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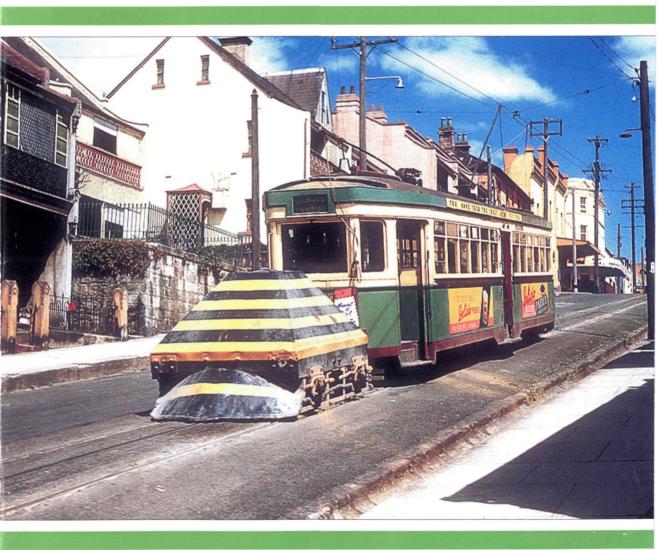


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THE BALMAIN TRAMWAY PROPOSALS

TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM MAGAZINE

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Editor	Bob Merchant
Sub-editing and Production	Randall Wilson
	Ross Willson

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The Sydney Tramway Museum's F class car 393 had a rare outing to take part in the museum's Edwardian Day event on 24 October 2004. It is seen here retuning from the northern terminus with Bill Parkinson at the controls.

Dale Budd

Front Cover:

Sydney R1 class 2054 pushes the counterweight dummy slowly down the grade approaching the terminus at Darling Street Wharf in October 1955, shortly before the line was cut back to Nicholson Street at the top of the grade. The counterweight and dummy were removed on 6 November 1955.

Noel Reed

Back Page Top:

The Sydney Tramway Museum's AEC Matador recovery vehicle has been fully restored. It is seen at the Museum on 16 October 2004.

Bob Merchant

Back Page Bottom:

Sydney's light rail vehicle 2101 has been boldly proclaiming "Return trams to the City" since 13 September 2004. It is seen at Paddy's Market at Haymarket. If approval for the CBD extension is forthcoming, trams could be running to Circular Quay as early as 2007.

John Burne

THE BALMAIN TRAMWAY PROPOSALS

By Duncan MacAuslan and Ross Willson

In the November 2003 issue of *Trolley Wire* the article *Getting Down to Darling Street Wharf* reviewed the various proposals for taking Sydney's trams down the steep hill at the east end of Darling Street, Balmain. During the research for that article a reference was found to 'the American company proposal of 1885' ¹.

The story of this proposal has so far only rated a passing mention in history books², but, as will be seen this episode lasted over seven years, resulted in an Act of Parliament, involved many failed contractors, a Melbourne land-boomer and complex Council politics.

Balmain in the 1880s

The Municipality of Balmain was proclaimed in 1860 and included the peninsular suburbs of Balmain, Birchgrove and Rozelle (then known as Balmain West). The western boundary with the Municipality of Leichhardt (proclaimed in 1871) ran from Iron Cove along the east side of Callan Park and Foucart Street to Rozelle Bay. The growing population of the municipality as taken at the censuses of 1871, 1881, 1891 and 1901 was 6,272, 15,063, 23,475 and 30,076 persons. Between 1884 and 1888, to fund development, Balmain Council borrowed twice the amount it collected in rate revenue ³.

Balmain was poorly served by public transport and this was a source of constant discussion in the Council and local press. Although a large part of the population was locally employed many people needed to travel to the city. Ferries were the main form of public transport. Almost all wharves were at the bottom of steep hills. On the north side of the peninsula ferries served Long Nose Point, Cove, Punch and Elliott Streets; at the east end Darling, Yeend and Thames Streets; on the south side Stephens Street and Reynolds and Mansfield Streets, Bald Rock.

Horse buses services to the area probably began around 1862 when the first Glebe Island Bridge was opened. A registered service was recorded in 1882 operating from Callan Park Gates to Erskine Street but did not serve the eastern part of Darling Street ⁴. There may have been a local service from Gladstone Park to Callan Park along Darling Street but no official record of it has been found.

Steam trams had reached Glebe Point (1882), Forest Lodge (1882) and Leichhardt (Short Street 1884, Darley Road 1887).

Tramway technology

In the 1880s discussion of tramway technology was at its height with many learned papers published on a variety of propulsion methods.

The cable tramway system had been perfected by Andrew Hallidie in San Francisco in 1873 and was generally considered suited to steep terrain such as Sydney's. Cable tramways were opened in Dunedin in February 1881 and in Melbourne in 1885. A line was opened in North Sydney (1886) and from Day Street to

Balmain horse bus 158 is typical of the public transport available to residents of Balmain before the arrival of the trams. The bus is facing east in Darling Street and standing near the Callan Park gates. The building in the background is the Garryowen Hotel.

Magor Archives, Bus and Coach Association



Ocean Street (1894). Whilst expensive to construct, cable trams were relatively cheap to operate and as will be seen had many advocates.

Steam trams were introduced to Sydney in 1879 and the network grew rapidly over the next few years. Steam was neither popular, due to the pollution and noise, nor economical due to the high crewing costs. Steam trams could not cope with many of Sydney's steep hills as evidenced by the problem of Darling Street Wharf.

Electricity was in its infancy as a form of tramway motive power having first been demonstrated in Berlin in 1879. Development of reliable motors and Sprague's perfection of the trolley wheel in 1888 proved the turning point and electric power became the dominant form for most tramways from then on. Australia's first line opened in Melbourne in 1889 and experiments were undertaken in Sydney between Randwick and Waverley between 1890 and 1892. Sydney was not initially convinced of electricity's future and although the Military Road line was electrified in 1893 it was not until 1896 that the decision was made that lead to the complete electrification of Sydney's tramway system.

The American company proposal

In June 1885 Balmain Alderman Captain John Punch approached the Cable Tramway Construction Company, which was then building the North Shore cable tramway along the full length of Darling Street.⁶ It was reported that their response 'looks almost too good' and that it 'will do Balmain a deal of good to have £70,000 spent in the borough'. Fares were mentioned as 2d and would be married to ferry fares.

The proposal needed ratepayers' approval and was submitted to Council on 30 June and to a public meeting in Balmain Town Hall at 8pm the next evening. The public meeting was called by public notice in the *Balmain Observer* as a 'requisition' to the Mayor, Jacob Garrard ⁷, to convene the meeting followed immediately by notification of his compliance. ⁸

The Council was unusually unanimous in its support of the proposal which it felt was far less objectionable than the Government's steam trams. An Act of Parliament would be needed to empower the Council and protect public interests – such as hours of opening, limits on fares per section, overloading, speed and keeping the road in good repair. Council received a letter from the Cable Tramway Construction Company signed by its chairman Horace Bastings ⁹ stating that construction would be complete 18 months after the passing of the Bill and that the Company was prepared

to meet to settle terms. Alderman Punch moved that Council proceed to obtain a Bill.

However the Mayor thought such action was premature and that Council should look at existing Acts such as Jeanneret's ¹⁰ and Saywell's ¹¹. Punch then revealed a second letter stating that the Company had reviewed Saywell's Act of 1884 and found it embodied, with one or two exceptions, all the conditions necessary including purchase after 15 years. He hadn't tabled this letter as it was addressed to him privately. He was advised to readdress it to Council on the spot and table it – which he did. The motion was carried.

The public meeting had a large 'attendance of influential gentlemen' and was chaired by the Mayor. Angelo Smith spoke in favour of the tramway which would give a quick route for travel from Leichhardt to the City compared with the steam tram and that it was no good waiting for the Government. He then moved a motion to support the proposal. Carson Woods ¹², apparently the owner of the Company, pointed out that a population of 20,000 had scarcely a means of transit and that the Bill would mean an expenditure of £400,000 in the borough.

The expenses for Council obtaining the bill were expected to be between £30 and £40.

Horace Bastings addressed the meeting 'not as a philanthropist but as a man of business' stating that without a tramway Balmain would be 50 years behind the age, and that Dunedin, population 30,000, now had two cable tramways. The Company's manager, Alfred Duncan ¹³, who had worked in Dunedin and was now resident engineer on the North Sydney construction, stated that even on grades of 1 in 3 a cable car could stop quicker than a horse bus. The return fare from Darling Street Wharf to Callan Park would be 4d at the outside.

A.H. Fitzhardinge moved that a deputation be sent to the Colonial Secretary in support of the proposal for a Bill. There were a couple of procrastinators suggesting a one month's delay but they were ignored. Speaking in support Alderman Davis of Leichhardt was glad the Government had nothing to do with it as 'they always made a mess of things'.

As today, high in the minds of those attending was the increase in property values the tramway would bring. The meeting closed with three cheers for the Queen.

The Balmain Observer printed an explanation of cable tramways and stated that Carson Woods was the first to introduce the cable car to this colony and had gone to the expense of a model to explain their workings.

Now there began the slow and tortuous progress of obtaining the Bill.

The Parliamentary process

A deputation from Balmain and Leichhardt Councils approached Sir Alexander Stewart, Colonial Secretary, on 17 July 1885 ¹⁴. He suggested that the Cable Tramway Construction Company should promote a Bill, but accepted that if Council did so then there was the possibility of competition. He foresaw no difficulty in obtaining the necessary powers, but advised that Cabinet could not introduce the Bill as a Government measure so it would have to be introduced as a private member's one.

On 11 September Jacob Garrard as one of the MLAs for Balmain ¹⁵ tried to introduce the petition for the Bill to the Legislative Assembly but was ruled out of order because he was a signatory. James Young, MLA for Hastings and Manning, presented it on his behalf, but it was not expected to go through in the current session. The measure received its first reading four days later. In accordance with usual procedure the Bill was referred to a Select Committee. Garrard, in his capacity as Mayor of Balmain appeared before the committee on 30 September 1885. ¹⁶

Garrard stated in evidence that he did not think it wise for the Commissioner for Railways to be a party to the proposal as the work was entirely separate from and Government Tramway or railway and was unlikely that the government would require to tack it on to any of their works. He promoted the concept of the Bill as an extension of the principle of Local Government. He also argued against nominating the route of the tramway within the Bill as there was a possibility of a branch being built to Long Nose Point and that the council should have the right to nominate the streets over which the tramway would run. Garrard also referred to the Company having built cable tramways in several cities in New Zealand.

This was a remarkable time for NSW politics. The Stuart Ministry had been in office from 5 January 1883 until his retirement due to ill health on 6 October, six days after Garrard's appearance. George Dibbs became Premier the next day with the Governor's agreement to hold an election. Thus the 11th Parliament was dissolved on the same day and elections were held over the period 16 to 31 October 1885. Dibbs failed to form a Government when the 12th Parliament was opened on 17 November and resigned on 21 December. Sir John Robertson's fifth Ministry was in office from 22 December 1885 until 25 February 1886 followed by the Jennings Ministry until 19 January 1887.

As a result of the dissolution of Parliament the Bill

was reintroduced on 11 December 1885 and received its second first reading four days later. It was referred to a second Select Committee on 28 January 1886 which furnished its report on 9 February. This committee re-examined Garrard, whose evidence was largely the same as before, and also the Balmain Council Clerk. They made what was described as no more than a 'verbal' amendment.

The Bill proceeded to the second reading stage on 16 April when the new member for Balmain, Solomon Hyam, whose name survives as a street in the Bald Rock area, told the House that his feeling was that it represented the first example of a borough's attempting to secure powers of this nature and could so be looked upon as an essay in local self-government.

He pointed out that the line would be built to the same gauge as the Government lines and hence there would be no difficulty caused in the event of its being taken over at some future time. The Bill sought to confer upon the Council power to enter into a contract for the construction of a tramway right through the borough.

As things stood at present, it took people 60 to 65 minutes to reach the city, but with the coming of the tramway this would be reduced to half an hour.

It was proposed to have the terminus of the 2 mile 13 chain line near the Callan Park Asylum, 1 miles distant from the Government line serving Leichhardt. A company had already offered to carry out the work and the venture would not involve any outlay of municipal funds.

Hyam went on to say that it was intended to work the line with cable traction on account of the steep grades which would be encountered in Darling Street. It would serve to encourage business in that thoroughfare along which 'the journey to Callan Park (was) now made through dirty streets in miserable omnibuses'.

Several members spoke against the Bill pointing out, among other things, that it would result in the Borough's being committed to a very large and unnecessary liability.

As introduced, the Bill contained a reference to 'motors' which, so it was thought, could be taken to mean 'steam motors' as distinct from the concept of 'motive power'. In order to clarify the position, it was arranged to insert the words 'Engines steam or other' before the word 'motors' in clause 1.

The discussion was also made reference to delays associated with the new cable line at North Sydney which had been opened for traffic on 22 May.

The Bill received its third reading on 21 April and came up for its first reading in the Upper House, the Legislative Council, on the same day with its second reading being moved by Jacob on 5 May when he outlined the issues involved.

One member spoke against the measure by saying that what Sydney really needed was a good suburban railway system and tramways would only serve to postpone the provision of new railways.

Another view put forward was that the Bill was rendered more objectionable in that it provided for a municipally operated line, because all tramways should be in the hands of the Government which already possessed full power to build a tram line to Balmain, should such a course be necessary.

The debate ranged over a wide field with some speakers referring to the benefits accruing from municipal operation while others spoke of the newly opened cable line in Melbourne. One gentleman felt that tramways were more convenient in the field of suburban transport. There was some controversy on the score of the incidence of accidents as between steam, cable or horse traction, with the view being expressed from one quarter that the noiselessness of steam trams help to cause accidents ¹⁷.

One member described the proposal as representing a very interesting experiment and mentioned that he understood from a Balmain alderman that the line was in fact going to be worked by a company under a lease granted by the borough; there was a proviso contained in the Bill to enable it to be purchased.

Others felt that steam would be suitable and were more concerned as to the effect which a substantial award of damages would have upon the level of municipal rates.

Mention was also made of the two existing private tramways, Jeanneret's and Saywell's.

The Bill came before the Legislative Council, sitting as a committee, eight days later when it was mentioned that the company most likely to be awarded the construction contract was one which had already laid down similar works in Victoria and New Zealand, as well as Sydney's North Shore line.

Considerable opposition to the idea of employing steam as a form of motive power was expressed, but one speaker felt that persons who took this view were only 'fighting with a shadow' as steam could not negotiate the gradients involved. It was said that only a cable line could be contemplated and that there should be a clause inserted to enable the government to take over the work in the event of its non-completion. This

led to a move directed at having the word 'cable' inserted and debate was accordingly postponed.

On 20 May a clause was inserted providing for the awarding of damages against the Borough. An interesting aspect was the approving of an amendment, on the motion of Frederick Darley, which resulted in the line being described in the accompanying Schedule as follows, the words in italics being those omitted by the amendment: 'From high-water mark at the eastern end of Darling-street to the termination of said street at the boundaries of the Municipalities of Balmain and Leichhardt and such other roads or streets as the Governor with the advice of the Executive Council, may authorise.'

The comment was made that the effect of this amendment was to avoid the possibility of steam trams running in the level streets of Leichhardt. The amendment was accepted.

Following the completion of various procedural details, the Bill came before the Assembly again on 18 June when Hyam once more spoke in favour of the measure when he praised the action of the Borough which received few favours from the Government and instead of appealing for the Government's assistance was inclined to help itself in this matter.

There was some disagreement as regards the clauses defining the Council's liability, but eventually this was satisfactorily resolved and the *Balmain Tramway Act of 1886* was assented to by the NSW Governor on 30 July 1886 authorising the Municipal Council of the Borough of Balmain to contract to construct a tramway 'from high water mark at the eastern end of Darlingstreet to the termination of the said street at the boundary of the Municipalities of Balmain and Leichhardt'.

By this Act Balmain Council could enter into an agreement with any person or company to contract to build the tramline. The contractor would own the line and construct and operate it for the council however the Council and, if not them, the Government were given power to purchase the tramway subject to arbitration.

The Act did not prescribe a cable tramway; it empowered the operation of 'all steam or other motors rolling and other stock necessary for the carriage of passengers and goods...' The gauge was defined as 'the same gauge as the Government Tramway' that is 4feet 8inches. The Council was empowered to make regulations regarding fares and charges, regulating the timetable, preventing smoking of tobacco or committing a nuisance and generally regulating the use of the tramway by passengers and the conduct of its

officers and servants. One provision prevented closing the tramway between sunrise and sunset except for repairs or 'any other sufficient cause'.

Open to tender

Although thirteen months had now passed since the cable tramway had been originally proposed the Balmain Council were still enthusiastic. There was considerable concern regarding clause 3 of the Bill which made the Council responsible for 'all injuries caused by the negligent or improper construction maintenance or working of the said tramway'.

There appeared to be three options open:

- let the whole matter stand over until an amending Bill could be got through Parliament removing the clause.
- invite tenders from other parties to undertake the work after getting their own enabling Bill,
- go on with the work with the present contractors accepting their proposal to indemnify Council.

The Cable Tramway Construction Company withdrew their offer in a letter signed by Bastings received by Council on 14 September stating that the firm had entered into arrangements which would preclude their participation. He regretted any inconvenience.

After much discussion Council agreed to 'call for proposals from persons willing to construct and maintain a tramway in Balmain, on the basis of the Balmain Tramway Bill passed by Parliament; such proposals to be sent in before November 30'. 18

Preparation of the tender documents took longer than the Councillors expected and advertisements appeared in the papers in Sydney, Melbourne, Adelaide and Ballarat during November ¹⁹ nominating a closing date of 11 January 1887.

Only one response was received, from Maxwell Bury ²⁰, and on 25 January Council discussed the terms at a special meeting ²¹. The tramway was to be constructed under Council's conditions with a 21 year lease with power to extend it by 10 years. Council had the option of purchasing at 'first cost plus 15%'. Bury was to pay Council £150 annual rent for the first four years, £250 for the next six, and £400 for the rest of the lease. The line was to be constructed using either Miller's ²² or Hallidie's system – Miller's being preferred – and 'carriages' were to be similar to those on the North Shore line.

On 22 February 1887 Council met in open door

committee to finalise the contract at which it noted that Bury had shown no disposition to 'drive a hard bargain'. The double cable Miller system was now stipulated and three months allowed from signing the contract for planning with construction to be completed a further twelve months later. Rent was to be paid from opening date. The contractor was, as was usual with tramways, to maintain the street on 18 inches either side of, as well as between, the tracks.

Special arrangements were to be made for carting road metal for the Council but cartage of other goods was left for further discussion. Operating hours were to be from 5am in summer, 6am in winter, until midnight, with not less than a 30 minute frequency. No mention was made of land acquisition for a depot, workshops or powerhouse.

The sticky question of liability was resolved with the Council not being liable for by acts of water or gas service employees or for the stoppage of traffic caused by municipal works, but liable for damage to the permanent way caused by Council's works.

Council accepted the contract and it was returned to Bury and by 26 March agreement was reached to put Council's seal on the contract. In early April Bury supplied plans of the cable route. In theory the line was to be opened for operation by June 1888, but, as with the enabling Act, there were further delays.

BORUUGH of BALMAIN.

TRAMWAY CONSTRUCTION, &c.

The Municipal Council of the Borough of Balmain, is prepared to receive TENDERS for CONSTRUCTING, Maintaining, and Running a TRAMWAY from high water mark at the castern end of Darling-street, Balmain, to the termination of the mad street, at the boundary of the boundary of the municipality of Balmain and Leichbardt.

Particulars of conditions and stip "stions can be seen at the town-hall, Methourne.

Tenders must be received on or before the 11th January, 1887.

The council does not bind itself to accept the lowest or any tender,

By order of the mayor.

H. B. MACINTUSM, Council Clerk. Town-hall, Balmain, Sydney, October 25, 1886.

The tramway tender advertisement that appeared in The Argus on 17 November 1886.

Not surprisingly given the state of the economy at the time raising £100,000 within Australia was to prove impossible and Bury had to look to London for funds. In July a further extension of time of three months was allowed due to the time taken to communicate with London.

By August 1887 it was reported that £70,000 had been privately subscribed to the London Cable Tramway Corporation who in turn had contracted the Melbourne Cable Tramway Construction Company to undertake construction. The latter was chaired by the same Horace Bastings who had relinquished the opportunity to construct the line eleven months earlier. The London company had raised some concern about Council's right to purchase the line at any time and Council agreed not to do so for at least ten years, if ever.

In December the London company felt the extension of the line to Leichhardt was absolutely necessary for its success and Bury offered to take measures to obtain such powers from the government and at the same time asked Council for, and was granted, a further six months extension.

In late April 1888 the Mercantile Agency Company of Melbourne, became the financier and Bury stated that, provided Council extended its non-purchase period to twenty years, construction could commence at once. This Melbourne company was associated with Benjamin Fink, a notorious Victorian 'land boomer'. ²³

Alderman Garrard met with Fink in Melbourne, probably in May, and found that by now Fink was disinclined to proceed – there being so many good things offering in land speculation. Fink's brother had visited Balmain and reported unfavourably on the venture.

At a special meeting of Council on 24 May the proposal was the main topic. Bury requested a further two weeks' extension beyond the 18 June 1888 deadline but this was disallowed. Some aldermen were beginning to think Council had been misled by Bury over the change from London to Melbourne for finance. The Mayor, Alderman Buchanan, believed that a company nearer home could be found to complete the tramway but Alderman Burns stated he didn't know of anyone who would invest a pound in it. An offer to construct by W Oldenshaw and Co was held over.

Another meeting of Council on 26 June considered that Bury's contract had lapsed. It was revealed the Alderman Garrard was an interested party in Bury's latest company being a 'provisional director' and as result Garrard abstained from voting. Oldenshaw's

offer was to construct on the same terms as had been agreed with Bury but to consider electric power as well as cable. After much discussion council voted 6-3 against extending Bury's contract, against accepting Oldenshaw's offer and unanimously deciding to call for new tenders

At this time there were also discussions on several other transport proposals:

- a railway along the shores of Iron Cove to cross the river at Long Nose Point,
- · the horse bus service from Callan Park to Wynyard,
- · a horse punt from Balmain to Millers Point,
- the Ryde tramway which had been first proposed in 1884.²⁴

By late August 1888 four tenders for electric tramways had been received. Because of a dispute between Alderman Elkington and the press the discussions on these were not published until late September 1888 when it was announced a Mr Clarke was the winner and the Council was awaiting his £2,000 bond – later reduced to £1,000.

An article from *Scientific American* was quoted showing the relative costs of tram construction ²⁵: (see Table next page)

Although he promised to order equipment from the USA by the next available mail, in mid-November Clarke nearly failed to provide the deposit, his cheque not being acceptable. It appears that his partners in the funding had withdrawn their support. The Mayor of Balmain had called for fresh tenders, apparently without Council agreement, when Clarke, now in partnership with a Mr Coonan, a solicitor, produced the deposit; Coonan acting as trustee for a Mrs Sullivan who had provided half the amount. Of the three bids received only one from Martin & Blunt was valid; however Council agreed to proceed with Clarke's.

In mid-November surveyors were reported in East Balmain and the following month Maxwell Bury offered to sell Council his plans for the cable tram; no doubt to try and recover some money.

Coonan and Clarke signed a contract on 17 January 1889 and their plans were due by 17 March 1889. On 12 March Clarke was declared bankrupt and a Mr Morris was appointed as the trustee of his estate. At Council's meeting on 24 March the Mayor reported he had received plans from Messrs Lockhart and Wills, engineers for Coonan and Clarke, for the tramline, but, as he didn't recognise them in relation to Clarke, he

RATIOS OF COST	ELECTRIC	HORSE	CABLE
Cars	1	0.59	0.81
Motive power	1	1.45	1.06
Construction	1	0.53	2.09
Depreciation and repairs	1	1.47	2.04
Operating expenses including wages	1	3.38	1.71
Total	5	7.37	7.74
Average	1	1.47	1.55

couldn't table them. Alderman Clubb foreshadowed a motion to urge the Government on the need for a tram to Balmain which others thought this would upset their own plans. There followed a dispute about which alderman knew the most about trams.

At another special meeting later that month Clarke's contract was cancelled and more tenders were called for. In early April Clubb's motion was discussed in terms of Council's failing to construct a tramway and asking the Government to extend the Leichhardt line ²⁶. This was not put to the vote. Montague Rhys Jones now offered to construct the tramway and needed some alterations to the contract.

After first deciding to refund Clark's deposit, less £200 for expenses, Council then had to deal with letters from Carson Woods protesting against Clarke's cancellation as he had a 40 percent investment in Clarke's company and was threatening a Supreme Court injunction; Lockhart and Wills asking for their expenses to be paid and W.A. Manning claiming Clarke's money was a loan from him and thus should be returned to him. Clark being bankrupt the official assignee, of his estate, Coonan, requested the refund be paid to him. Arguments about refunding the full deposit continued for several months and were eventually resolved by the Full Court in August 1891 ²⁷.

So on 14 May 1889 nearly four years after the idea was conceived; Council entered into another contract with Jones for an electric tramway.

The Balmain Electric Tramway Company

It took until 6 July for Jones and the Council to agree that his £1000 was secure. Having done so, Jones expected the first sod to be turned by the end of September.

The revised plans for the line were discussed by Council in committee on 23 July. These revealed a need to change the road levels of Darling Street near

the Congregational Church at Curtis Road, and at Johnson Street to enable the line to reach the wharf. The reduction at Curtis Road was only 4 feet whilst at Johnson Street it would be 6 feet and the footpaths would remain unaltered. Two alternatives were mentioned for getting to Darling Street Wharf: an elevated ornamental iron work staging 23 feet high with a lift to enable 30 or 40 people to access it at a time - cost £5.000; or an embankment some 6 feet high at the lower end of the hill - cost £2,500. The staging would improve the grade to 1 in 15 whilst the embankment would only achieve 1 in 10. Jones had contacted the Sprague Company of New York who had built lines in Richmond (Virginia) which successfully operated on 1 in 10 gradients and possibly even steeper. Changing street gradients required advising property holders. When asked what would happen if they objected, Jones said that if that were to happen Balmain would have to do without its tramway. Council adopted the plans and agreed to advertise the gradient alterations.

Twenty-three objections and a petition were received and considered at a special Council meeting on 13 August 1889. After much discussion, including the suggestion of using a mixture of cable and electric tramway which Jones rejected outright, it was agreed to allow him two months extension. This, Jones said, would allow him to obtain particulars from America as to whether an electric tramway could be built without any road alterations.

Later in August Council discussed the extension of Gordon Street to connect over a bridge with Annandale – this was to eventually carry the Government tramway.

The Field of Mars, or Ryde, tramway was still under discussion and there was concern that certain interests were trying to divert the line from the Balmain area. A meeting was held at Birkenhead in late July to support the Drummoyne area route. Charles Jeanneret wanted the tramway to connect with his ferries and a

Mr Tornaghi, a land holder in Hunters Hill, supported him in proposing a line from Woolwich to Ryde only. A meeting was called in Balmain in early August, but few attended. At this latter meeting it was mentioned that the Minister for Public Works supported extending the Forest Lodge steam tram.

By October Jones was confident that electric tramways could operate on gradients of 1 in 8.5, that of the steepest part of Darling Street ²⁸. However the additional cost of two-motor tram cars as opposed to compensating property owners had to be considered. The proposed cars would have been only 12 feet long ²⁹, 'neatly fitted up and well ventilated' ³⁰. Each of the six cars was to have two dynamos, together equal to 30 horsepower, with two 55 horsepower dynamos at the generating station. The only clue to the possible location of this generating station was that it would be 'central'.

The prospectus for the Balmain Electric Tramway Company Limited was issued in November 1889 ³¹. It had a proposed capital of 50,000 £1 shares made up of 40,000 investors' shares and 10,000 reserved for allotment to the vendor. Applicants paid 2s 6d on application, 2s 6d on allotment with the remainder as calls not exceeding 1s per month. The company was to be considered formed when 20,000 investors' shares had been allotted. It was said that 11,000 had already been applied for.

The directors of the BETC were E. Vickery MLC, Alfred Bennet, John Plumb MLA, Jacob Garrard MLA, W.H. Jennings JP and W. Monie, Consulting Engineers, Jones and Atherton; and Secretary, Fred Wilson of 279 George Street.

It was estimated that the cost of construction would not exceed £23,500, including plant and rolling stock. Working expenses, including depreciation, were not expected to exceed 9d per mile which was said to be 60 percent higher than on any line in Europe or America. The timetable was to be arranged to meet the steam ferry service and it was expected that cars would run about 111,150 miles per annum. Based on the earnings of the North Shore cable tram which were said to be 25.69d per mile, the expected earnings were to be £11,897 13s 7d and expenditure £4,168 2s 6d. With the additional expense of £150 rent the profit was estimated at £7579 11s 1d per annum or a return of 15% on capital invested.

Much was made of electric traction and how it was being used in America and Europe but no mention was made of its first use in Australia; in Melbourne the Box Hill and Doncaster line had only just opened on 14 October 1889 ³².

MALMAIN ELECTRIC TRAMWAY CO

Management ASSO,000 Management of Al Giff,

he 6d year Diars on Application, he 6d on Alletment, and Gulk not exceeding One Shilling per Shape year Month.

40,000 Shares are offered to Investors, pays to above.

10,000 Shares, fully paid up, are reserved for allotment to the Vender, for the transfer by him, to the Company, of the right granted by the Balmain Municipal Council, to construct and run the proposed Tramway.

The Company will be considered formed upon the allotment of 90,000 contributing Shares, and of this number 11,000 HAVE AL-READY BEEN APPLIED FOR.

DIRECTORS:

HON. E. VICKERY, M.L.C. ALFRED BENNETT, Esq. JOHN PLUMB, Esq., M.L.A. JACOB GARRARD, Esq., M.L.A. W. H. JENNINGS, Esq., J.P. W. MONIE, Esq.

BANKERS: LONDON CHARTERED BANK.
SOLICITORS: FISHER, RALFE & SALWEY.
CONSULTING ENGINEERS: JONES AND ATHERTON.

BROKERS: T. J. THOMPSON AND SONS. SECRETARY: FRED. WILSON, 279 GEORGE-ST.

Applications for Shares will be received by the Brokers or the Secretary of the Company.

This Company is being formed for the purpose of acquiring the right and constructing and running an Electric Tramway from the Balmain Steam Ferry Wharf through Darling Street to Callan Park, a distance of 2 miles 13 chains.

The concession has been granted by the Borough Council of Balmain for a period of twenty-one years from the date of completion of the Tramway. At the end of that time the Council shall either purchase the Tramway as a going concern, or make a further concession of ten years, and so on for every ten years ensuing.

The Company to pay to the Borough Council £150 per annum as rent during the first term of twenty-one years; and thereafter, if the rights of the Company be not purchased by the Council, an annual rental, to be agreed

upon, of not less than £100.

Jones was to prove no better at starting work than his predecessors. In October 1889 his associate, Atherton, submitted amended plans for elevations which were then advertised. Only one objection was received and overcome. In November Jones and Atherton pointed out to Council the advantages of electric lighting in Darling Street at a cost of about £600 per annum.

Jones then went to Tasmania in April 1890 and, apart from a letter in August saying he had bought 370 tons of steel rails, he did no work on the Balmain tramway for a year.

By the end of March 1891 Council was getting a little apprehensive and in mid-May they finally took steps to cancel Jones' contract. In August Colquhoun Thomson and Coy offered to construct the tramway and after receiving legal advice Council assigned the contract and Jones' deposit to Thomson on 1 September. There were 29 clauses in the agreement and some were changed, such as increasing the weight of the rail from 42 to 45 lbs per yard.

Following what was becoming a tradition Thomson went to Melbourne and on 24 November Council gave him seven days notice to sign. Inevitably Thomson failed to sign and Council found itself having to support the Government in extending the Forest Lodge line. After nearly 6 years the Balmain Tramway Act saga was over – nearly.

The steam tram arrives

The Government appointed a Departmental Board on 21 October 1889 to investigate the replacement of the Pyrmont and Glebe Island bridges. On 23 November this Board was also asked to recommend a tram route to Balmain.

The Board consisted of C.W. Darley, Engineer in Chief for Harbours and Rivers; R.R. Hickson, Commissioner and Engineer in Chief for Roads; H. Deane, Acting Engineer in Chief for Railways; T. Angus, Acting Engineer for Existing Lines; G. Gordon, Hydraulic Engineer of Melbourne. For many reasons it took this Board quite a time to meet and gather information.

In September 1890 the Government approved the extension of the steam tram from Forest Lodge to Merton Street, Rozelle ³⁴. Four different routes had been considered by the Board ³⁵:

- direct along Market Street crossing Pyrmont and Glebe Island Bridges (2 miles 26 chains),
- via Harris Street and Glebe Island Bridge and Weston Road (now Victoria Road) to Darling Street (3 miles 77.5 chains),

 extending the existing Glebe Point tramway over a new bridge over Rozelle Bay ³⁶ and either Weston Road to Darling Street, or Mullens and Beattie Streets (4 miles),

 extending the existing Forest Lodge tramway through Annandale, round Rozelle Bay and Gordon Street to Darling Street (4 miles 4 chains).

The first two routes had been proposed as cable tramways but were rejected because of the complications of carrying cables across opening bridges. Use of electric traction was considered, but was considered too expensive and immature to be recommended at this time ³⁷. The direct electric tram route was estimated to cost £60,000 and steam was not considered suitable for the steep hill up Market Street. The third route was rejected because of the compensation that would have to be paid to owners of properties on Rozelle Bay as well as the work's cost of £37,000.

The fourth route was chosen because it was suitable for steam traction and was only estimated to cost £13,000, but the Board felt that the first route would be preferable if electric traction proved successful ³⁸.

Construction from Forest Lodge commenced on 26 May 1891 and the single line was opened on 2 May 1892 to Merton Street. It was noted as being almost complete in December 1891 apart from the missing bridge across Johnston's Creek ³⁹. Given that Council was still discussing its own tramway at this time we can only conjecture what would have happened in Darling Street if both lines had been built. Work on extending the steam line to Gladstone Park began on 22 August and on 24 October 1892 trams at last arrived in Balmain.

At a public meeting held in the Balmain School of Arts on 23 October 1892 the cable tram proposal arose again. The meeting's objective was to assist the Balmain Council to extend the tram to Darling Street Wharf and it was felt that the cable system, even though it was more costly than steam, would be the only means of defeating the gradients. A deputation was formed to visit the Minister of Works ⁴⁰. Maxwell Bury, the second failed contractor, reappeared on 8 November to make an offer to Council to construct the cable tramway. He made a proposal to a special meeting on 28 November, but, as before, Bury had some objections to Council's requirements and nothing more eventuated ⁴¹.

It was to be another eleven years before trams reached Nicholson Street (1902) and the wharf at the end of Darling Street (1903).

The Balmain Tramway Act has not been repealed.

Balmain Observer, 5 January 1905. Microfilm copies of the 1884 to 1889 and 1899 to 1906 issues are held in the NSW State Library.

- ² Willson R.K, Henderson R.G. and Keenan D.R., *The Red Lines*, p8.
- NSW State Records 1884,1888 as cited in Solling M, Reynolds P, Leichhardt: On the Margins of the City, p57.
- ⁴ The service recorded in the By-Laws made under the Public Vehicles Regulation Act of 1873, published on 2 June 1882, gives the route as from Callan Park by Darling, Elliot, Beattie, Mullens, Parsons and Crescent Street, Abattoir and Pyrmont Bridge Roads, Harris, George, Barrack, Clarence, Erskine, York, and Wynyard Streets. There is no registered service in the schedules prior to 1880.
- McCarthy K, North Sydney Cable Tramway Centenary, Trolley Wire, Apr, Jun, Aug 1986.
 Keenan D, The North Sydney Lines of the Sydney Tramway System, Transit Press, 1987, p7.
 This tramway commenced construction in mid-1885 and was opened on 22 May 1886. Both authors incorrectly refer to the construction company's owner as Woods Carson (see end note 12 below).
- ⁶ Balmain Observer, 20 June 1885 although the article refers to a 'cattle' tram!
- Jacob Garrard was a Balmain Alderman from 1879 to 1886, Mayor in 1880. He was MLA for Balmain from 19 November 1880 until 6 June 1891, for Central Cumberland from 29 August 1891 until 25 June 1894, for Sherbrooke 17 July 1894 until 8 July 1898. He was Secretary for Public Works from 22 December 1885 to 25 February 1886, Minister for Public Instruction from 3 August 1894 until 15 August 1898 and was also appointed Minister of Labour and Industry on 11 March 1885. Garrard had trained as an engineer and worked at Mort's Dockyard until 1883 when he became a real estate agent and director of various companies. When a member of the Public Works Committee in 1891 he submitted a report on the electric tramway systems at Sandhurst (Bendigo) and Box Hill.
- 8 Balmain Observer, 27 June 1885. These legalistic combined public notices appear to have been a common occurrence when calling public meetings.
- ⁹ Bastings appears to have been a native of Dunedin, New Zealand. The Sydney Morning Herald of 24 May 1886 reported that 'Messrs S S Duncan, Alfred Duncan, James W Duncan and Horace Bastings have all filled important posts in connection with the carrying out of the contract' for the North Shore cable tramway. In April 1887 as Chairman of the Melbourne based Cable Tramway Construction Company of New South Wales he was one of several proponents of converting Sydney's steam trams to cable (see NSWLA, The Government Tramways Correspondence &c., in reference to leasing of, 10 April 1888).
- 10 Jeanneret's Tramway Act for the Parramatta Park Gates to Redbank Wharf steam tramway, passed August 1881. The line opened 1 October 1883 and closed on 1 April 1943. The Act was repealed in 1945.
- 11 Saywell's Tramway Act passed on 6 March 1884 for construction of the Rockdale to Lady Robinson's Beach (Brighton-le Sands) steam tramway. The line opened on 9 November 1885, was transferred to the Railway Commissioners on 6 March 1914 and converted to bus operation after 3 September 1949.
- 12 Henry Gilbert Carson Woods was a Canadian who arrived in NSW around 1871. He was the contractor for the North Sydney cable tramway. As proprietor of Carson Woods, Rich & Co. he figured in the inquiry by a Select Committee of the Legislative Assembly into lever dump cars which were manufactured at Pyrmont using material imported from America (1883-84 Session, vol. A5, p.447). He subsequently appeared twice before the Public Works Committee on the proposed King Street cable tramway held in May 1890 but by this time was a proponent of electric tramways and supported the Julien system of battery cars.
- 13 Alfred Duncan's brother George Smith Duncan was the supervising engineer to the CTCC and later a shareholder in the Clifton Hill to Northcote & Preston Tram Co. A director of the CHN&PT was B.J. Fink.
- ¹⁴ Sydney Morning Herald, 18 July 1885, p10.
- 15 The Electoral Act of 1880 provided for 72 electorates and 108 members, with provision for an expansion of up to 4 members for each electorate as population increased. The number of members thus increased to 141, a number of electorates returning the maximum of 4 members.
- ¹⁶ NSW LA, 1885 Second Session, Minutes of Evidence taken before the Select Committee of the Balmain Tramway Bill. The Committee was chaired by William Hutchison, the other Member for Balmain.
- ¹⁷ NSW LC, Minutes of proceedings, 5 May 1886. Balmain Tramway Bill, second reading. Piddington described steam trams as 'this Moloch that reveled in blood' and 'which approached silently and caught people unawares'.
- ¹⁸ Balmain Observer, 18 September 1886.
- ¹⁹ See for example *The Argus*, 17 November 1886.
- 20 Maxwell Bury was an engineer from New Zealand who arrived in Sydney around 1883. During 1886 and 1887 Bury was one of the proponents of leasing the Government tramways and converting some of them to cable operation. He also appeared before the Public Works Committee on the proposed King Street cable tramway held in May 1890.
- ²¹ Balmain Observer 29 January 1887.
- 22 Manufacturer and Builder (US), Volume 16, Issue 1, January 1884. D.J. Miller's duplicate system used two cables in each conduit and a double-jawed side grip. This made the cable system more dependable in theory, but added greatly to the cost of building and operating it.
- ²³ Cannon M, *The Land Boomers*, Lloyd O'Neil, Melbourne, 1972. Fink was MLA for Maryborough, Victoria, and was to run up £1,520,000 in debts before departing for London in disgrace in 1892.

24 The Ryde line eventually opened on 11 June 1910 having reached the south end of the Gladesville Bridge on 28 December 1902.

- ²⁵ Balmain Observer, 16 October 1888.
- 26 The Leichhardt line reached Wharf and Balmain Roads on 6 May 1912 and was extended to Weston Road on 23 December 1912.
- 27 The dispute went to court in February 1890 (Coonan v Borough of Balmain which was brought into the Equity Jurisdiction of the Supreme Court of NSW) and Balmain Council's minute book was subpoenaed as evidence. Council wanted to retain £200 in expenses. The original decision dismissing Coonan's claim was handed down by the Chief Judge in Equity on 24 March 1890 and reported briefly in the Weekly Notes (volume 6, p119) and in full at pp 271-277 of the NSWR version. This decision was then appealed to the Full Court (comprising the Chief Justice and two Judges) whose decision (pp. 278 280 refer) was handed down on 12 August 1890 after a five days' hearing; Coonan was awarded the full £1000 plus interest. The case was reported in volume 11 of *The New South Wales Law Reports* at page 270 ((1890) 11 NSWR 270). Even after the award Carson Woods protested (Balmain Council Minutes 15 August 1890). The Chief Justice was Sir Frederick Darley who held that position from 29 November 1886 until his death on 4 January 1910. He replaced (Sir) Julian Salomons who held that office from 12 to 27 November 1886, but who resigned before taking office. Darley had been considerably involved in the Balmain Tramway Bill's passage through the Legislative Council earlier in 1886. Salomons was involved in the appeal appearing on behalf of Coonan.
- 28 There had been a further short delay caused by the merger of the Sprague Electric Railway and Motor Company with the Edison General Electric Company.
- 29 This is as reported and probably only refers to the saloon of the car. If so it would be a similar size to the North Shore cable trailers and would only accommodate some 16 seated passengers. A King Street cable trailer measured 18ft 6ins over headstock and 12ft 0ins over the saloon body. Its width was 6ft 7ins with a height from floor to ceiling of 7ft 6ins, a tare of 2 tons and a seating capacity of 16. Note that Part Two of the New South Wales Tramcar Handbook 1861-1961 (1976) states that there were two cable trailers numbered 23. One, constructed by Ritchie Brothers in 1894 for use at King Street and one constructed by Hudson Brothers in 1893 for use at North Sydney.
- 30 Balmain Observer, 12 October 1889.
- 31 Balmain Observer, 16 November 1889.
- 32 Moir J.K. Australia's First Electric Tram, Traction Publications, Canberra, 1961. Green R, The First Electric Road, John Mason, Melbourne, 1989.
 - The Doncaster to Box Hill tram ascended a gradient of 1 in 15.4.
- ³³ Balmain Council Minutes: 4, 6, 25 August; 1, 8, 18 September, 13, 27 October, 24 November, 8 December 1891.
- ³⁴ Then known as Balmain West, the Post Office chose Rozelle in November 1892.
- ³⁵ NSW LA, Pyrmont and Glebe Island Bridges Tramway to Balmain, Report of Board, 11 September 1890.
- ³⁶ Glebe Council began agitation for this in July 1889, Balmain Observer, 28 July 1889.
- ³⁷ The Board referred to experiments being conducted by the Railway Commissioners. These did not actually start until November 1890. See McCarthy K..A. The Experimental Electric Cars - Waverley to Randwick Tramway — 1890, Trolley Wire, No 243, November 1990.
- 38 The Ryde electric tram routé eventually followed option 2, still not providing a direct tram route from the City to Rozelle and Balmain.
- ³⁹ Willson R.K, Henderson R.G. and Keenan D.R, *The Red Lines*, p8.
- ⁴⁰ Sydney Morning Herald, 24 October 1892.
- ⁴¹ Balmain Council Minutes: 8, 28 November 1892 and 20 December 1892.

THE SYDNEY TRAMWAY MUSEUM'S AEC MATADOR RECOVERY VEHICLE

By Ben Barnes and Greg Travers

After World War II, the NSW Department of Road Transport and Tramways were left with a decrepit fleet of support vehicles, which were used to undertake a number of duties in the operation of the department's tramway and omnibus services. After the end of hostilities a primary objective was the provision of a fleet of heavy recovery vehicles to assist in the retrieval of damaged and defective buses. Initially, the pre-war option of using converted buses was favoured. However after World War II the decision was made to acquire a fleet of specially modified trucks to support the Department's expanding bus network.

Six former artillery tractors on AEC Matador O853 4 x 4 chassis were made available from stock through the local AEC agents, Hastings Deering. The AEC Matadors were 90kW, five-tonne master breakdown tenders powered by the AEC A187 7.7l diesel engine coupled to a four-speed constant mesh gearbox. AEC's post-war publication, 'Contribution to Victory', states that they were introduced early in the Second World War as medium artillery tenders which presumably accounts for the name of the chassis. They were produced in various forms as lorries. Other features of the Matadors that made them ideal for recovery duties were four-wheel drive, air brakes and the provision of winching equipment.

The Department designed the chassis to fit a body with ample room for equipment and crew. The Matadors were fitted with lifting gear to enable the righting of overturned buses, which was designed with assistance from the NSWGR Lifting Appliance section. Provision was also made for lift towing. Following a number of serious accidents in Newcastle the decision was made to allocate the first completed Matador to Hamilton Depot.

The chassis were delivered between 19 July 1951 and 2 April 1952. The first was completed and entered service on 19 September 1953. The last of the six was placed in service on 14 December 1953. They were numbered CT.139 (Newcastle), CT.073 (Randwick), CT.082 (Brookvale), CT.092 (Burwood), CT. 109 (North Sydney) and CT.153 (Kingsgrove).

The Museum's example, believed to be CT 082, was allocated to Brookvale Depot and was the first Matador to be used for recovery duties when it was dispatched to retrieve Albion Venturer double-deck omnibus 1917 after it had collided with a pole at Spit Junction on 28 December 1953. The bus survives to this day, being part of the collection of the late Bruce Pinnell.

Besides being used by the Omnibus division of the



The restored AEC Matador is seen at Loftus. Originally registered CT 082 under government ownership, it was registered as an historic vehicle with the plate number 001 during the 1980s. Following changes to the registration of vintage and veteran vehicles in NSW, it now carried the registration 22834 H.

Martin Pinches

Department, two Matadors were used to haul the tramcar carrying trailer known as the Lizard following difficulties in obtaining parts for the Kenworth tractor unit, CT 195 formerly allocated to the task. CT 109 of Willoughby and CT 092 of Burwood were fitted with the necessary equipment to enable operation with the Lizard trailer. Later CT 073 at Randwick was similarly modified.

The success of the six examples resulted in an attempt to procure two more Matador chassis to enable Ryde and Waverley depots to undertake heavy recovery work; however only one chassis was obtained. This vehicle became CT 015 and was delivered to Waverly on 16 August 1960. Because about seven years had elapsed since the delivery of the last member of the initial batch, CT 015 featured some minor detail differences to the earlier examples including the provision of a flashing roof top light and sealed windscreens. The former modification was fitted to all Matadors at their first overhauls.

The Matadors undertook sterling service for many years for what had become the Department of Government Transport. By the early 1970s, however, their age and availability of spare parts had become a problem. When the decision was made to undertake a large scale upgrading of the Public Transport Commission's bus recovery fleet, the Matadors were

replaced by new Leyland and Volvo trucks delivered in 1973, 1976 and 1978. The last Matador was withdrawn on 19 May 1978.

CT 139 passed into preservation upon withdrawal. It is preserved by a syndicate of Historic Commercial Vehicle Association members and is stored near Windsor. The vehicle is operable but not restored and was purchased direct from the PTC by a Newcastle preservation group. Other examples were scrapped or sold for further use. A number found a new life in saw mills on the NSW North Coast and CT 015 and another example were still in existence in the Nambucca region a few years ago. Dealers, Hills of Wollongong acquired some of the vehicles for re-sale including CT 082.

During the 1980s, former CT 082 was registered as Vintage Vehicle 001. The vehicle has been fully rewired and restored to full working order by Sydney Tramway Museum members Craig Parkinson and Chris Olsen and has been reregistered under the Roads and Traffic Authority's new registration scheme for vintage and veteran vehicles as Historic Vehicle 22834 H.

Acknowledgments

Trolley Wire thanks Ross Willson who provided additional material and confirmation of some details.



Randwick's Matador CT073 brings a tram on the Lizard through the toll gates at the southern approach to the Sydney Harbour Bridge. The tram is being transferred to Randwick Workshops for overhaul.

Sydney Morning Herald, R. Merchant Collection

MILITARY ROAD OR NORTH SYDNEY?

By Martin Pinches

There were a number of interesting people and incidents associated with the operation of the Sydney and Newcastle Tramways over the years. Many of the personalities have been recorded in David Keenan's excellent series of books on the history of the various lines. However one interesting incident that has not been recorded concerns the small depot plates that, as most readers would be aware, were fitted to each side of Sydney and Newcastle's electric tram fleet.

The '1-L-2' and '2-R-1' plates first appeared on Sydney and Newcastle trams in 1924. Instructions were issued in January of that year for 'tablets' to be affixed to the trams to indicate to depot and workshop staff the ends and sides of each tram. Prior to the issue of that instruction it was proposed to paint the words 'Left' and 'Right' on the sides of the cars. The plates to indicate the depot to which each tram was allocated were also introduced around this period.

There were ten different plates (approximately 7 x 5 cm) used for the Sydney system with a single letter to indicate the allocated depot, these being:

D - Dowling Street

E - Enfield

F - Fort Macquarie

K - Rushcutters Bay (King Street line)

M - Manly and North Sydney (Military Road)

N - Newtown

R - Rozelle

T - Tempe

U - Ultimo

W - Waverley

A larger plate was needed for the remaining depot, this being approximately 9 x 5 cm. This plate displayed:

N/c - Newcastle

All depot plates were manufactured at Randwick Tramway Workshops mainly from brass but later aluminium was also used. They were cast in the Workshops foundry from patterns that were made in the normal manner for non-ferrous metal casting.

The 'N/s' depot plate

In the early 1950s a young cadet engineer was employed at Randwick Workshops and during the normal course of his training was allocated for a period to the foundry. Being a tram enthusiast he believed that the use of the 'M' plate to indicate North Sydney depot was not correct. As the 'N' plate was already in use to indicate Newtown depot he decided that there was a better plate that could be used.

About this time, the Newcastle tram system had been closed so our young engineer decided to have a slight alteration made to the last letter of the 'N/c' plate pattern by changing it to 'N/s'. This action was satisfactorily completed and an unknown number of plates were cast in the foundry. Not satisfied with just casting the plates, he then proceeded to affix some of these new unofficial plates to some O and R class trams at North Sydney Depot.

Shortly after this, the Electrical Foreman at North Sydney Depot happened to notice these new plates.



The ten Sydney depot plates, the Newcastle and the unofficial North Sydney depot plates.

Martin Pinches

Enquiries were made and it was found that they had not been authorised by the appropriate officers in the Department of Government Transport and were to be removed forthwith. It is not known if the source of these unofficial depot plates was ever found or if any action was taken against the young cadet engineer. He continued working at Randwick Workshops for some time after this incident. He eventually left Australia to work in Canada where he unfortunately passed away some years ago.

Acknowledgements

The information for this brief article was provided by Sydney Tramway Museum member John Burgess who, as an apprentice coach painter, was employed at Randwick Workshops at the time. Additional information was also supplied by Victor Solomons and Norman Chinn. A few enthusiasts were aware of these depot plates at the time and at least one original N/s plate is still in existence. A number of replicas have been cast from this original.

HERE AND THERE

NEWS ITEMS OF INTEREST FROM ALL OVER

Route changes in Melbourne

A number of changes to Melbourne's tram routes came into effect over the weekend 16-17 October 2004. Routes 16 (Melbourne University to St Kilda Beach) and 69 (St Kilda Beach to Kew, Cotham Road) have been combined into a new route 16 - Melbourne University to Kew, Cotham Road via St Kilda Beach. Route 69 has been discontinued. For some time, weekday services on 16 and 69 have worked together with the inbound 69 changing to a 16 around Barkly Street, St Kilda (where the railway trams used to cross). Outbound route 16 trams changed to 69 prior to arriving at St Kilda (Luna Park). The new route 16 provides increased headways in Glenferrie Road which has heavy school and university (Swinburne) patronage. The new route 16 is worked by Malvern Depot.

A new route 8 runs from Toorak to Moreland and combines the old 8 (Toorak to Melbourne University) and 22 (Arts Centre to Moreland). It also replaces the shuttle service from East Brunswick (Moreland Road) to Moreland which operated when route 22 was not running (mostly during the evening). Route 22 has been discontinued.

The former service from St Kilda Beach to Victoria Bridge via Glenferrie Road and Kew Junction was cut back to Kew - Cotham Road from 8 December 1929. This occurred when electric trams from Mont Albert began through running to the City via Collins Street following the conversion of the cable line to electric traction. The St Kilda Beach to Kew Cotham Road service was un-numbered and received the Route Number 69 on 24 June 1934.

Route 22 dates from 1930. It was originally North Coburg-City until 1935, when it became Moreland-City. The service operated in peak hours. Route 22 commenced operation as Arts Centre-Moreland on 2 April 1995.

Z1 class No. 92 ran the last route 69 trip. This was the 00:13am trip from St Kilda Beach to Kew Cotham Road, returning from there at 00:52am. The car ran in at Malvern Depot at 1:09 (one minute early), ahead of car 190 running in from St Kilda Beach, due in at 1:09am, and arriving at 1:12am.

There are now no tram routes numbered 69 anywhere in the world.

Tram routes 69 around the world

Brisbane had a route 69. It was from Valley/Wharf Street to the Nursery Road crossover in Logan Road, the last short-working point before the terminus of route 79 at Mt Gravatt. The route disappeared with the Brisbane system closure on 13 April 1969.

There was a route 69 in Vienna from April 1907 to December 1918 between Walfischgasse and Südbahnhof, from October 1922 to March 1947 and May 1947 to October 1969 between Schellinggasse and Südbahnhof, and from October 1969 to December 1975 between Schulbertring and Südbahnhof. These were more or less the same line with minor alterations at the terminus. Today this section is served by Line D.

London County Council Tramways had a tram route

numbered 69 from 1912 to 1931. It ran between Aldgate and Barking (Loxford Bridge) in East London. The London Passenger Transport Board took over London's public transport in 1933. In 1934, a route renumbering scheme reintroduced the route number 69. It ran from Stratford Broadway to Canning Town Change Pit. Tram route 69 was replaced by trolleybus route 669 in 1937.

The northern suburbs of Paris had a route 69 of just over 3 kilometres between Enghien (gare) and Montmorency (Place des Cerisiers) between January 1921 and December 1935.

New York had a route 69 in Brooklyn. It was the McDonald-Vanderbilt Avenue line which ran until split in May 1949.

Philadelphia had a route numbered 69 in West Philadelphia. It first ran from 70th Street and Lansdowne Avenue partially via Vine Street to 63rd and Market Streets from June 1911 to September 1918 when it was merged into route 31. The second ran from 63rd Street and Lancaster Avenue to Market Street from February 1918 to August 1921 when it was replaced by route 41. The route again ran from 70th and Lansdowne to 63rd and Market from December 1926 until replaced once again by route 31 in October 1938.

Trolley Wire thanks Paul Nicholson, Jeff Bounds and Graeme Cleak (Victoria), Mike Taplin (UK), Klaus Matzka (Austria), Philippe Matagne (Belgium), John Humbly (France), David Horwitz and Dennis Linsky (USA) for providing information and assisting the editor with research. This listing is not exhaustive, and there may be other routes numbered 69. However, our research suggests that most large systems seemed to miss the use of 69 as a route number even when route numbers in the sixties and seventies were used.

Adelaide light rail

A new era in public transport became a step closer in Adelaide with the announcement by the Government of South Australia that Bombardier Transportation Australia Ltd would be awarded the contract to deliver nine new, low-floor trams for the City to Glenelg service.

Transport Minister Trish White said that the \$47.4 million contract will result in a significantly improved service for commuters using the Glenelg line. The new trams would be part of a \$71.9 million commitment by the State Government to upgrade the line. The expenditure represents the first major discretionary capital investment made in Adelaide's public transport fleet for 24 years.

The Minister said that the new trams which would be manufactured by Bombardier Transportation to the company's Flexity Classic design. They would have a number of features that will make them accessible to all users of the service, including the elderly and people in wheelchairs.

"Bombardier Transportation International is wellestablished with an excellent reputation in the field of tram manufacture. The type of trams that Adelaide plans to buy is currently operating in Frankfurt, Germany, and is known for its reliability and low maintenance costs. The design will be modified to include up-graded air-conditioning because of Adelaide's hot summers. It will also have additional ramps for improved access for people with mobility difficulties. The new trams will meet the standards under the Australian Government's Disability Discrimination Act 1992," the Minister said.

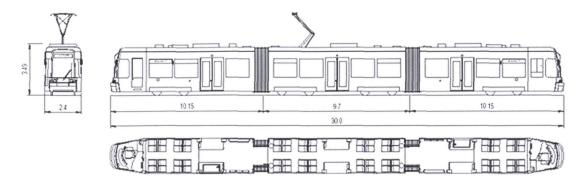
Before the new trams enter service, the light-rail corridor between Adelaide and Glenelg will be extensively up-graded. The upgrade will contribute to the smoother, quieter and more comfortable ride. Station platforms will be raised to match the floor height of the trams.

Delivery of the first new tram is expected to occur in December 2005. The whole fleet is expected to be in service by July 2006. New and old trams will operate during the phase-in period.

Features of the Flexity Classic Bombardier tram:

- Each tram is 30 metres long and 2.4 metres wide, which compares with a width of 2.6 metres for the H class.
- Seating capacity for 70 passengers (64 fixed and six fold-down seats), similar to Melbourne's new trams.
- Maximum speed of 70km/h (which compares with 68km/h for the H class when built in 1929).
- Conductors will be present on each tram.
- · Two wheelchair spaces.
- · Four fold-out wheelchair ramps.
- Closed-circuit television for improved internal security.
- · Open interior with large windows.
- · Air-conditioning.
- Improved energy efficiency (because of regenerative braking) and quiet operation.

Silver Grey has been chosen to be the predominant colour for the new trams. Like Adelaide's current bus and train fleets, the new trams will carry South Australia's colours of yellow, blue and red on their front and rear panels.



An outline drawing of a Flexity Classic car on which the Adelaide cars will be based. It has been altered to show the car for left hand running. This design (for right hand running) is being used in Frankfurt, Germany.

Bombardier Transportation

Coincidentally, research presented at the Australasian Transport Research Forum in Adelaide in October confirms Adelaide's smart choice of colour. That research shows that consistency is a significant factor for commuter and tourist recognition in encouraging them to use public transport.

Five refurbished H class trams will remain in service to provide a heritage service. The five cars to be retained are those which were rebuilt with chopper controls several years ago, namely, Nos 351, 367, 370, 374 and 380. It is not known at this stage whether the other cars will be disposed of. Some may be used as a source of spare parts.

Track upgrade:

- The track will be realigned and relaid with concrete sleepers along most of the corridor.
- The existing rail will be either replaced or re-profiled to ensure provide better ride quality.
- The existing power supply, including the specification of the trolley wire, will be up-graded for optimal operation.
- The tram corridor will be included into the 'one million trees project' to enhance the visual amenity.
- Glengowrie Depot will be upgraded to meet the new trams' more sophisticated maintenance requirements.



The proposed colour scheme for Adelaide's new Glenelg trams.

Courtesy SA Premier's Department

Hobart's waterfront tramway

The plan for a tourist tramway spanning the Hobart waterfront has finally been put to rest. The Hobart City Council rejected the controversial Bicentenary project on 27 August that would link Princes Wharf at Salamanca Place with Hunter Street. Three aldermen, including the tram's greatest supporter, Alderman Darlene Haigh, who put forward the reintroduction of trams 12 years ago, walked out of the deliberations.

Plans to develop a tram route between the Hobart railway yards and the Royal Tasmanian Botanical Gardens are now being considered.

Lord Mayor Rob Valentine acknowledged the tram project was complex and the Council did not take its decision lightly. He said he was relieved a decision had been made and there was still considerable research to be carried out on the preferred route. It had not been determined who would operate the tramway. The Council still believed a tramway would have significant tourism potential but discussions with major stakeholders including the Hobart Ports Corporation and the railways must be held. Alderman Valentine considered decisions could be several years away but noted that the important issue of Council support for a tramway and its route had been clarified.

The Council will call tenders to restore the three remaining trams to museum or display condition. Costs will be met by funds from last financial year's Budget and \$290,500 from Bicentenary funding. Ratepayers will determine how the balance of Bicentenary funding would be spent. A plan to buy 35 Hunter Street to house the trams has been abandoned.

A new tram line for Melbourne?

The City of Port Phillip is considering a plan for a new tram route from Port Melbourne to St Kilda, skirting the foreshore of Port Phillip. The City of Port Phillip, Tourism Victoria and Yarra Trams have commissioned a feasibility study into the route which is expected to appeal to tourists and local residents. The Department of Infrastructure is also involved in planning the possible route.

The study, which will cost \$60,000, will examine whether there is sufficient demand for such a service to ensure its viability. It will also look at potential problems that may be associated with operating trams close to the foreshore and whether the existence of overhead wires would adversely affect residents' views of the bay. Options being considered include operating trams in both directions on one side of Beaconsfield Parade and constructing the tramline along the road's median strip.

Another option would be to run the service close to the foreshore between the existing line at Port Melbourne and the intersection of Beaconsfield Parade and Mills Street. From there, trams would travel north along Mills Street before turning right into Danks, Patterson and Park Streets to reach Fitzroy Street, St Kilda. New curves would be laid at the intersection of Park and Fitzroy Streets to enable trams on the new route to reach Acland Street, St Kilda.

The study is expected to be completed by March 2005. A spokesperson for Yarra Trams said the company would be providing technical and engineering advice for the feasibility study. However, it would not commit any funds at this stage. The spokesperson said the company is interested in examining the potential of the new route.

Flooding at Pennsylvania Trolley Museum

Hurricane Ivan struck eastern USA over the weekend 18 and 19 September 2004. It caused wide-spread damage from Florida to New York and some areas were declared Federal disaster areas.

The Pennsylvania Trolley Museum fared reasonably well with damage from flooding mainly because of a renovation project that had been completed over the summer. As a result, very few of the Pennsylvania Trolley Museum's exhibits were damaged in the weekend flooding. In the museum's main building, which houses the visitors' centre and restoration shop, the water rose to nearly 18 inches according to museum executive director Scott Becker.

The new trolley line the museum installed and opened for its 50th anniversary in June survived unscathed. However, all of the exhibit modules in the main building have had to be discarded. Volunteers cut holes in the walls to remove waterlogged insulation. Most of the trolley cars were housed in the new display building where they were safe from the floodwaters. Three cars in the restoration centre were damaged only slightly.

A document storage building was flooded, causing damage to the museum's archives and a restoration company had been hired to work on the waterlogged material.

Steve Becker said the museum should reopen in a limited capacity on Saturday, 25 September.

Australian Trams – from Russia

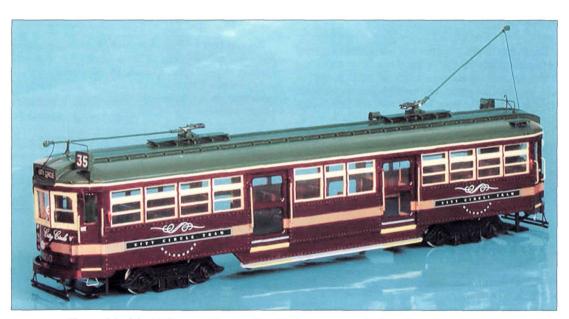
Many readers are aware of the beautiful Sydney R class tram models that have been produced by the St Petersburg Tram Collection. The firm also produces a range of Melbourne trams and the current catalogue includes the SW6, W6 and W7 classes and PCC 980. These are of the same very high standard as the R class.

The latest offerings include the City Circle trams, shown here, and 'Royal' R class No. 1925 in the buff and red colour scheme of 1954. Only 15 City Circle W cars and 10 of R class 1925 are being made. There are very few left of either car.

The big news is what is coming later this year and in 2005. This year will see three variants of Brisbane's FM type trams 513-554, a silver car, a grey car and the attractive Phoenix tram. These can be ordered today and will also be available in limited numbers.

Next year will see the release of the Sydney post-war R1 class (in December) and a new series of tramway buses, the first of which will be the Sydney Mk II underfloor-engine bus. These buses were bought for the final replacement of trams in Sydney. If this bus is successful, StPTC proposes to make the Mark I version and the standard Sydney Double Decker, all in the same 1:43 scale. They would be perfect partners for your Sydney model trams. The Sydney double-deck trolley bus (No. 19) is likely follow later.

No firm has made models of Australian trams to a high standard before, especially in this scale and of this quality. While they are not cheap, the company deserves our support. It plans to make many in the future but it has to sell the existing types first. The company has a policy of manufacturing only one type of tram each year which gives its customers time to save for the next tram – the one you 'just have to have'!



The model of the Melbourne W series City Circle tram.

St Petersburg Tram Collection



Inquiries and purchases can only be made through the company's Australian distributor, Transit Classics which will also donate \$10 from each sale to the Sydney Tramway Museum if the purchaser mentions seeing this article in *Trolley Wire* when the order is placed. Transit Classics can be contacted by e-mail at transitclassics@optusnet.com.au and their mailing address is 11Meldrum Court, Sunbury, Victoria 3429; Phone (03) 9744 3577.

The pattern for the Brisbane four-motor tram.

St Petersburg Tram Collection

ROCKHAMPTON

Archer Park Station and Steam Tram Museum

c/- Rockhampton City Council, Rockhampton Queensland 4701

From Dennis Sheehan

Lucky find on tip

An exciting donation was received at the museum in July. It is a manually operated departure clock from the Rockhampton steam tramway. The clock was used to inform intending passengers when the next tram was to depart from the city to the Botanical Gardens.

The clock was found on a rubbish tip at Gladstone many years ago and has been donated to the museum by its finder, Mr Mark Herdman. It is of pressed metal and measures 55cm by 53cm with the words 'Next Tram Starts for Botanical Gardens' on its face.

Purrey repairs

The Purrey steam tram has had some repairs carried out, particularly to the steam pump. The valve rod which has two copper rings on it, and works in and out of a spool on the pump, has been playing up for some time. It reached the point of the valve rod unscrewing itself and letting the two rings fall outside the housing. It was found the original rod was bent. A Council fitter was called in and a new rod was made. The steam pump is now working satisfactorily except for being a little tight. While the pump was out of the tram, all the glands were repacked.

Archer Park station turns 105

Archer Park Station, under whose carriage shade the Purrey steam tram is housed, celebrates its 105th birthday on 12 December 2004. The precise date of the station's opening was 11 December 1899.

The station was to have been opened for business along with the rail line along Denison Street and the Alexandra Railway Bridge on 6 November 1899. However, for some reason Archer Park was not ready, and the official opening was postponed. A subsequent story in the local *Morning Bulletin* announced the opening of the station, but there were no official speeches to mark the occasion.

Archer Park station was built by local builders Renshaw and Ricketts. The architect was Henrick Hansen, from Hamburg, who worked for 22 years with the Queensland Railways. Hansen also designed three other stations in Queensland: Cunnamulla, Winton and Mount Morgan.

There will be one almighty party at Archer Park on 12 December!

BALLARAT

Ballarat Tramway Museum PO Box 632, Ballarat, Victoria 3353

http://www.btm.org.au

From Dave Macartney and Warren Doubleday

The overhaul of No. 40 continues to occupy the time of the workshop staff. The missing fittings of the motor have either been found or re-manufactured, and the armature was returned to the case on 21 September. The pinion has been refitted, and it only remains for some wool packing to be obtained and the motor tested before it can be returned to its truck. Meanwhile, the roof repairs and repainting have been virtually completed, although a couple of sections of roof guttering will require replacement. The downpipes/handrails have received some attention. Some of these were blocked, and are proving difficult

to clear; others have rust problems which have been attended to. The body panels are in the process of being stripped back to bare metal prior to repainting. It is interesting to note that the panels contain only SEC paint, which suggests they were stripped when the car arrived from Melbourne. Nos. 38 and 39, on the other hand, are known to have paint dating back to their Prahran & Malvern Tramways Trust days underneath the top coat.

The Bedford tower truck became a failure in early July. It was found that the cylinders were full of water, so it was necessary to find a new gasket and have the

cylinder head sent away to be shaved flat again. What was really needed was a service manual to assist in the various stages of dismantling and reassembly. Alan Snowball, being a persistent type, did the rounds of the motor repair establishments in Ballarat, and, amazingly, managed to borrow one! The owner wanted it back afterwards, just in case some other owner of a 1952 Bedford showed up, but at least we now have a photocopy. The tower truck returned to service on 21 August.

Passenger figures over the June/July school holiday period totalled 656, reasonably good considering the poor weather and lack of visitors at that time of year. The figure for the September holiday break came in at a more respectable 1365 passengers. The Museum managed some vision on the WIN TV regional news on 23 September with seventeen seconds of footage of 661 in Wendouree Parade shown behind the closing credits.

The Museum's Annual General Meeting was held on 3 October at the Victorian Railways Institute Hall in Lydiard Street North, right opposite the old Seymour Street passing loop of days gone by. The previous Board of Management was re-elected, the only changes involving Stephen Butler and Richard Gilbert. Stephen moved from Vice-President to President, with Richard making the opposite move.

Late News

The Ballarat Tramway Museum is not operational at present due to a power supply problem. In mid October a lightning strike very close by damaged some equipment in the sub-station including fuses and diodes. This was rectified quickly and temporary arrangements were implemented. The main switch also suffered some damage. A small fire on 19 October in the main traction power switch took us 'off the air' completely. We also were concerned about possible damage to the isolating transformer. This was sent to ABB Melbourne during late October. It was determined that while it did not contain PCBs, the oil was found to have excessive moisture content. The transformer is now being examined and dried out. If there is no damage and it dries out satisfactorily, with good resistance, it will be reinstalled and the BTM will be operational again by late November.

If the transformer cannot be recommissioned, alternatives have been investigated and will be implemented, at some cost.

The museum/depot was taken off the main power supply following the fire, but was brought back on line again on 29 October. In those ten days much work was done to replace old equipment, renew the main traction switch and bring the installation up to current wiring rules. Other work on the traction power supply network is also being done, for example renewal of cable that is life expired.

ST KILDA

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

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

From Colin Seymour

Bib and Bub trams

Work at St. Kilda towards the reconstruction of our Bib and Bub set began on the 10 July 2004. The bodies of A type cars 15 and 17 were moved from the tram storage shed at the rear of the site to Road 3 in the Old Depot to evaluate which of the two cars will be coupled to car 14 to recreate the Bib and Bub sets of World War II. The body of A type car 14 will remain at the rear of the tram storage shed until a workshop dolly is built to transfer the car to the Old Depot shed. Two 21E-pattern trucks are being built in Bendigo for the coupled set.

The relocation of the two cars also required moving some W3 trucks and dollies that were in front of the two trams, one by one, through the rear door of Road 6 in the Old Depot.

A total of 58 A type and four A1 type cars were coupled into 31 permanent sets from August 1940 as part of a wartime program to conserve manpower. The coupled sets were withdrawn from traffic by 30 November 1950. A number were returned to traffic for a brief period as single units.

The internal bodywork of car 14 has been disassembled and restoration work has commenced. Cars 15 and 17 are still being evaluated to determine which one will partner car 14 as our Bib and Bub set. Evaluation of cars 15 and 17 has revealed some interesting trivia. Both cars show holes indicating that they had Hale Kilburn fixed seats fitted. When built, the 70 A type cars were fitted with Brill Winner reversible seats in the saloons. In 1937, the fixed Hale Kilburn seats in the 20 C type cars were swapped for the reversible Brill Winner seats from 20 of the A type cars. It would appear that 15 and 17 were two of those cars.

Other news

Birney car 303 has had the foot valves and pilot valves at both ends overhauled, and brake valves serviced to eliminate air leakages.

Car 192 is in the workshop having controller tips and parts overhauled.

Work has commenced on the brackets to hang wooden trolley troughing from the roof of Road 10 in the new Northern Depot, ready for the installation of the overhead wire later on in the year. Works car 354, with its roof platform, will be parked on Road 10 for a while during this program.

About 20 members took part on a charter visit to the Lions Club of Yorke Peninsula Railway at Wallaroo on Saturday, 4 September 2004. Travel to Wallaroo was in member Geoff Grantham's ex-TransAdelaide Volvo B10M bus. From Wallaroo the group travelled on one

of YPR's refurbished ex-TransAdelaide red hen rail cars to Bute (approximately 25km) for lunch at the Bute pub and return. Interestingly, YPR overcame public liability insurance problems by becoming a Lions Club.



Twenty Brill Winner seats were recently taken out for the store for refurbishment for the AETM's coupled A type tram, on which work has just started. The cushions are to be recovered in the original rattan.

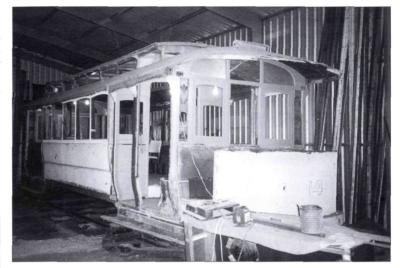
John Radcliffe



The bodies of A type cars 17 (middle) and 15 (right) were transferred from the tram storage shed to Road 3 of the Old Depot on 10 July 2004 for evaluation to determine which car will partner A 14 in our Bib and Bub set. Ballarat 21 (ex-A 10) had been housed on Road 3 and was moved to make room for its sisters. Ian Seymour

Restoration of the body of A 14 has commenced in the tram storage shed. The body currently sits on sleepers as its truck (ex 42) is being rebuilt and motorised in Bendigo.

Ian Seymour





New leadlight windows were recently made for E 118 by Peter Letheby's niece, Ila Neighbour. Ian Seymour



The saloon end of E type car has recently brought to near-finished condition. The seats which John Radcliffe restored at home have been installed by John Pennack. Funds are awaited for the construction of new seats for the open toastrack end.

John Radcliffe

Lions Club of Yorke Peninsula Railway's refurbished red hen rail car upon arrival at Bute with a group of AETM members on 4 September 2004.

Ian Seymour



WHITEMAN PARK

Perth Electric Tramway Society (Inc) PO Box 257, Mount Lawley, Western Australia 6929

www.railpage.org.au/pets

From Michael Stukely

Annual General Meeting

The twenty-third Annual General Meeting of the Perth Electric Tramway Society was held in the theatrette at the Public Transport Centre, East Perth, on Saturday, 31 July. The following Officers and Councillors were elected: President, Michael Stukely; Vice-President, David Brown; Secretary, Robert Pearce; Treasurer, Martin Grant; Councillors, Garry Barker, Tony Kelly and Frank Edwards. Darren Ward was co-opted as a fourth Councillor on 11 August.

During the 12 months to 31 March 2004, our trams travelled a total of 8,767km on 201 running days. Distances (kms) travelled by the trams were:

Fremantle 29	624
Melbourne W2 329	0
Melbourne W2 368	0
Melbourne W2 393	3,367
Melbourne SW2 426	3,316
Melbourne W4 674	1,460
Ballarat 31	0

A highlight of the Annual Report was the record traffic revenue achieved for 2003-04. However, with insurance premiums also at record high levels, this extra revenue has already been spent, so its main benefit has been in its timing.

Tram service pit

Some highly visible progress in the construction of this much-needed facility has been made by the Wednesday Team, with the completion of the track link from the pit westward to connect with the existing storage siding in the rear yard.

In August, two good-quality lengths of grooved rail were trimmed with the rail saw, drilled and plated up with the western ends of the grooved rails already installed and precision-levelled along each side of the pit. The two 60-lb rails of the rear yard siding were then crowed to enable joining to the grooved rails, which was achieved on 25 August. The transition fishplates designed by Noel Blackmore coupled precisely to the grooved and 60-lb rails. Re-spiking of the 60-lb rail was carried out, the sleepers were packed. and a large amount of limestone was then added to fill between the sleepers. This will later be topped with roadbase to railhead level. Lindsay was assisted in these heavy tasks by Jim Paton, Trevor Dennhardt, Tony Grose, Darren Ward, John Shaw and Gerald Kirk. Attention now moves to connecting the eastern ('front') end of the pit with the points already installed on Road 4 of the carbarn fan.

Meanwhile, Noel Blackmore's team has begun installing the electrical conduits for the pit.



Darren Ward (left), Frank Edwards and John Davies carefully smooth out and roll paint onto the last area of the new canvas to fit the awkwardly curved end-platform roof of Perth E class car No. 66 at the end of a long day on 10 July. Melbourne W5 class car 766 can be seen at left, and W2 class car 329 is at right.

Michael Stukely

Noel Blackmore (left), Trevor Dennhardt, Tony Grose, Jim Paton and John Shaw watch the operation of the rail saw trimming grooved rail to length at the western end of the tram service pit on 11 August.

Lindsay Richardson



WAGT tram 66

A major step forward in the restoration of Perth E class car 66 was achieved on 10 July with the application of new canvas to the entire roof of the car. This special workday was arranged to focus on this task, which was completed successfully by Frank Edwards, John Davies and Darren Ward, with assistance also from David Brown and Trevor Dennhardt.

Work has continued on Wednesdays through August and September with the fitting of half-round timber beading around the edges of the canvas. Aluminium beading has been used to fit the sharply curved roof edges above the end platforms. John Davies, Darren Ward and Paul Pickett assisted Frank in this task. John

has been giving special attention to the centre windscreens and freeing up their runners to enable them to be slid open. He is also refurbishing the original 'Minimum Fare' signs to be fitted to the top of each windscreen.

Service trams

The overhaul of the replacement No.1 truck for W2 class car 329 was completed, the tram was lifted, and the faulty truck removed. Underbody inspection at this point revealed that the tram's centre bearing-plate and side-bearings were worn out. Suitable replacement parts were selected and reassembled, and the new truck installed. Repairs to the pole-mount were completed and the unit re-installed on the roof. The required servicing and testing was then carried out.

Trevor Dennhardt and Tony Grose crow the 60-lb rail to connect the service pit to the rear yard siding on 11 August, with Jim Paton looking on.

Lindsay Richardson



Kurt Gahler, John Azzaro, Jim Paton, John Davies, Tony Grose, Lindsay Richardson, Geoff Morrison and Jim McCamley assisted Noel Blackmore in this work.

There had been significant deterioration of the exterior surfaces of the timber on many of the saloon drop-windows on 329, which has been in service at Whiteman Park since 1986. Martin Grant arranged for the damaged windows to be removed, repaired, repainted and re-fitted. He also repainted the floors of the saloons and drop-centre. The car was thoroughly cleaned inside and out by Martin, John Shaw and David Secker, and it was returned to service in mid-September after a break of over two and a half years, once again looking resplendent in its chocolate-and-cream livery.

SW2 car 426 has had a problem with wind-driven rain entering the roof-vents, leading to water entering the interior of the tram through the ceiling vents and light fittings. To prevent this occurring, Geoff Morrison and Jim McCamley have sealed alternate vents, with good effect.

Infrastructure and plant

A small number of rotted timber sleepers have been replaced at several locations including Bennett Brook East curve, and on road 2 of the Carbarn fan (where the track is covered to railhead level, making sleeper replacement a major exercise). Four sleepers were also replaced at the site of the former siding points north of Stockmans Triangle, where the old crossing frog was also removed along with three short lengths of rail and a single rail installed in their place.

Repairs to the engine cooling system of the

Broomwade air compressor, which is used to power the pneumatic track tampers, were completed by a large team ofWednesday workers including Noel Blackmore, Lindsay Richardson, Tony Grose. Jim Paton, John Azzaro and Darren Ward. The compressor was then tested and returned to service. enabling track packing to be done at the above sites following sleeper replacement, and on the Triangle. Lindsay and Trevor Dennhardt were assisted on the track at various times by Jim Paton, Tony Grose, Martin Grant, Laurie Ahearn, Kurt Gahler, John Shaw and Darren Ward. Another mechanical problem, this time with the oil pump, again put the compressor out of use for repairs in August.

Harry Gratte (snr), the former holder of the grazing lease in Whiteman Park, still lives nearby and maintains a keen interest in Park activities. Late in August he sprayed weeds along the entire length of the tramway, giving his services to the Society free of charge.

Minor repairs to the overhead were carried out as required, by Noel Blackmore's team. Kurt Gahler completed the remaining repairs to the damaged track bonds in early September.

Other news

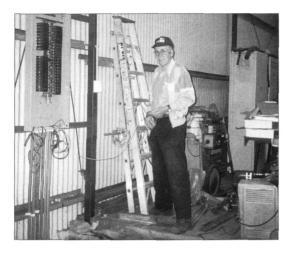
Patronage on the trams has continued at satisfactory levels with the July school holidays producing an outstanding result. This holiday period in particular has shown a spectacular increase in visitor numbers at the Park over the last two years.

Carbarn tours, conducted mostly by Tony and Beth Kelly, have continued on the fourth Sunday of each



Jim Paton adjusts fish-bolts on the transition fishplates connecting the grooved rail and 60-lb rail, to complete the link between the service pit in the engineering shed and the rear yard siding on 18 August.

Lindsay Richardson



Kurt Gahler fits out the new electrical board in the engineering shed near the service pit on 18 August.

Lindsay Richardson

month with the service tram extending its run to the Carbarn fan from Mussel Pool terminus on each trip. Two trams are used, running alternate trips from the Carbarn, with one of them being Fremantle 29. Passengers arriving at the Carbarn have the opportunity of taking the free tour, and attendances and sales have continued at good levels. The tours, which were introduced as a trial, are now likely to remain as a regular event.

BENDIGO

The Bendigo Trust1 Tramways Avenue, Bendigo, Victoria 3550

http://www.swanhilsc.vic.edu.au/home/trams

From Kym Smith

Victorian Railways No. 41

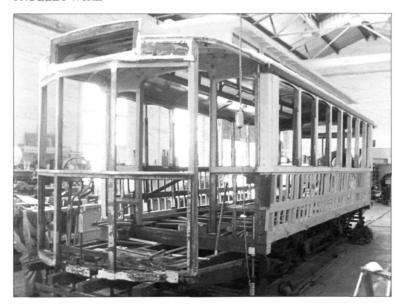
For the first time since 1958, VR 41 has moved under its own power! During the last week of September, Richard Clarke, our consulting engineer from Sydney, made the trip to Bendigo to carry out an inspection of the work on VR 41, as part of the accreditation process.

After conducting the necessary checks, VR 41 was poled up and operated, completing numerous trips to the front gate and back, as well as a trip into Tramways Avenue for the purpose of a brake test.

The required documentation has now been sent to the Department of Infrastructure, and once approved, further test running will be able to be carried out.



Bendigo Tramways ESCo No. 8 operates under its own power for the first time since 1947.



Frame repair work proceeding on No. 4. Bendigo Tramways

Work will now concentrate on finishing the paintwork. Lloyd Rogers from the Melbourne Tramcar Preservation Association recently supplied intricate drawings of the signwriting and line work, which will be invaluable in ensuring this work is completed to a high standard.

Electric Supply Co No. 8

While in Bendigo, Richard also inspected our 1903 tram No. 8, which is in operating condition for the first time since 1947. One motor which showed a minor defect has been rectified. The Bendigo Trust's

aim of having a serviceable 1903 tram is now one step closer.

Further funding will now be sourced to complete the construction of the body, seats and fittings, but at least we will be able to take prospective sponsors for a short ride on the tram, and suggest how much better it will be when it has sides, seats and windows!

North Melbourne No. 4

North Melbourne No. 4 arrived in Bendigo on 9 September for completion of the work started under



Darren Hutchesson assembling one of the motors from the Brussels truck for J 675.

The overhauled MV101motored trucks being pushed under No. 33.

Bendigo Tramways



a work-for-the-dole project at North Fitzroy Depot. The work on the tram, which is owned by the Tramway Museum Society of Victoria, will be carried out in two stages. The first stage involves repairs to the frame, overhaul of controllers and switches, and complete rewiring. The second stage, which is subject to further funding, will see all the remaining work completed.

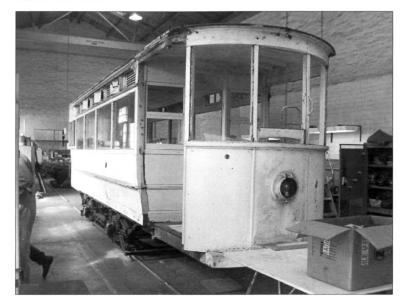
Both sides of the tram have been straightened to remove the sag that had developed during its years as a freight car. Work is progressing on rebuilding the end platforms of the tram, including strengthening them to allow a standard coupling pocket to be fitted to the bumper of the tram.

Brussels truck for Sydney J 675

The first of the Brussels trucks which arrived in Bendigo earlier this year has been brought into the workshops for overhaul, ready for use under Sydney J class car No. 675. The truck and motors have been completely stripped down, cleaned, and are in the process of being re-assembled. Standard 33in. brake shoes and hangers have been fitted, and new bronze bearings have been cast for the motor suspension



Bendigo 21 being stripped down as part of the work-for-the-dole program and overhaul.



Hobart 20 after fitting of the 28-inch wheeled 21E truck.
Bendigo Tramways

bearings, which were originally made from a die-metal and were in poor condition.

Bendigo No. 33

After suffering an overheating and worn armature bearing, car 33's trucks were removed and the opportunity taken to overhaul them. To allow the car to remain in service, a major truck swap was organised with No. 33 temporarily receiving the GE 247 motored trucks from under W2 car 441, and 441 receiving its low-wheeled BTH motored trucks so that it could still be moved around easily.

On completion of the overhaul, the truck swap was reversed. No. 33 now has a set of overhauled MV101 motored trucks and 441 is back on the 247-motored

trucks. The BTH-motored trucks wait their turn for an overhaul.

Bendigo No. 21

A work-for-the-dole program which started on 27 September is aptly named '21 in 26 Weeks'. It involves the restoration of tram No. 21 to the 1930s green and cream livery it carried when first in Bendigo. The program will concentrate on the overhaul and refinishing of the body, with our volunteers and staff carrying out work on the truck and mechanical/electrical equipment.

Hobart No. 20

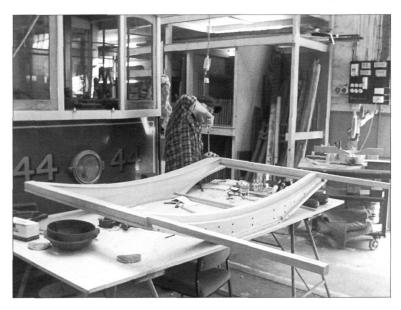
The 21E truck for Hobart No. 20 was fitted to the



Les Woodfield painting the final coats of green on X1 466.

Bendigo Tramways

Luke Jenkins at work on the No. 1-end cabin for E 118. Bendigo Tramways



body in early September. The truck is interesting in that it has been constructed using a combination of ex-SEC 21E truck parts and ex-MMTB No. 15 truck parts, resulting in a 28in wheeled, GE247 motored, composite brake-shoed 21E truck. Some strengthening and bracing work had to be added to the body to support the wider truck frame; the body being originally fitted with a 3ft 6in gauge truck.

Bendigo No. 10

The Bendigo Tramways 'mini' tram, No. 10 has recently received an overhaul and repaint. After many years of use and many children climbing over it, some repair work was necessary before the repaint. No. 10 will again be used for promotional activities once the work is completed

X1 car 466

Melbourne X1 class 466 has returned to the paintshop for finish coats of paint and varnish to be applied.

Cabin fronts for E 118

Construction of two cabin fronts for E type No. 118 for the Australian Electric Transport Museum at St Kilda is well advanced. The two fronts, which are of a different design at each end of the tram, will be transported to Adelaide and fitted to the car later this year.



The heavens opened as Alison Smith departed on her first trip as a tram driver in tram No. 33 on 11 September 2004.

The impossible does happen!

Never let it be said that the impossible never happens, especially in Bendigo! It did! On 5 September Alison Smith, long suffering wife of Tramway Manager Kym Smith, finally succumbed to desire (or pressure?) and passed her theoretical and practical examination as a tram driver. Kym may well be questioning the wisdom of his influence, as recently he was relegated to collecting his daughter after school while Alison was out playing trams.

Cindy Tassie also passed her examinations as a tram driver on the same day, and we congratulate both of them on their achievement.

Tramway creche?

The number of young families being involved at the Bendigo Tramways is on the increase. An initiative led by Anita Hutchesson saw some of our volunteers and staff pledge support towards the purchase of toys and play equipment for the children of our staff and volunteers to use while at the depot. Judging by the noise and happy squeals emanating from the lunchroom, the equipment has been well received by the children.



Taking a morning tea break in the sunshine in the Bendigo depot yard on 4 August 2004 are Tim Blythman, Karl Penrose, Peter Bolwell and, leaning against the mail box, Bob Sanders. John Radcliffe

LOFTUS

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

www.sydneytramway.museum.com.au

From Mike Giddey and Howard Clark

Old site

After the recent death of its tenant, our old site building is currently being cleared. We have received verbal support from the National Parks & Wildlife Service, which now owns the building, for our reuse of it as a passive storage facility for our reserve fleet cars and others in unprotected storage. We await a formal response to our written request. Even then, much needs to be done to enable the building to be reused, including installation of storage tracks and a replacement roof. This is a wonderful opportunity which we need to pursue with vigour, even though we still need to proceed with plans for a new storage facility on the railway side of the highway level crossing.

Yard works

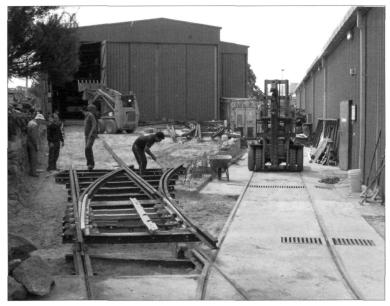
Concreting of the depot yard has continued. Only the area around the three-way point, which requires some work to be done, and a small section near the fire hydrant at the entrance to Road 1, remain to complete this major undertaking. Extensive preparation work was necessary to extend track drains, lay storm water pipes, form up pits for point rods, and lay conduits for underground electrical power and for future compressed air lines to the main and top sheds.

In preparation for track laying in the top yard a general cleanup of stored materials took place and Albion double deck bus 1615 was placed in Road 12 in



Views of our new toilet block have not appeared in these pages since its completion. The window frames were specially cast to harmonise with the original tramway workshop windows in the restoration workshop to which the block is attached and the former pedestrian safety zone bollards are used for illuminating the approach paths. The close proximity to our picnic area is appreciated by visitors.





The new pointwork for the connection to Road 14 has been hauled into position but has not yet been connected to the yard trackwork in this view taken on 18 September. Bob Cowing and Danny Adamopoulos are discussing the work with Craig Parkinson as a CSO worker shovels earth clear for levelling.

All photos: Bob Merchant



The overhauled motor and 21E type truck for J car 675 in Bendigo Tramways' workshop on 21 October 2004.

Howard Clark

preparation for restoration by Craig Parkinson and Chris Olsen. The points for Road 14 were moved up the top yard as a prefabricated unit. Various tram and vehicle movements took place before vehicular access to the top shed was cut. The Tramby family Bobcat then excavated the top yard in preparation for track laying and the points were moved into their final position. Connecting rails were laid out of Road 12 from the doors down to the new points and the new curved track outside Road 14 has been check-railed.

YMCA Building

A generous member has kindly provided additional funds to purchase bricks and other services, so that further progress can be made towards the Museum being able to utilise part of the YMCA building. CSO bricklayers have been building walls around the staircases at the southern end of the building, and will also work on brickwork between the building and the display hall. The lower level has been completed and they are now working on the display hall level.

Reinforcing mesh has been erected to provide temporary safety caging to the two stairways in the building.

Tom Tramby's Bobcat was used to clean up the street level area inside the building. During the clean-up, it was discovered that the builders had damaged the sewer line from the display hall and had made an unsatisfactory connection to a large storm water pipe. To correct this, David Canini was engaged to excavate a trench so the sewer and storm water lines could be deviated around the southern end of the building. Conduits were also run below floor level to the location of the future electrical distribution board for the building.

Bob Cowing works on ballast motor 42u in the workshop. O class car 1111 is in the background.

Martin Pinches



J Car 675

In recent weeks several people, including David Wilson, Vic Solomons, Greg Sutherland and Howard Clark have been clearing out the contents of J car 675, removing the cladding and other items added over its years as a shed including many hundreds of nails and screws on all internal timber components.

The result of these works demonstrates that the car body was not fully protected for some years after its arrival at Punchbowl in 1936. Malthoid was the first protective material placed on its roof, still there under the later ridge-capped roof.

The body condition is good except for one side panel at the front of the car at the No. 2 (coupling) end, where vines have grown inside the panelling. All three vertical pillars are severely affected by dry rot along with one other. We are fortunate that doors in stock from N class cars are a perfect fit for the car (despite needing major restorative works), and the task remains to select the best 16 for restoration from the stock of over 40.

Bendigo Tramways made excellent progress during October in overhauling the Brill 21E truck from a Brussels works car. The truck frame and brake rigging have been fully tested and the latter converted to accept standard Australian style brake shoes which incorporate the flange, unlike the Brussels variety which are tread based shoes only. The motors and compressor have been fully overhauled and new motor bearings purchased. The truck frame has been painted in dark Brunswick green.

Melbourne W7 car 1036

Greg Sutherland and Howard Clark attended the regular two-monthly meeting of COTMA museum representatives with the Victorian Department of Infrastructure and Victrack on 20 October. W7 car No. 1036 has been allocated to the Sydney Tramway Museum whilst 1013 is to go to the Australian Electric Transport Museum and 1017 to the Perth Electric Tramway Society. No. 1036 is currently located in the plate shop at Preston. Whilst there was earlier some urgency to clear this site, this has now abated. Victrack kindly have agreed to take the car to Newport when its turn for removal from the plate shop arrives, pending us obtaining the extra space on our trackage which we need for additional vehicles.

Canberra Tradesmen's Union Club

As one of our long term supporters, the Club recently advised that it is renovating part of its premises. Accordingly after 25 years the Club wishes to donate W2 car 447 and Brisbane FM car 499, with their unmotored trucks, to the Museum. Car 447 is largely complete and in good condition. In the immediate future the cars will be removed to outside storage and covered with tarpaulins by the Club. We are grateful to the Club for its ongoing support, particularly as it continues to house other valuable tramway relics, including a Sydney P car and a C car.

Scrubber 11W

For the last two years since 11W was withdrawn from service, it has been stored on our behalf by Yarra Trams under cover at Camberwell Depot. Due to



Deliveries of surplus concrete are still a regular occurrence for our Saturday and weekday workers. This delivery was made on 4 September with Tom Tramby (left), Richard Clarke, Mike Giddey, Chris Olsen and Bob Cowing handling the load. Bob Merchant



The paintwork for the top shed yard is seen on 30 October with Graeme Russell cleaning rails and Mike Giddey, who has just completed some rail welding. Roads 12 and 14 will be levelled and partly concreted to prevent movement before the pointwork for Road 13 is cut in.

Bob Merchant

OH&S issues where upgrading works within Camberwell Depot are about to take place, the tram was moved on 23 October to Preston Workshops, where it will remain while we explore other storage alternatives.

Melbourne Z2 car 111

On the evening of 17 October, graffiti vandals sprayed one side of the car with silver paint in the depot yard, along with parts of the top shed wall facing the railway station. Rain probably hampered their efforts, and the next day Chris Olsen and Howard Clark suffered a dousing whilst cleaning off the result. Later in the week Chris and Danny Adamopoulos attended to the building graffiti.

No. 111 recently failed in service and, after some investigative work by Bill Parkinson, the 'fault' was found to be a piece of dirt in a very small contactor. It has been cleaned and the tram is back in traffic.

Other tram news

Bill Parkinson built up the worn brake radius bars on R1 car 1979 with weld, and ground them off to restore the proper curvature. The brake rod rollers that connect to the radius bars were also badly worn. These were built up and machined in the small lathe. In July the car body was jacked up and the W2 shop trucks were removed. One of the two overhauled No. 13 trucks for the car had to be lifted and turned 180 degrees while the other was run past it. They were then placed under the car and the body was lowered back onto the trucks. The car returned to service in August.

Patterns were made for casting new armature bearings for the traction motor that was removed from ballast motor 99u for overhaul some months ago. The new castings were machined by Warren Howlett and the motor has been reassembled. A CSO worker has been cleaning the gear cases.

Bob Cowing has reinstalled the rebuilt south end main cross member in 42u using specially made high tensile bolts made with rounded heads that look like the original rivets. He has now removed the north end cross member for similar treatment. Warren Howlett and Bob McKeever are assisting with this work.

General works

Geoff Olsen connected the roller doors on each end of the workshop extension to the power system and we now have both roller doors fully motor driven.

Craig Parkinson took the AEC Matador to a heavy vehicle front end specialist in Wollongong to have the front suspension and steering arms rebushed. This work has corrected an occasional tendency for the whole steering column to shudder violently. The vehicle has been returned to Loftus and its thorough overhaul is now complete.

Museum youth group

Saturday, 4 September was the second meeting of the Museum's youth group, and it pleasing to report that we had an increase in roll up of young people. This time we took them touring.

Starting from the Museum we retraced the following tramways:

- Sutherland Cronulla steam tramway (closed 1931)
- Kogarah Sans Souci steam tramway (closed 1937)

 Rockdale - Sans Souci trolleybus system (closed 1959)

 Rockdale - Brighton Le Sands electric tramway (closed 1949)

 Arncliffe - Bexley steam tramway (closed 1926)

As we retraced the route, we stopped at any relics or reminders enroute, as well as the site of depots, passing loops or landmarks (e.g. churches, shops, etc) that could be seen in photographs of the era. As all but two of these lines closed between 1926 and 1937, relics and traces of these lines are pretty much non-existent now and we relied on books, magazines and photographs to help recreate the tramways.

It was a full day of touring including a stop for lunch, and our young members really enjoyed the day.

Of special interest were the remains of the pit wall at Sutherland Depot, just a few metres from the end of the Museum's tram line, and the Tramway Office located adjacent to Sutherland Railway Station. At Sans Souci the former tramway waiting shed was inspected, while the off-street location of Rockdale Depot was another point of interest. The lads' search for any relics at Rockdale was, alas, in vain as the site seems to have become a dump site for the Department of Main Roads in the decades after the tramway was removed. Stops were also made at the sites of some of the serious accidents that occurred on these tram lines, including Miranda Hill at Miranda and Fitzgerald Hill at Kogarah, with photographs used to locate the accident sites.

Visit souvenir

Dale Budd spent an enormous amount of time with assistance from Ross Willson and Randall Wilson, together with many members who provided photographs, to produce the new souvenir handbook in time for our Edwardian Day at the museum on 24 October. It is a quality production which carries an on site cover price of \$8.50 but will sell to visitors for \$7.00 a copy on production of their entry ticket. We thank Dale for all his efforts in ensuring that the production was able to proceed in a timely way.

Rozelle Festival

Balmain-Rozelle Chamber of Commerce has for some time been keen to promote light rail and heritage trams, particularly along the Darling Street precinct. In April 2005 as part of the street festival, an R1 car along with the counterweight dummy are to be put on static display in the area. Richard Clarke and Greg Sutherland have been dealing with the physical aspects of the move.

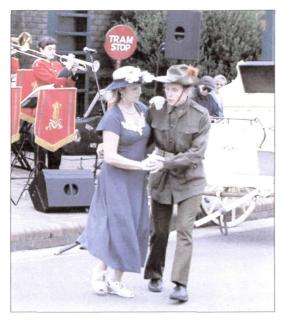
Art and other competitions have been planned and it is expected that some 60 school classes will attend the static display during the course of the festival. It will provide the Museum with the opportunity to display heritage information and sell souvenir items. If all goes well, plans are afoot for running a corridor car in the area during a later festival.

As a lead-up to the festival the whole of Rozelle Public School visited the museum on 28 October. Five coach loads of children and their support staff gave our traffic staff a very busy day.

Ron Ham supervises the loading of three trams for the last run of the day on Thursday, 28 October. Trams P 1497, O 1111 and N 728 had full seated loads and ran in convoy to the northern terminus and back before the children rejoined their five coaches for the trip back to Rozelle Public School. It is the first time the Museum has had a whole school visit at the one time.

Martin Pinches





Trooper Garry Hill and his girl dance to the tunes of the Australian Army Band. The butcher's cart adds colour to this scene in Tramway Avenue.

Bob Merchant

Edwardian Day - 24 October

Our Edwardian Day was a great success despite overcast weather which deteriorated to rain during the afternoon. The Australian Army Band proved to be a popular attraction and had one couple dancing in the street. Captain Michael Fitzgerald represented K Troop, NSW Lancers in the uniform worn between 1895 and 1910. It was the uniform worn by the escort accompanying the Governor to the Federation celebrations in Centennial Park in 1901. Joe Van Der Molen's donkey Fergus was popular with the children: Fergus hauled his cart through the trams and visitors at regular intervals. Joe also supplied a horse-drawn butcher's cart for display in the street. A vintage Ford and Talbot provided by members of the Vintage and Veteran Car Club added colour to the street scene.

Many visitors and some of our traffic staff including Ben Barnes, Kris Lawry and David Critchley wore period (or near period) costume and added to the flavour of the occasion. Daniel Callender and Mitchell Skillcorn enjoyed the day as our two paper boys, carrying sections of the Saturday Sydney Morning Herald disguised by a photocopy of the front page of an October 1904 edition of the paper.

C class cars 29 and 290, F class car 393, N class 748 and O class 1111 provided the services for the day. The two C cars ran most services to the Royal National Park with most trips carrying standing loads. Two- and three-car convoys ran many services towards Sutherland during the day.

Devonshire morning and afternoon teas served with tea, coffee or hot chocolate were provided by 1st Loftus Scouts, and lunch in the form of a 'sausage sizzle' was served by 1st Engadine Scouts. Both proved popular and were well patronised.

Unfortunately, rain commenced around 2:00pm and became heavier as the afternoon progressed. Despite the rain only a planned photo with the F car and all our period costumed visitors had to be cancelled.



Some of our traffic crew members on the day are seen from the Museum's office, with C class cars 290 and 29. From left are Peter McCallum, Colin Gilbertson, Kris Lawry, Peter Kahn, John McFadden and paper boy Mitchell Skillcorn.

Dale Budd



O car 1111, and C cars 290 and 29 preparing for a trip the National Park, are seen in Tramway Avenue. This view is from the YMCA building. F 393 can be seen in the background. Bob Merchant



The Australian Army Band Sydney, previously known as the Eastern Command Band, proved to be a popular attraction and only the rain brought their performance to an end. Bob Cowing



Morning tea in the park. Ist Loftus Scouts provided Devonshire morning and afternoon teas at the northern end of the Railway Square waiting shed, and Ist Engadine Scouts turned on lunch in the form of barbecued sausage sandwiches at the south end.

Bob Merchant



Joe Van Der Molen and Fergus skirt the dancing couple as C car 29 waits for the street to clear before negotiating the crossover and running a trip to the Royal National Park.

Bob Merchant



Fergus with his cart waits patiently as his owner, Joe Van Der Molen, discusses farming with animal power with David Rawlings, Bob Cowing and Graeme Russell during a morning tea break. Fergus proved to be popular with the children and did not mind being patted and hugged.

Bob Merchant



F car 393 is seen at the northern terminus with a good crowd of passengers on board. This was typical of car loadings during the day, even after the rain started during the afternoon.

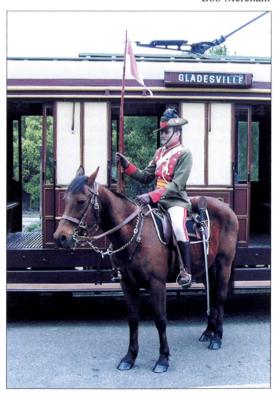
Dale Budd

Captain Michael Fitzgerald, K Troop, NSW Lancers, mounted on his horse, proved to be a popular photographic target for our visitors.

Bob Merchant



Newsboys Daniel Callender, Mitchell Skillcorn and Trooper Garry Hill were photographed with C 290 as a backdrop. Dale Budd



HADDON

Melbourne Tramcar Preservation Association PO Box 324, Prahran Victoria 3181

www.railpage.org.au/mpta

From Grand Union

W3 class 663

A new apron crown plank angle strip has been fabricated and the apron previously removed from the No. 2 end and headlight body have been sandblasted and primed. The numerous holes in this apron for fastening advertising panels have been welded closed and ground smooth. Two new windscreen cover strips have also been fitted.

Victorian Railways No. 41

As noted in news from Bendigo, work on the restoration of VR 41 is now reaching a very advanced stage. New floor battens have been manufactured and fitted to the cabin, saloon and dropcentre floors with good effect. The two restored saloon doors have been fitted along with newly cast doorway thread plates. Both headlight bodies and oil lamps are in place with only the installation of resilvered reflectors, lamp sockets and the lenses to be fitted to complete the front end. The two previously rebuilt destination boxes have been mounted onto the roof giving VR 41 that unique railway tram appearance. New motorman's stepboards have been manufactured and fitted, together with the external cabin doors.

At present the carbuilders are busy working on the saloon seats. Already the solid wooden backs are in place and have been french polished. They have removed all the individual slats from the seat base frames for removal of old varnish. Whilst sorting through the straphanger brackets it was discovered that we were short by four units. These missing brackets had been removed by the previous owner whilst the tram was at New Street, Brighton and could not be located at the time we acquired it in 1977. Four replacement units have been cast to the same pattern and are now in Bendigo. All the internal brass fitting such as the controller handles, straphanger brackets, conductors bells, cab door handles, lighting socket shrouds and destination box operating handle collars have been polished and lacquered. To see all this brass work in its finished condition awaiting fitting is a credit to the hours of buffing work performed by Billy Chan. Work will commence shortly on the dropcentre seats. This will entail much rebuilding as 41 did not have a full set, and others obtained from the bodies of 37 and 28 are in poor condition. This will no doubt be another challenge that carbuilders Dennis, George and Luke will have to overcome.

At Haddon, the lifeguard trays obtained with 41 have been dismantled and are currently being sandblasted. The termination of underfloor wiring is now complete with the exception of the motor terminal blocks and resistance box connections. During the movement of 41 into the running shed it was found that there was a clearance problem with the two innermost terminal blocks. These blocks have now been relocated and the car's height raised slightly to improve underfloor clearance. When originally built by the Victorian Railways, 41 did not have terminal blocks as the motors were 'hard wired'. As we are utilising former MMTB GE 247 traction motors it was decided to maintain their method of connection rather than modify the motor leads. The two switchboards are at Haddon being fitted out with appropriate switches in readiness for their return to Bendigo, together with the car lighting sockets.

Thanks to generous donations from several loyal supporters, we have raised sufficient funds to allow completion of the interior work and commencement of exterior undercoating. We still have to raise approximately \$9000 before the final painting and detailing can be done, and we are confident that this can be achieved.

Relocation of B class van

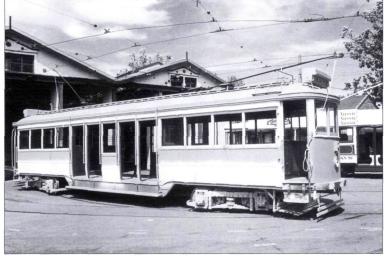
On 17 June, the former Victorian Railways B class van was lifted by a mobile crane and repositioned onto its new concrete foundations. Work will shortly commence on rearranging the spare parts housed in this van.

Metal working shop

With the completion of the shelving at the east end of this building, all the GE and EMB resistance boxes housed in the B van were transferred to this area together with the spare brake cylinders. A large steel bench has been positioned along the south wall and a stainless steel water trough fitted. The provision of lighting and power has commenced along with the relocation of the pedestal grinders and wirework wheels from the machine shop.

Victorian Railways No. 41 stands in the sunshine in the Bendigo depot yard on 21 October 2004.

Howard Clark



The superbly finished saloon of VR No. 41 shines like new, a testament to the craftsmanship of the Bendigo Tramways workshop staff. Howard Clark



VR No. 41 stands at the entrance of the Bendigo Tramways depot and workshop on 21 October 2004. Howard Clark



BYLANDS

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

www.tmsv.org.au

From Running Journal

New acquisition

Recently, the Society became aware that the Victorian Department of Infrastructure proposed to remove surplus trams from Preston Workshops and the former Thornbury depot.

In response to a request from the Department that museum groups register their interest in trams, the Society was successful in obtaining W2 class No. 646 which is currently part of the heritage reserve fleet. It is expected that No 646 will be moved to Bylands by the end of 2004.

No. 646 was the last W2 in regular service in Melbourne, being withdrawn on 11 December 1987. At that time, it was based at Preston Depot. In 1989 it was repainted and returned to limited service at South Melbourne Depot, mainly for use on Route 12 during weekdays. After several years' service, it was returned to storage.

Victorian Railways 150th Anniversary

The 150th anniversary of the Victorian Railways was celebrated on Sunday, 12 September 2004. In conjunction with other member groups of the Victorian-based Association of Tourist Railways, and in recognition of Bylands' railway heritage, a special trip was organised to run at 12:20pm, the departure time of the first train from Flinders Street to Sandridge (Port Melbourne) 150 years ago.

A small group of members and visitors assembled around W3 No 667 which was adorned with suitable signage to signify the event. After being photographed by the local newspaper, *The Kilmore Free Press*, No. 667 departed for our northern terminus. The crew for the event comprised our two longest-serving regular crew members; Society Secretary Graham Jordan as Motorman, and Charles Huggard as Conductor.

The event also attracted interest from the public. In addition, a wonderful front page story that included two colour photographs appeared the following week in Kilmore's local newspaper.

Humber Car Club visit

On 17 October 2004, the Humber Car Club visited Bylands on one of their regular outings. It was pleasing to see the many and varied types of vehicles that are the pride and joy of these enthusiasts. A good roll-up of the Club's members enjoyed our hospitality, and many helpful comments were received from the visitors.

Museum works

Work around the museum continues at a steady pace, mainly as a result of the continued dedication of a small band of volunteers. The task of repainting Ballarat No 17 into its 1950s appearance is proceeding with the whole south-end cabin now in undercoat. Remedial work has commenced on the cabin area at the north end of the car, in preparation for repainting which will be undertaken following completion of the south end.

Stripping of old and flaking paint on tank car 7W continues, with some areas already treated with primer. John Walker continues to repair and restore the wooden controller covers from various trams to their original varnished appearances. Adjustments have also been made to the pin-striping on W3 667. Our AEC Mark VI bus No 759 is now ready for repainting. All new panels have been primed, and all external fittings such as lights and vents have now been refitted. All other external surfaces have been rubbed back in readiness for undercoating

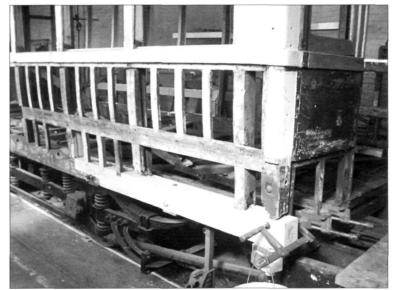
Construction of the trackwork for the vehicle maintenance building is close to completion with only a small amount of welding still to be undertaken. Lifting and packing of the track is currently under way although additional ballast will be required in order to complete this task. In its present unfinished form, rail trolley T2 was the first rail vehicle to travel around the new reverse curve into the vehicle maintenance shed and over the pit. The bogies from W2 457 were later pushed around the curve for storage in the shed.

To celebrate the 150th anniversary of the Victorian Railways, the Society ran a special tram on 12 September 2004. Members (left to right) John Walker, Charles Huggard, Keith Kings, Graham Jordan, Daniel Berry and Brooke Tolliday gather for a group photo before the departure of the special.



North Melbourne No 4 arrived in Bendigo on 9 September 2004 for completion of the works started under the work-for-thedole project at North Fitzroy Depot. It is seen here undergoing structural frame replacement.

Bendigo Tramways





Ballarat No. 36, recently returned to service, shares the southern terminus with W3 class 667 and SW2 class 644.

Aileen Jordan





a sper magazine