

TROLLEY WIRE

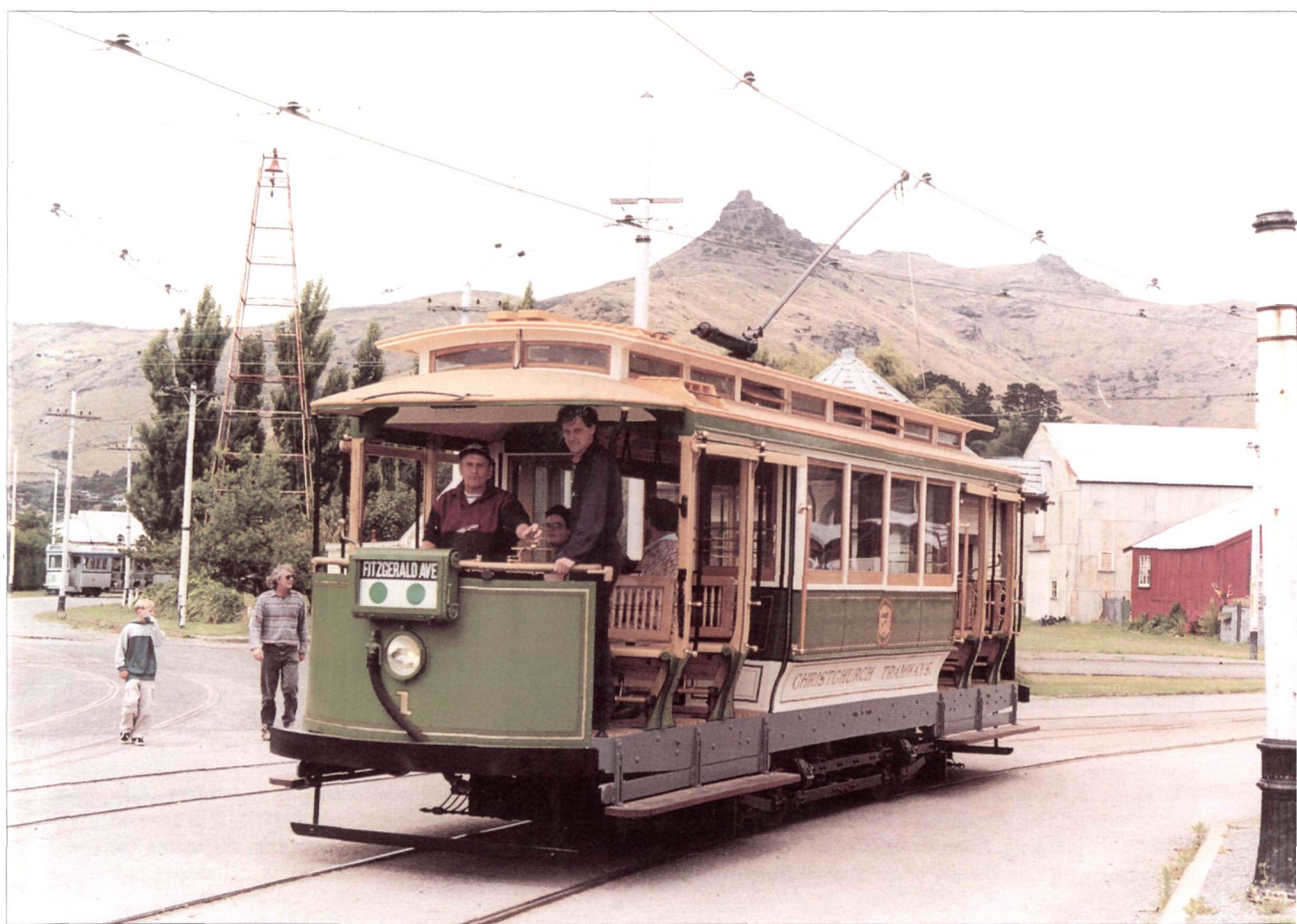


No.280

FEBRUARY 2000

\$7.50

Print Post Approved PP245358/00021



INSIDE: 70TH ANNIVERSARY OF THE GLENELG TRAM LINE

TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM
MAGAZINE

FEBRUARY 2000

No. 280 Vol. 41 No. 1 - ISSN 0155-1264

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Published by the South Pacific Electric Railway
Co-operative Society Limited, PO Box 103,
Sutherland, NSW 1499

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

Australia	\$A30.00
New Zealand/Asia.....	\$A36.00
Elsewhere	\$A40.00

All correspondence in relation to *TROLLEY WIRE* and
other publishing and sales matters should be forwarded to:

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Phone: (02) 9542 3646 Fax: (02) 9545 3390

The opinions expressed in this publication are those of the
authors and not necessarily those of the publishers or the
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Typesetting and finished art by National Advertising & Design
Studios - Canberra Tel: (02) 6239 6287 Fax: (02) 6239 6693
Printed by National Capital Printing - Canberra
Tel: (02) 6280 7477 Fax: (02) 6280 7817

Front Cover:

Christchurch Tramways No.1 has entered service on the Ferrymead Tramway following a lengthy restoration. John Stephenson of New Jersey, USA built No.1 and it entered service with Christchurch Tramways in 1905. It is seen on 6 January 2000 with Tramway Historical Society President Graeme Richardson on the front platform discussing the restoration with Tom Tramby of the Sydney Tramway Museum.

Howard Clark

Back Page Top:

The Australian Electric Transport Museum's H type car 360 has just crossed to the down track as it departs Victoria Square at 11:05am on Tuesday, 14 December 1999 on the official trip to mark the 70th anniversary of the Glenelg trams.

Neville Smith

Back Page Bottom:

Victorian era tramcars at the Sydney Tramway Museum, Loftus. Scrubber car 134s (former D class 102 of 1899) accompanies C class cars 290 (Bignall & Morrison, 1896) and 29 (Hudson Bros, 1898) in Tramway Avenue on 11 December 1999.

Dale Budd



H car 360 stands in the western road of Victoria Square during the 70th anniversary celebrations of the Glenelg trams on 14 December 1999.

Neville Smith

70TH ANNIVERSARY OF THE GLENELG TRAM LINE

From Colin Seymour

The 70th anniversary of the Glenelg tram line was celebrated on the actual anniversary day, 14 December 1999.

The lead up to the anniversary saw the arrival of Bendigo single truck car No.19 in Adelaide on 16 November 1999, when it was displayed in Rundle mall as part of a Bendigo and Echuca tourism display. Later in the day it was transferred to Glengowrie Depot. TransAdelaide chose to combine the running of Bendigo 19 on the Glenelg line with the 70th anniversary celebrations (No.19 was built in Adelaide in 1918). The Australian Electric Transport Museum's refurbished H car 360 arrived at Glengowrie Depot on 25 November 1999. Both cars participated in the Glenelg Christmas Pageant along Jetty Road on Sunday, 28 November 1999. Car 19 ran a number of trips for the public on weekends, operating non-stop between the City and Glenelg and return, between normal service

runs. Car 360 ran similar trips on Tuesdays and Thursdays and on some weekends. TransAdelaide set up a display promoting the anniversary in the Passenger Transport Board information centre on the corner of King William and Currie Streets. The display featured the AETM's model of dropcentre car 295.

Celebrations for the anniversary day commenced at 10:00am in Victoria Square. Bendigo 19 and H 360 were already in position on the western track. A marquee had been erected on the warm December day to provide shade for the guests, who included many retired tramway employees. Guests partook of morning tea before the speeches commenced after 10:30am. The General Manager of TransAdelaide, Sue Filby introduced the Minister for Transport, Diana Laidlaw, who cut a very large Glenelg tram cake baked by Wenzels Bakery at Glenelg. Car 360 departed with guests at 11:05am and was followed 10 minutes later by Bendigo 19.

H car 360 is adorned with Christmas decorations for the Glenelg Christmas Pageant on 28 November 1999.

Kym Smith

No.19 later featured in a central Victorian tourism display at Moseley Square, Glenelg. The car returned to Glengowrie Depot late in the afternoon where it was





Bendigo single truck car 19 stops at Brighton Road for a photo stop on its way to Glenelg during an AETM member's trip on 8 December 1999.

Kym Smith

Bendigo single truck car 19 is dwarfed alongside Glenelg H car 371 on the AETM members' trip on 8 December 1999.

Neville Smith



Wenzels Bakery at Glenelg baked a tram cake for the 70th anniversary celebrations of the Glenelg trams.

Neville Smith



Refurbished Glenelg tram 360 makes an interesting comparison with service car 373 at Victoria Square during the 70th anniversary celebrations. Note the trolley pole and rope, the orange roof, the wooden doors and the absence of trafficator lights on car 360.

Neville Smith



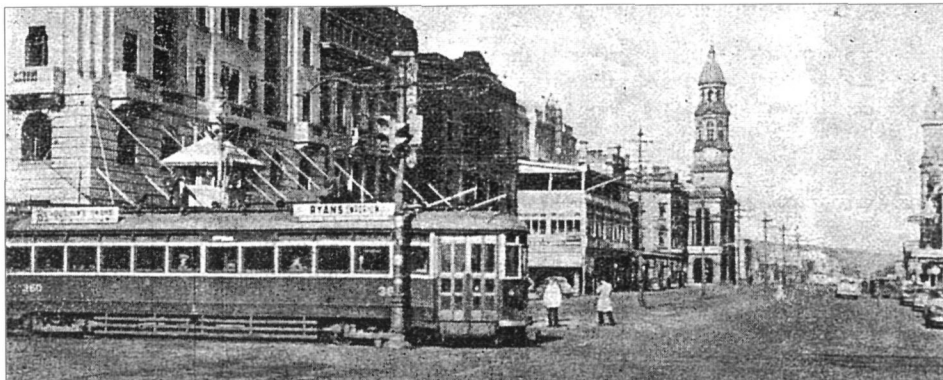
loaded for an early morning departure on 15 December. It returned to Bendigo via Renmark, Mildura and Swan Hill.

The anniversary event received very good publicity in the Adelaide Advertiser on the day. A broadsheet-size poster depicting colour drawings of several of the different types of Adelaide trams was included with each copy of the morning paper. A full-page feature article 'Heritage on the line' and an editorial covered the event. The article stated:

Celebrations will be held today along the 11km tramline from Victoria Square in the heart of the city to the popular suburban beach of Glenelg.

And questions will be asked again on whether the 'old rattlers' will be replaced with new trams of a modern design, air-conditioned and with wheelchair access.

No.19 is not the first Bendigo tram to run on the Glenelg line. Birney 303 (ex Bendigo 27) ran on the Glenelg line for the Centenary of Adelaide Street Public Transport celebrations in June 1978. Car 19 was, however, the first tram on the line in Bendigo livery (maroon and white).

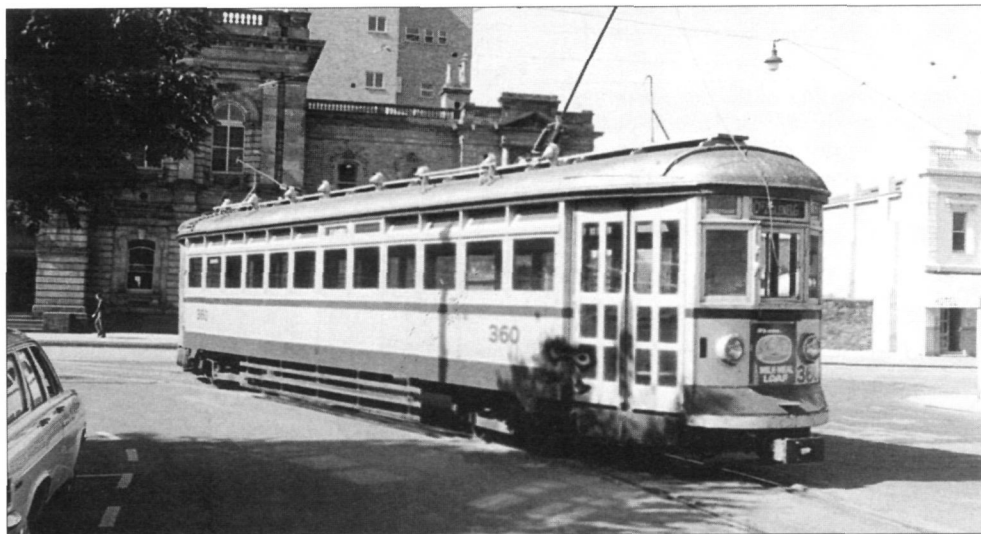


H car 360 was the first tram to cross King William Street from east to west (Grenfell Street to Currie Street) on 25 May 1952 following the laying of connecting tracks. The tram was on its way to Henley North.

Among Ourselves, No. 38 June/July 1952

Car 360 is turning out of the south-western corner of Victoria Square into Grote Street before crossing King William Street to Angas Street and City Depot in November 1966.

Paul Shillabeer



Bendigo single truck car 19 presents an unusual sight in Jetty Road, near Brighton Road, on Glenelg Christmas Pageant day on 28 November 1999.

Kym Smith



LAST OF THE SILVER H CARS

From Colin Seymour

From 1952 to 1956, the 30 H-type Glenelg trams and about 50 dropcentre cars were painted in a 'modern' silver and carnation red external livery. The varnished interiors were repainted asbury green. The silver colour scheme began to disappear with a major refurbishment program which commenced in 1971. The first two cars to be refurbished, cars 363 and 364, were painted externally in grey and carnation red. Cars 373 and 374 were refurbished in 1972 to the original red livery with some variations to the original style. Cars 363 and 364 were subsequently repainted in Tuscan red, and all further refurbished cars appeared in Tuscan red, excepting the gold-painted Golden Jubilee tram 377 in 1979 (subsequently repainted Tuscan) and the blue restaurant tram 378. The initial 1970s refurbished cars were internally painted aqua and white. Cars 375 and 376 received varnished interiors upon their refurbishment in 1973 and all subsequently refurbished cars received varnished interiors. Since the mid-1970s, fibreglass has replaced metal panels and cabs.

At the time of the Golden Jubilee of the H cars in 1979, cars 355, 356, 360, 361, 362, 378 and 380 were

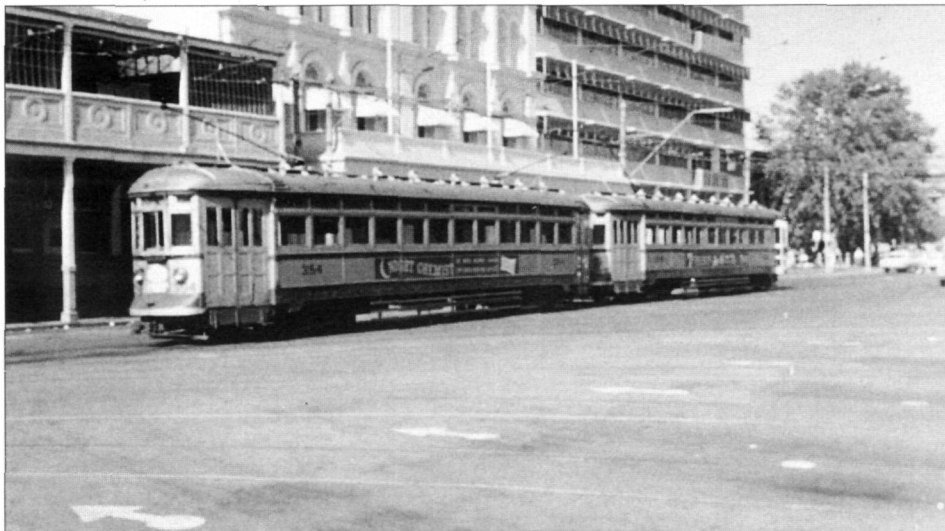
still in the silver livery and car 379 was being refurbished. By 1982, car 380 had been refurbished, and cars 360 and 362 were transferred to the Australian Electric Transport Museum at St Kilda. The body of 356 was sold to the Canberra Tradesmen's Union Club in 1985. The body of 378 was relocated to a shed on a Port Adelaide wharf in 1986, but returned in 1989 to become the restaurant tram. The body of 355 on motorless trucks was delivered to St Kilda in 1987. Car 361, the remaining silver car on the Glenelg line, was the first to be refurbished to the 1980s style and was at Regency Park workshops in September 1986, when Glengowrie tram depot opened. Thus no silver cars have resided at Glengowrie Depot.

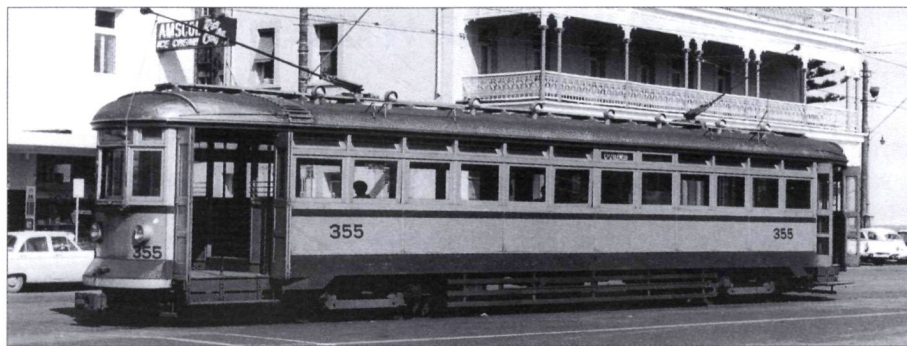
Car 355 at St Kilda was painted grey following graffiti attacks during outside storage. Now that the AETM's car 360 has been returned to circa 1929 appearance, only two silver H cars remain. The body of 356 has been retained in silver livery in Canberra, leaving the AETM's car 362 as the only operable silver H car.

Those who restore trams to their varnished splendour do not shed a tear at the demise of the silver H cars. Nevertheless, car 362 stands as a working example of the 1950s 'modernisation'. The Museum's prototype H1 tram 381 also serves as a reminder of an external livery which remains on some Adelaide buses.

A rare view of coupled silver cars 354-355 in Angas Street in November 1966. Car 354 became 366 and was scrapped in 1998. The body of 355 is at the Australian Electric Transport Museum at St Kilda.

Paul Shillabeer





Silver H car 355 at the Moseley Square terminus, Glenelg in 1967.

Richard Jones



The last coupled silver set in use on the Glenelg line, cars 378-361 in December 1982. Car 378 is now the restaurant tram. Car 361 became the first car to be refurbished in the 1980s style.

Paul Shillabeer

Cars 360 and 362 are seen at St Kilda in January 1988. Car 362 has been repainted in the silver livery. Car 360 is 'as received' and remained as such until its refurbishment commenced in December 1998.

Paul Shillabeer



A DATE TO REMEMBER

By Keith Kings

The sixth of January is a very important day in the history of tramcar preservation in Australia. It was on this day that the first tramcar was acquired intact for preservation. Mr A. E. Twentyman achieved this in 1930 – which is 70 years ago! And 70 years is a period of time greater, if not very much greater, than most of us presently involved in tram preservation societies have been alive!

Alfred Edward Twentyman was born on 25 January 1901 into a family which had resided in the northern Melbourne suburb of Northcote for many years. Their property was in Bastings Street and Mr Twentyman was to live in the family's original home, and next door, for the rest of his life. His education was local and at Scotch College, then at East Melbourne, the latter being reached partly by the Northcote cable tram which was a few minutes walk westwards to High Street. He became interested in the cable trams as a result of his daily travel in his childhood days, and amassed much knowledge of the vehicles and the system upon which they operated. His wonderful memory retained a mass of information, much of which he committed to notebooks, manuscripts and articles. He married in 1927 and moved into a new red brick house built on a large block of land immediately to the west of the family home. His working life was spent with the National Bank, where, at retirement, he was a department manager at Head Office. In his early working years, he was posted to the Richmond branch in Bridge Road, and thus part of his daily travel was on Melbourne's first cable tram line.

The latter part of the 1920s saw the conversion of several cable tram routes to electric trams, and Mr Twentyman found himself feeling that, as all the cable trams would eventually vanish, something should be done to retain one for the future. So he bought a trailer car from the Victoria Bridge route and it was delivered to his home on 6 January 1930. It was placed behind the house and served as a sewing room for his wife and a play room for their children. The tram carried road number 290 and builders number 251. The Victoria Bridge route had been opened on 22 November 1886 and was closed on 13 July 1929, electric trams commencing on 15 September 1929. A shelter which had a corrugated iron roof supported by a timber framework protected trailer 290.

Because of the depression in the early 1930s, there was a delay before the next cable tram conversions, the Elizabeth Street routes in 1935. Mr Twentyman purchased grip car 436, which ran on the last day of the West Melbourne route on 20 July 1935, and it was delivered to his home two days later. Subsequently, he felt he should retain one of the trams used on 26 October 1940, the last day of cable tram operation in Melbourne, so he purchased trailer car 586 in September 1941. (Melbourne's Bourke Street cable tram lines were kept fully maintained for nearly a year in case the wartime shortage of diesel fuel required their re-opening). East of his house, and towards the back fence, he built a timber-framed structure to house 436 and 586, comprising corrugated iron roof and lattice sides (subsequently partly covered by vines). Lightweight rails provided a track, which ran towards the front fence and allowed the trams to be moved into the lawn area. The large lawn and garden, complete with cable trams, was the scene for many fund raising events for the local church and various charities, as well as happy family gatherings.

Mr Twentyman and his interests became known to tramway and railway groups in the early 1960s, and several long-term friendships ensued. In the late 1960s he provided another covered track, on the eastern side of the tram shelter which housed 436 and 586, and moved 290 into this new space. The new track curved into the original straight track via a set of simple points. The covered track grew during the 1970s and the Tramway Museum Society of Victoria's grip car 28 and trailer 299 also spent time at Bastings Street, during which Alf repaired, rebuilt and painted 28, and completed painting 299. In the late 1970s and early 1980s, grip car 436 and trailers 290 and 586 were transported to exhibitions and displays in Melbourne, where they always attracted much attention and admiration.

But time marched on, and Mr Twentyman died in his sleep on 8 July 1983. He bequeathed his three cable trams and his collection of data, historical notes and writings to the Tramway Museum Society of Victoria. The trams were transported to the Society's Bylands museum in September 1984 and immediately placed in the display sheds. They were subsequently moved to the cable and horse tram building, and will shortly transfer

to the new Exhibition Shed when its re-erection is completed. Mrs Twentyman lived on in the house, despite deteriorating health, until her death in 1992, at age 90.

These recollections and notes are tendered in an effort to record and commemorate the 'foundation stone' of tramway preservation in Australia – Alfred Edward Twentyman. A quietly spoken, mild mannered man, it would have been unlikely he would have thought himself to be pioneering a new cause, let alone that, seventy years later, there would be fourteen tramway museum groups in Australia preserving over 250 tramcars of five different motive power sources!

Further, it was to be more than twenty years before the first electric tram was set aside for preservation in Australia – Sydney's L/P class 154 on 24 July 1950 – by the NSW branch of the Australian Electric Traction Association. Car 154 was transferred to the newly formed Australian Electric Transport Museum in September 1955. In April 1959 the Sydney branch of the AETM became the South Pacific Electric Railway Cooperative Society, which owns and operates the Sydney Tramway Museum.

It was another three years before Melbourne's first preserved electric tram – S class 164 – was received on 19 March 1953 by the Victorian branch of the Australian Electric Traction Association. It was transferred to the Tramway Museum Society of Victoria in August 1965.

So let us keep 6 January 1930 in our minds, as a monument to the man who started it all. It surely is 'A Day to Remember'.

The writer extends thanks for assistance in the preparation of this article to Mrs Beth Garnham (née Twentyman), Robert Green and Bill Kingsley

Melbourne cable grip car 436 and trailer 586 at Alf Twentyman's home at 40 Bastings Street, Northcote on 9 March 1969. Light rails set into the lawn allowed the cars to be pulled out from their shelter for viewing and photographs.

Keith Kings



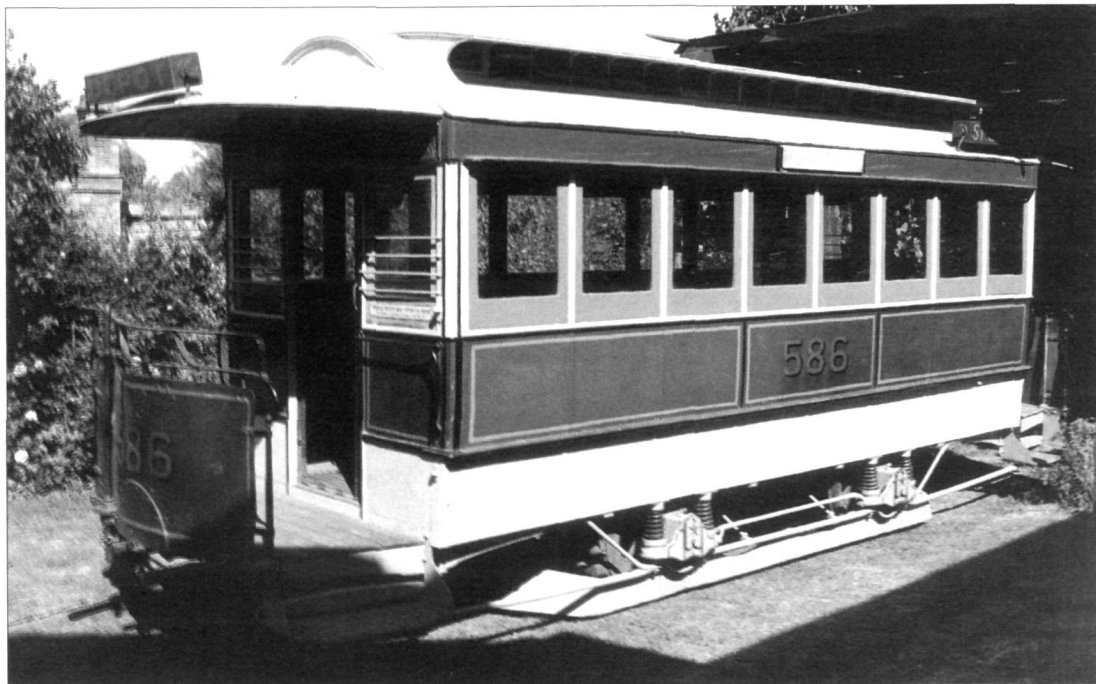


Cable tram trailer 290 in March 1969 as preserved by Alf Twentyman at his home in Northcote. It was the first tram preserved by Mr Twentyman, on 6 January 1930, and is believed to be the first tram preserved in Australia.

Keith Kings

Cable tram trailer 586 at Alf Twentyman's home in Northcote in March 1969. This vehicle operated on the last day of Melbourne's cable trams.

Keith Kings



TAXING TIMES

By Colin Jones

In September 1931, the Melbourne and Metropolitan Tramways Board received a shock.

The Melbourne tramways board has been seriously disconcerted by a demand from the federal taxation authorities for payment of sales tax on the tramcars which the board is building in its workshops at Preston. The cost of building a car is £3,000, and the taxation office is demanding that 20 per cent be added to this, to obtain its supposed sale value, and that a 6 per cent tax be paid on the total amount. The tax to be paid would thus be £216 on each car. The Board has been engaged recently on the construction of four cars to replace obsolete vehicles in service, but in consequence of this potential increase in the cost it has suspended the construction programme. The Board has been labouring under a disadvantage for many years in consequence of the statutory requirement that it make considerable payments into the state consolidated revenue, and this latest impost tends to make its position more difficult.⁽¹⁾

The matter of the payment to consolidated revenue was a particular irritant as it was specifically for the support of the fire brigades board, the licensing fund and the infectious diseases hospital, hardly matters associated with the operation of a tramway. This figure amounted to £118,000, or 5 per cent of gross revenue, in the year 1930-31. The construction of the 37 new tramcars built during this year might notionally have attracted a sales tax of £7,992 that the Board could ill afford.

Times were hard, with patronage falling under the combined impact of the great depression and greater use of private cars. The M&MTB had suffered a 12 per cent decline in the number of passengers carried during the previous year, and was going to see a further 7 per cent fall in the following year. It had got through in a reasonably satisfactory condition largely because it had been able to reduce wages and salaries by 10 per cent by new awards and agreements, and by voluntary action by the staff. As it was, the £120,000 profit paid into the statutory reserves at the end of the year was only 37 per cent of what was required under the Act, thus leaving the undertaking in a position of statutory deficit. Nevertheless, it was wryly admitted at the 1932 Tramways Conference that the Australian tramways in

general had benefited from better fiscal management in the past than had the railways, in particular by not having a burden of over-capitalisation. They therefore would expect to weather the harsh financial climate better.

The four trams whose construction had been suspended were of the new W3 class, the first of which, No. 654 entered service in 1930. They had 52 seats and a crush capacity of 150. Their special features included steel bodywork, electrically welded, and a weight reduction compared to previous trams of 2 tons. Long semi-elliptical bogie springs similar to automobile practice were introduced with the design. The lower weight and larger wheels, along with clasp brakes, were expected to help prevent rail corrugation. Thus, the M&MTB had been active in considering improved and innovative designs.

A feature of the administration of the Melbourne tramways board is its progressive policy on investigating and making full trial of any equipment or method of operation that promises to effect an improvement in service or a reduction in cost. The board's officers keep in close touch with methods of other undertakings, both in Australia and abroad, and by reason of their receptiveness to new ideas, are always abreast and sometimes ahead of current practice elsewhere.⁽²⁾

In these circumstances stopping construction of new trams because of a new tax would have been especially unfortunate. There was also no suggestion at all that the tramcars were being built for sale by their manufacturer.

The Federal Government was soon brought to see its error in the matter of the new sales tax and, when it was withdrawn, two new tramcars, Nos 658 and 659, were put into service during 1931-32.

In other Australian cities, tramcar construction had also paused. Indeed, it may have stopped permanently in Sydney had the authorities persisted with their new tax, which might have amounted in this case to as much as £43,200. Brisbane, where patronage had dropped 7 per cent over an 18-month period, saw just one new dropcentre car, No. 294, enter service in 1931. The next four, Nos 227 to 230, were not completed until 1934.

Ten Dreadnought cars meanwhile had been modified for one-man operation.

Perth in particular was having difficulties. Five new tramcars following the design of the Improved E class had been constructed at the Midland Junction workshops during 1930-31, but their entry into service was postponed. It had originally been intended that new trams for Perth should be 'similar in design to cars now operating in Melbourne and Adelaide. It is proposed, however, to use silent-running worm drives from the motors to the axles.'⁽³⁾

In the event, Nos 126 to 130 straggled into service between 1932 and 1934 with electrical equipment and running gear taken from older trams that were scrapped. Indeed, so difficult were the finances of the Perth tramways that, after effectively completing an eight-year program of track renovation costing £159,000 in 1932, it was found impossible to commit an extra £14,000 for further work. It was planned that the whole of the route involved, on Kensington Street, would have to be turned over to trolleybuses. Fremantle tram No. 35 was completed in 1932-33.

In Hobart, a modest plan of new construction envisaged two trams suitable for one-man or two-man operation. At £2,450 each, they were cheap. No more double-deck cars would be built, and four of the existing fleet of double-deck vehicles would be converted for one-man operation. No. 31, the first of the new trams,

entered service in 1931 and the second, No. 26, in 1932. Launceston completed its last three new trams, Nos 27 to 29 in 1930 but three further planned vehicles were never built.

In the circumstances, the decision to build 200 new trams for Sydney was a significant step. They would be saloon instead of crossbench cars, using the best features of the most recent Brisbane and Melbourne designs, with 48 seats and a crush load of 130.

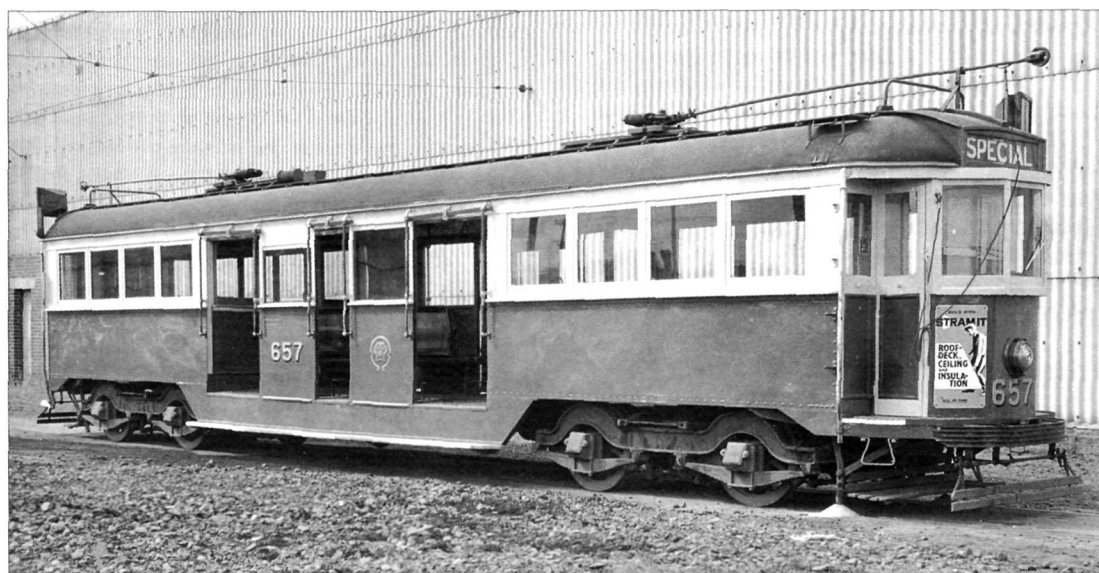
The speed of the cars will be considerably higher than that of the present rolling stock, and there will be special springing to increase comfort.⁽⁴⁾

The first new R class tram, No. 1738, entered service in 1933, the same year as W4 class No. 670, the first of an improved design of Melbourne tram. Mass production in Sydney would see 250 new Sydney trams built between 1933 and 1936, by which time production in Melbourne and Brisbane had also picked up again.

The tramways weathered the great depression, but with no thanks to the anonymous bureaucrat from the Commonwealth Taxation Office.

References

- ⁽¹⁾ The Electrical Engineer & Merchandiser, 15/9/1931
- ⁽²⁾ Ibid. 15/3/1930
- ⁽³⁾ Ibid. 15/4/1930
- ⁽⁴⁾ Ibid. 15/11/1932



Melbourne W3 class 657 was the last of the four trams whose construction was temporarily suspended by the M&MTB. Their construction may have been halted permanently had not the Federal Government's sales tax legislation been withdrawn.

M&MTB Official Photo

FRANCE'S TROLLEYBUSES AT THE CROSSROADS

From John Humbley
our correspondent in Paris

The six trolleybus systems remaining in France face an uncertain future, though several cities have opted for modernisation.

As in many countries, the trolleybus was the pre-war answer to the problem of the replacement of trams. Most French trolleybus systems were built in the 1940s and early 1950s. Many systems were replaced before the oil crisis in the early 1970s, but six remain. The need for replacement of existing rolling stock here has forced those in charge to look hard at the future of this environment-friendly means of transport.

Lyon

The steep hills of many parts of this city have made the trolleybus a very competitive form of public transport which is highly appreciated by local users. A fleet of 87 vehicles (the largest in France, but well down from the maximum of 360 in the 1960s) run on eight routes though two are temporarily being served by diesel traction. They transport 82,000 people a day, 8 per cent of the total use of public transport, dominated in Lyon by the four-line metro system. The small 34-year-old trolleybuses of the hilly route 6 were replaced in September 1999 by a new series, as a prelude to a general fleet renewal to be completed by 2002. The new vehicles, to be built by Irisbus France (a subsidiary of the merged Renault – Iveco) in both rigid (12 metres in length) and articulated forms (18 metres in length) will boast complete low-floor treatment and a futuristic front reminiscent of the Strasbourg trams. The future of the trolleybus is thus assured in what is often considered as the bastion of the French trolleybus, soon to be complemented by a major tramline.

Saint-Etienne

The nearby city of Saint-Etienne is notable for having retained and modernised its trams. The backbone of the city's transport is tram route 4, which follows the long valley in which urban development has taken place. It is to be supplemented by a new tram route, but trolleybuses have for the past 50 years also played an important part in public transport in this city. However, the end seems to be in sight for the fleet of 51 vehicles,

as route 6 is to be replaced by Agora buses from 1 January 2000, and the future of the other three trolleybus routes is uncertain. It is possible that the cost of replacement will be excessive at a time when funds have to be found for tramway expansion.

Grenoble

Grenoble, one of the French cities to pioneer the return of the tram in the 1980s, is at present without trolleybuses. Those of the last two lines were progressively replaced with diesel buses in 1999. However, this is a temporary measure, as these are to be replaced by 33 Agora buses with improved pollution control and 15 trolleybuses with the same specifications as the Civis, designed by Renault and Matra. Others could be added if lines are re-electrified.

Marseille

Marseille currently has three trolleybus routes served by 47 vehicles, which make a modest contribution to public transport in this southern city, dominated by 70 diesel bus routes, a metro system to which the one remaining tramline is connected. Here too the future of the trolleybuses is uncertain, though the current mayor is reported as being favourable to their retention. Not only does the hilly configuration of much of the city plead in their favour, four former trolleybus lines still have their overhead intact, and a future network of eight routes, with both standard articulated and small vehicles as Lyon uses, is one of the options on offer. A decision is to be taken within the next six months.

Limoges

Though Lyon has by far the largest trolleybus network, Limoges is the city where this form of transport has the greatest share of passengers transported: 53 per cent of those using public transport take the trolleybus. Operating since 1943, the five trolleybus routes use 40 vehicles. A new route was opened in 1996, the first in France for fifteen years. The fleet is the most recent in the country, and will not start to come up for renewal until 2003. The present administration is confident in the future of this means of transport.

Nancy

Nancy is the only city in France to have adopted the trolleybus in the 1980s. A fleet of 48 articulated bi-modal trolley/diesel buses serve three routes, one of which has two outer sections without overhead.

However, Nancy is currently constructing a rubber-tired tramline following a route used by the trolleybuses, which spells the end for most of the current system. Not all the double wires will disappear though, as seven rigid-bodied trolleybuses are on order from Ansaldo (Italy), to be used on the less steep grades of the system.

HERE AND THERE

NEWS ITEMS OF INTEREST FROM ALL OVER

Sydney – Kensington Light Rail Extension

It was announced in late October 1999 that a light rail plan for Sydney's eastern suburbs, promised when the eastern distributor road tunnel was first mooted, has been dumped after a feasibility study concluded it would not attract enough patronage.

A Department of Transport assessment found none of the options for a light rail line to Kensington could go ahead 'without significant cost to government.' Two preferred routes were examined – between either Central or Redfern railway stations and the University of NSW – and various sub-options. The options were evaluated in terms of eight issues: route suitability, traffic impact, patronage, financial, land use, urban design, heritage constraints and legal issues.

Only one sub-option demonstrated improvements in travel times compared to buses but this option involved expensive tunnelling under Moore Park and Surry Hills to Central. Complicating this would be water table problems. Other routes such as along Foveaux Street were too steep. The assessment found that only 15 per cent of passengers would use light rail exclusively, which was not viable.

Sydney – Lilyfield Light Rail Extension

Preliminary work commenced on the light rail extension from the existing terminus at Wentworth Park to Lilyfield in late November 1999. This included clearing rubbish and vegetation from the track, detail survey, geotechnical investigation, erection of fencing, erosion and sediment control measures and establishment of the contractor's site office at Jubilee Park.

More substantial construction activities began in December 1999, including excavation at the five stop

sites, trackwork and foundations for overhead wiring structures.

By mid-January 2000, the new down platform at Wentworth Park was well advanced and overhead mast bases were being cast. Concrete sleepers are also being stockpiled here. The earthworks and foundations for the station at Jubilee Park are also well advanced. No work has commenced on the construction of Bridge Street and Rozelle Bay stations. At most bridges along the line the outbound track has been lifted and the ballast cleared off the bridge decks, presumably to allow inspection and repair of the bridge structures.

Sydney Light Rail Vehicles

All trams have now had all-over advertising liveries applied. Car 2103 re-entered service early in December carrying a yellow livery and advertising the Yellow Pages. Car 2105, which had until now been the only car to retain the original blue livery, re-entered service on 23 December in a red and white scheme for Heinz. The seven cars are carrying the following advertising:

- 2101 – Holden 2000
- 2102 – Cadbury's Chocolate
- 2103 – Yellow Pages
- 2104 – Radio 2UE
- 2105 – Heinz Tomato Ketchup
- 2106 – MasterCard
- 2107 – Hutchisons Telecoms

Melbourne

Melbourne Z3 class 149 was destroyed by fire at West Maribyrnong terminus on 6 November 1999. The vehicle was completely destroyed, leaving only a burnt-out shell that was later taken to Essendon Depot. It is



All of Sydney's Metro Light Rail cars are now in all-over liveries. Seen early in February are 2103 painted for Yellow Pages (top); 2104 promoting radio station 2UE (centre); and 2105 decorated for Heinz Tomato Ketchup (below).

All: Dale Budd



thought an electrical fault in the roof was the cause of the blaze.

The tram crossing at the intersection of Spencer and La Trobe Streets was installed over the weekend 15 / 16 January with the intersection closed until 5:00am Wednesday, 19 January. The prefabricated crossing was placed in La Trobe Street west in the week prior to its installation. The crossing will connect the new Docklands line to La Trobe Street. In addition, south-to-west curves will allow trams to turn from Spencer Street onto the Docklands line.

Rockhampton

The Archer Park Station and Steam Tram Museum, home of the restored Purrey steam tram, was officially opened on 11 December 1999. The Museum is located at the northern end of Denison Street along which Queensland Railways' trains still run. Archer Park's connection to the main railway system is to be restored during 2000, after which a QR heritage steam

locomotive and carriages will be based at the Museum for local steam tours. The Museum's manager is Dennis Sheehan, who for ten years has been a strong supporter of a museum at Archer Park.

The Museum is open on Tuesdays to Sundays and the steam tram is expected to be running at weekends.

Brisbane – One Hundred years Ago

In December 1899, *The Brisbane Courier* reported on the holiday tram traffic. It stated that 'the carriage of passengers on the various lines of the Brisbane Tramways Company on Saturday last amounted to 79,043. This constitutes a record for Brisbane, being a very substantial increase on previous best returns, and Mr Badger, the company's manager, is of the opinion that it is probably unsurpassed in any town of the world of equal size and population'.

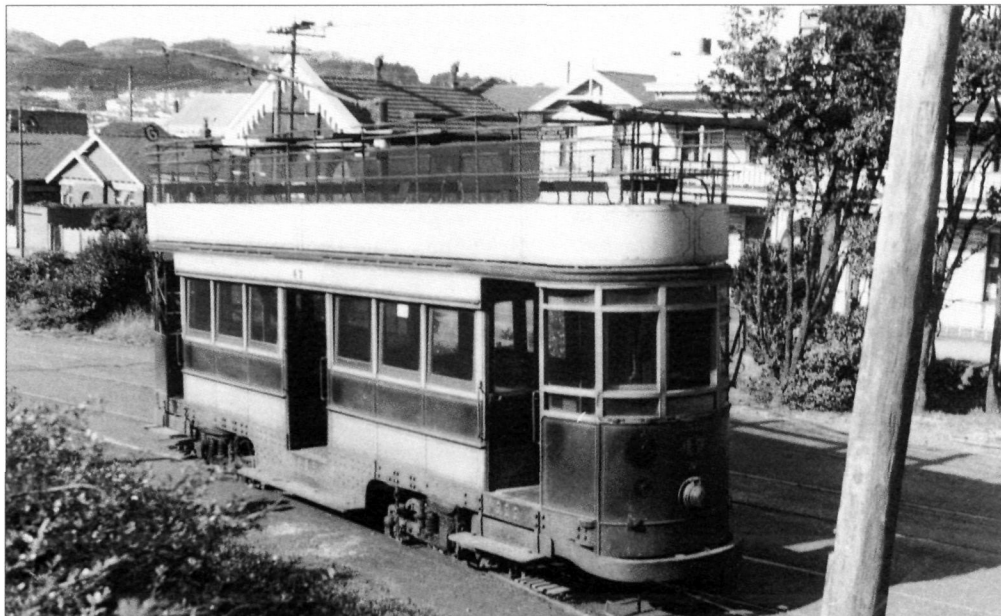
Double Deck Trams in Australasia

Double deck electric trams were not common in Australasia. Apart from the Hobart fleet, the only other double-deckers were in Sydney, (2 cars), Auckland (6 cars), Wellington (15 four-wheelers and six bogie 'Big Ben' cars) and Christchurch (3 cars). With the exception of the Wellington trams, the others were converted to single deck. Despite their rarity, examples from each system have been preserved. The Tasmanian Transport Museum Society has one Hobart car, as does the Sydney Tramway Museum, which also has Sydney

Melbourne's prototype car PCC 1041 is seen in Preston Workshops on 19 April 1999. This long-neglected car is having a face-lift but there is little likelihood of it being returned to operating condition in the short term. The car was built to demonstrate modern design features and is fitted with some of the PCC equipment from 980, now in the Tramway Museum Society of Victoria's collection at Bylands.

Ray Marsh





C class 33 which one day may be rebuilt to its double deck configuration.

The Museum of Transport and Technology in Auckland has an example of an Auckland car (body only, built by Brush) and a Wellington Big Ben (complete car). The Tramway Historical Society (Ferryhead) at Christchurch has the body of one of the Stephenson-built cars. Unfortunately none of these unusual cars has yet achieved operational status.

Wellington, New Zealand introduced six locally-built bogie double deck cars in 1906. They were constructed with a five-compartment crossbench lower deck, and converted in 1913 to a double saloon design with centre aisle. All were withdrawn from service in 1952 except car 47, which is preserved at the Museum of Transport and Technology in Auckland.

Photographer not known, R. Merchant collection

Replica Trams for Tampa, Florida

Gomaco, the replica tramcar builder in Iowa, USA, has a new contract. The company has begun construction of eight double-truck safety car replicas, which they are calling double truck Birneys. Technically, only single truck versions were Birneys, and the bogie versions were advertised as double truck safety cars, although most used many of the Birney construction techniques and closely resembled them in appearance.

The cars are to be 46 feet over anticlimbers, 8 feet 9 inches wide, and 11 feet from top of railhead to top of the roof. Two roof-mounted air-conditioning units will add another 9 inches to the height. Weight will be about 42,000 pounds. The dimensions are close to those of typical cars of this type but the new vehicles will be heavier. Such cars weighed in at around 26,000 pounds for early versions, increasing to over 40,000 pounds for later types

The replicas will use trucks and motors from Milan cars, which Gomaco bought and scrapped in Italy after salvaging trucks, electrical gear and other fittings. The motors are rated at about 28hp each, which will give a very low horsepower to weight ratio for a 42,000-pound car. The Milan cars were much lighter, at about 33,000 pounds. The delivery schedule calls for four cars to be delivered in 1999 and four in 2000.

The cars are for use on a new heritage operation between Tampa and nearby Ybor City. The Tampa Bay Streetcar System is seen as a project to tie together efficiently a series of attractions in the heart of Tampa. The 2.3-mile route will link Ybor City, known as Tampa's 'party' district, to such attractions as the Tampa Bay Aquarium, the Tampa Convention Center, and the Ice Palace. The line will have 11 to 13 stops. Gomaco can be found on the Internet at www.gomacotrolley.com.

Salt Lake City Line a Success

TRAX, the light rail mass transit system in Salt Lake City operated by the Utah Transit Authority, began revenue service on Monday, 6 December 1999. Some 28,268 people rode during the opening celebration. The following Saturday, when UTA waived its \$1 one-way ticket charge but operated on a normal schedule, 43,311 riders climbed aboard.

Average weekday ridership during the first month of TRAX operation was 85% higher than expected. Ridership figures for December show an average 25,904 one-way passengers boarded TRAX along the 15-mile line. The agency had projected 14,000 daily boardings during the first year and expected just 23,000 average daily riders in 2010.

UTA expected ridership to level off in January but it remains well ahead of projections. Holiday shoppers and revellers are believed to have accounted for a good percentage of the riders in December

Reviews

Australian Trams in O Scale

The St Petersburg Tram Collection is a Russian company that makes museum quality, static display model trams, trolleybuses and buses in 1:43 and 1:48 ('O') scale in limited numbers, usually 100 of each type.

Generally, the trams are created by the 'Vac Form' process, whilst buses are resin castings. Each model is beautifully detailed and ready to be displayed on the shelf, straight out of the box. They are supplied as static models but with little effort they can be converted to working models.

The company has big plans for producing Australian prototype trams and trolley buses. The first to be released, and the subject of this review, is the Melbourne Z3 class tram.

The model is a very good reproduction of the class before the introduction of pantographs. There are a few minor faults on the pre-production model. The rope guard over the destination box is black and should be silver, and the bar that divides the half-drop windows is a line of tape on the window and should be a solid bar. The company has assured the importer that these have been rectified on the production batch.

There are many 'plus' features. The colours are excellent. The detail is superb and includes the vent louvres on the roof, the 'STOP' sign on the exit doors –

A Russian-built model of Melbourne Z3 class 172. Purchasers can select any destination and fleet number to be applied to their models.

SPTC, Transit Classics collection



even the one that folds in has the sign on the side which cannot be seen – folding mirrors, and even a Channel 7 advertisement between the headlights. The general outline shape is also very good. It looks very much like a Z3 tram.

As you would expect with such quality models, they are not cheap but, by today's standards, not all that expensive. The average cost of several types the reviewer has seen is around \$A300 but they are well worth the price.

To be released in the very near future are models of the Sydney R class tram, Sydney double-deck trolley bus and a Brisbane 'Phoenix' tramcar. The Melbourne W7 class and PCC 980 are also to be produced. A model of Nagasaki car 1054 at Loftus is to be released in March 2000.

The company would like to produce more Australian trams but, of course, this will depend on demand. As a point of interest, one modeller in the USA bought five Z3 cars! Models of other trams from around the world are available and include Berlin's Gotha-built four-wheelers, cars from Malmo, Gothenberg and Copenhagen, Boston's three prototype PCC cars, Toronto's LRV, Moscow's Tatra T3 cars, as well as all types that ran in St Petersburg.

The Z3 is an excellent model of an Australian Prototype. Models of this standard are long overdue and the Russian effort in producing such quality models is deserving of our support.

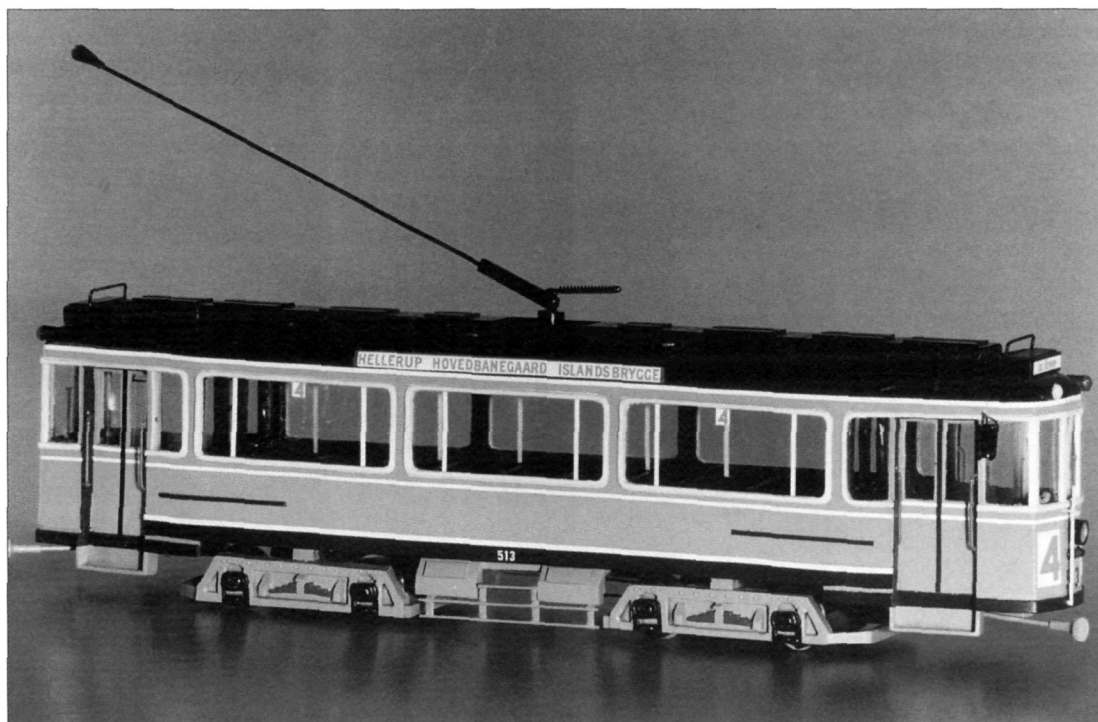
The Australian distributor is Transit Classics, 11 Meldrum Court, Sunbury, Vic. 3429, phone 03 9744 3577. Alternatively, you can contact them via e-mail at tramway@one.net.au. Transit Classics also produce transit models and have available kits in 1:48 ('O') scale of a San Francisco double-ended PCC (the same as I014 at Loftus) and American buses in HO scale. These are all resin kits. The St Petersburg Tram Collection can be found on the Internet at

<http://www.nevalink.ru/~sptc/>

- Bill Parkinson

This view shows an example of an older European tramcar modelled by the St Petersburg Tram Collection. It is a model of one of Copenhagen's first series of 'Linding' type tramcars (Nos 502 to 531) designed by the architect Ib Lunding and built in 1930. These cars were very successful and remained in service until the end of tramway operation in the Danish capital on 22 April 1972.

SPTC, Transit Classics collection



Around Wellington by Tram in the 20th Century

By Graham Stewart

Size 285mm depth x 210mm width

60 pages, colour centre spread

176 photographs (including covers) and map

Cover with flaps

ISBN 1 86934 072 8

Published by Grantham House Publishing

Recommended retail price \$29.95

Graham Stewart first discovered Wellington, the capital of New Zealand, in the late 1940s after a weary overnight steam train journey from Auckland where he was born and educated. He has lived in Wellington for the past twenty-five years and says he will never migrate north – Wellington is a city with a true heart and a friendly village atmosphere, so rare in the world today. Your reviewer can certainly attest to the friendliness of Wellington folk on three all-too-brief visits. The city's narrow streets reminded him of his home city of Sydney.

This book is the fourth in Graham Stewart's Around... series of pictorial albums showing New Zealand's trams in their home environment, the streets of the cities and suburbs in which they ran. Graham has brought together a unique collection of photographs of Wellington as it grew and developed through the 20th century and before it became the modern city it is today. Over 80 of the photographs were taken by Graham in the early 1950s and have never been published before.

Graham has provided us with another pictorial smorgasbord, a book of discovery for those who did not live in the days when trams ruled the streets of our cities, and, for Wellingtonians, a wonderful look back in time to those days. Indeed, for the Australian tramway enthusiast, particularly those from Sydney or Melbourne, there is a familiarity about many of the Wellington scenes. It is only those red and cream tramcars in the scene, rumbling along the city's streets that show it to be in Wellington, New Zealand.

This is a timely book which records the century and shows graphically how Wellington has grown since 1900. It is full of nostalgia, showing the trams in their true setting, the motor vehicles, the shops and street furniture, the fashions, and the pioneer buildings, many of which have since been replaced by modern, less picturesque steel and glass structures.

It is a fascinating ride back in time for those who like tramways and for everyone who has a special affection for this gem of a hilly harbourside city across the Tasman Sea. Like all of Graham Stewart's books, it is

highly recommended and should be on the bookshelf of every tramway enthusiast.

Grantham House has realised their books have not had the exposure in Australia they are certainly entitled to and has appointed an Australian agent. The new distributor is:

John Reed Book Distributors,
57 Sir Thomas Mitchell Drive,
Davidson NSW 2085
Phone: 02 9939 3041
Fax: 02 9453 4545
Email: johnreed@barcode.com.au

Museums are encouraged to contact the distributor for a list of Graham Stewart's publications available.

– Bob Merchant

Getting There by Tram in Western Australia

By Bob Campbell

Size 210mm depth x 147mm width

28 pages, card covers

30 photographs, 15 in colour including covers, and separate maps

ISBN 0-646-38447-3

Published by Perth Electric Tramway Society Inc.

Price for individual copies: \$8.00 plus \$1.00 postage and packing

Orders for 10 or more: less 33% plus postage and packing

Available from PETS Sales, PO Box 257 Mount Lawley, WA 6929

The available published material on the tramway systems in Western Australia is scant indeed. Most enthusiasts still refer to Jack Richardson's *Destination Subiaco*, published in 1957, reprinted in 1967 and still keenly sort after, for information on the trams, but details of the systems themselves are scarce.

Getting There by Tram in Western Australia was published at an affordable price to mark the 100th anniversary of the opening of the Perth Electric Tramways – Western Australia's first – which took place on 28 September 1899. It is not the answer to your wish to have an all encompassing detailed publication on the various tramways, but it does provide a brief description of the Western Australian systems.

It provides a brief history of the Perth trams, Fremantle trams, trams in the goldfields and the littlest system at Leonora, as well as Perth's trolleybuses and the formation of the preservation movement in our western state.

It is worth the price for the photographs taken by Arthur Perry and Hugh Ballment, who travelled to the west in time to capture the trams of Perth and Fremantle in colour. Coloured postcards from Michael Stukely's collection and a selection of black and white historical views supplement these.

The booklet comes with a double-sided lift-out track map drawn by Adrian Gunzburg of the Perth, Fremantle and Kalgoorlie tramways at their maximum extent, and well worth having.

For those readers interested in Western Australia's American-style trams and the systems over which they operated, this booklet will fill a gap in the published record. With its reasonable price, it is certainly recommended.

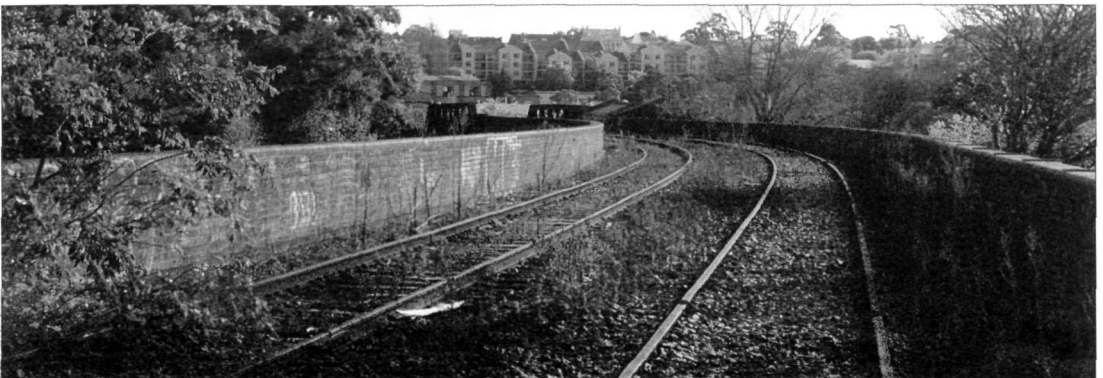
- Bob Merchant

Sydney Light Rail Route

The route of the extension to the Sydney light rail line to Lilyfield was photographed in mid September 1999, immediately prior to work commencing on clearing encroaching undergrowth and setting up the contractor's construction depot near the former Rozelle tram depot. The extension continues to use the right-of-way of the closed goods railway to Darling Harbour.

Below: A view looking east towards the city skyline from the multi-arched brick viaduct across Wentworth Park. The present terminus of the light rail line is immediately behind the block of units partly obscured by the trees on the left.

Bottom: This view shows the western end of the Wentworth Park viaduct and the steel truss bridge over Wentworth Park Road. The ridge under which the line tunnels can be seen in the background.



The tunnel under the suburb of Glebe had been sealed to prevent unauthorised entry. The encroaching undergrowth has covered the out-bound track at this point. A construction site has been established at the top of the embankment to the right of this view, which shows the western end of the tunnel.

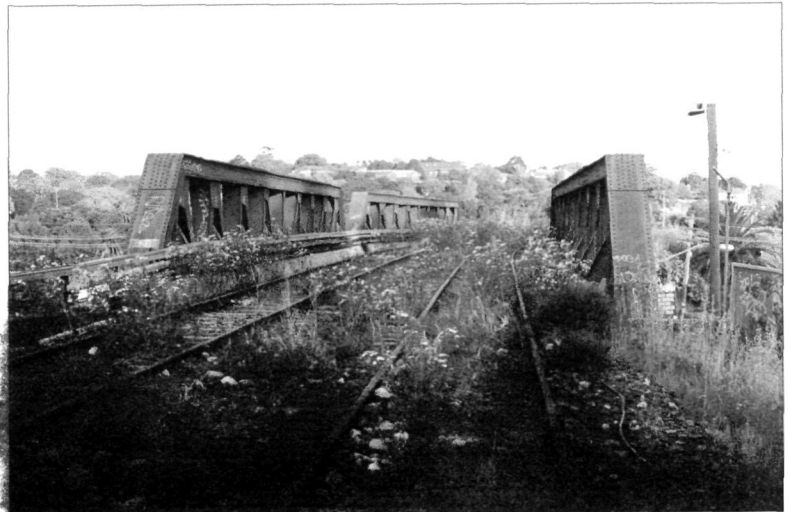


Another curving multi-arched brick viaduct passes behind Jubilee Oval and crosses Federal Park. This view is looking southwest and the former Rozelle tram depot is hidden by the trees behind the viaduct on the left. The light coloured structure is part of the Harold Park Paceway.



The Crescent, Leichhardt, is crossed by a double span steel truss bridge. This view is looking east and shows the light weed growth covering most of the right-of-way from this point to Catherine Street, where this extension to the light rail line is to finish.

All photos: Bob Merchant



VALLEY HEIGHTS

Steam Tram and Railway Preservation Society
PO Box 3179, Parramatta NSW 2124

From Peter Stock

The Whistle Project

It isn't the whistle that pulls the tram, but it lets you know it's coming....

Since the fire of 1993, our tram motor 103A has been substantially rebuilt. However, the roof gongs and whistle, destroyed in that fire, had to be remanufactured.

The whistle project started when the Powerhouse Museum kindly allowed members Frank Moag, Craig Connelly and Frank Millier to make sketches of the whistle on their tram motor 1A. The sketches were converted into working drawings and from these a new whistle was manufactured.

A friend of the Society, John Peck and his engineering friend Jim Nichols led the project, ably assisted by Frank Moag and Frank Millier. Despite many disappointments and setbacks, the project triumphed. On Saturday, 27 August 1999 John presented Chairman Peter Stock with a fully operating steam tram whistle. Accompanying this ceremony, John also presented a ceremonial whistle, mounted on a polished portion of sleeper, for our archives.

Both whistles are fully operational and were given a thorough testing utilising compressed air. How sweet the sound of a steam tram melody spreading its dulcet tones over Valley Heights.

Locomotives Move to Valley Heights

Since our last report in these pages, the Society is pleased to report that motor 103A, Stephenson No.2 and Vulcan 1022 have been moved to the Valley Heights site. The locomotives were safely delivered to their new home on Wednesday, 15 September 1999. Subsequently, on the following Saturday, the locomotives were moved into the roundhouse area.

The move required heavy lift cranes at each location, and the use of three low-loaders. Once again, our thanks to the contractors, Kingston Haulage, for another safe movement of our rolling stock, and sincere thanks to the NSW Rail Transport Museum at Thirlmere for their generous assistance after the fire. Stephenson No.2 is stabled beside the end-loading CBI car, 1022 is stored outside the depot building, whilst 103A is stabled ahead of steam tram trailer 93B.

Continued page 28



The whistle project team at Valley Heights on 27 August 1999. The presentation whistle is on the table together with several patterns made for the project. Left to right: Frank Moag, John Peck, Jim Nichols and Frank Millier. Frank is holding the new whistle to be fitted to motor 103A.

Peter Stock

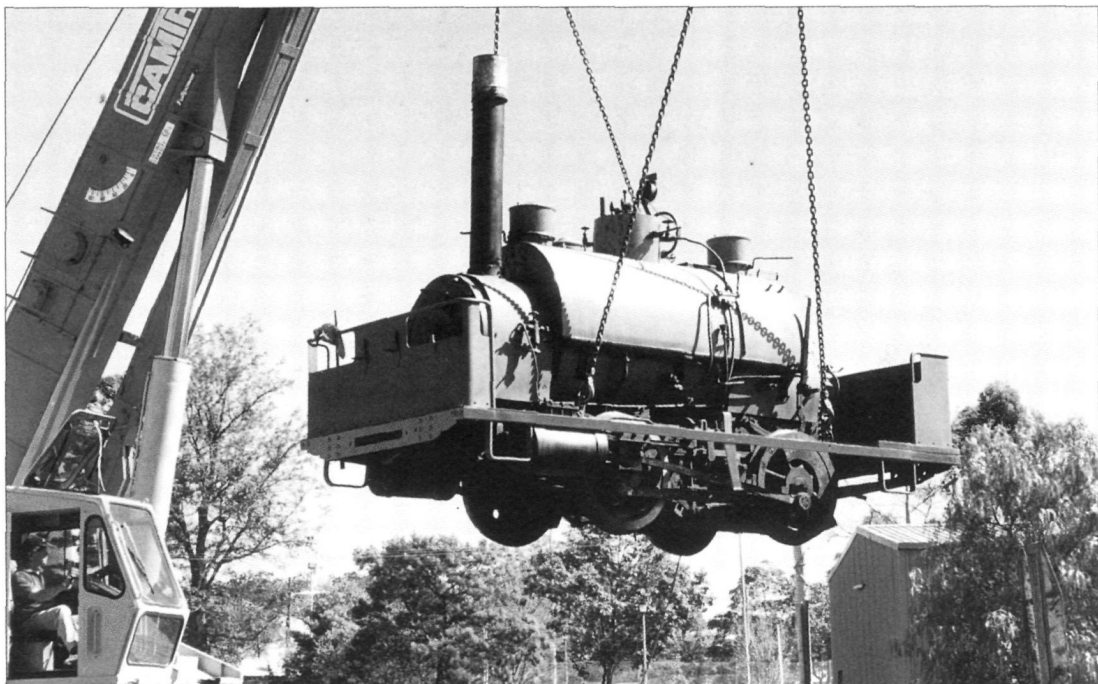


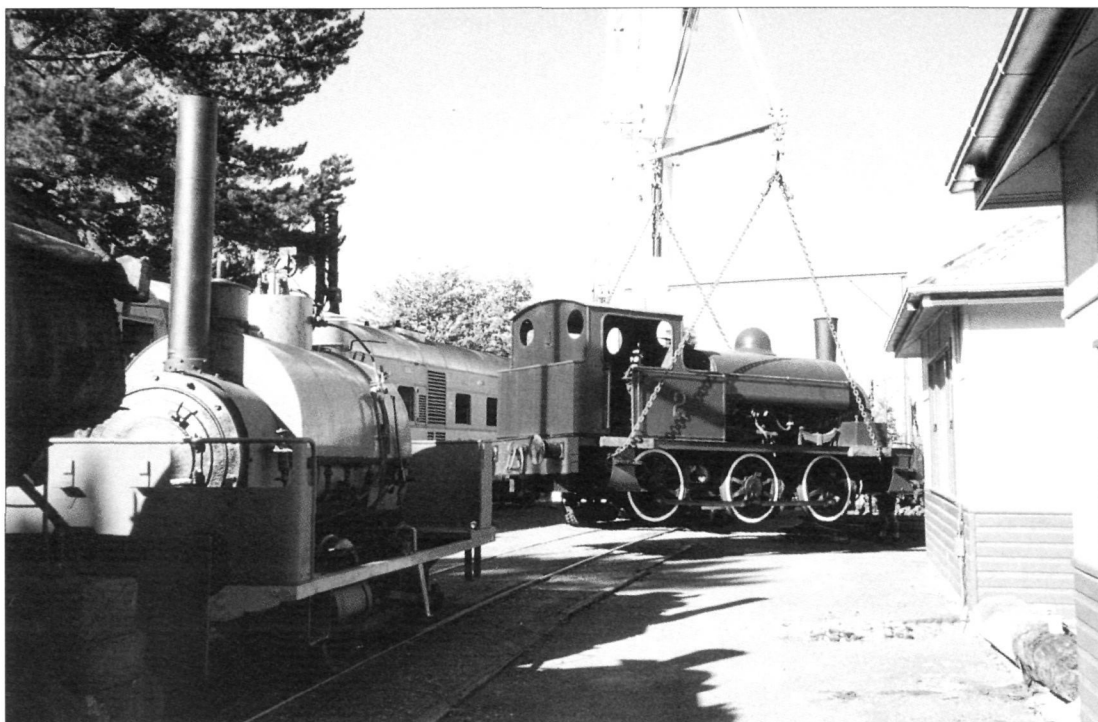
Vulcan saddle-tank locomotive 1022 being lifted and swung onto a low-loader at Thirlmere on 15 September 1999.

Peter Stock

Steam tram motor 103A dangles in the air during loading at Thirlmere for the move to Valley Heights on 15 September 1999. The motor's funnel was removed for repair after arrival at its new home.

Peter Stock





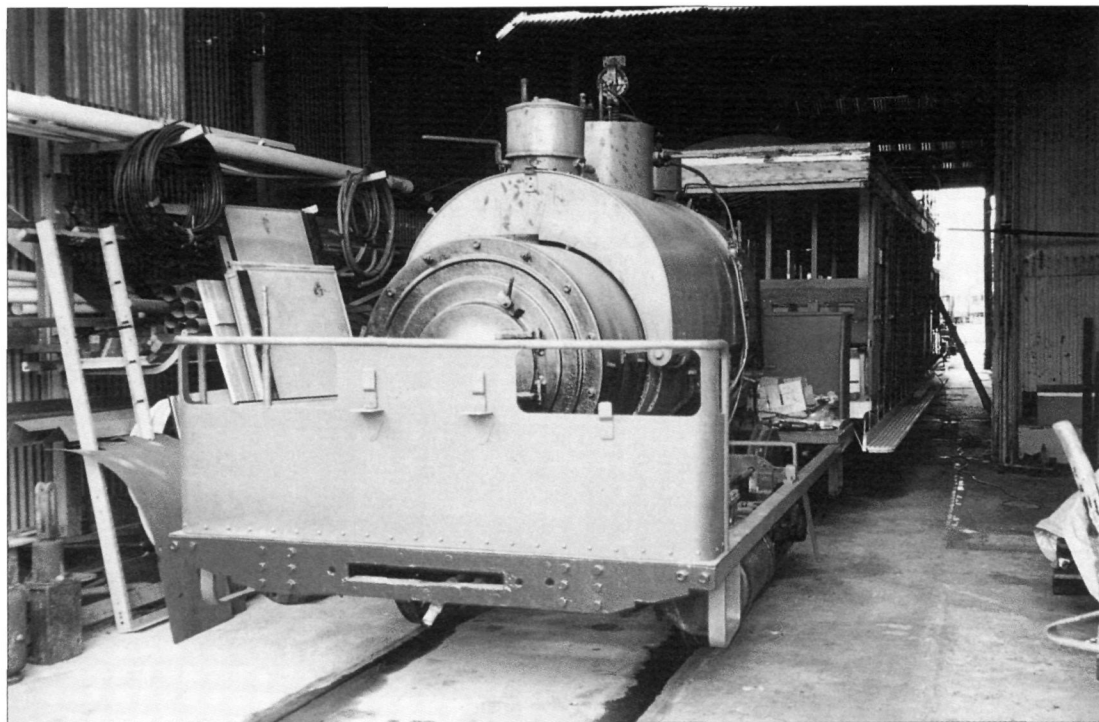
Stephenson locomotive 2 is swung onto the rails at Valley Heights on 15 September 1999. Tram motor 103A and Vulcan 1022 had been unloaded earlier and can be seen at left.

Peter Stock

The Stephenson locomotive and CBI carriage in the roundhouse at Valley Heights on 25 September 1999. Replacement side framing is leaning against the side of the car ready for fitting.

Peter Stock



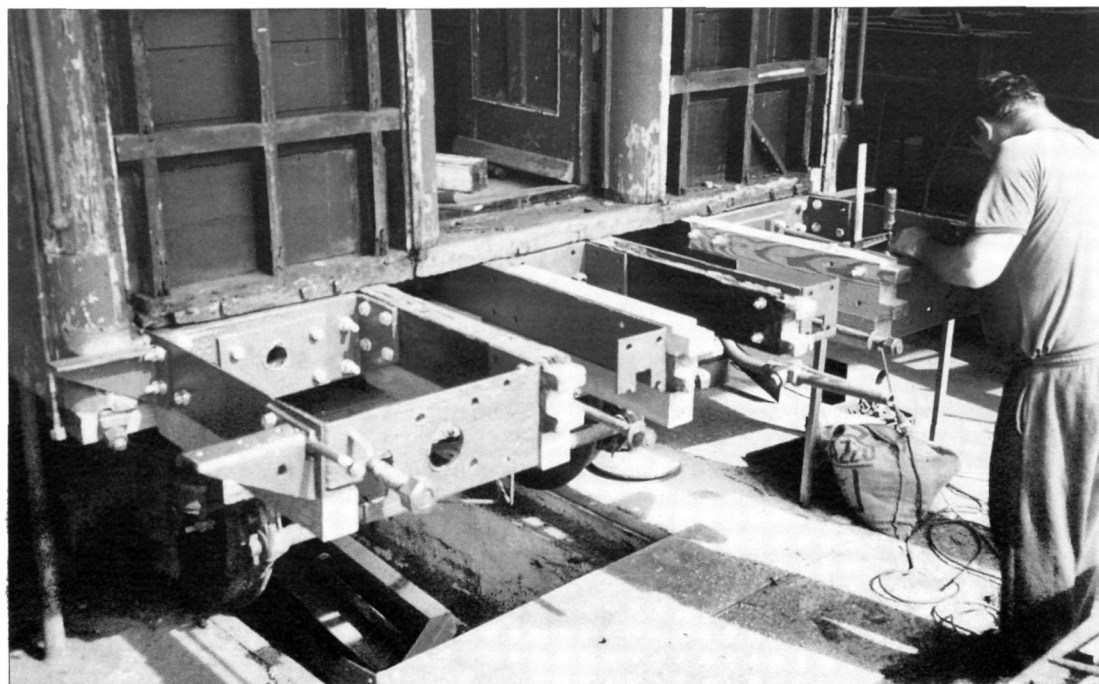


Motor 103A, now without funnel, and trailer 93B at Valley Heights on 25 September 1999.

Peter Stock

The first end platform under restoration on the CBI carriage. The Society's works manager, Craig Connelly reassembles components on the end platform on 5 September 1999.

Peter Stock





Restoration Work

Steam tram trailer 93B has all the seats and bulkheads fitted, including two conductor cupboards under each seat. Panels on one side of the car have been thoroughly stripped of old paint and painstakingly rubbed back to bare wood. Cliff Currell undertook this onerous task, even during the depth of winter when the cold winds blew through the roundhouse bay, known as 'pneumonia alley'. The other side of 93B will be substantially replaced with new (recycled) timber but using as much of the original cedar panelling as possible.

Our other B car, No.72, stored outside, has been recovered with a substantial tarpaulin generously donated to replace the original, but deteriorated covers.

Our railway carriage, the CBI class car, has been the beneficiary of a Centenary of Federation grant. One platform has been completely rebuilt using new (recycled) timber. The reusable metal fittings were repaired, except strap irons, which are new. A start has now been made on the other platform, made easier as a result of prior knowledge. New frames for one side have been constructed, and once the second platform is completed, a start will be made to secure them into position.

Craig Connelly and Frank Huxtable form a new headstock for the CBI carriage on 9 October 1999. Work on the second platform was made easier by the knowledge gained from working on the first one!

Peter Stock

Off site, at a private location in Thirlmere, work continues on the restoration of N class car 685. The bulk of the restoration for this car has been contracted to Stan Martyn of Thirlmere. Stan has completed the new side frame panels, seat backs and partitions. The partitions also include some components salvaged from sister N car 619. Car 619 was dismantled during 1999 as it was found to have extensive dry rot and termite damage and was beyond economic restoration. Society members contributed to the restoration of 685 by stripping paint, sanding and priming the exterior, repairing and refitting hold-down brackets to the side panels, and making new cross tie rods which fit inside the seatback and extend from one side of the car to the other. The roof was also stripped to allow several coats of linseed oil to be applied to the roof timbers.



A new headstock has been fitted to N class car 685, seen here at Thirlmere on 15 September 1999. The existing side panels and framing have been primed. The underframe of dismantled 619 can be seen in the background.

Peter Stock

The fitting of a new 'canoe' panel, shown here fitted into the roof, starts a new partition for N class car 685.

Peter Stock



LOFTUS

South Pacific Electric Railway Co-op Society
PO Box 103, Sutherland, NSW 1499

From David Cooke and Alan Marshall

Car 290 to Carry the Olympic Torch

A tram from the Sydney Tramway Museum's fleet is to carry the Olympic flame in the Sydney 2000 Olympic Torch Relay. The Torch Relay will cover approximately 27,000 kilometres on its 100-day journey around Australia, and will use many forms of transport, as well as being carried by 10,000 Torchbearers.

The Olympic Torch will travel on C class tram 290 from the Princes Highway level crossing at Loftus, passing through the Museum's grounds to the northern terminus at Sutherland during its journey through the southern suburbs of Sydney on 11 September (day 96 of the Relay).

Car 290 is the oldest operating electric tram in Australia. It was built in Sydney and entered service in 1896, the same year as the first modern Olympics was held. In September 2000 it will have bridged three centuries of operation, linking the past to the present and into the future.

The Olympic flame will be lit at Olympia in Greece on 10 May 2000. After visiting the 13 Pacific island countries, which make up the Oceania ring of the Olympic nations, the torch will arrive in Australia at Connellan Airport in the Northern Territory on 8 June. The flame will visit every State and Territory and will be carried on over 40 individual alternative modes of transport during its 100-day journey around Australia, including our 104-year old tram. These various methods of transport will help ensure all Australians are provided with an opportunity to experience the Olympic Spirit

W2 car 560 from Port Kembla is seen in the depot yard on 28 August 1999. Its plywood roof had deteriorated to such an extent that rainwater had caused considerable structural and internal damage.

Bob Merchant





Members gather round to listen to the Mayor of Sutherland's speech on 11 December 1999. The day celebrated the 100th anniversary of the opening of the George Street electric tramway on 8 December 1899.

Bob Merchant

when the Olympic Torch Relay passes within one hour's drive of 85 per cent of Australia's population. It is pleasing to record that our friends at Belgrave in Victoria have reported that Puffing Billy will also be carrying the torch.

Works Report

Mike Giddey almost single-handedly constructed the trackwork for the remaining part of road 8 in the depot. It is now in place and final earthworks and tidying up were being carried out in November in preparation for concreting the back area of the shed.

On Saturday 18 December, a rather large concrete pour was carried out on 8 road. Between the rails on this road has been fitted a cable slot to enable the cable tram and the Darling Street counterweight dummy to be displayed more correctly. From recent observations of other associated museums, ours is the first to have such a facility. The three New Zealand museums with cable

cars preserved, viz. Ferrymead, Wellington and the Dunedin Old Time Settlers Museum have the trams on lengths of ordinary running rail.

Concrete was also laid inside the rear roller shutter and once this was set, parts of the replica waiting-shed formerly displayed in the Powerhouse Museum were erected. This shed had been previously donated to us as the Powerhouse is changing its transport display. The waiting shed, which is based on a design used on the Waverley extension tramway, was dismantled and moved to Loftus by our weekday 'Dad's Army' workers under the supervision of Brian Hague. The rear entrance to the display hall will eventually form the main visitors' entrance to the Museum for bus parties, etc.

At the same time a concrete roof was provided on the fire sprinkler room at the rear of 1 road.

For the first time, due to the quantity involved, concrete was pumped into position, saving much backbreaking work. A 'helicopter' was used to provide a smooth finish. Despite all these modern conveniences, it still took the best part of the day to accomplish this work.

Two more major pours are planned for the area. The section between 7 and 8 roads will be carried out next, along with the section between 8 road and the eastern wall. The remaining sections at the back, including the part surrounding the wheel lathe, will follow this.

A new solid fence has been erected at the end of I road. This fence is necessary to provide a free path for fire safety reasons across the back of the shed. This will lead to a new fire escape exit in the wall on the western-side of the shed.

Work on the ex-Manly starter's cabin is now complete. The rebuilding work was commenced by one of our CSO workers, but he had no enthusiasm for the task. It was taken over by 'Dad's Army' under Brian Hague's supervision and now looks resplendent. A special thanks is due to Gordon Fogarty of Fogarty's Glass who donated the glass for the windows.

The Museum is the beneficiary of a Work for the Dole project. Initially this is limited to ground works, both inside the Museum and along our track right-of-way. The Scheme provides a supervisor for the workers and a shed for the workers to use. Early in December one of the workers commented, "if this was a paid job the Museum would be a great place to work". Since Christmas, however, the supervisor has had difficulty finding people in the Sutherland Shire willing to work.

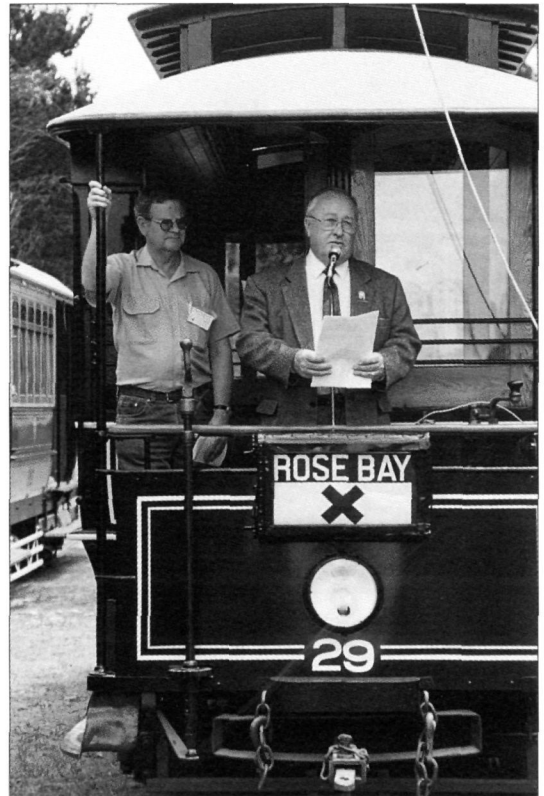
On Saturday 22 January, Alex Canini Pty Ltd we recalled in to excavate the dirt in Cross Street and place roadbase in the excavated area. This work is preparatory to the sealing of Cross Street and will remove yet another dirt road, which becomes rather boggy during wet weather.

Tidying up of the site continues. The portable building at the rear of the workshop has been sold and removed from site. The remains of ex-Port Kembla W2 car 560, which was dismantled for spare parts in the depot yard, have been removed.

W2 411

This tram is now safely in New Zealand and has taken on its new role successfully. The workshop team burned the midnight oil to have 411 in shape for delivery to Glebe Island container terminal on 8 December. Here it was loaded onto the Wellington Express for Christchurch on 10 December.

The trip did not go without mishap. A low-slung cable TV wire removed one of the roof mounted air conditioning units near the Gynea Trade Union Club. The ship, after calling at Melbourne, proceeded to Christchurch via the Southern Ocean, passing south of New Zealand. Severe storms were encountered, causing the tarpaulins covering the tram to damage the paintwork. This necessitated a repaint on its arrival in Christchurch.



The Mayor of Sutherland Shire, Councillor Ken McDonell, and Museum Chairman Howard Clark stand on the platform of Sydney C class 29 as the Mayor outlines the events leading up to the opening of the George Street and Pyrmont electric tramway in 1899.

Dale Budd

The team at Christchurch worked around the clock throughout the Christmas-New Year period to ensure the tram was ready for its first commercial outing on 7 January 2000. The tram was towed around the tramway for testing, resulting in some modifications being made. The water tank was too close to the ground, as was the inverter. These items were quickly rectified. A hot box was also remedied. An unexpected blockage in the toilet was also rectified. As it was not possible to test the tram prior to its departure, some minor electrical problems also became apparent, but were quickly resolved.

The first commercial service was a breakfast charter on 7 January, with a full dinner service that evening. All reports since are that the car is enjoying good patronage for breakfast bookings, casual lunch trips and busy dinner sittings.

Special thanks are due to all who participated in this project, but especially to our 'Dad's Army' who were on hand all the time to carry out the intricate and time-consuming work. Without their input this project could not have been carried out.

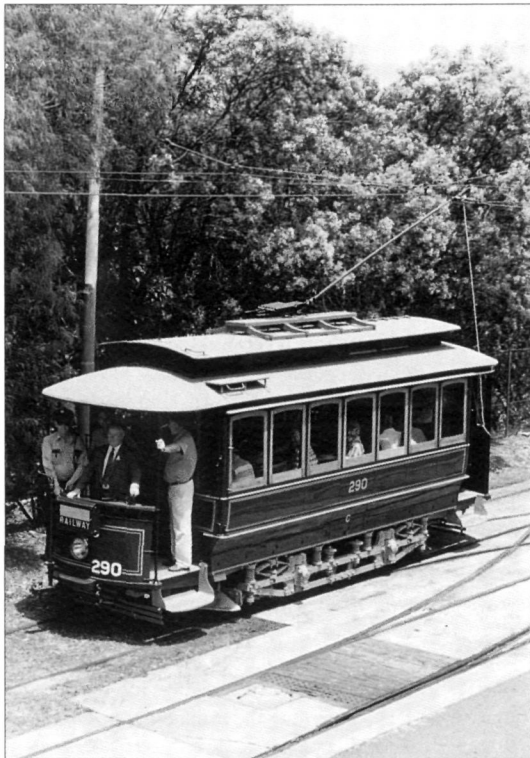
A full report on the acquisition and reconstruction of this tram will appear in the May issue of *Trolley Wire*.

Special Charters

It is probably not well known that our weekday charters contribute a fair amount of funds to the Museum. This is due to the untiring efforts of Ron Ham. During 1999 over 80 groups booked visits to the Museum. Forward charters have been booked to

The Mayor took the controls of single truck saloon car 290 for the run to Sutherland, and returned driving F class bogie combination 393. This view of car 290 is taken from the Museum's tramway signal box.

Dale Budd



October this year and that is a very encouraging sign.

In December 1999 the Museum played host to the Matts family, Australian Model Railway Association and 3801 Ltd. All these groups were celebrating their Christmas functions. Scheduled visits for January and February this year include the Powerhouse Museum, Chester Hill Seniors, Campsie-Kingsgrove Probus, one private function, Lane Cove Community Aid, Ramsgate Seniors and Auburn Probus.

Car News

With the dispatch of W2 car 411 to New Zealand, Sydney R class car 1740 has been moved into the workshop for minor repairs to seal leaks in the gutter area. In the meantime L/P 154 has been moved back over the pit to allow rewiring and mechanical work to be carried out. Bodywork will also be done and the car repainted for our 50th anniversary celebrations later this year.

On 3 February 2000, the three tramcars owned by Waverley Council were moved. Two, R 1798 and R1 1980, went to storage at Cessnock and the third, R class car 1808 on which bicentennial funding was expended, was delivered to Loftus.

Archives

Tony Cody is now cataloguing the Museum's archives. All material is being catalogued and stored in secure premises.

Sutherland Extension

At a recent meeting of the Sutherland Council, it was decided to create a working party to stage the development of the Museum's tram line so that work might commence as soon as possible.

Three stages have been proposed:

- 1 the substation;
- 2 landscaping from the substation into the business area, and
- 3 the track and overhead.

The Development Application for the modifications to the existing substation building, near the present terminus, was lodged and underwent normal processing through Council engineering before being submitted to a council meeting for approval. The changes to the building will be minor and therefore it should be approved as a stand-alone project.



Council has set aside a sum of up to \$70,000 for the building modifications. This finance will only become available when the DA is approved and is only to cover building work associated with the substation. The Museum will be responsible for getting the substation up and running.

Two local Rotary clubs, Sutherland and Sutherland Civic, are interested in carrying out the landscaping associated with the tramline extension from the substation to the former tramway office as a community service activity. Although the line is running alongside a rock cutting for much of this distance, there is scope to improve the current weed infested areas for the betterment of the Museum and the local townscape.

The third stage is by far the most interesting. To the Museum it is the final stage of a dream going back to 1979 when we were requested to leave our original National Park site. To the Sutherland Chamber of Commerce it is the starting point for the revitalisation of the Sutherland business district; to the Council it is the uniqueness of having a tram line; to the tourism association it is something other than Kurnell and Cronulla on which to focus their attention. There will be others who will be not so keen, including the 40 or so rail commuters who park their cars on the strip of road that will become the tram line.

Car 29, as yet without motors, stands on display at the waiting shed as car 290 unloads. F class 393 is seen in the background and D class scrubber 134s can be glimpsed at right.

Dale Budd

The draft plans for the line are nearing final completion in readiness for the lodgement of the DA. There is no doubt that this application will be the most involved and difficult as it certainly going to have a big impact on the main street of Sutherland. There will be parking issues, traffic flow concerns and visual impact problems.

Notwithstanding these issues however, councillors over the years have been in favour of the tram line. Therefore we are confident that in some form or another, trams will once again terminate next to the former tramway office, providing funding can be found.

Additionally, Council is having on-going discussions with the State Rail Authority, owners of the former tramway office, concerning the availability of the office for use as part of this project.

ST KILDA

Australian Electric Transport Museum

GPO Box 2012, Adelaide, South Australia 5001

From Colin Seymour

Glenelg Tram 360

The Museum's refurbished 1929-style H type tram 360 was transferred to Glengowrie Depot on 25 November 1999. The body was lifted onto a low-loader at Shell Street, St Kilda and, upon arrival at Glengowrie Depot, was placed upon a spare pair of TransAdelaide's roller bearing trucks. The car was connected to the TransAdelaide trucks and tested on 26 November 1999. 360's own trucks were towed back to the Museum depot by W2 works car 354.

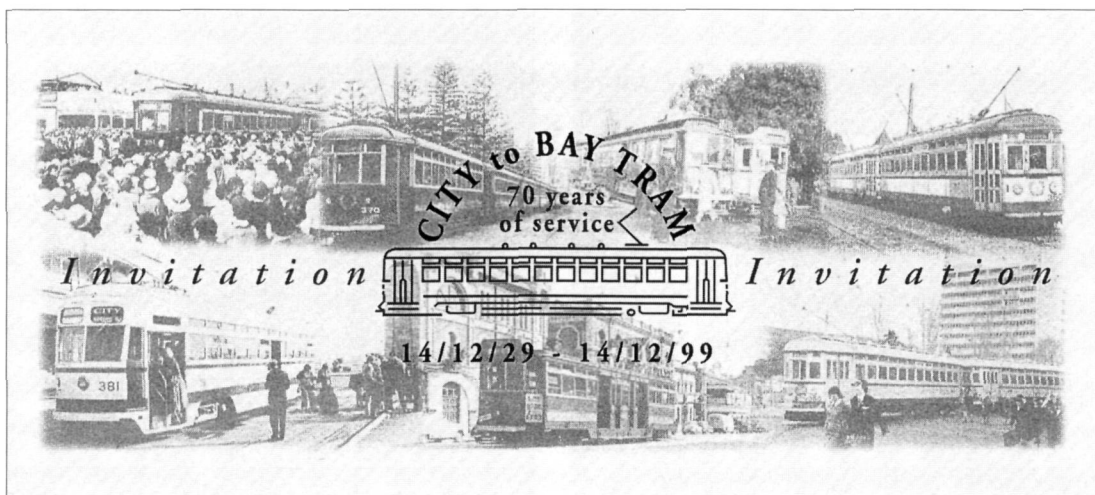
Work carried out by members in the last few weeks included reinstalling seat frames, cleaning down and refitting seat cushions (with some being replaced by spares from car 355), painting and installing saloon sashes, fitting 1929-style brass buzzer buttons, repairing and painting dog guards, installing replated interior fittings, and screwing in nearly 2,000 nickel plated screws. Final coats of paint were applied to the exterior, the new doors were varnished and installed, and old malthoid was scraped from the drop-end floors and black paving paint applied. All mechanical, air and electrical components were checked, interior signs refitted and all window glass cleaned. Numbers were applied using Kwikstripe and trolley poles equipped with M&MTB slipper heads. The hooters were cleaned and adjusted, new horsehair placed in the compressor

filter, and the reverser keys and brass handles on the controllers were buffed.

The tram looks magnificent and is a credit to John Pennack who was contracted by the Museum to carry out weekday work. Jack also put in countless volunteer hours. Thanks must also go to Kym Smith, Ian Seymour, Colin Woods, Peter Letheby, Peter Keynes, John Radcliffe, Malcolm Butler, Ron White, Allan Zeigler, John Morphet and Jim Burke, and any other member who may have helped. Notable features of the car are the new varnished wooden doors, new saloon window sashes, fresh nickel plating, orange floor, brass buzzers and brown leather/vinyl seats.

Special thanks are due to Colin Seymour for arranging funding, to TransAdelaide for supplying the funding, to Glengowrie Depot staff for their support, to Karen Purdam from Pichi Richi Railway for assistance with varnishing, to Mirco Husnjak for his craftsmanship with the doors and sashes, to Richard Bonnet for the

The reverse of the official invitation to celebrate the 70th anniversary of the City to Bay Tram illustrates a scene from the past.
Col Seymour





The magnificently refurbished Glenelg 360 in the depot yard at St Kilda.

Kym Smith

Malcolm Butler fits a headlamp to 360.

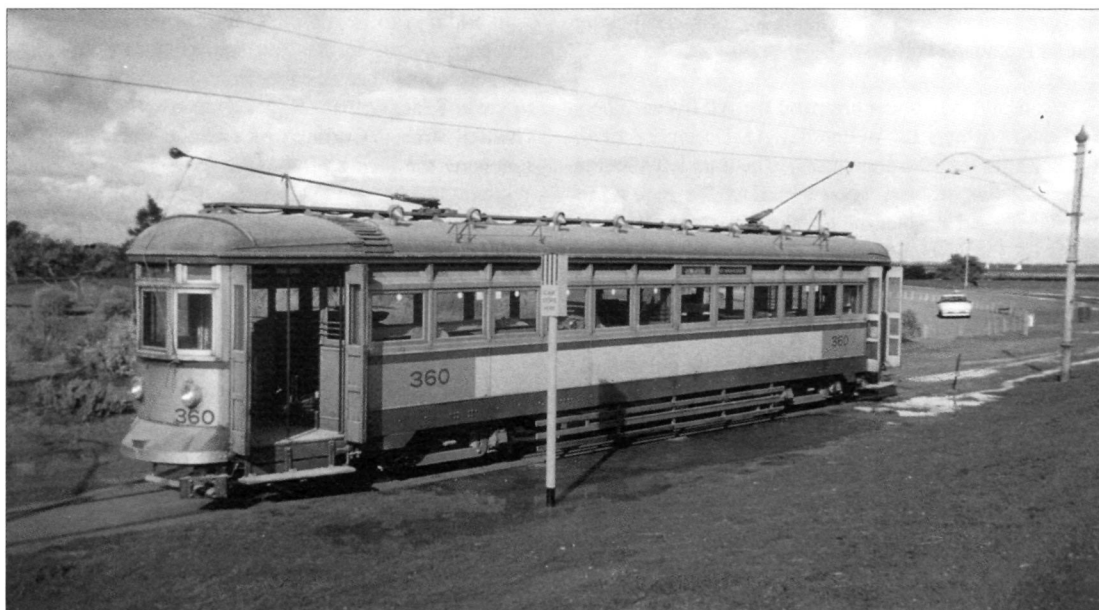
Kym Smith



Australia's premier tram cleaner, Ron White at work on 360.

Kym Smith





Before – Glenelg tram 360 as it appeared at the St Kilda Playground in 1998, before being refurbished for the 70th anniversary of the Glenelg line.

Kym Smith

After – Glenelg tram 360 at the Shell Street curve in November 1999, a few days before being transferred to the Glenelg line for the 70th anniversary celebrations.

Kym Smith



numbers and signs, to Elite Plating for the nickel plating and to Annmarie and Ros's Leather for the hand straps.

A special charter was arranged for AETM members and their partners on Wednesday, 15 December 1999, the day after the 70th anniversary. The tram left Victoria square at 5:45pm and, upon arrival at the Bay, a 90-minute layover enabled us to take a pasta meal at the Glenelg Pizza House. The AETM also chartered Bendigo 19 for a return trip on 8 December 1999. The tram departed Victoria Square at 5:45pm and returned after a 10-minute layover at Glenelg. The tram performed well and several stops were made for photos.

The South Australian Minister for Transport, Diana Laidlaw, and TransAdelaide provided the funding to enable 360 to be refurbished to circa 1929 appearance for the 70th anniversary of the Glenelg Tram Line. Car 360 arrived at St Kilda on 6 December 1982 in the 1950s silver livery and remained in store until its refurbishment commenced in December 1998.

The other H car which arrived in 1982, car 362, was repainted in silver livery at St Kilda in 1983 and has been used in Museum service on a regular basis in the last few years. The Museum also has the body of H 355 on motorless trucks.

In addition to being refurbished to circa 1929 style and participating in the 70th anniversary celebrations, car 360 has another claim to fame. It was the first tram to cross King William Street from east to west from Grenfell Street to Currie Street on Sunday, 25 May 1952 following the laying of connecting tracks across King William Street at that intersection. It also took part in the Glenelg line's Golden Jubilee celebration on 16 December 1979 as part of the triple silver set 360-361-362.

Northern Lines Day

Our Special Event Day on 17 October commemorated the northern tram lines to North Adelaide, Prospect, Enfield and Walkerville. Cars used on the day were 1, 42, 111, 186, 192, 264 and 282. Neville Smith set up an excellent photographic display of trams on these lines in Ballarat 21. There were also photos of Hobart, Ballarat, Brisbane and Parramatta trams.

Interior view of the refurbished H 360. Kym Smith



The Museum's latest publication, *The Northern Lines*, was launched by Heather Wright from the Walkerville library. Heather had been very helpful with photos and archival material for the book, which costs \$5.00. A special guest on the day was Ern Tidswell, a former newsagent on the Main North Road at Prospect, who features in the book. The official convoy involved cars 42 (North Adelaide destination) and 192 (Walkerville destination). These cars were passed on the return trip by cars 282 (Enfield) and 264 (Prospect).

Around the Workshops

The space left by the departure of electric locomotive E1 is being used to relocate workshop machinery. The rails inside and outside Road 1 are being removed. Road 1 was never connected to the depot fan. Horse tram 18 was once located there and was pushed out for display as required.

The eastern portion will have the Butler shaper installed there, along with the armature banding and undercutting lathe. The western portion will have the wheel press. The space left by the shaper will be used by

the surface grinder and power hacksaw. The south-eastern end of Road 2 will be set up as the truck overhaul area.

As the body only of H 360 has gone to Glengowrie, all dirt has been removed from 360's own trucks and 'Cyndan' alkaline solution applied to the frames to degrease them.

The horsebox trailer, which was one of two towed by dropcentre trams 274 and 275 to race meetings in the 1930s, has been relocated from the depot yard where it has been on display since 1969. It has been placed on dollies on Road 6 in the rear yard in readiness for some overdue attention.

Identified

Thomas Stead, the MTT employee who built the model dropcentre tram No. 295 and was referred to in the August 1999 issue of *Trolley Wire*, has now been identified as the person on the right of the photo on page 40 of that issue.

BENDIGO

The Bendigo Trust

1 Tramways Avenue, Bendigo, Victoria 3550

From Len Millar

A New Broom

New Tramway Superintendent Tim Borchers has been burning the midnight oil since taking up his appointment. With the aid of a personal computer and a fine effort by staff and volunteers wanting to do anything to help, Tim has waded in to such issues as Rail Safety Accreditation, too little volunteer input and a backlog of maintenance on the busy tramway.

A site inspection by the Rail Safety Accreditation people was enough to cause sweat on Tim's brow, but the inspecting team was impressed with the whole show. The paper burden is enormous, but eases up a bit after initial systems are in place and approved.

At The Depot

With excellent help from our Community Service Order people and some out-of-the-blue overseas

volunteers, the accumulated grease of many decades has been scraped off the pit floors, walls, columns and rails. Working in the pit was becoming dangerous, and the degreasing has allowed a coat of white paint to be applied to the pit walls, etc. It looks good – almost new, and now one can find that dropped screw or bolt!

Next door, in the Paint Shop, a few decades of collected 'good things' (ie: junk which might become useful at some indeterminate time in the future) found their way to the tip, which was the first step towards creating some 50 metres of extra track for tram restoration and painting. A mezzanine deck / storeroom has been altered by removing the brick and partition walls, and creating a tram-wide gap in the remaining structure. Some 25 x 25mm steel section have been dyna-bolted to the floor to form 1435mm gauge rails. New timber storage racks have been installed and a tasteful coat of paint has transformed the space. Lo, a joy to behold – and it accommodates up to three bogie cars!

9W Arrives

On 15 September, former Melbourne scrubber No.9W arrived on a low loader. Through the good graces of the Department of Infrastructure, the tram was donated to us, and it will become a valuable tool in our business.

The paint shop as extended. The rails have been uncovered, the bricks removed from the connecting doorway and the mezzanine deck half dismantled. Now there is room for up to three bogie cars.

Darren Hutchesson



Ex-Melbourne scrubber car 9W is lowered to the rails in Bendigo on 15 December 1999. Darren Hutchesson

Over the years, a significant part of our track has developed minute corrugations. This stems from the nature of steel wheels within a single truck or bogie fighting each other on curves – and may even be the result of the original rail rolling methods of yesteryear at the steel mills.

Whilst the flushing gear on 9W has yet to be rendered operable, the tram had a quick going over, and then did a few days' service 'dry scrubbing'. Unfortunately the six carborundum blocks on each side are badly degraded, so we await full service duties from the tram in the New Year.

It is intended to 'turn a quid' from selling advertising space on the tram's sides. Everything has to earn its keep at Bendigo!

Stepto & Son

One of the major changes in Melbourne in recent years has been the downsizing of the once great Preston Workshops. Hectares of buildings and open space that have seen the construction of nearly all of the W classes, and the commissioning of Z, A and B classes are now seeing much reduced activity.

COTMA has arranged for the welcome storage of tonnes of parts – ranging from bogies to rubber grommets.

Some of the ‘haul’ landed at our Gasworks Museum site just before Christmas on several semi-trailers. Those items that cannot be put immediately under cover are nestling under heavy black plastic weighted down by a hundred brake hangers or so. It is fascinating to see the craftsmanship that has been put in to making destination boxes, W2 aprons and even rubber grommets!

Trucker 19 Goes to Adelaide

Single trucker No. 19 recently returned to Adelaide, the city in which it was built in 1918. In a joint tourism

promotion with Murray River twin towns Echuca and Moama, No.19, together with little promotional tram No.10 and a model of steam paddle-wheeler Adelaide, left Bendigo on 15 November. The 70th anniversary of electric tram operation on the Glenelg line was the other reason to venture west.

Duncan and Fraser built No.19 in their Franklin Street premises for the Hawthorn Tramways Trust, but it actually saw early service with the Footscray Tramways Trust. As M&MTB M class No.185, it was sold to the State Electricity Commission in 1935 and in Bendigo was soon converted to one-man operation. The car was one of the first four to commence the Talking Tram Tour operation for the Bendigo Trust and was restored to its original Californian combination car format in late 1972.

The three exhibits attracted considerable public and media attention in Rundle Mall on 16 November, before being unloaded at Glengowrie Depot that evening. Some spirited operation on the Glenelg line followed on the 17th and 18th – so much so that the car suffered insulation problems. A quick trip with replacement parts from Bendigo was made by John Penhall, and the tram was off and racing again.

It is understood that the Adelaide trammies enjoyed getting used to the light car with its quick-response braking, and it was discovered that an H class car can push a disabled Bendigo single-trucker when necessary, after the Tomlinson coupler is moved out of the way.

Work on tram roofs will now be possible from the remains of the old mezzanine deck. Square steel section rails are in place on the concrete floor. This view of the workshop from the former paint shop was taken on 3 December 1999.

Simon Jenkins





Adelaide H cars 351 and 375 stay clear of the operations at TransAdelaide's Glengowrie Depot as Bendigo 19 is prepared for unloading on 16 November 1999.

Dennis O'Hoy

A cheerful Central Deborah and Tramways Committee Chairman Dennis O'Hoy waits for the next question in Rundle Mall, Adelaide on 16 November 1999. The little tram is No.10.

Tim Borchers



The entourage returned to Bendigo via South Australia's Riverland, with promotions en route, on 15 December.

It's A Juggling Act!

With the hectic post-exam school children tour invasion and the pre-Christmas office party jaunts, our cars (and drivers) have been very busy of late. No.18 failed and missed out on being the Myer Santa Tram. Car 275 assumed the role. Maximum traction car (M&MTB) No.122 received attention to its brake valves and was given a cut and polish, so it is now out on the road in the New Year earning a tourist dollar or three. W2 car 441 has been extracted from the Gasworks Depot for service.

Car 808's compressor had a mild seizure at the end of the century, but was repaired by Depot Foreman John Bullen, newly returned from Loftus. Summer car 17 and a few others are due for some serious attention when our illustrious staff return from their holidays.

Car 18, in disgrace, is towed to temporary storage at the Gasworks Depot. Ted Bowles gives a cheery signal from the Ferguson 35 tractor as Karl Penrose stands beside the tram's handbrake ready for any over-run.

Darren Hutchesson

After languishing for years down the back of the depot single trucker No.6 has been restored to respectability by receiving a good rubdown and a repaint in-end-of SECV-era livery. It retains its three compressors and hoses for track cleaning, but it just might be destined for greater things, come Melbourne's Moomba Festival in March 2000.

On 3 December, 18 of our trams trundled down towards Charing Cross for the annual Tram Cavalcade. There were some cobwebs dusted off first and the odd creak and groan from the lazier members of our fleet, but it all happened and we obtained great media coverage.

Human Resources

Apart from the welcome influx of volunteers and other formal help, we have inducted three new drivers (Anita Bagley, John Clowes and Darren Hutchesson) and two conductresses (Anthea Douglas and Katrina Graczyk). Darren Hutchesson has commenced a traineeship on the operations front and is termed 'Depot Starter'. (Is the person who supervises the evening peak run-in the Depot Finisher?)



BALLARAT

Ballarat Tramway Museum
PO Box 632, Ballarat, Victoria 3353

From Dave Macartney

Springfest

The annual Springfest celebration took place around the lake on Sunday, 7 November. The day started off with cool temperatures, so crowds were slow to build up. Around 3:00pm a sharp downpour had people heading for home early, but despite this, some 536 passengers were carried, many riding one way to save their legs. Cars 661 and 671, with their generous capacity, ran the service.

Bungaree Storage

The new sheds for the off-site storage at Bungaree were delivered to the site on 4 October. The two sheds each measure 11m x 6m x 3.6m (36ft x 20ft x 12ft). When erected each will be capable of housing two single truck trams, if required. A large quantity of spare parts not required in the short or medium term will also be candidates for relocation.

Around the Depot

Car 28 has had its reconditioned motor refitted in the truck, while the armature from the other motor has now been returned and awaits re-assembly. It is hoped that body and truck will be reunited by the end of January. Work on track cleaner No.8 has concentrated mainly on the provision of a new trolley bridge. The timber for this is two inches thick, and once saw several decades' service as the floor of a railway goods wagon. It is not going to wear out in our lifetime.

Car No.40 is going about its business at Depot Junction on a very wet Boxing Day, 1999.
Earl Ewers



25 Years of Operation

The museum celebrated 25 years of operation on 26 December. Nos 26 and 40 re-created their roles of 1974, though No.13 put in a brief appearance as well, as did No. 671, which covered a charter. As darkness fell, No.38 ran three round trips for those members present, though thankfully there was no repetition of its behaviour in 1974, when it blew a motor and did not run again for six years. All travel on the day was free, which proved very popular with the public, as 315 passengers were carried. A barbecue was conducted at midday and

in the evening, while slides and films of much younger looking people were screened.

The only dampener on the day, literally, was the weather. Rain started on Christmas Day and continued throughout the next four days. It took the cleaning staff the best part of a week to return the cars to a state fit for the public. Passenger figures were also down through this period, though the return of more appropriate weather in early January has seen these climb back to a satisfactory level.

WHITEMAN PARK

Perth Electric Tramway Society

PO Box 257, Mount Lawley, Western Australia 6050

From Michael Stukely

During spring 1999, patronage on the trams was generally good with the September/October school holiday levels a little above those of 1998. The Ellenbrook Country Festival on 21 November, however, was disappointingly down on the previous year's event. Our regular five days per week operation (seven days in school holidays) is making heavy demands on our trams, and great credit is due to the maintenance team of Noel Blackmore, Geoff Morrison, Eddie Vagg, Scott Parker, Dave McCormack and all members who assist them to keep the trams up to a high standard of reliability.

Whiteman Park has secured several Work for the Dole projects over recent months, covering a wide variety of tasks. One project has focussed on improvements to the Tramway, with participants assisting our track team (regulars Trevor Dennhardt, Lindsay Richardson and John Shaw, with assistance from Dave McCormack) with maintenance work. A major achievement in December was the excavation of the road crossing at the southern end of the Village Mall for concreting. The rail joints within the crossing were plated and welded by Noel Blackmore, and contractors poured the concrete in two stages (half of the roadway was closed at a time). This now gives a very smooth ride for both trams and road vehicles. Work is due to start in January on the two road crossings at Bennett Brook.

A very substantial amount of work has been achieved on Wednesdays in November-December with five

Frank Edwards installs the base for the motorman's seat during the rebuilding of the end platform of Perth E class car 66 in September 1999. Lindsay Richardson





Shunting of tram bodies on the L.C. Richardson Car barn fan on 23 August 1999 to allow Fremantle 36 (centre rear) to be moved to the workshop. Melbourne 6W is at left, Perth 2nd A class 125 at right. Lindsay Richardson

sleepers replaced near Village Junction, and a total of 64 replaced from Farmgate Curve westwards along Swamp Straight, and near Mussel Pool tram stop. Meanwhile, our track team has also been busy on weekends with the replacement of 17 sleepers along the straight west of Stockmans Triangle. Martin Grant, Kim Herne, David Secker and Michael Stukely assisted Trevor, Lindsay and John here. Our members also follow up with final securing and packing on sections where the Work for the Dole team has assisted with sleeper replacement.

The tramway points from 4 Road to the Pit Road on the Oketon Geddes Car barn fan have been re-gauged by Lindsay Richardson and John Shaw. Meanwhile, on the L.C. Richardson Car barn fan, Bill Gilbert has repaired bent point connecting rods and constructed a heavy duty cover to provide protection from heavy vehicles which occasionally need to use this area.

The grooved rail selected for use on the Maintenance Pit has been drilled for fishplating. This required the modification of the rail clamp frame of the rail drill by Noel Blackmore to fit the 102lb/yd rail. It can now be used on all of our rail types.

Weed spraying of our site was delayed about a month this year due to wet weather on workdays. It was finally completed with good results, and spraying of the track was most effective, giving a wider clearance than previously. Our friends at the Tractor Museum in Whiteman Park have again assisted by cutting firebreaks around our site for no charge, for which we are very grateful.

Park Management has now installed an electric power supply to the Tractor Museum and the picnic areas south of the Motor Museum. This will also serve the planned flashing lights at our Village road crossing.

The main DC high speed circuit breaker failed in September. Investigation revealed that the holding coil auxiliary series resistor had burnt out due to old age. It has been replaced.

In October, the Wednesday Team replaced a rotten wooden span pole with a steel pole just east of Stockmans Triangle on the line to the Lord Street Entrance; a second affected pole was rail-butted for support.

Twenty-three second-hand concrete span poles were received from Westrail (ex Lord Street, Perth track reconstruction) in December. Although a few are damaged, these will be a most useful addition to our supply for the ongoing replacement of wooden poles.



The Village road crossing on 12 December with one half of the concreting completed.

Michael Stukely

Vic Sweetlove (left), Noel Blackmore and Dave McCormack work on the Broomwade compressor.

Lindsay Richardson





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