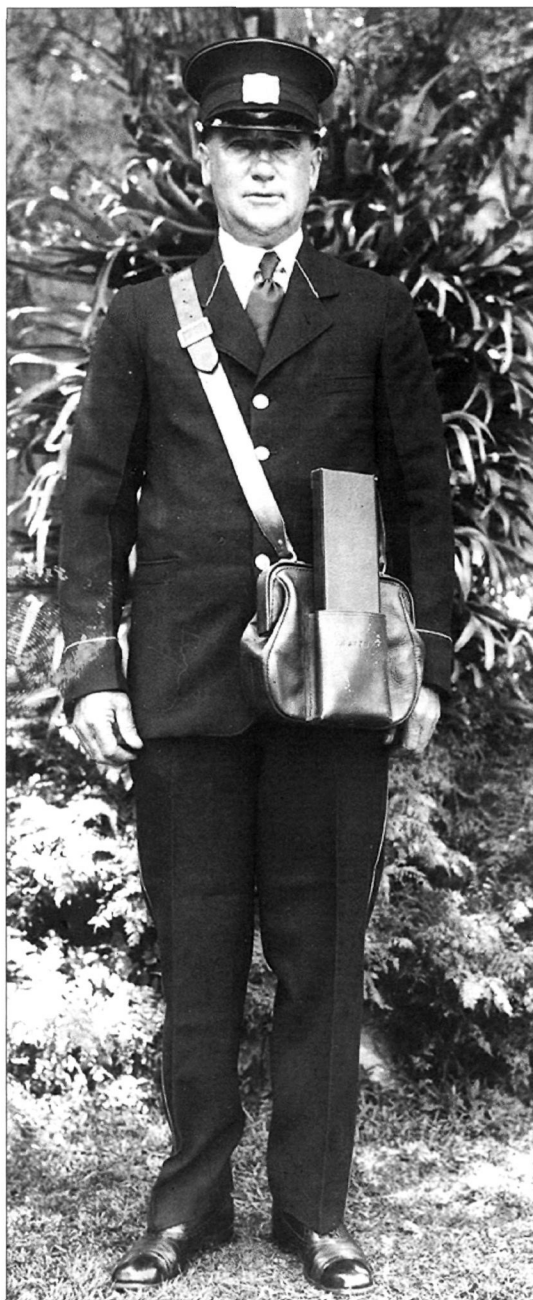
After approximately four hours our conductor would either have his meal break (40 minutes minimum to 55 minutes maximum, with a paid crib, or meal break, on all night shifts) or complete his first half (of a broken shift). Provision existed for an 'Advance Pay In' to be made so that he did not have to carry all his takings for the full shift. An advance Pay In required a visit to the Revenue Room and so usually took place only when the meal break occurred at his home depot. A 'Broken' meant that he returned to his depot to sign off for the first half by returning his running journal to the Sign on Clerk. He would collect his journal again at the commencement of the second half of his shift.



*A conductor collects fares from the footboard of an H class tram in 1930.* R.I. Merchant collection

## Back into traffic/end of shift

After his break, our conductor returns to further traffic duties until the completion of his shift. Completion can be running the tram into the depot or being relieved on the road by another crew.



*A smartly turned out Sydney conductor with his cash bag and ticket case in 1938.*

R.I. Merchant collection

Once back at the depot the revenue journal is written up with the closing numbers of all ticket blocks for the day. In the Pay-In Room our conductor finds a spare ledge space and counts his day's takings (minus any previous Pay-In and his pound reserve) and fills out his pay in slip. He then pays in by stacking notes covered by coins on top of his ticket case which contains his revenue journal and brings this to the pay-in window. It is a delicate operation with the coins stacked in specific value columns on top of the sometimes less than stable ticket case. A warning call is made, "Window please," to ensure that he does not collide with or bump other conductors. A lack of steadiness of hand can easily result in a spillage with coins tumbling across the floor of the room, and remember, our conductor is responsible for any losses!

Once he has successfully paid in, our conductor can now return his running journal to the Sign-On Clerk, carefully noting any late running which may result in an overtime payment. His day is now complete and he checks his roster and shift for his next day on duty to ensure he knows his next starting time. He returns his cash bag, float and ticket punch to his locker as he leaves the depot.

## Finally ...

For many it was a cold beer at the hotel alongside or across the road from his depot, provided he could make it to the pub before 6:00pm. A typical day in the life of a Sydney conductor has been completed.

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## Restaurant tram No. 442

On 23 July 2005, W2 442 was to run as a restaurant car in Melbourne for the last time. It departed Southbank Depot at 8:35pm for its normal evening operation and ran in at 11:30pm. It has, however, seen service since that date presumably to handle bookings made in advance which cannot be handled by the other two restaurant cars.

Its replacement will be SW6 class 938 which arrived from Preston Workshops a few days previously, mostly stripped of interior fittings, etc. Both trams will be transferred to North Fitzroy Depot which has been reopened to enable the fitting out of 938 as a restaurant tram.

It was found to be too costly to bring 442 up to the same standard as the other W series trams now in service and eventually. Eventually, the three restaurant cars will receive the relevant modifications and will have track brakes and pantographs fitted.

# HALF A CENTURY OF NUMBERS

By Keith Kings

The approaching 50th anniversary of the opening of the electric tram service in Bourke Street caused some brain searching to be done early in June. Answers were needed to questions being asked by younger enthusiasts. In the course of remembering and searching through old magazines and notes, there emerged some interesting material. Let us look at what was found, in sequence.

The first date is 22 April 1955, when the first group of trams left Malvern Depot for the new East Preston Depot for storage pending the opening of the line. Scrubber car No. 8 led cars 985, 998, 1001, 997 and 994 with tower wagon No. 1 bringing up the rear. Subsequently, further batches of trams left Malvern Depot for the journey to East Preston. Sunday, 19 June 1955 saw 988 testing overhead wiring and crossovers from 8:00am or so, and it was later joined by 1003.

The official opening took place on Friday, 24 June. A convoy of four trams left East Preston Depot for the city terminus at Spencer Street with 1005 leading 1004, 1006 and 1010. Official guests were taken on board and the convoy returned to East Preston Depot where the official opening ceremony took place followed by afternoon tea.

The centre glass fixed sash at one end of tram 1000 had been removed and the Minister of Transport and others used the driver's cabin as a rostrum and spoke to the guests through a microphone.

The next day the Australian Electric Traction Association commemorated the event with a tram tour

that started from Malvern Depot. Nos 887 and 888 conveyed members and friends to East Preston Depot where everyone changed to trams 980 and 1001. This was necessary because, with the introduction of carbon insert sliding shoes instead of trolley wheels to the Bourke Street routes, trams fitted with one type of collector were not permitted to run under overhead wires normally used by the other type. After the journey to Spencer Street and return to the new Depot, 887 and 888 conveyed their passengers to Preston Workshops. They adjourned to the large mess hall for an evening meal and a screening of tramway films, before the return journey to Malvern Depot. Some members then went to the Spencer Street terminus to farewell the last bus to Northcote at midnight. It was No. 556.

Sunday morning, 26 June saw the new East Preston Depot open for business and electric trams running in Bourke Street, but the writer was not present to record the number of the first car. The AETA's monthly journal *Electric Traction* (now *Transit Australia*) printed a *Northcote Leader* photograph of 996 leading another new tram along High Street, Northcote on the front cover of its June 1955 issue.

How has fate or the 'march of time' treated the trams mentioned above? In one of three ways.

- First, four are either still running or are capable of running: 888 and 1000 are on the City Circle roster, and 1005 and 1010, previously with Swanston Trams/M>tram, have passed to Yarra Trams.

*W7 class car 1003 turns from Hawthorn Road, Caulfield North into Dandenong Road while undergoing running-in trials from Malvern Depot on 12 April 1955. The W7 class trams were built to operate the new electric tram service along Bourke Street, replacing the buses which had replaced the cable trams in 1940 and which had proved inadequate.*

Keith Kings





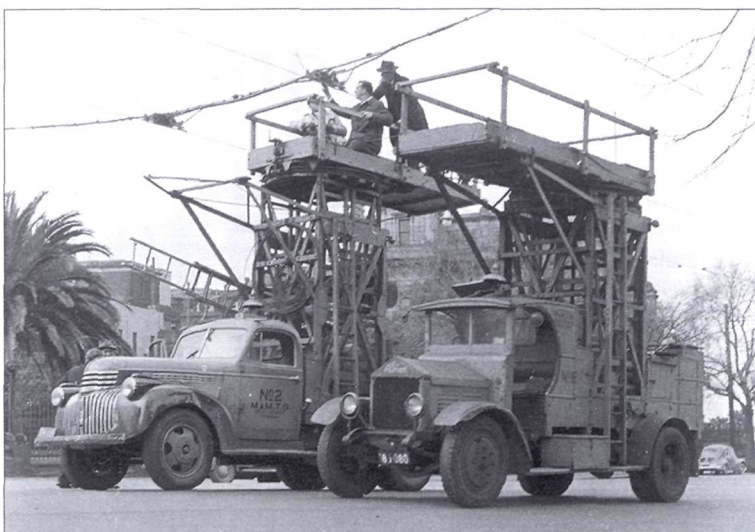
The first transfer of new trams from Malvern Depot via Clifton Hill to the new East Preston Depot for storage prior to the opening of the new electrified route. Scrubber car 8 leads 985, 998 and three others on 22 April 1955. The cable tram track is still in place on the Up line.

Keith Kings



The test tram for track and overhead was SW6 class 988, seen here at 9:00am on Sunday, 19 June 1955 in Bourke Street at the Russell Street crossover. The overhead crew is adjusting an overhead frog pan from the tower wagon.

Keith Kings

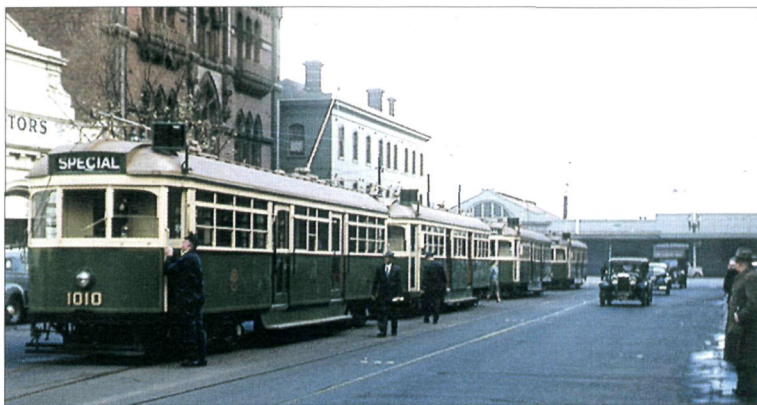


Final adjustments on 19 June 1955.

G.A. Grant

*The official opening convoy of four new W7 class trams in Bourke Street at the Spencer Street terminus at 2:00pm on Friday, 24 June 1955. Invited guests will board here for the run over the new electric lines to East Preston Depot for the official opening.*

Keith Kings



*The opening of the electric tramway from Northcote to Bourke Street, Melbourne on Friday, 24 June 1955 took place at East Preston Depot. Special trams 1010, 1006, 1004 and 1005 are at left while invited guests gather in front of the east bay of the running shed for speeches from tram 1000, one clear tram length inside the shed.*

Keith Kings

- Second, eight are in storage: Nos. 985, 988, 994, 997, 1003, 1004 and 1006 'dead', with 998 in reserve.
- Third, five are preserved. Scrubber car No. 8 (later 8W) is at the Ballarat Tramway Museum where it is used to keep the track clean. The Tramway Museum Society of Victoria has no less than four cars at Bylands: 887, 980, 996 and 1001.

*The AETA's tour to commemorate the introduction of electric trams on the Bourke Street to Northcote route was made in PCC-equipped 980 and new W7 class 1001 on Saturday, 25 June 1955. The two trams are in Bourke Street at the Spencer Street terminus.*

Keith Kings

Would you have thought that a quarter of the trams involved in events relating to the opening of the Bourke Street electric tramway 50 years ago are now preserved in tramway museums? And bus 556? It was sold to someone in country Victoria. However, many years ago a TMSV member acquired an ex-Tramways bus in a business transaction and generously donated it to the TMSV for spare parts. It is still at Bylands and used as a store. Its number? 557.



# THE TREATMENT OF RAIL CORRUGATIONS

## The 'ESSANEE' Rail Grinder

From *The Tramway and Railway World* for 14 April 1927, p.199.

It is appreciated on all hands that unless rail corrugation troubles are dealt with during earlier stages they develop at a rapid rate to the detriment of foundation, rolling stock and traffic receipts generally. As a result of this most tramway undertakings include amongst their equipment some form of grinding attachment which can be used for the purpose of removing corrugation, dressing any dished joints, etc., and they have thus been able to keep their track more or less in good running condition. It has, however, been felt by the larger systems that some more powerful machine was necessary to cope with the corrugations on long stretches of track, and to meet this demand the Equipment and Engineering Company of 2, Norfolk Street, [London] WC.2, supply a grinding machine to which has been given the name 'Essanee.' This machine was designed by a practical tramway engineer to meet the requirements of his own system, and over a considerable period of actual service has given extremely satisfactory results. The New South Wales Government recently placed an order for an Essanee 'Celerity' Grinder with the Equipment and Engineering Company. This machine has now been completed and shipped, and we reproduce photographs of it on this page.

The machine is constructed of what are for all practical purposes two separate units, the power unit and the working unit. The former is a substantially built truck carrying a 25hp motor connected with silent chains, friction clutches, counter-shafts, etc., so as to provide an extremely mobile and flexible power unit.

The motor obtains its current from the overhead line and is capable of propelling the machine at a travelling speed of over 20 miles per hour on the level in either direction. The main power truck is mounted upon four track wheels provided with axle boxes, bearings and springs of the usual tramway type, each pair of wheels being connected through a silent chain reduction drive to the motor. This comprises the fast travelling gear.

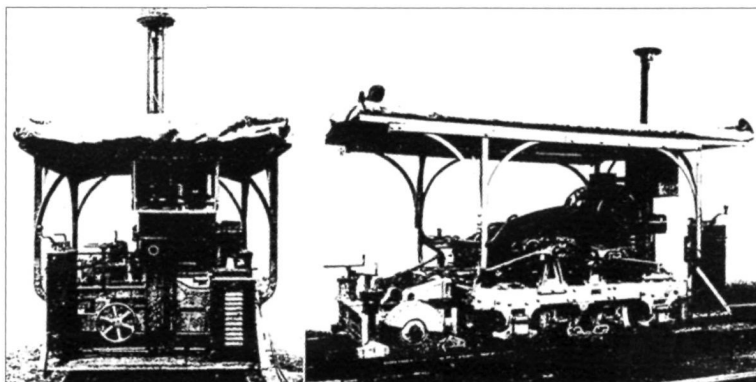
The drive from the motor is taken by means of a silent chain to a countershaft bearing a pair of friction cones which, together with a hand-controlled friction disc, transmit the power for both propulsion and grinding. Worm gearing is used between the countershaft and the road wheels to obtain the slow-travel of the whole machine. Both the worm drive and the chains are of robust proportion so that overloading and excessive strain are avoided.

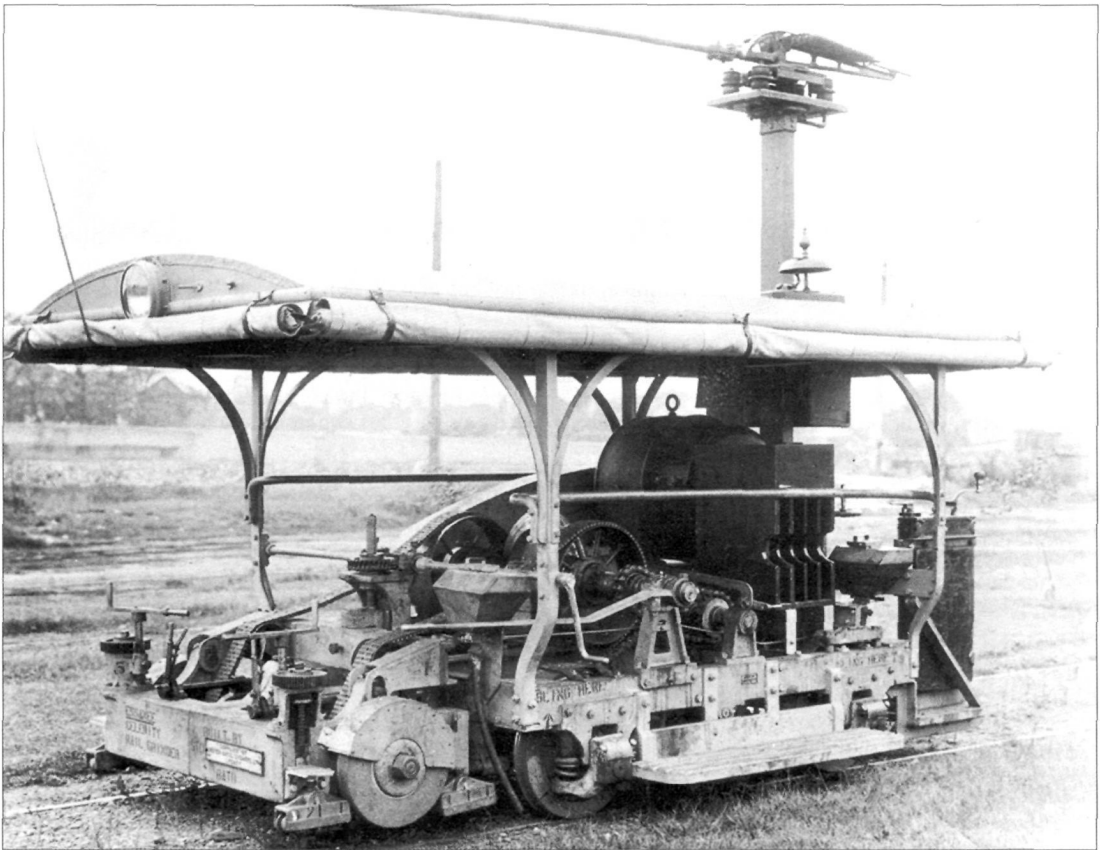
The working unit or grinding attachment is pivoted on the main truck by means of a vertical cantilever with vertical slide, the pivotal action of the cantilever giving the necessary radial movement when grinding on curves. For fast travelling the whole unit can be lifted entirely clear of the rails.

A novel feature of the machine is a three-point suspension arranged by means of a transverse beam situated over the rear axle and supported on special yokes fitted to the rear axle boxes with a ball and socket device in the centre. By this means variations in the height of the truck framing due to springing are

*The published end and side view of the 'Essanee' Celerity Rail Grinder for the New South Wales Government.*

From photocopy





*A later view of the 'Essanee' Rail Grinder after fitting short footboards and horizontal handrails. A former cable tram gong has been mounted on the roof above the driver's position. The wording on the back panel reads: "Essanee / Celerity / Rail Grinder" and "Built by / Sto.... / Bath". The builder's name has largely been obscured by an agent's plate reading "Supplied by / Noyes Bros (Sydney) Ltd / Sydney".* Vic Solomons collection

avoided so that the grinding wheels always remain in definite relationship to the rail surface. Two grinding wheels of 15-in. diameter are employed and are kept in accurate alignment to the rail by four rest blocks as shown in the photograph. These rest blocks are under the control of the operator through micrometer adjustment, while independent adjustment for each grinding wheel is provided by means of vertical screws and hand wheels. On test the machine has demonstrated its ability to remove 0.625 cubic inches [of] metal per wheel per minute, a total of 1.25 cubic inches for both wheels. On a track having corrugations

0.013 inches deep the machine treated 50 feet of track, that is 100 feet of rail per hour, and from accurately compiled data extending over a period of twelve months the average speed of rail grinding with the machine works out at 101.8 feet per hour, including the treating of nearly 1,000 joints. The average life of the grinding wheel in lineal feet of rail grinding is more than 3,300, while the average current consumption, including the power used for travelling to and from its working place, covering a period of three hundred nights operation worked out at 5.8 units per hour.

## Late News

Further to the item on page 19 regarding the closure of the Glenelg line in Adelaide for reconstruction, the line reopened for service on 7 August.

Car 373 ran the first service over the reconstructed line on 7 August. Work has not yet been completed at some stops.

## CALCUTTA UPDATE

By Dale Budd

A visit to India in June 2005 provided an opportunity to obtain current information on Calcutta's tramways. Pictures and information about the city's tram system appeared in the May 2004 and May 2005 issues of *Trolley Wire*.

It was pleasing to note that some of the worst track on the system, along New Park Street, had been relayed in concrete to a high standard since my previous visit in March 2004.

It was also interesting to learn that the state of the tram tracks was a significant issue in the municipal election held in June. The condition of the tracks is so poor in some areas that three deaths have been attributed to them since January 2005, including that of a child who fell from a rickshaw when its wheel struck a pothole. In another incident, a taxi broke an axle after hitting a pothole, and one of its wheels came off.

All of the major parties pledged themselves to renovating the tracks. Perhaps the most significant commitment was that from the Left Front, which indicated that a light rail transit system would replace the trams.

The election on 19 June was convincingly won by the Left Front. Whether or not the light rail system eventuates, the broad support for an upgrade of the tram tracks in Calcutta is welcome news.

Press reports following the election indicate that track renovation will begin soon, although with some dispute between the State Government and Kolkata Municipal Council on responsibility for the work.

Another positive development is an airport rail line, nearing completion. This will provide a link to Calcutta's airport at Dum Dum. It will be an Indian Railways line, not an extension of Calcutta's metro.



*A tram passing Tollygunge Post and Telegraph Office on 15 June 2005. The tram is advertising FIFA World Cup soccer in Germany in 2006.*

Dale Budd

# HERE AND THERE

## NEWS ITEMS OF INTEREST FROM ALL OVER

### Vermont South extension opens

Melbourne's newest tram line, the \$42.6 million three mile extension of Route 75 from East Burwood to Vermont South, was officially opened by Victorian Minister for Transport Peter Batchelor on Saturday, 23 July 2005.

The Minister and invited guests arrived around 9:50am on the first official tram, B2 class 2103,

travelling along the extension from Blackburn Road, Burwood to the new terminus at Hartland Road, Vermont South. The terminus has an end-on interchange with an upgraded route 732 bus service, called Knox Transit Link, to Knox City shopping centre.

At about 10:00am, Mr Batchelor cut a red ribbon strung across the entrance to the bus terminal before he



*The official first tram stands at the new Vermont South terminus on 24 July 2005.*

Paul Nicholson



*Transport Minister Peter Batchelor prepares to cut the red ribbon at the tram/bus interchange, Vermont South on 24 July 2005*

Paul Nicholson

and the official party boarded a special Ventura bus to Knox City shopping centre where the official opening of the joint service took place. A second bus was available for enthusiasts and other interested persons to travel to Knox City to attend the opening.

The official opening of the Knox Transit Link project took place in a marquee at the Knox City shopping centre. The Wantirna Secondary College Band provided musical accompaniment and local community groups organised a sausage sizzle. A Knox Transit Link 'show bag' was given to guests and the public.

While the VIPs were at Knox City the first public shuttle left Vermont South at 10:40am with tram 2103. It carried eight enthusiasts and about ten others on board. After shunting at Blackburn Road, it reversed back into the down stop, picked up an additional few passengers offering and arrived back at Vermont South at 10:58am.

The official party returned to Blackburn Road and 2103 operated a number of free shuttle trips. These trips arrived and departed from a new platform constructed on the east side of Blackburn Road so a double shunt was required for trips arriving from Vermont South.

*This sign on the Glengowrie Depot fence advises that after 75 years the trams are taking a short break. The tramway closed for rebuilding on 7 June and is due to reopen on 7 August 2005.*

John Radcliffe



*Excavating the Goodwood Road level crossing. Concrete sleepers are in place each side of the crossing and the new platform is in the foreground.*

John Radcliffe



The 6:09am trip from Camberwell Depot with tram B2 2029 inaugurated the new passenger service on Sunday, 25 June. This first journey carried about 15 passengers; tramway employees and enthusiasts. The return trip departed on time at 6:44am and the employees and enthusiasts were joined by one additional passenger. The first connecting bus departed Knox City at 6:32am and carried only one passenger.

The tram line and bus service are in fare zone 2 but fare zone 3 overlaps beyond Springvale Road. It is the first time tram services have been extended into zone 3.

### Glenelg tramway closes for rebuilding

Adelaide's Glenelg tramway has been closed for two months from 7 June to enable the line to be rebuilt ready for the introduction of new low floor cars in December 2005. These views show the works in progress on 16 July this year. New low platforms are being constructed to suit the new trams, which are narrower than the venerable H class cars. The H cars to be returned to service are having their underfloor equipment moved in-board to clear the new platforms. The steps of the H cars will overhang the platforms.



*Packing track at Morphettville racecourse. The new platform at Morphettville is to the right of the ballast tamper.*

John Radcliffe



*New track is in place on the approach to the flyover over the railway at Goodwood.*

John Radcliffe



*Finishing off a Thermit welded rail joint.*

John Radcliffe

*Constructing the Goodwood flyover on 24 June 1929. Span wires have been erected and the unbraked tower wagon has been derailed to prevent it rolling away.* JCR Collection



*A view similar to the one above, but 76 years later. Timber sleepers have given way to concrete sleepers.*

John Radcliffe



*Track relaying in progress through the parklands, South Terrace. A panel of concrete sleepers is being placed in position.*

John Radcliffe



*Chicago Freight Car Leasing railway ballast hoppers are being used on the Glenelg tramway relay. They are at the Cross Road level crossing.*

John Radcliffe



*H cars stored at Glengowrie Depot. Car 379 has been stripped and stands with 377, 375 and another H class in the depot yard.*

John Radcliffe

### Sydney P 1700 at Seashore Trolley Museum

Sydney P class tram 1700 was donated to the Seashore Trolley Museum in Kennebunkport, Maine, USA in May 1961. Seashore Trolley Museum, established in 1939, was the first trolley or tramway museum in the world and has gathered together a large collection of street transport vehicles mainly from the USA but also from other countries.

Tram 1700 was transported to the United States as deck cargo on the vessel *Pioneer Gem* and arrived at Kennebunkport in July, 1961.

The tram has been used sporadically over the years and had not seen service for a number of years prior to 2004. During the early part of 2004, it was decided by the maintenance group, led by Barry Nelson, to effect repairs to the tram. The weather extremes in Maine are not conducive to mechanical and electrical components and the remote control mechanism was found to be in need of a thorough overhaul involving

disassembly of the components, cleaning and lubrication, then reassembly. Also the motorman's brake valves were badly leaking and had to be overhauled.

The GE 247 motors also required work on the brush holders and, using some spares that were available ex Boston cars, the four motors were overhauled and tested prior to refitting to the tram.

P 1700 was then able to return to the operational fleet and was used during the summer season of 2004 and into the fall. However, as Peter Hammond from Seashore reports, "Our track and switches (points) offer some challenges for the car's modest flanges. Visitors always enjoy riding the car and I especially enjoy operating it".

*Acknowledgements:* Thanks are extended to Peter Hammond from Seashore Trolley Museum and their magazine *Dispatch*.



*Sydney P car 1700 being loaded aboard the Pioneer Gem in May 1961.*  
Late Terry Bolton

*Sydney P car 1700 at Seashore Trolley Museum in October 2004. The car is missing its lifeguards and the underframe and bumpers are black instead of maroon.*

Charles Hammond



*The single line token is handed in at a halt on the return to the terminal loop outside the Visitor Centre.*

## Freight tram service for Vienna

Vienna tram operator Wiener Linien launched a trial freight tram service on 17 May 2005. Following a feasibility study dealing with technical, administrative and legal issues, a prototype was rebuilt from existing stock.

Demonstrator unit 7434, a bogie flat former rail transporter car of the s11 type, has been adapted for rapid loading and unloading, with curtain sides. Modifications to the running gear allow a maximum net load of 13 tonnes on most of Vienna's tramway network. The tractor unit is a Wiener Linien LH type motor car.

At first, Wiener Linien will use the freight tram for internal services, replacing road transport used to carry spare parts from the central workshops to the various tram depots. This will be an overnight service which will operate every two days from July. Negotiations with retailers and freight hauliers are under way to attract more clients, although this would require more dedicated freight stock. Wiener Linien has a very dense tram network which would ease the use of freight trams throughout the city area.

Vienna has a tradition for freight trams. In wartime, freight trams were used to transport fresh food and other items and trams were even used to transport coffins to the central cemetery during World War I.

## A request

Richard Peck, who recently retired as Curator of Philately, Postal and Printing Technology at the Powerhouse Museum in Sydney, would like to know if any reader can identify tickets titled 'Buffalo Tram Ticket'. The tickets are similar in style and printing to bus tickets produced by Morrison & Bailey, printers, in the 1950s for NSW private bus operators. The fact that they are Australian in origin is confirmed by quantities found in collectors accumulations of mainly NSW material. Values from 1d to 1/- have been seen in various colours. Richard suspects they are from a toy conductor's kit – he used to have one as a child. Richard can find no reference to a Buffalo Tramway in Australia, or anywhere in the world for that matter.



*A 6d value blue Buffalo Tram Ticket.*

Vic Hayes collection

# COTMA

## Council of Tramway Museums of Australasia

Executive Officer, 158 Lorne Street, Fawkner, Victoria 3060

### From Warren Doubleday

The Annual General Meeting of the Council of Tramway Museums of Australasia was held at Hawthorn Depot, Melbourne over the weekend of 25-26 June. Over 30 people attended, with representation from all the larger Australian and New Zealand Museums. The meeting included formal meetings, a tram tour with articulated tram B1 class 2001 and a visit to Yarra Trams' Eastern Road Operations Centre.

Heritrac and Tramcar W2 568 Inc, two new Affiliate Members of COTMA were welcomed. Matters

discussed included public liability insurance; museum security; disposal of surplus equipment from Melbourne and Adelaide and associated COTMA handling charges; the draft Victorian heritage tram rollingstock code of practice; the draft Code of Ethics; safety management and proposed changes to rail safety in Australia, and the MMTB drawings currently stored at Hawthorn Depot.

On 25 June, Mike Ryan of the Victorian Department of Infrastructure held the regular bi-monthly Tram

Heritage Forum Meeting at Hawthorn. The meeting was also attended by Tricia Brett of the Public Transport Safety Division of the Victorian Department of Infrastructure and Ian Cordwell of VicTrack. Mike and Tricia informed the group of developments relating to the disposal of the redundant equipment, public liability insurance in Victoria, the Friends of Hawthorn Tram Depot, Custodial Agreements for surplus VicTrack trams, changes to State and National accreditation systems and the use of heritage trams on Melbourne's tramway network.

On Saturday evening, a pleasant social function was held in the depot. Slides from the collection of the late Wal Jack, now held by the Ballarat Tramway Museum, were shown to the enjoyment of those attending.

The idea of an extended weekend AGM arose from a suggestion made at the 2004 Auckland Conference that meetings combined with several other events be held to promote networking amongst tramway preservation groups. The extended AGM was a success in this respect, and an extended meeting similar to that held at Hawthorn has been proposed for Sydney in June 2006 prior to the Melbourne Conference which will commence on Friday, 17 November 2006.

Registration of Expressions of Interest for the 2006 COTMA Conference can be made on the COTMA web site, [www.cotma.org.au](http://www.cotma.org.au). Planning for the event is well underway and preliminary information should be available in the next issue of *Trolley Wire*.



*B1 class 2001 arrives at New Quay terminus during the luncheon tour held on 25 June 2005.*  
Warren Doubleday

*COTMA Treasurer, Howard Clark examines the blinds in B1 2001. The blinds in this and sister car B1 2002 are different to those of other B series cars and have the appearance of thin lathe venation blinds.*

Bob Merchant



# 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

## Reconstructing Farmgate Curve

A special project was undertaken by members during the week of 4-8 April which involved a major upgrade and reconstruction of Farmgate Curve, just east of the Service Road crossing on the Mussel Pool-Stockmans Triangle section. This curve has been troublesome over the years, and the outside rail was badly worn. The major operations planned included the replacement of the entire outer rail, re-profiling the curve as necessary, and installation of a check rail on 78 metres of track. Tram services were cancelled on the Tuesday and Friday.

A team of seven members commenced work on the Monday by removing both rails to allow 16 steel sleepers, installed several years ago, to be replaced with steel sleepers that had been drilled with an extra hole to take a check rail. Fishplates were then attached and new lengths of rail were laid on the outer curve. Extensive crowing was required in an attempt to improve the profile of the curve.

On Tuesday, five members continued the arduous and time-consuming task of crowing several joints on the inside rail, which required redoing some work undertaken the previous day to achieve a better result. Two more new lengths of rail were then laid on the outer curve. Eight members attended on the Wednesday which enabled the final new outside rail length to be crowed and prepared for joining up to complete the curve. Meanwhile, rail bonds were re-attached.

On Thursday, four members completed the final connection of the last outside rail length to the rest of the track. Work then started from the lower or eastern end of the curve to install the check rails. After laying the first length of track, the roadbase was reinstated at the walk-trail crossing. However, problems were then encountered installing the second length, which was not completed until late afternoon. After tidying-up work on different aspects of the curve, installation of the remaining check rail was completed over subsequent Wednesdays when track access became available after the school holidays.

Completion of the project was an outstanding achievement at a time when maximum temperatures were between 31 and 36°C. Lindsay Richardson and

Trevor Dennhardt were assisted in this major project by Terry Verney, John Azzaro, Tony Grose, Martin Grant, Kurt Gahler, Jim Paton and Paul Pickett. A total of 230.5 man-hours were worked. Use of the Park's bobcat for removing and reinstating the roadbase at the walk-trail crossing was greatly appreciated.

## Service trams and operations

Good patronage on the trams has continued despite rainfall in Perth that was well above average in both May and June. Once again, the school holidays boosted visitor numbers to Whiteman Park.

The annual Classic Car Show was held at Mussel Pool on Sunday, 20 March, with tram services commencing at 10:00am. However, it was a much quieter day than in previous years, and a second tram was required only from 1:00pm to 4:30pm.

Fine weather over Easter resulted in a busy operating period, with two cars in service on the Sunday. Melbourne-based member, Bill Kingsley made his annual pilgrimage to Whiteman Park, driving on all four days – again. We thank Bill very sincerely for this valuable assistance at a time when traffic crews can be difficult to find.

Bennett Brook Railway's 'Friends of Thomas the Tank Engine' day was held on 22 May and one tram easily managed the loadings. Although showers were forecast, no rain actually fell. The June long weekend was showery, so only one tram was needed, with a fairly good return.

Recommissioning and testing of our two newly acquired ex-Melbourne trams, W7 1017 and W2 441 (see *Trolley Wire* May 2005), were completed in April, and these cars have since joined our operational fleet. Noel Blackmore's team, comprising Geoff Morrison, Jim McCamley, Kurt Gahler, John Azzaro, Martin Grant, Jim Paton, David Secker and Ron Wernsing, undertook the task of readying these trams for service.

Roof repairs were required to both cars before they could be used in regular service. Frank Edwards and Paul Pickett replaced the large section of canvas on 1017 that was blown off in transit from Victoria. While



*Lindsay Richardson (rear) and Tony Grose bend grooved tramway rail on 20 July 2005. Rail bending was completed that day. The next stage will be levelling and concreting.*

Ric Francis

some spot repairs are still needed, this tram entered service for the school holidays on 1 July. John Davies has stripped and repainted the controller tops of No. 441, and revarnished the controller cabinets as part of a general spruce-up of the cabs. Repair work on the extensively cracked roof canvas and the upper sill woodwork continued during June.

Meanwhile, periodic maintenance has continued with SW2 426 and W2 329 receiving attention. The unserviceable truck from W2 329 has had all equipment removed with the motors being checked prior to overhaul.

The manufacture of parts for our W series cars continues, with traction motor pinions (MV101AN) now Noel Blackmore's main project. The engineering firm encountered problems with the sample we had provided – it was too badly worn! A second sample has been supplied to enable accurate measurements to be made. Without the drawings, this would be a difficult project.

### **Tram service pit**

The two refurbished ex-WAGT steel traction poles were installed at the east end of the pit road on 30 April

by Ray Blackmore and Trevor Dennhardt. They will support the overhead on the curve connecting the pit road with the points on Road 4 of the Car barn fan. Two 13 metre lengths of grooved rail were positioned ready for installation at the east end of the pit.

In the pit itself, the wall-braces for the centre pillars have been measured ready for cutting to length and drilling, rail plate packing and shim materials were measured, and forming up the workshop floor track-work connections has commenced. The power sub-board mains have been installed from the Car barn main switchboard. Noel Blackmore is being assisted with this project by Kurt Gahler, Geoff Morrison, Jim McCamley and John Azzaro.

### **Infrastructure and plant**

A quote has been accepted for the sand-blasting and anti-rust prime coating of 20 ex-Perth trolleybus steel traction poles. These will replace timber poles on the main line as required, particularly in wetter areas where termites and fungal wood rot have taken their toll. The poles have been sent out for treatment.

In addition to the Farmgate Curve project, further progress has been made with track work. A new

limited-access level crossing has been installed by Park Management on the straight just beyond the far end of the Village Mall to provide staff and other occasional access to the school house. In preparation for this, four timber sleepers were replaced with steel sleepers. Park management has also carried out extensive landscaping work in this area.

### Rail safety management

Our annual Safety Compliance Audit was carried out by a representative of the State Regulator on 18 April, and we are pleased to report that we passed with flying colours. Thanks to the superb team effort by our members in adapting to the new safety management requirements under Accreditation since 2000, we are fully compliant with our Safety Management System under AS4292 and the WA Rail Safety Act.

The new medical testing regime for our operational personnel, as required under the new National Standard for Health Assessment of Rail Safety Workers, has bedded down well since it was introduced in Western Australia on 1 July 2004 as a Condition of Accreditation. Traffic Manager, Brent Luscombe, has restructured our crew qualification records and developed an effective system for monitoring the medical examinations.

### WAGT tram 66

The completed tongue-and-groove jarrah matchboard cladding along both sides of the saloon has been undercoated after filling of surface blemishes and sanding. Work on the roof has continued with the final coat of Boston Tan early being applied in June. Frank Edwards and John Davies have been assisted with this project by Paul Pickett and Tony Grose.



*Ray Blackmore (above) operates the post-hole auger on the back of the International ACCO truck as Trevor Dennhardt stands by.*

Lindsay Richardson

*Right: Trevor Dennhardt guides the first pole into position as Ray Blackmore operates the Society's crane. Junior member Gordon Blackmore is at right, while Noel Blackmore is concealed behind the pole.*

Lindsay Richardson



*Two ex-WAGT steel traction poles for the tram service pit road were installed on 30 April. Trevor Dennhardt (right) and Jim Paton steady the ends of a newly-painted traction pole as the crane brings it into position.*

Lindsay Richardson

## Kalgoorlie 25

Stored items have been cleared from the body of Kalgoorlie bogie car No. 25 in preparation for its move to the Revolutions display in the Park's new Transport Heritage Centre. Displays will include items from all transport groups in the Park together with items from the Whiteman Collection which is under the control of the Park Board. The 240V conduits and switches, installed when the tram was used as shearers' quarters on a sheep station north-east of Coolgardie from 1952, were removed along with the jarrah beams that had supported the iron sheeting over the roof. The body is being cleaned and prepared for display by Sophie Lussier, a professional conservator working with the Whiteman Collection. In its unrestored condition, No. 25 has created a great deal of interest as this 103-year-old clerestory-roof car body retains many original fittings and features not found on our Perth and Fremantle tram bodies. Revolutions will be officially opened on 7 October.

## PETS on show

Our Promotion and Events team, co-ordinated by John Stone, again manned the Society's display at the annual Australian Model Railway Association Exhibition at Claremont Showgrounds over the June

long weekend. This was the best-attended AMRA show ever in Western Australia with around 13,600 visitors attending the event. For a second consecutive year, PETS received the award for Best Non-Trade Display. A new selection of archival photos and cine footage showing WA trams and trolleybuses in service, prepared by David Brown on DVD, was shown almost continuously and created a lot of interest. We also used the event to promote our regular car barn tours, conducted mostly by Tony and Beth Kelly on the fourth Sunday of each month.

## General

The Society has received a substantial bequest from the estate of member, Barrie King, for which we are most grateful. This will be used to assist projects in which Barrie had a particular interest.

The ex-Perth MTT Leyland tow-wagon, a very useful works vehicle over the years but now surplus to our requirements, was transferred on long term loan to the WA Omnibus Group in March.

The railway level crossing flashing light equipment that was stored for several years in the rear compound has been removed by members of the WA Light Railway Preservation Association for use on its system in Whiteman Park. The site has been tidied up by Tony Grose and Paul Pickett.

## 20th anniversary celebrations

The Perth Electric Tramway Society is celebrating its 20th anniversary of operations in Whiteman Park in November this year.

A cavalcade of our operating tram fleet will be run, and all our available running trams will operate continuously during the day. Other transport operators in the park, including the Bus Preservation Society, the Tractor Museum, the Motor Museum and the Bennett Brook Light Railway will also be taking part in our celebrations. PETS will have displays at the car barn showing the development of the Society and our operations in the Park. In addition, there will also be displays at the Transport Heritage Centre at Whiteman Village Junction and at the Park Administration Building.

The opening of the Fremantle Municipal Tramways and Electric Lighting Board occurred 100 years ago on 30 October 1905. As part of the celebrations of that event, negotiations are being held with the Fremantle City Council for PETS to provide a display in Fremantle which may include Fremantle tram No. 36. This tram was the last built for the FMT and the last tram built in Western Australia.



On Friday, 25 November, a dinner at the Pines Restaurant in the Observation City Hotel in Scarborough is planned for members and friends of the Society. Information can be obtained from our

Secretary, Bob Pearce at [probert@iinet.net.au](mailto:probert@iinet.net.au). We invite all our members and friends, as well as tram and electric traction enthusiasts from interstate, to join us on this day and over the weekend of 26-27 November.

## ST KILDA

**Australian Electric Transport Museum (SA) Inc**  
GPO Box 2012, Adelaide, South Australia 5001

<http://www.railpage.org.au/aetmsa>

From Colin Seymour

### Public liability insurance

A change in the public liability insurance (PLI) market has seen at least three providers seeking business. After examining the various options, a quote has been accepted for \$20m in public liability insurance for \$9,350 including stamp duty. Deducted from this amount is our share in Year 2 of a subsidy provided by the SA Tourism Commission (\$5,100), making the cost of premium for 2005-06, \$4,250 – quite a change from the bill of \$50,000 of two years ago!

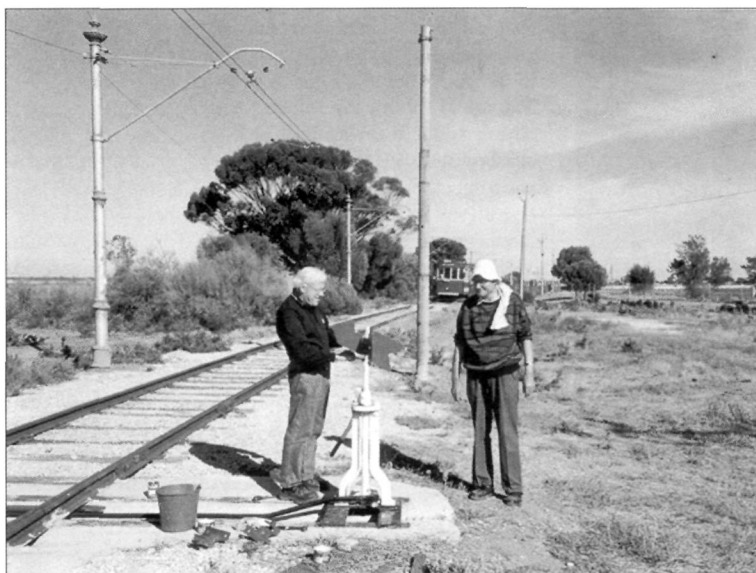
To obtain the SA Tourism subsidy we were pleased to join other members of the Council of Historic Railways and Tramways of SA to obtain insurance through a common broker. In addition, the Salisbury Council recently provided a one-off ex-gratia donation of \$17,500, estimated at the time to be the 2005-06

premium, and further assistance with marketing expertise to buy time for PLI premiums to stabilise and the museum's finances to improve.

With the advent of the lower premium, and the subsidy from SA Tourism, the Council has asked that their funding be retained to meet future PLI costs. Despite this assistance, the projected financial status of the Museum in coming financial years remains tight because of a projected lack of visitors. Nevertheless, with Council and SA Tourism funding, we are assured of PLI cover for at least two years.

### Annual General Meeting

The 48th Annual General Meeting was held in the Members Lounge, Northern Depot on 28 May 2005.



*Mike Crabb and Graham Fraser  
with the new switch stand at the  
entrance to the Northern tram  
shed yard.* Ian Seymour

*Mike Crabb paints the floor of the centre section of W7 1013 after removal of the floor slats.*

Ian Seymour



Honorary Life Membership was awarded to retiring Trustee, Christopher Steele in recognition of his meritorious service to the Museum, including 48 continuous years on the Committee (from March 1957) and 45 years as a Trustee (since 1960). Congratulations, Chris! Kym Smith has replaced Chris Steele as Trustee for a term of 15 years.

After the meeting, members enjoyed rides on recently arrived Melbourne car, W7 1013, and on E1 111. After a barbeque, members enjoyed a 50th birthday cake for W7 1013. Car 1013 entered service on 31 May 1955, being run in on the cross suburban route 69 (Kew Cotham Road) before being transferred to the Bourke Street line which opened on 26 June 1955.



*Mike Bosworth and Chris Summers cut columns on car 17 in readiness for removal of the cab roof.*

Ian Seymour



*The Friday Gang carefully lower the section of roof removed from A class No. 17.*

From a video clip



*A class No. 17 after removal of the cab roof. The roof will be placed eventually on car 15.*

Ian Seymour

*Good progress has been made on the restoration of car 15's saloon in the body shop. The roof section at the front will be replaced with a section of roof from car 17.*

Ian Seymour



## Car 15

New member Michael Bosworth has been removing one of the drop end roofs on the body of A car No. 17. When removed, the roof will be fitted to car 15 as part of our 'Bib and Bub' project. Car 15 also requires a driver's bulkhead, something shack owners seem to delight in removing from trams! The roof removed from car 17 has had its ceiling scraped and re-varnished by John Pennack prior to installation on car 15. The job was made considerably easier by placing the upturned ceiling at lap level. A disadvantage, however, was that the scraped paint pieces could not fall away to the floor!

Car 15's saloon structure and the No. 1 end have been largely repaired after having been found to be in good condition. Some of the safety glass for cars 14-15 has been delivered. They will be the first Museum trams to be entirely fitted with safety glass.

## Car 118

E type car 118 has now had its second controller (at the No. 2 end) fitted in readiness for re-wiring.

## Car 1013

W7 1013 has been inspected by Paraquad SA to advise us on converting it for wheelchair accessibility. As a result of the advice, new member Michael Crabb has removed the floor slats from the centre section and in one doorway. One longitudinal seat and back has been removed from the centre section and two handrails have been purchased for attaching to where the seat back was situated formerly. Michael has painted all floors with grey paving paint. Some sealing has been done on the roof prior to painting it.

In other news, Michael Crabb has constructed an arrow and double disk warning sign for the switch stand at the entrance to the Northern tram shed yard.

*Members admire W7 1013's birthday cake at the barbeque which followed the AGM on 28 May 2005.* Ian Seymour



## BALLARAT

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

<http://www.btm.org.au>

From Dave Macartney

The ongoing search for affordable Public Liability Insurance has seen various sectors of the insurance industry slowly offering more acceptable rates. With the impending conclusion of the Government-sponsored scheme which has been in place as a stop gap measure for the past few years, a new arrangement was entered into with a London based firm from 1 July. This policy offers cover at around 70 per cent of the cost of the Government scheme, and will enable more of the Museum's income to be diverted to projects needing to be undertaken but held over due to tight finances. This has been a challenging time for all preservation groups, and it is hoped that a general easing of the problem will continue.

The newly installed substation equipment continues to operate satisfactorily. There is still an amount of ancillary equipment to be installed, and to this end, a metal cabinet has been built to enable the additional switchgear to be added.

The main project in the workshop continues to be the repainting of No. 40. The problems of wood rot have been overcome successfully, and most of the preliminary painting was completed before winter. New dash panels have been acquired and are being fitted. Work on stripping the interior varnish will continue throughout the winter. The rebuilt motor will not be tested until the substation work is complete, then the car will be reunited with its trucks and the brake rigging reinstalled and adjusted.

A 13-tonne load of screenings was obtained to keep staff warm over winter by shovelling it all into the area around 7 road in the shed. The floor in this part of the

shed had never been brought up to the level of the rest of the building. It was first necessary to remove a vast amount of equipment which had accumulated against the southern wall over many years. Items were found which had not seen the light of day for decades, including a couple of electric motors with a belt drive take-off, which presumably once powered the wheel grinder at the old depot. Once shovels and wheelbarrow were produced for the work to commence, a number of members suddenly found that they had urgent business elsewhere, so the job has proceeded at a measured pace with the usual suspects. The museum now has a rubbish skip on hire at the back door, so anything that has been kept on the basis that we may need it some day is being dealt with ruthlessly.

### **Museum to celebrate 100 years of Ballarat tramway electrification**

The Museum will celebrate the centenary of electric trams in Ballarat during September this year. The program of events is being finalised and some of it has yet to be confirmed.

The event will be celebrated on Sunday 25 September, the day after the AFL Grand Final. It is planned to operate the horse tram together with the only operable Electric Supply Company tram, Bendigo crossbench tram No.17. Trams 26 and 28 will also operate to represent the MMTB trams purchased by the ESCo and painted in that company's colours.

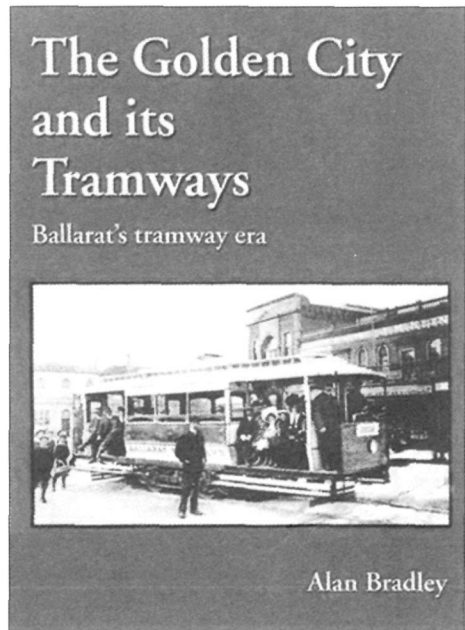
A social function may be held on the evening of Saturday, 24 September, or at the depot on Sunday. Please put the day into your diary.

## Ballarat tramway history

The museum is about to publish a superb new book written by member Alan Bradley, based on his historical research. Titled *The Golden City and its Tramways*, it will have 144 pages, hard cover and dust jacket. It will be the definitive work on the history of the Ballarat Tramways and includes two 16 page colour sections. It is planned to launch the book at an appropriate public function in Ballarat on Wednesday, 21 September.

The museum is offering a special pre-publication price of \$29.35 for orders received before 20 September 2005, a saving of \$14.95 on the recommended retail price of \$43.95 plus postage and packing. Cheques and money orders payable to the Ballarat Tramway Museum or credit card (Bankcard, MasterCard, Visa) details must accompany your order.

Send orders to Book Offer, Ballarat Tramway Museum, PO Box 632, Ballarat Vic 3353 or fax to 03 5334 1580 by 20 September 2005.



## BYLANDS

**Tramway Museum Society of Victoria**  
38 Piccadilly Crescent, Keysborough Vic 3137

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

*From Running Journal*

### Trams on the move again

On 30 May 2005, Society tram Q class No. 199, formerly works car 16W, was transferred from North Fitzroy Depot back to Bylands. This tram had spent several years at North Fitzroy in company with North Melbourne Electric Tramways and Lighting Company No. 4 (formerly works car 19W) undergoing initial restoration a; part of a five- month work scheme funded by the State Government in conjunction with Bayside Education and Skills Training (BEST). When the scheme ended, both cars remained incomplete. Lately, however, NMET&L No. 4 has been transferred to Bendigo where works continue, leaving Q 199 as it was, with a decision pending in relation to its future.

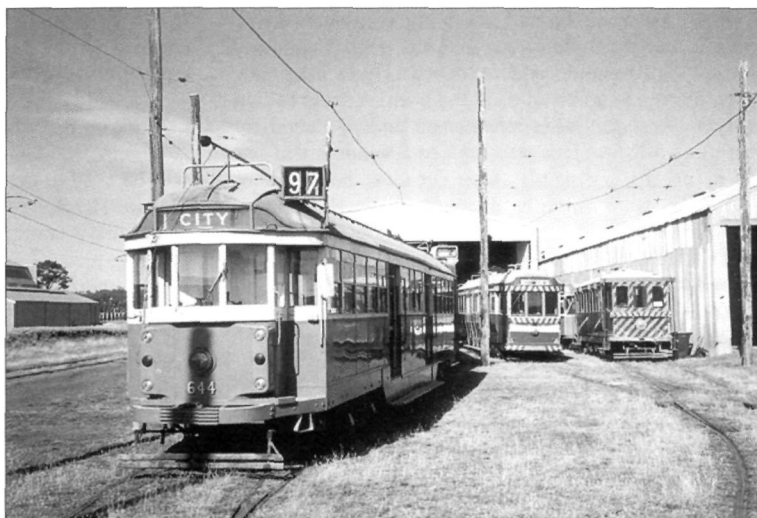
Several months ago, Society member Doug Prosser presented the Board with a proposal and a schedule of works to finish the restoration of Q 199 to near original condition in a chocolate and cream livery. The proposal suggested that the car be returned to Bylands and that it be placed in the workshop area of the

Exhibition Shed. Ever mindful of the costs involved in such a move, the Board stated that before any move could be contemplated, we must be assured of funding to cover the costs involved. To move the project along, our Chairman, Russell Jones, made a substantial donation to cover the cost of moving Q 199 back to Bylands.

Members Keith Kings, Shane Moore and Graham Jordan were at North Fitzroy early on 30 May, and with the aid of two Franner cranes from Independent Cranes, loaded Q 199 onto the road transport vehicle for its trip to Bylands where it arrived about midday. Because of the need to place the tram on D road in the Exhibition Shed, it was necessary to get a large mobile crane with plenty of reach. Independent Cranes supplied a 50-tonne crane, which easily lifted the tram from the transport vehicle, swinging it round and placing it on the recently laid new track of D road. The tram was then pushed into the shed. Keith and Graham

*Before relocating the Ballarat scrubber tram and X2 class 680 to the Exhibition Shed, it was photographed with Ballarat No. 36. The paintwork of SW2 car 644 reflects the image of the two Ballarat cars. X2 car 680 can be glimpsed behind the scrubber.*

Shane Moore



travelled to Bylands for the unloading where they were assisted by members Corey Robertson and John Walker.

Following discussion on the proposal, the Board appointed Doug Prosser as Project Manager, Q 199. Doug is responsible for the overall management, restoration and completion of the vehicle in accordance with the schedule of works as agreed by the Board.

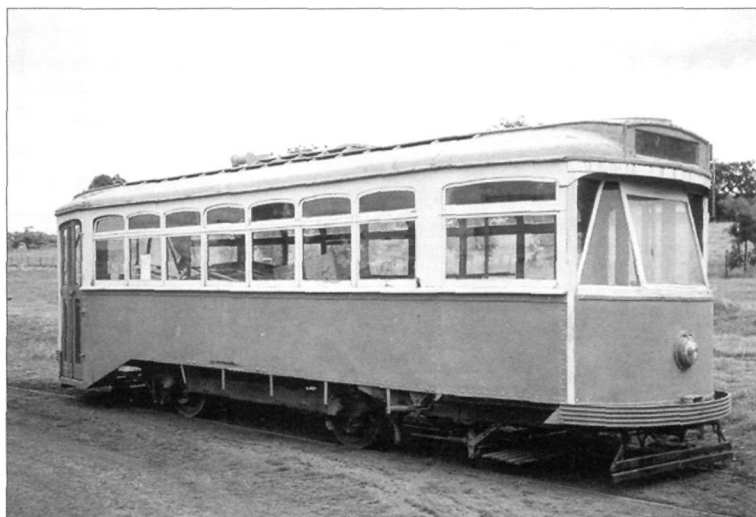
### Museum works

Although only a small number of members turned up for the working bee on 14 May 2005, those present achieved all the tasks planned for the day. The first major job was the erection of the new Museum sign on the Union Lane end of the kiosk building. This sign

was professionally produced some years ago and has sat against an internal wall in the kiosk waiting for the right time, weather conditions and manpower to put it up. Weather on the day of the working bee was fine, with no wind or breeze. This was the ideal opportunity!

The good weather in May enabled us to do a considerable amount of outside work. This included general clearing and re-organisation of items stored in the Exhibition Shed prior to the arrival of Q 199.

We would like to thank those who assisted on the day, namely, Keith Kings, Graham Jordan, Corey Robertson, John Walker, Bill Johnson, Michael Fedor and Russell Jones. Special thanks are due to Aileen Jordan, who again supplied an enjoyable lunch.



*X2 680 outside the substation on the road 2 extension after being moved into daylight for the first time in many years.*

Shane Moore

Tram maintenance and servicing continues. Work off-site saw the three saloon and one hopper windows for Y1 612 repaired and re-glazed. These have now been returned and installed in the tram. A spare saloon window has also been refurbished and re-glazed for fitting to VR 34. This will replace a window that has been missing for nearly three decades. Some minor problems were initially encountered with lighting circuits of Y1 612 but these have now been rectified and all lights now operate properly. The internal light fittings in the car are currently being refurbished to remove the Colorflek paint, and inquiries are being made in order to obtain a replacement or replica for the missing fitting in the centre of the car saloon.

Other tram maintenance has been carried out on SW2 644 which had a faulty air check valve replaced. Touch-up painting was carried out on W2 646 and a new windscreen wiper motor was fitted to Ballarat

No 36. Failure of a compressor on W6 996 will require removal of the faulty part from the tram for either repair or replacement.

Work on the trackwork outside the Exhibition Shed continues. Another load of ballast has arrived and this will be used to complete filling between the tracks of D road. The design for the proposed fan and associated pointwork is continuing with patterns of the points and crossing pieces being assembled. These will be placed in the appropriate positions on the ground and will give us a good impression of the overall layout of the track. The alignment of B road has also been marked out. The major components required for this project comprise items obtained from outside No 1 shed at Malvern Depot when track was redesigned and re-laid several years ago. Some of these items are thought to date from the days of the Prahran & Malvern Tramways Trust.

## FERNY GROVE

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

From Peter Hyde, John Lambert and Ken Howard

### General news

This year our application to participate in the Miniature Train Show at the RNA Showgrounds over the Labour Day weekend was not accepted. We since have discovered that we were not alone in this as some model railway layouts also suffered the same fate. It was disappointing to note that there were several vacant spaces in one of the display halls. Nevertheless, when it was realised that we would miss out at the train show, we lodged a late application for the Heritage Expo at the City Hall which was to take place on the following Sunday. This proved to be much more useful as a promotional event. Despite being held on Mothers Day, attendance exceeded expectations and the visitors were a completely different cross section of the community from those seen each year at the Miniature Train Show. Several potential group charter prospects have already contacted us as a result.

*Car 65 under repairs, with Noel West, Bob Deskins and Keith Tidey working on the destination box.*

Ken Howard





*Ten-bench open car 65 displays its newly fitted front apron.*

Ken Howard

On the anniversary of the Brisbane tramway system closure on 13 April, some particularly useful publicity was obtained with a phone interview conducted by mobile phone from inside Phoenix car 554 with Steve Austin of the ABC's morning program on Radio 612. It seems that 'our demographic' is ABC listeners!

On the evening of Wednesday 18 May, the Museum opened between 7:00pm and 9:00pm as part of the 'Museums Alight' program held in conjunction with World Museums Day. Although only twelve paying visitors arrived, about 30 members and their families and friends generated good loads on the trams. The night saw the return to traffic of Baby Dreadnought 99. Only the day before it seemed that electrical problems may have prevented this, but Mick Topp arrived early and rectified the problem.

### **Grant success**

The museum has received a grant from the Federal Government. This is one of only four known government grant programs where the museum is able to satisfy the application criteria, the others being two State government programs and one Brisbane City Council program. The Federal program is the Volunteers' Small Equipment Grants with funding available up to \$3,000 for equipment for non-profit voluntary groups. Applications for grants are highly competitive throughout Australia and the equipment must be of benefit to all volunteers of the organisation.

The museum asked for, and received, \$1,479 for the

purchase of a Honda Industrial/Heavy Duty four stroke self-drive lawn mower, identical to those used by commercial mowing contractors. Most of our grounds and gardens work is done by our weekday TRAMS team, and the new lawn mower will be of great assistance to all our volunteers.

Special thanks are in order to our local Federal Member, Peter Dutton, MP, for advising the museum of the success of our grant application. We were one of only six volunteer groups to receive this type of grant in his electorate.

### **On television**

On 12 and 15 July, the TV crew from Channel 9's *Brisbane Extra* program was on site for filming. Despite rain on 12th and brilliant sunshine on 15th, the show was surprisingly homogeneous when it went to air on the evening of 15 July. It generated very significant public interest with standing loads being carried on the following Sunday at Ferny Grove.

### **Track extension**

Design work is continuing at present with the focus being on the documentation section of our development application to the Brisbane City Council. As soon as the lighting project has been completed, museum resources will be switched to the completion of all necessary field work for the track extension design. We hope to submit an application for preliminary approval to the City Council early in 2006.

*Masked up for spray-painting, Baby Dreadnaught 99 has received its new silver paint and numbers.*

Ken Howard

Under the Integrated Planning Act, a preliminary approval is a legally binding agreement between a developer (in this case the BTMS) and the local authority (Brisbane City Council). Once the BTMS receives preliminary approval we can move to the next stage of an application for a Development Permit. A Development Permit authorises construction to take place, subject to conditions, and for the development to become operational. There are many issues to be resolved during this design work.

### Lighting project

The museum lighting project is progressing well. A lighting design has been completed and all the necessary fittings, insulators, cables, etc are being collected, refurbished and stored ready for use. The terminus area is to have the existing safety zone lights plus several 'radial wave' (ripple shade) streetlights installed to maintain and enhance the proposed 1950s era of the museum street. Additional 'radial wave' streetlights are to be erected on span poles near the signal cabin to complement the heritage precinct of this location. Primary control cables have been



installed between the Alan Marment Gate and the meal room. Secondary control cables have been installed from the meal room to the bookshop, store, signal cabin, trolleybus building and the substation. Some additional cables and missing links have not yet been installed together with the necessary relays and 'knock on' lighting contactors.

Mercury vapour lights (blue colour) will be erected in the area between the bookshop and meal room, around the meal room, in front of the new main workshops, on the northern and western side (rear) of the trolleybus building and the northern side of the store building.



*As 99 leaves the shed for the first time, it passes drop centre class leader 231 which is waiting to take its place in the shed.*

Ken Howard



*After 99 was moved and 231 placed in the shed, the spare trucks were returned. Here Brian Martin, Bob Deskins and Noel West push a diamond-frame truck. The ex-BCC Scammell used by the Brisbane City Council to tow defective trams is in the background.*

Ken Howard

Sodium vapour lights (yellow colour) will be erected in front of trolleybus building, in front of tram sheds 1 and 2, and in the museum public visitors' car park.

Metal halide lights (white colour) will be erected in the picnic area as white light is necessary to ensure correct colour for areas where people will be eating food. A 400-watt sodium watchman floodlight has already been erected on the northern end of the store building and this illuminates the rear of the main workshops building, part of the hardstand area plus the members' car park. Eventually, all lighting will be controlled from a central control switch and when completed will enable the museum to open at night

during the warmer months for evening charters and special events.

### TRAMS group

Apart from their work on our trams, our weekday TRAMS group have been making steady progress clearing out the unofficial store room in tram 300 and the job is almost finished.

We have managed to acquire more Australian native plants at the right price. John Hamilton has done a sterling job almost single handed in cleaning up the museum site and, together with the new plants, the improvement in the Museum grounds is attracting favourable comments from visitors.

Tram 99 has received its last coat of paint and only awaits its new replacement numbers and the 'CBC' logos before being declared finished. John Power did the final external painting for us and has done an excellent job. John painted tram 99 when it was last done by the Brisbane City Council and he tells us he thoroughly enjoyed working on it again. I must single out one person in particular, Brian Martin, who put an exceptional effort into restoring 99. Thank you, Brian, for all your effort.

Tram 65 has been progressing at a rapid rate and it will only be a month or two behind tram 99. Many of you will remember the shocking colour of the paint on the floor of 65. Ken Howard was all for painting it a nice shade of grey but was overruled as we had to keep



*On its first run after coming out of the shed, Keith Tidey is on the back step of car 99 keeping an eye on the trolley rope.*

Ken Howard

with the original colours. So, we computer-matched the original colour from a sample only to find out later from John Power that at the Milton Workshops they tipped all the left-over paints into a big tin and when a tram floor needed painting. The apprentices were each given a dipper of the brew and told to paint floors. No two floors were ever the same colour.

While on the subject of paint colours, another interesting item came to light. Upon stripping back the paint layers on some of the fittings on 65, we discovered a dark green on a couple of the fittings so at some time in the past, it appears that green was a part of 65's colour scheme.

Work is continuing on the restoration of bracket arms and their associated insulators for the installation of overhead to the front of the new shed.

### **Celebration of our 25th anniversary of opening**

We are pleased to report that the Lord Mayor of Brisbane, Councillor Newman, will be available to officiate at our 25th anniversary celebrations on Wednesday, 10 August. Councillor Newman will be at Ferny Grove between 9:00am and 9:45am when he is expected to unveil a commemorative plaque, have a short tram ride and enjoy morning tea with museum members.

## **BENDIGO**

### **Bendigo Tramways**

1 Tramways Avenue, Bendigo, Victoria 3550

<http://www.bendigotramways.com>

From Kym Smith

### **Rollingstock**

The overhaul of the third ex-Brussels truck, being carried out for the Perth Electric Tramway Society, is progressing well, with the manufacture of new top chords and springs the only items still to be completed. The wheelbase has been shortened to 7ft on this truck to suit their C class No. 61.

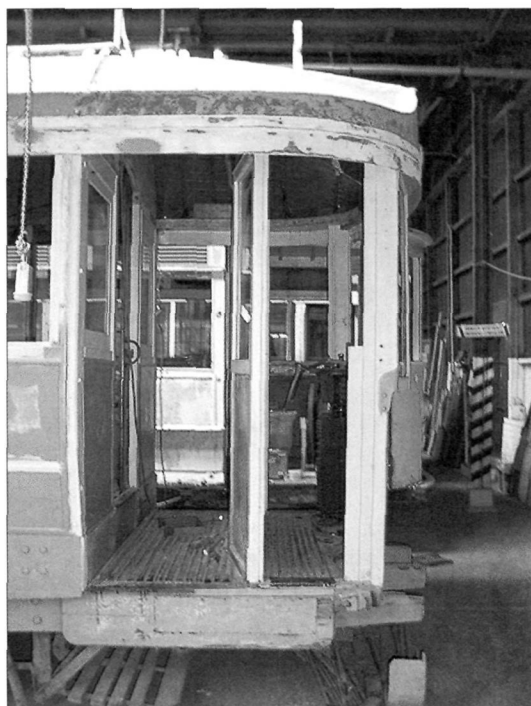
Bendigo No. 35 recently received some much needed repairs to its roof, and a repaint into Bendigo Bank colours. From the final livery it will be obvious that the concept was based on our recent restoration of Victorian Railways No. 41.

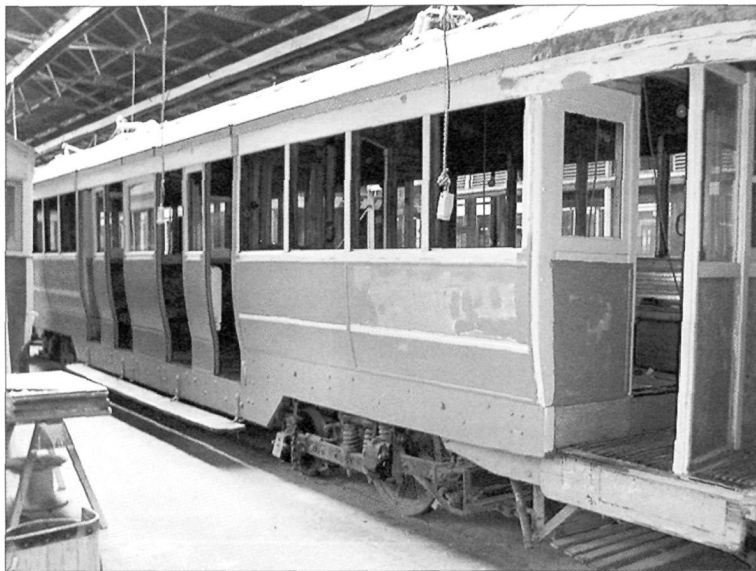
Repairs to the motors and chassis of No. 21 have now been carried out, together with some re-wiring. Final painting and signwriting will now be applied, and No. 21 will then be ready for service.

The overhaul of the toastrack car has recommenced, with the roof being re-sealed, and work commencing on re-finishing the ceiling and seats. We hope to have No. 17 back on the road by early August.

*The droop of the end platform has been successfully removed from No. 32.*

Bendigo Tramways





*Filling and undercoating of the side of Hawthorn No. 32.*

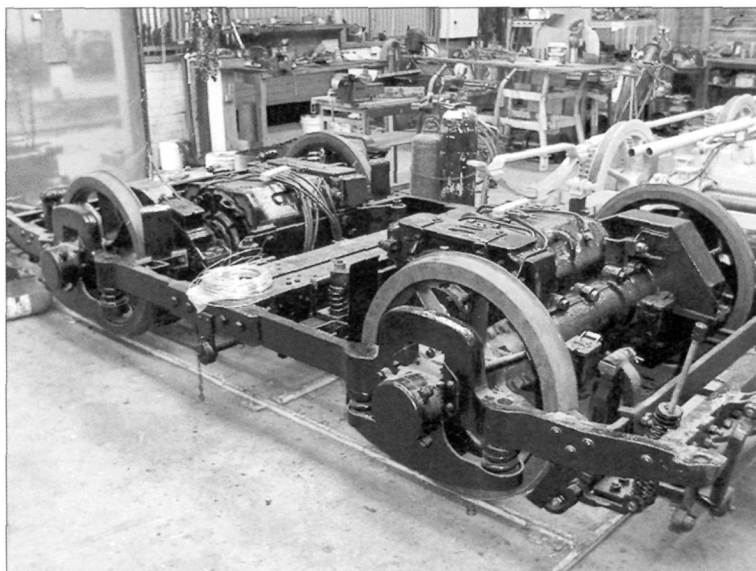
Bendigo Tramways

The second Work for the Dole project commenced in late March and involves works on the Maximum Traction car known formerly as Bendigo No. 24, MMTB No. 138 and, originally, Hawthorn Tramways Trust No. 32.

The tram was originally refinished as MMTB No. 138 as part of a Regional Employment Development Scheme project in 1975. It then spent several years in Melbourne during the late 1980s and early 1990s. The

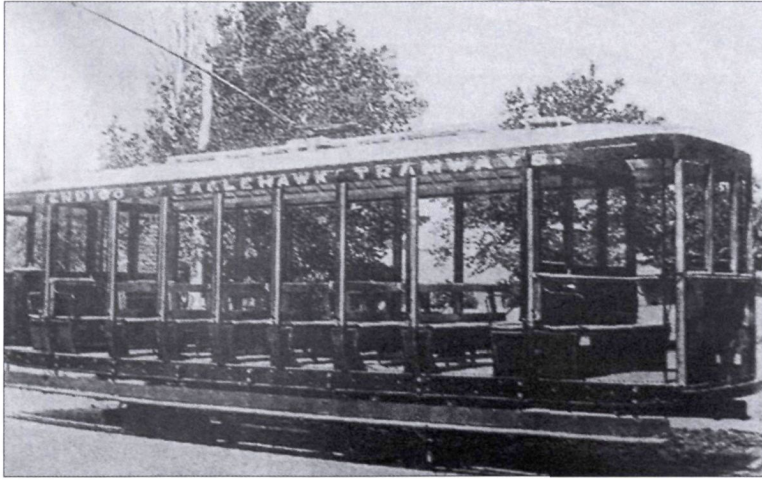
current refurbishment will see the tram returned to its Hawthorn livery, but retaining its MMTB body configuration.

The project is being supported by The Salvation Army - Employment Plus, providers of the Work for the Dole project, and the Victorian Department of Infrastructure. On completion of its refurbishment, No. 32 will be loaned to the Hawthorn Tram Depot Museum for display.



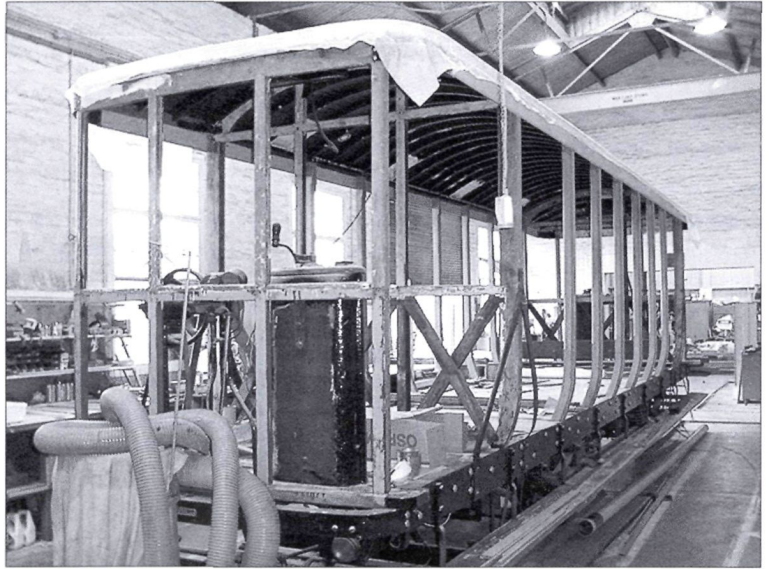
*The ex-Brussels truck for Perth No. 61 has been shortened to 7ft wheelbase and wheels and motors refitted.*

Bendigo Tramways



*An early picture of a Bendigo Toastrack. No. 17 is being refurbished to this appearance.*  
Bendigo Tramways Archives

*Toastrack No. 17 after having the roof re-sealed.*  
Bendigo Tramways



*Recently repainted Bendigo Tramways No. 35 shows off its Victorian Railways inspired livery on its maiden trip on 5 June 2005.*  
Bendigo Tramways

# LOFTUS

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

[www.sydneytramway.museum.com.au](http://www.sydneytramway.museum.com.au)

From *SPER News*

## J car 675

Since mid May work has been proceeding well in Bendigo with restoration activity on this car now under the keen hand of fitter Wayne Taylor, who has been employed exclusively on our behalf for this project. The first few weeks have seen the rather skeletal body shell further stripped with both end aprons removed, the flooring lifted in the driver's cabins and damaged floor bearers exposed to facilitate repair and/or replacement.

Wayne and Deborah Central mine manager John Watts visited timberyards in the Moama/Echuca area near the Murray River to acquire timber for use in the mine and also to purchase seasoned hardwood to replace or repair the damaged timbers in the driver's compartments. Wayne has repaired the end bumpers and other steel work along with overhauling the brake cylinder, compressor, line breaker and compressor governor. He has had new steel cut for the driver's aprons and has prepared all associated components for re-assembly.

Luke Jenkins, Bendigo Tramways' remaining coachbuilder, has fabricated new timber framing for the No. 1 end apron and has been seconded to the project for several weeks in between work on the Bendigo toastrack car, to assist Wayne in reassembly

of the driver's ends. He will also be undertaking repair works and replacement of rotted side frame timbers and will rebuild the bulkheads in the car. Surprisingly, the J car rails were inexplicably shorter than the N car even though the side panels and sliding doors are built to an identical profile.

Wayne has also undertaken the thankless task of removing the malthoid from the roof, revealing the original canvas which fortuitously will not require replacement, except for the vented roof section under the trolley bridge. He has also fabricated replacement downpipe roof spouts out of copper to replace the rusted sheet metal ones.

Ross Traeger of Traeger Joinery has completed the new seat bases for the car and the remaining moulded seat back pieces have been restored and revarnished by Howard Clark.

## Grants

During June the museum received a grant of \$7000 and a loan of \$3000 (repayable over five years) from the Department of Lands to assist with replacement of fencing along the boundary adjacent to the highway. Bob Cowing has obtained quotes and we hope to commence these works in the near future.



*Sydney R class 1740 in Tramway Avenue for night photographs during the evening of 22 June 2005. The floodlit YMCA façade provides the backdrop.*

Bob Merchant

The museum also signed an agreement with NSW Heritage whereby advance grant funding of \$45,000 (out of \$50,000) and \$4500 GST was made available towards our restoration works on J 675. These monies have since been received and along with member gifts in excess of \$40,000 in recent times should ensure smooth progress towards the projected completion date of 30 May 2006 for this car. This advance is a positive endorsement of our museum, as normally grant funding is made available retrospectively after moneys have been expended.

### Track work and concreting

During the period from mid April work on the top shed yard progressed rapidly. The retaining wall along the side of road 15 was formed up in panels working from both ends simultaneously with the formwork being relocated after each pour until it met in the middle. The track drain across the yard was completed

and the connecting box and tie rods were installed in the ex-Melbourne road 13 points. A throw-over lever has been installed and connected to the road 14 points. On 30 May, the Berlin trailer which had been parked over the road 15 points for some time was moved up road 14 to the doors of the top shed where it now resides. This move cleared the area to provide space for the construction of heavy steel frames made from old rails to cover the pits of the roads 14 and 15 points which are both Sydney tramway style.

On 8 June a post hole boring machine was hired to bore holes and erect four previously prepared steel poles. Two of the poles, located near the roads 14 and 15 points are to replace timber poles. Another is beside the entrance to road 1 and the last is near the shed doors of road 12 in the top yard. The placement of the road 1 pole allowed the concreting on 18 June of the final unpaved area in the main depot yard to complete this major undertaking.



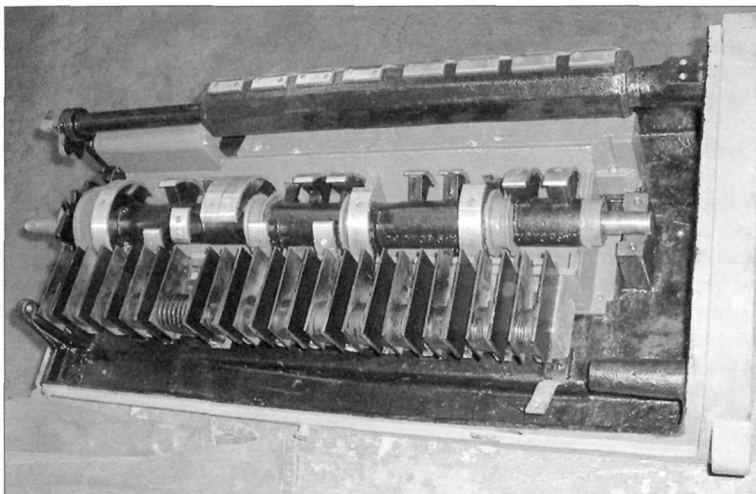
*The poor condition of the bearers under the driver's platform of J car 675 is evident in this view.* Wayne Taylor



*Replacement bearers have been fitted, new flooring bolted down and a repaired bumper reattached.* Wayne Taylor

*The controllers for J 675 are also receiving a full overhaul and refurbishment.*

Wayne Taylor



The middle section of floor on the eastern side of the track in the workshop extension was levelled and formwork and reinforcing mesh were placed. On 18 June 4.7 metres of concrete were purchased so this slab could be poured in one piece. The free concrete we receive usually comes in smaller quantities.

### Depot yard overhead

Work is well advanced on the upgrading of the depot yard overhead wiring. The plan is to replace all frogs with pantograph compatible Melbourne type frog pans and raise the working height of the trolley wire. This will necessitate replacing all existing round trolley wire with grooved wire. The new work commences from the section insulator at Cross Street

and includes existing roads 1, 2, 3 and 4, and the new road to the top shed, road 12. To this end a standard Sydney style section insulator was modified to accept pantographs. It was tested with the Munich car and operated very satisfactorily.

Trolley wire has been installed over road 4 from Cross Street to the roller shutter. This section will assist trams to negotiate road 4 point work more easily and will remain until road 4 is permanently rewired to the main shed through the workshop extension building.

New span wiring has been completed from Cross Street to the main depot building and the existing trolley wire has been attached to the new steel poles in

*Terry Thomas, Warren Howlett and Bill Parkinson provide the muscle to move the bogie from under Brisbane centre-aisle car 180 for overhaul.*

Martin Pinches



the yard area. The next stage is to replace the existing round trolley wire with grooved wire and install new frog pans. This work is planned for completion by the end of August.

## Electrical

The submains have been extended into the ground floor of our Head Office building. These now supply a new distribution board which will eventually supply the ground floor. The 'Green Box' on the footpath in Tramway Avenue has been removed as its position on the footpath was blocking the southernmost entrance to the building.

Some further improvements were made to the lighting in the Restoration Workshop recently utilising our bucket truck ably operated by Tom Tramby. Geoff Olsen thinks that he has seen more of the museum from above than any other member. The current project is the installation of a new distribution board in the Display Hall which will supply both the Display Hall and the top three floors of the Head Office building.

## Car news

Bill Parkinson completed the overhaul of the fourth and last motor for ballast motor 42u (or, according to its record card in our archives, 42s. It may never have carried the class letter 'u'.). Our weekday workshop crew re-installed the motor in the second bogie and placed the bogie under the north end of the underframe. The two bumpers have been removed, reshaped and welded where necessary before being refitted to the car. New hardwood bearers have been installed at the north end to support the cab floor. An

air compressor has been selected for the car and is being cleaned and tested before fitting to the underframe. The curved channel that will support the trolley base and pole has had an extension piece welded on to return it to its correct length. It was shortened when in railway service to clear the overhead platform, now removed.

Bill Parkinson repaired a scored journal on the south end bogie from Brisbane dropcentre car 295, built up worn thrust plates and repacked the axle boxes with new wool. The car was lifted and the repaired bogie placed back under the car. The bogie change was completed in two and a half hours. The spare bogie that had enabled the car to remain in service was returned to the back of the display hall.

## Trams After Dark

The Museum staged its third, and possibly most successful, Trams after Dark on 22 June 2005. Building on experiences gained from the prior two events, the emphasis this year was on simplicity, with the twin goals of providing a regular half-hourly service on the Museum line and of affording good opportunities for night photography.

When R 1740 returned to the Museum on the last scheduled Sunday run from The Royal National Park, it became evident that there were a good many patrons who had either just arrived or were intending to remain for the evening's activities. An additional service to Sutherland with P 1497 was therefore operated at 4:50pm.

Darkness was approaching as 1497 returned and the first night trip, with C 29 and Nagasaki 1054, was

*Brisbane drop-centre car 295 stands under the lights during a photographic session during the evening of 22 June.*

Bob Merchant



despatched almost on time (at 5:02 and 5:03pm respectively). R 1740 then ran to Sutherland at 5:30pm and on its return, was shunted clear of the main line for night photography, with the floodlit YMCA facade as a backdrop. Ballast motor 99u was also brought out and placed on display for night shots, with the YMCA facade backdrop.

In the meantime, in response to more than a few requests, O 1111 (which was not on the list of cars intended to operate) was moved from road 1 in the Running Shed in time for a late-running 6:07pm service. The 'punters' concerned were so enthused by the night run in the O that the 6:30pm trip was also run

with O 1111, as an encore to Berlin 5133 and Bendigo 11 – and all three cars carried a reasonable number of passengers.

Appropriately, the final trip was run at 7:00pm with R1740 to end the night's activities.

The Museum received considerable good publicity and favourable feedback for this event. Despite final arrangements not being put into place until late on the day, we can all be proud of how we continue to showcase our Museum and trams to members and visitors. Thank you to all those who made this year's Trams after Dark Sunday the obvious success that it was.

## VALLEY HEIGHTS

**Steam Tram and Railway Preservation Society**  
PO Box 571, Springwood NSW 2777

*From Steam Scene*

### New depot shed

It has been a long time coming to fruition but at last the new shed for our rolling stock will soon become a reality.

A contract has been let to Byrnes Steel Fabrication for the construction of a two-road shed on the ash road at Valley Heights. The cost will be about \$100,000 plus GST. The figure is approximate as the builder has consented to us making some purchases to our advantage. The building will not be an architectural icon but it will be sympathetic in design to the rest of the depot. It will have a clerestory roof and quasi small-paned windows. Cladding will be corrugated heavy-gauge metal sheeting. Two roller shutters will grace the front and two service doors will be located at the back and side. The length of the building will be 42 metres. A feature will be the installation of a large water storage tank. Signs of the times!

### Works

Motor 103A:

The safety ploughs have been fitted with drop-distance chains. The clerestory ends have been beaded. Sand pipes have been fitted to the firebox end, and work on the coal bunker is progressing.

Trailer 94B:

New gunmetal axlebox flaps have been bored and hinged to the axle boxes which have been fitted with

spring lifts. The bogie overhaul and painting has been completed. The bogies are now in situ after some intensive machining to one set of king and queen castings. End apron riveting has been completed and painting continues.

Loco 1022:

Ralph Boesel has done valuable work machining horn slides and axle boxes.

General:

Painting has recommenced on the CBI carriage and final scraping is being carried out on car 44B. Joe and James Guilfoyle have removed the old timber flooring from the S truck.

### Boring machine purchase

Thanks to the alertness of Steve Tolhurst, a successful tender was placed with Sydney University for the acquisition of a Kearns horizontal boring machine. This 1959 machine is in excellent condition and will give us the capacity to bore such items as axle bearings and the like. The machine was brought to Valley Heights on 19 March. Our joint workshop now has the capability to do most of our machining jobs. We extend our thanks to Steve and others who helped to install the machine.



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