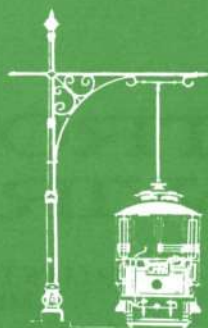


# TROLLEY WIRE



No. 250

AUGUST 1992

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## ADELAIDE IN THE FORTIES

# TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM  
MUSEUM

AUGUST 1992

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## FRONT COVER:

*A new tramway opens in France. Tram 113 approaches the terminus at La Courneuve in the north-eastern suburbs of Paris on the opening day, 6 July 1992.*

JOHN HUMBLEY

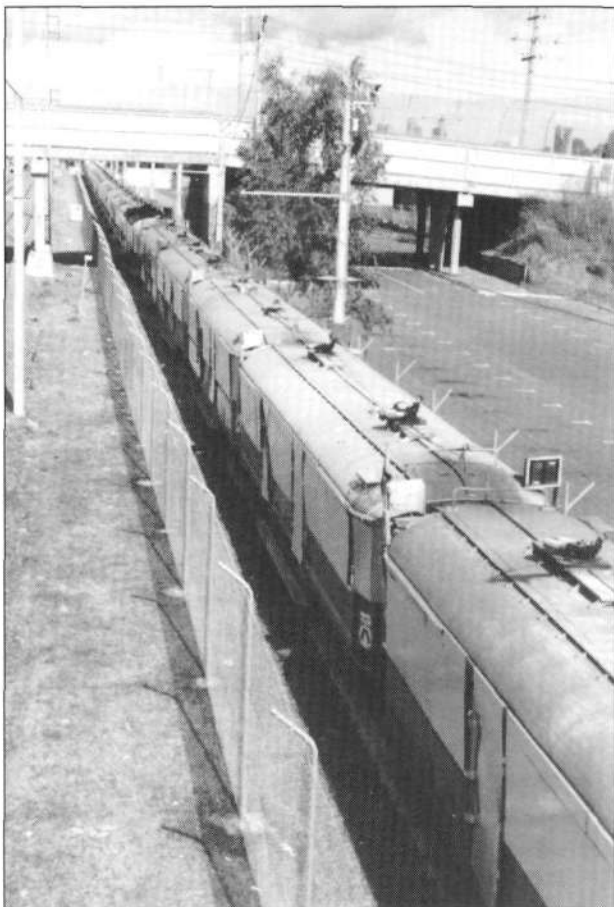
## BACK PAGE:

*TOP: Len Millar, Barry McCandlish and Warren Doubleday at work on Ballarat horse car No. 1 on 17 May 1992.*

CAROLYN DEAN

*BOTTOM: 890 is one of the SW6 class modified for driver training by removing some end seating and the bulkheads between the drivers cab and the saloon. It is seen at Hawthorn Depot on 27 April 1992.*

RAY MARSH



*Stored W class trams on the test track at the rear of  
Preston Workshops on 10 May 1992. The windows  
and doors on the side facing the adjacent railway line  
have been protected with galvanised steel sheet.*

RAY MARSH

## ADELAIDE IN THE FORTIES

by James Codrington Forsyth

*When C type car 186 arrived at the terminus of the St Kilda museum tramway, an English-accented passenger who had previously advised that he was an architect visiting Australia from Stockholm, recommenced his conversation with the motorman. His opening observation was that he believed that a similar car, number 189, had been fitted with a black skirt over its truck. It was not the sort of observation usually expected from European visitors. However, the AETM motorman (John Radcliffe) had a distant recollection in his childhood of seeing a C type car at Parkside whose truck was covered with a badly splintered plywood skirt. Further enquiries established that the visitor, James Codrington Forsyth, was that week paying his first visit to Adelaide since leaving the city as a tram-enthusiast schoolboy in 1945.*

*He later wrote and said "seeing those beautifully-restored cars in operation was an extraordinary and delightful experience..." After returning to Stockholm, he set down his recollections of the Adelaide transport system as he had known it. This is his story.*

My enthusiasm for trams was kindled, late in 1940, by standing in Hutt Street waiting for the tram to take me to St Peter's College, watching in the process the procession of trams of all kinds making their way to Hackney Depot at the end of the morning rush hour.

At the age of eleven, I was a newcomer to Adelaide. Born in England of an English father (an officer in the P & O Steamship Company) and an Australian mother, I had arrived - together with my mother and sister - to spend the duration of the war. We stayed for the first few weeks with my Aunt Jean Bonython, her husband (Sir) Lavington and their family at their house *St Corantyn* in Gilles Street. I'd visited Adelaide once before, at the age of five, but memories of it were dim.

My dear Aunt Jean had in fact achieved fame in public transport circles many years before. As an improbably young Lady Mayoress she'd attended the opening of a new route in Port Adelaide. On alighting from the inaugural vehicle she skilfully performed a double somersault, to the astonishment of those present.

I'd never lived in a tramway town before. The few trams I'd seen in England were lumbering double-deckers, whose owners - at least in the more "progressive" towns - were trying to get rid of them as quickly as possible as they were held to obstruct the traffic in the narrow English streets. Adelaide was different. With its single-deck cars, capable of a fine turn of speed, the system was more like a street railway in my eyes, and in the wide streets operation was no problem. I'd been a railway enthusiast since the age of three, and the Adelaide trams were a natural extension of my field of interest.

We soon moved to Edwin Terrace, Gilberton, a few metres from Northcote Terrace, where the incredibly archaic Mack buses provided the feeder service from the Buckingham Arms to Broadview (later extended to Hamstead) ground up the hill. An end-of-the-rush-hour depot working on one of these vehicles, bouncing emptily on the uneven bitumen of Robe Terrace, provided a fast and unexpected route to school. Little did I guess that this would be the scene of a strange experiment in guided buses many years later!

We lived in Gilberton till our return to England in late 1945. I was not to return to Adelaide until 1990. My memories of the war years in Adelaide, unlike most people's, have not been overlaid and obscured by all that has happened since. Such as they are, I think they may therefore be of some interest.

### The Routes

The trams were, of course, the dominating form of transport. The (almost) unique Adelaide system of numbering destinations rather than routes (probably a relic of the days when all routes started and finished in the City), tends to obscure the actual number of routes. Further, route numbers, while clearly displayed on the older cars, were not shown at all on the dropcentre or Glenelg-type cars. Excluding special workings, I make it 16 routes, as follows - (short working points, only a few of which were used all day, are shown in brackets. I may have missed some!)

Cheltenham - Croydon - (Kilkenny) - King William St - Wayville West (Cheltenham -



Kilkenny opened during the war)

Prospect \_ King William St - (Unley) -  
Mitcham

Enfield - King William St - Colonel  
Light Gardens

Walkerville North - (Walkerville) - King  
William St - Hyde Park

St Peters - King William St - (Glenunga)  
- Glen Osmond

Paradise - (Payneham) - King William St  
- (Fullarton) - Springfield

Grenfell St - Morialta

Grenfell St - Magill

Grenfell St - (Kensington) - Kensington  
Gardens

Grenfell St - (Marryatville) - Erindale

(Marryatville - Erindale opened during the war)

Grenfell St - (Marryatville) - Burnside

Grenfell St - Linden Park

Kingswood - King William St -  
(Hindmarsh) - Findon

Victoria Square - Glenelg

Currie St - (Hilton) - Richmond

Currie St - (Lockleys) - (Henley Beach) -  
Henley Extension

### Layout and Standard

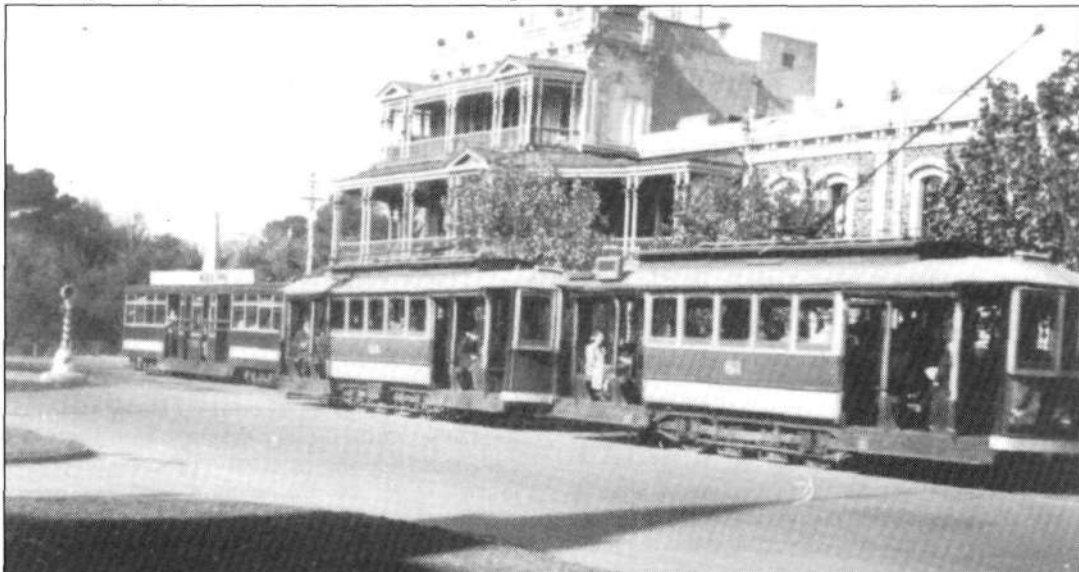
The Adelaide system consisted almost entirely of double track laid in the centre of the street, but the few exceptions were just enough to make things interesting.

The big exception was, of course, the Glenelg

route, then as now on its own right of way beyond South Terrace. From there to Goodwood Road it was duplicated, somewhat unnecessarily, by the tracks of the Colonel Light Gardens and, for about half the distance, Hyde Park routes. Beyond the junction between these two, the Colonel Light Gardens route ran mostly on its own reservation, providing a total of four reserved tracks. there were also stretches of reservation on what would have been the continuation of Grenfell Street, and on the Henley Beach route over the erstwhile marshes, crossed by a long, low trestle bridge between Lockleys and Henley Beach. A short reservation took the Hyde Park route through Heywood Park to its final stretch in Whistler Avenue. The Findon route poked its way uncertainly through Hindmarsh on a complementary pair of single-track, tram-only bridges.

There was single track on the outer stretches of a few routes, such as Kingswood (protected by signalling) and the paradise route beyond Payneham. The outer part of the Morialta route was single track at the side of a not very wide road, more or less on its own reservation. I have a feeling that the final stretch to Henley Extension was also single track.

To my knowledge there was only one level crossing between tram and railway, on the Cheltenham extension.



*Coupled A type cars 61 and 64 pass F1 type 256 as they approach the safety zone of the stop outside the Botanic Hotel at the eastern end of North Terrace.*

W. JACK





*The large destination signs used on the dropcentre cars obviated the need for route numbers to be displayed.*

M.T.T.

Junctions were generally simple - the Adelaide system was entirely radial, the routes serving Pulteney Street offering the only places on the system where the trams offered two alternative routes from A to B. Admittedly, the St Peters trams bore signs making it clear that they routed via Sixth Avenue; this was not an alternative but merely a reminder that the tracks had lain in Fourth Avenue some decades earlier. The more important junctions had elevated signal boxes controlling the points, but operation was otherwise by hand with the aid of an iron bar carried at each driving cab.

The corner of King William Street and North Terrace boasted a Grand Union. There was at this time no direct connection between the tracks in Grenfell and Currie Streets, although both had connections to King William Street. The city terminus of the Glenelg route was unusual in that it was a loop, in the south-west corner of Victoria Square. The cars stopped outside Moore's department store, which later burned down. Queue lines, matching the position of the doors of the cars, were painted across the roadway during the war. Stops were otherwise quite unprotected, though motor traffic was supposed to slow to 6 mph (10 km/h) when passengers were about. The exception was King William Street (and some other tram streets where they crossed King William Street) between Victoria Square and North Terrace, where there were Safety Zones, the safety being provided by a painted white line on the roadway and a solid-looking bollard at the end. There were stops before each road crossing this section; the crossings were controlled by traffic lights which were otherwise a rarity. It was held, apparently by the city authorities, that the corner of Pulteney Street and North Terrace could not be equipped with traffic lights as the motorists in Pulteney Street, on getting the green light, would drive straight ahead and end up in the Bonython Hall.

### Operation

Most if not all routes had a 12-minute service all day, with the exception of Glenelg which had a 10-minute service and Morialta (which led to a nature reserve) where the weekday service was intermittent. In churchgoing Adelaide, there were no tram services on Sunday mornings, but some time during the war hourly Sunday morning buses, at extra fares, were introduced.

The list of short-working points given earlier is not exhaustive. A few of them, such as Payneham, Hilton and Henley Beach, were used by every second car, giving only a 24-minute service beyond, but most were used in rush hours only. The peak-hour service to these points was, roughly speaking, doubled. In addition, there were less regular extra workings to various points.

In the off-peak, E1 cars operated the St Peters-Glen Osmond route and D class cars, sometimes supplemented by Els, Kingswood-Findon, Richmond, Erindale, Burnside and Linden Park. I have a feeling that Kilkenny-Wayville West was also operated by the D class before it was extended to Cheltenham, when the dropcentres took over. The Glenelg type cars operated to



*Findon-bound D type car 123 emerges from the single track tram-only bridge in Holland Street, Hindmarsh.*

Henley Beach as well as Glenelg itself, though race extras to Morphettville were often operated by dropcentres, which for once could show their turn of speed. The routes not mentioned above were all in the capable hands of the dropcentres.

Peak-hour extra cars were either D or E1 or the four-wheelers, the older clerestory-roofed type being operated in pairs. Their bucking motion was at times frightful; in the absence of air brakes, the magnetic brake was used with a final spin of the handbrake wheel at each stop to complete the process - which must have been exhausting for the driver. Conductors were carried on all cars; their work was also quite demanding in the rush hours, though the conductor never had to resort to step-hanging as on the original toastrack cars, which I never saw in service and which I suspect no longer existed.

The trams were certainly full in peak hours, but it was very unusual for anyone to be left behind. The enormous capacity of the dropcentre cars was undoubtedly an important factor. I remember them as being rated to seat 60 people, the benches in the non-smoking taking nine (seldom achieved in practice!) plus two on a seat (later removed) backing the driver's cab, which at this time had no connection with the rest of the tram. The smoking compartment, the only city tram in the world (to my knowledge) which ever provided five-aside seating plus an aisle, seated a further twenty, and

there was certainly room for twenty standing on each of the platforms. There was also plenty of standing room in the non-smoking compartments, but it was difficult to get people to use it as they were very much the preserve of the ladies in a male-dominated society. With its steady ride, good performance, high capacity, easy boarding and supervision, its choice of breezy or enclosed seating, and its incredible feeling of solidity, the Adelaide dropcentre is arguably the best warm-climate city tram ever. It seems superfluous to describe the cars further as each type, beautifully restored, can fortunately be seen at St Kilda. Those I liked least were the D cars; high to climb aboard, with doors which were difficult to budge, and no view once you had fought your way aboard.

The last trams of the day had a common departure point, the Adelaide railway station, and a common departure time, 11.35pm. It must have been quite a sight, but as a schoolboy in the still somewhat Victorian climate of the forties, I never had a chance to see it.

#### Fares

The system was divided into sections, roughly a mile (1.6km) long. One section cost 2d, two sections 3d, and so on. Typically, the journey from the city to a terminus embraced three sections, the first section ending just outside the



*'Forest City' signal lights mounted on the pole at left protected single track in George Street on the Kingswood line.*

JOHN RADCLIFFE

Parklands (or, in North Adelaide, at Kermod Street). Children under 14 were carried at half fare. There were no transfers, except between MTT trams and the feeder buses for Broadview/Hampstead, Firlie and Rosewater. In addition, there was a special 1,d fare in the City.

### **Management and Maintenance**

Even at the end of the war, with its attendant material and staff shortages, the cars were kept in

excellent condition and the services ran to time. The management of the great Sir William Goodman, who was the MTT from its inception almost to the end of the city tramways, was perhaps patriarchal but had the great virtue of continuity. The undertaking kept going of its own momentum, and changes were few. I only visited Hackney Depot and Works on one occasion (thanks to the help of a distant cousin, Ian Schomburgh, who was related to Mr Moyes, Sir William's deputy). It was an impressive place. Hackney seemed to be able to produce anything that was demanded of it.

I recall the livery as maroon and cream, and was surprised on visiting St Kilda to find that the cars (except for number 381, the post-war car, which of course was a new acquaintance for me) were more brown than maroon. However, it's difficult to remember colours exactly as everything is relative. I remember visiting another of my home towns, Portsmouth, and being surprised to find that the maroon there was nothing like that which had recently been adopted in my present home, Stockholm. I therefore have to assume that my memory is playing tricks on me!

### **The Trolleybuses**

There was a sizeable trolleybus system, consisting basically of one very long route from Tusmore through the city (Rundle and Hindley Streets) to Port Adelaide, splitting at Glanville to reach termini at Semaphore and Largs. It was operated by large double-deck vehicles \_ some of them six-wheelers \_ of typically English appearance, in sharp contrast to the trams! The Port Road (which would have made a beautiful tramway reservation!) had a 7, minute service, only part of which ran through to and from Tusmore. Some single-deck vehicles, intended for Canton but deviated to Adelaide as a result of the Japanese occupation, appeared at the very end of the war. Any tendency to dewire on curves was countered by white dashes painted on the road indicating the ideal path to be followed \_ for example on the approaches to the bridge at Ethelton.

### **Buses**

The MTT feeder routes to Broadview/Hampstead, Firlie and Rosewater/Port Adelaide have already been mentioned. They were operated mostly by a handful of single-decker Leylands, the oldest of which were fitted with a wonderful gearless transmission which demanded that the driver throw over a large lever





*AEC trolleybus 404 pulls away from the Kilkenny Road stop on the up track of the Port Road while 423 follows into the stop to pick up additional passengers during the early 1940s.*

M.T.T.



*At the beginning of the Second World War, the steep single-track outer section of track on Glen Osmond Road was relocated in a south-westerly direction to a position four feet east of the centre of the road. E1 type cars provided the Glen Osmond service.*

A.H. BLANCHE



*A twelve minute frequency service was provided to Henley Beach, with alternate cars, usually of the H type, going to Henley North (Marlborough Street). A six minute service prevailed on holidays. F1 type 276 is about to leave the Henley terminus and follow an H car back to the City.*

P. LAMBERT

when the magic speed of 23 mph (37 km/h) had been reached. Like nearly all the single-deck buses in Adelaide, they were 'normal control'; the bonnet protruded from the front as in a car. There were also three modern half-fronted Leylands (numbers 93-95). Like all the other single-deckers they were one-man operated, which was achieved by providing an opening behind the driver and a small triangular counter over the engine. I think the driver had a swivel seat — he certainly needed one! The ancient Macks, which seemed to be available in quantity, provided any necessary strengthening.

In addition to the MTT, there were a number of private bus operators, many of whose fleets had hardly two vehicles alike. Private routes linked the city with Edwardstown and Kilburn, there was a private feeder route from Hyde Park tram terminus to Westbourne Park, and cross routes — the forerunners of the present Inner Circle — from Walkerville North tram terminus to Glen Osmond tram terminus, whence another cross route went to Glenelg. Timewise, there was no connection between these two routes — with one bus on each, the Walkerville North-Glen Osmond service had to have a 70 minute frequency, whereas Glen Osmond-Glenelg and back could just be done in the hour, which became the frequency there. The

Kilburn buses, which started from outside the Olympic Pool (where the Festival Centre now stands) included a fine, long rear-engined vehicle which was years ahead of its time.

### Suburban Rail

To complete the picture of the Adelaide travel scene, something should be said about the South Australian Railways. There were suburban passenger services to Belair and on to Bridgewater, and to Marino in the south; to Henley Beach, Semaphore, Outer Harbour, and Port Dock in the west; and to Gawler and Abattoirs in the north. There were also occasional passenger trains to munitions factories in the Woodville area. The outer ends of the Henley Beach and Semaphore lines were single tracks along the edges of roads — quite tramway-like in character. The main lines were double track (to Belair, Outer Harbour, Port Dock and Gawler) but the rest were single track.

Services were almost all steam-hauled, though the diesel railcars, known as Barwell Bulls (the horn produced bovine sound effects) occasionally turned up on lighter workings. Rolling stock consisted mostly of open-platform coaches looking as if they were straight from the Wild



*The single track of the Paradise route beyond Payneham was nearly three miles long, and ran through country which remained essentially rural right up until the end of tramway services. F type car 220 is seen returning from Paradise as it emerges from Jeff's Loop which was on a hill adjacent to a small orchard.*

JOHN RADCLIFFE



*An extension was built in Torrens road from Kilkenny to Cheltenham in early 1942. services began on 12 April 1942.*

A.H. BLANCHE





*D type car 138 passes through the junctions of Hindmarsh Square, controlled by the signal cabin at left, as it proceeds north along Pulteney Street on its way back to Hackney Depot. The Bonython Hall can be glimpsed at the far end of the street at North Terrace.*

JOHN RADCLIFFE

West, in sharp contrast to the very English 4-6-2 tank engines (class F) which usually hauled them; the only common feature was that their aspect belonged to the nineteenth century rather than the twentieth. A rarer type of rolling stock were the English-type compartment coaches ("dog-boxes"), some of which I suspect were still gaslit. When hauled by the diminutive P-class 2-4-0 tanks they made a characteristically English scene when seen in the gloom of Port Dock station. It would have made a lovely Railway Museum!

### **The Metropolitan Transport Club**

With my friend Geoff Vines (with whom I lost touch when he moved back to Queensland), I founded this little group of transport (mainly trams) enthusiasts. There were never more than a handful of us, but we did manage to issue a carbon-copied magazine, the *Tramway News*. Unfortunately, I don't think any copies exist today.

### **Touring the System**

One of my favourite pastimes at weekends was making tours of the system, making use of all forms of public transport, after careful study of

the MTT and SAR timetables (which was half the fun!). Places like Glen Osmond, Emerson, Henley Beach and Semaphore were typical transfer points and, of course, my journeys took me over the whole of the tramway system and virtually everything else. The infrequency of the train services (most ran only about once an hour) and most of the private buses was a problem, but it also served as a challenge. It says much for the regularity of the services that I hardly missed a connection.

What a system it was! Sitting on the cross-bench at the 'high' end of an E1 as it rolled past the greenery of North Terrace; the rural atmosphere of Paradise (aptly named); the beauty of Morialta; the menacing "click" as the points changed outside the impressive new Bank of New South Wales in King William Street, uncomfortably near the feet of people waiting in the Safety Zone; the procession of different types of car down King William Street; the seasick antics of the four-wheelers — these are some of the memories. All that remains is the whoosh of the Glenelg tram as it takes the viaduct at Goodwood, now as then imperiously ignoring would-be interchangers on the platforms below. Long may it remain!

# 40 YEARS OF TROLLEY WIRE

## PART 3

By Ken McCarthy

Fourteen museums are affiliated with COTMA in Australia and New Zealand, of which eleven are on these shores. This third part of the commemorative article aims at providing a brief resumé of each Australian museum. Highlights only are provided as each uses Trolley Wire to record development news as it occurs.

### **South Pacific Electric Railway Co-op Society (Sydney Tramway Museum), Loftus, NSW**

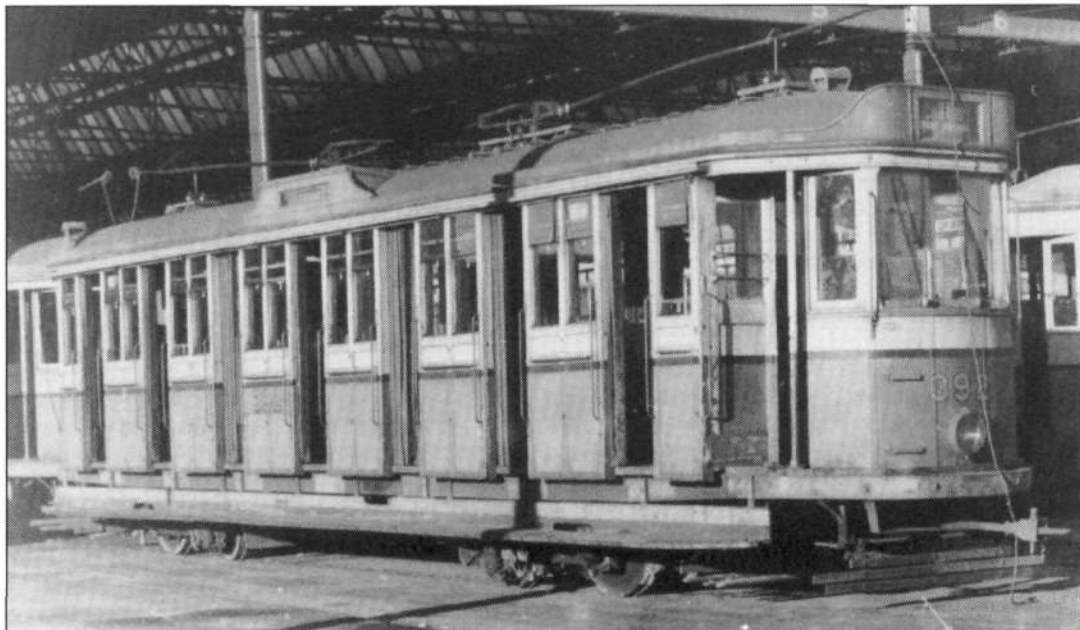
The story has been told many times in these pages as to how L/P 154 became the first electric tram in Australia, and possibly the southern hemisphere, to be preserved by an enthusiast group with the aim of future operation.

The NSW Commissioner for Transport, Mr Arthur Shoebridge, donated the complete tramcar to the preservation group within the NSW branch of the Australian Electric Traction Association (AETA) on 24 July 1950. Within a short period of

time a further three cars joined the 'collection'; F 393, N 728 and Prison Car 948. These were housed progressively in Newtown, Ultimo and Rozelle Depots.

At the same time, a search was being conducted for a suitable museum depot site and track right-of-way. A lease on the edge of the Royal National Park adjacent to the Princes Highway at Loftus was eventually made available, and in August 1955 work commenced on erecting the walls of a large enclosure which would eventually form the museum car shed. The rapidly growing museum car fleet was transferred to the depot site during March 1956.

As the establishment of a museum was in conflict with the modern transport aims of the AETA, a separate group, the Australian Electric Transport Museum (AETM), was formed during 1955 to take over and develop these valuable heritage items. The undertaking was incorporated



*Sydney L/P class 392 at Rozelle Depot on 21 July 1951. As the new post-war R1 class cars entered service from the late 1950s, the L/P cars were progressively withdrawn from service.*

N. REED

under the NSW Co-operative Society structure as the South Pacific Electric Railway Co-operative Society Ltd. and registered the trading name Sydney Tramway Museum at a later date.

On 23 October 1961, the museum officially opened as a static display centre. This date was selected due to it being the centenary of the opening of the Pitt Street horse tramway in Sydney.

Public operation commenced on 1st January 1964 using a Cadillac railmotor from Pelaw Main Colliery. From this time, progress accelerated. Electric trials commenced on 29 July 1964 using L/P 154, and the official opening of full electric operation was marked with a grand celebration on 13 March 1965.

By 1967 it became clear that the museum would be unable to expand to its full potential on the Royal National Park site. With the number of exhibits increasing by the arrival of interstate cars, a search was launched for an alternative location.

Largely due to the encouragement and efforts of the Hon. Milton Morris, Minister for Transport in the Askin state government, the large area of crown land adjacent to Loftus Station was made available for museum expansion. Although the task of re-establishing the museum was formidable, success would bring outstanding rewards. Track construction to Sutherland was a possibility, while the new property was separated from the old site by only the Princes Highway. This reduced the still considerable cost of rolling stock transfer but major advertising could be avoided directing visitors to the new location.

An interesting departure from routine museum car operation was the use of track scrubber car 134s (ex D class 102) away from Loftus.

The Department of Railways used this 1899 vehicle on two occasions to clear mill scale from new track construction.

On 1 September 1978, 134s arrived at Randwick Workshops for basic maintenance and the fitting out of a diesel generator trailer as a power source. Following electric running trials on the remaining workshop track on 10 September, the scrubber car was transported by road to Erskineville on 13 October and commenced work on the new Eastern Suburbs Railway. Tram 134s returned to Loftus on 30 December.

A repeat performance took place on the

Sutherland-Cronulla railway on 15 July 1983 when 134s scrubbed the newly duplicated trackwork between Gymea and Caringbah.

Work commenced in April 1980 on the construction of the first portion of the new running shed-display building and by 8 February 1986 the first trial electric operation took place in the depot yard.

The support and co-operation of Sutherland Shire Council, as well as a government sponsored grant, enabled almost 1.5km of main line to be constructed. The new museum complex opened in a Bicentennial ceremony on 13 March 1988, exactly 23 years to the day when electric operation was launched in the Royal National Park. The last public trip occurred at the old location on 7 March and regular service commenced between Loftus and Sutherland one week later, on Sunday 14 March 1988.

The last trams were transferred to the new museum on 13 May 1989 and since then work has continued on extending the display building to twice the original size, the reconstruction of the waiting shed from Railway Square in Sydney, the dedication of a picnic area, and major site improvements performed to form a typical tramway street-scape.

The number of tramcars has now grown to over 40, whilst other aspects of the heritage of NSW public transport are covered by trolleybus No. 19 and a small fleet of tramway replacement buses.

At the time of writing, it is planned to obtain another tram from overseas. The museum made history in the Australian museum movement when San Francisco double-ended PCC car 1014 was unloaded on 7 June 1987 at Port Botany. After a major overhaul which resulted in controls and doors being available for double-ended operation - after operating for some time in the USA in a single-ended configuration - this interesting car was available for traffic following a recommissioning ceremony held on 9 April 1989.

The Sydney Tramway Museum is now on the brink of a major expansion which should result in track extensions to provide a route length of almost 4km.

**Steam Tram and Railway Preservation Society, Parramatta Park, NSW**

This museum grew from the efforts of members which formed a light railway and steam tramway





*Sydney O/P class car 1170, working the Coogee Beach to Waverley Depot cross country service, rounding the balloon loop at Coogee on 25 March 1950.*

B.J. PARLE

study group within the NSW Division of the Australian Railway Historical Society in the early 1950s. This group formed the NSW Steam Tram and Railway Preservation Society in June 1954 when steam motor 103A, used until the previous year as a shunter at the Waddington's/Commonwealth Engineering Co's plant at Clyde, NSW, was delivered to the back garden of Bruce and Dorothy Macdonald's home at Homebush for restoration.

The society was successful in gaining permission to establish a working steam tram museum in Parramatta Park and construct a short running track. On 8 November 1956, steam motor 103A was transferred to the running shed and underwent steam trials two days later.

As the restoration of C2 type bogie trailer 74B would require considerable time (see Byron Bay reference), the body of former Sydney four-wheel C type electric trailer No. 95 was obtained from a backyard of a residence at Blakehurst during May 1962 where it had stood for 40 years. This vehicle was mounted on a Peckham truck retrieved from a similar vehicle at Randwick Workshops and

replacement of deteriorated body parts from the same source enabled No. 95 to be used as a steam tram trailer for regular service from 20 September 1964.

The tramway items gradually expanded to one steam motor (103A), one diesel-powered replica motor (133A), two C type electric trailers (37 and 95), and two C2 type 70-seat steam tram trailers (74B and 191B).

During 1982, the society reached the decision to rationalise the collection and expand into examples of roadside railways which the NSWGR had operated at Yass, Camden, Kurrajong, Rogan's Hill and Morpeth.

As a result of this decision, the museum sold the Peckham truck from C 95 to the Tramway Historical Society at Ferrymead, Christchurch, NZ, while the car body was purchased by an Illawarra Light Railway member (see ILRMS reference). C 37 followed during March 1985 when it was transferred to the Tradesmen's Union Club, Canberra, ACT.

This expanded policy resulted in a Z13 class 4-4-2T locomotive joining two other former industrial steam engines already on the museum roster, as well as the delivery of rail motor CPH 5, an end-loading suburban carriage and the restoration of NSWGT 'tramcar carriage' KA 778. The body of the KA had been used as a first aid room at Cootamundra locomotive depot for over 40 years until obtained by the society in March 1972. During September 1981, the carriage was delivered to the apprentice training school at the Chullora railway workshops where it stood adjacent to the Sydney Tramway Museum's trolleybus No. 19, subject of a superb restoration programme. KA 778 returned to Parramatta Park in May 1987 and since 19 March 1991 has operated in public service from time to time hauled by NSWGR Vulcan 0-4-0 saddletank locomotive 1022.

On 26 January 1992, tram motor 103a returned to revenue service after a major overhaul financed by a bicentennial grant at the NSW Rail Transport Museum's workshop at Thirlmere. This included the fitting of an overhauled exchange boiler obtained by the society some years ago from Lismore, NSW.

The museum has prepared detailed plans for a new tram shed and display building to be possibly

constructed near the western perimeter of Parramatta Park and a circular running track partially along the present end-to-end main line. This initiative will probably need to await an economic recovery with the hoped-for availability of relevant grants.

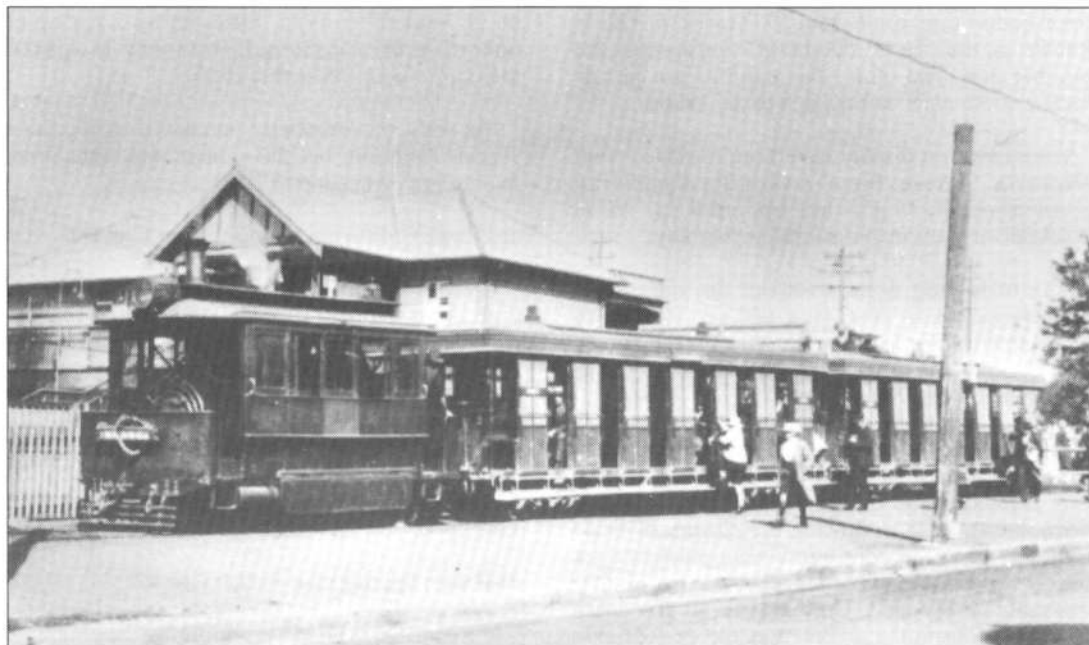
### **Australian Electric Transport Museum, St Kilda, SA.**

During the 1956 Australian Electric Traction Association convention conducted in Adelaide, a private meeting was held concerning the retention of some Adelaide tramcars as museum exhibits after the proposed closure of the street tram routes.

The Sydney-based AETM was of the opinion that such trams should remain in the home state. As a result, a preservation group was formed in October 1956 as a branch of the Sydney museum. At this stage the Municipal Tramways Trust offered the group six cars for preservation.

The incorporation of the Sydney museum in 1959 as a co-operative society made interstate affiliation difficult, so the Adelaide group retained the original name and became independent.

The AETM was able to lease a museum site north of Adelaide at the small village of St Kilda



*Steam Tram Motor 25A and two trailers wait for passengers transferring from suburban trains at Arncliffe station on the isolated Arncliffe to Bexley Tramway.*

*Probably C.C. Singleton Collection, from R. Merchant Collection.*

in 1957. During the following year, the first batch of preserved trams, some of which had been stored at Morphettville Racecourse sidings, were delivered to the museum property. As at Loftus, the first car shed initially aimed at providing security, but by 1963 the trams were under cover and restoration commenced soon after.

During 1967 the exhibits were available for public inspection and the first of many depot extensions occurred.

Electric running tests started on 31 December 1971 and during 1973 construction commenced on the 2km main line to St Kilda village. The new tramway was officially opened on 23 March 1974 as part of the local St Kilda centenary celebrations. Five trams were required to carry the crowds on the initial through run.

Since then the AETM has made outstanding progress and displayed a high degree of professionalism in restoration work, especially bringing old tram bodies used as sheds back to working vehicles.

In addition to an ever-growing tram fleet, the museum has a representative collection of buses and trolleybuses on display. These include the Garford petrol bus converted to an experimental trolleybus which operated along the outer end of the Paradise tram route from 1932 to 1934. This is known as the "Green Goddess" and carries the number 216. The motor bus exhibits are just as varied, some units dating back to the 1920s.

Some trams on display have been retrieved from Victoria. These have a South Australian connection, having either operated earlier in Adelaide or were manufactured in that city.

The following details set out the museum's achievements in restoring old car bodies to working order and plans in this area for the future.

#### **a: G type Birney Safety Car 303**

The story of the reconstruction of this car is an interesting saga. four one-man-operated Birney cars entered traffic on the isolated Port Adelaide lines during 1925. following the closure of these routes in 1935, the four trams were purchased by the Geelong undertaking where two other similar cars already operated. During 1947 all six safety cars were transferred to Bendigo, the ex-Adelaide trams retained their Geelong numbers 27-30. Car 27 (ex-Adelaide 303) was involved in a collision during 1958 and the body sold as a shed. In

October 1972, following the closure of the Bendigo tramways as a public carrier and prior to its reopening as a tourist line, representatives arrived at Bendigo Depot to claim a Birney car promised by the State Electricity Commission some years prior to closure.

Bendigo citizens prevented the departure of any tram from the city which was in service at the conclusion of operation, so the Adelaide museum representatives departed empty-handed.

The problem was solved by an excellent initiative. The body of 27 was retrieved, the spare electrical and underframe components refitted, and the tram received major body restoration at Bendigo Depot.

Birney car 303 returned to Adelaide in July 1976 and has proved a welcome addition to the museum fleet, running regularly at St Kilda as well as along the Adelaide-Glenelg tramway during the 1978 Adelaide Tramway Centenary celebrations.

#### **b: F1 type Dropcentre Car 264**

A South Australian Sesquicentenary grant enabled the body of car 264 to be restored to working order between 1981 and 1986. This car made its running debut at the COTMA conference on 26 September 1986, followed by a period of operation on the Glenelg tramway in tourist service from 15 December 1986.

The body was originally purchased by the State Transit Authority but the vehicle was transferred to museum ownership in 1990.

#### **c: C type California Combination Car 186**

These single truck C type California cars were withdrawn from traffic in 1954 following the Royal Visit, so a working example was not available to the museum in 1958. The body of car 173 was obtained for restoration, but an example in better condition, number 186, was selected for restoration under an Australian Bicentennial grant. This car worked running trails at St Kilda during March 1989 and returned to regular service on 10 June 1990.

#### **d: B type Open Cross Bench Car 42**

In 1958, the AETM was fortunate in obtaining A2 type car 42. Built in 1909 as a cross-bench single-truck open car, this vehicle was one of three converted in 1917 to a California



combination design for the Port Adelaide system. The tram is being converted back to the open cross-bench style and should soon re-enter traffic.

**e: E type Half Saloon, Half Open Cross-Bench Car 118**

By 1936 the 20 cars in the half saloon, half cross-bench bogie style had been converted to fully enclosed saloons. The AETM received E1 Type 111 in the converted design in 1958. During August 1982, the body of E1 type 118 was delivered to St Kilda from Port Broughton and this will be converted back to the original 1910-12 appearance. A pair of Brill 22E maximum traction trucks were recently made available by the Tramway Museum Society of Victoria to assist this project.

**f: A type Single Truck California Combination Car 15**

The original A type electric cars which opened the electric system in March 1909 is represented

at St Kilda by car No. 1, and Ballarat 21 (ex-A 10) in a converted one-man form. Car 1 is only operated on special occasions. To enable an A type to work on regular traffic, the body of A 15 was obtained during May 1986 for future restoration.

**g: Double Deck Horse Car 15**

Adelaide Suburban Tramway Company double deck horse car No. 18 of 1878 vintage was in the care of the AETM for 17 years. This was driven by the then State Premier, the Hon. Don Dunstan, along King William Street during the 1978 Tramway Centenary celebrations.

In February 1988 the car's owners, The National Trust, transferred the superbly restored horse car to its Horse-Drawn Museum at Seppeltsfield.

During October 1990, the AETM took delivery of the body of former Adelaide, Unley and Mitcham Tramway Company double deck horse car No. 15. This will be eventually restored as an



*Adelaide H1 class 381 in Torrens Road, Cheltenham about to negotiate a railway level crossing on 1 April 1956. This tram was participating in the AETA Convention held in Adelaide that year.*

B.J. PARLE

example of the trams which served Adelaide prior to the general electrification from 1909.

The AETM has displayed steady progress for its entire 36 years' existence. It was the first tramway museum to construct new track in public areas, while its fine working relationship with the STA has resulted in museum cars visiting the Adelaide to Glenelg route on special occasions to provide public tourist service.

### **Tramway Museum Society of Victoria, Bylands and Kilmore, Vic.**

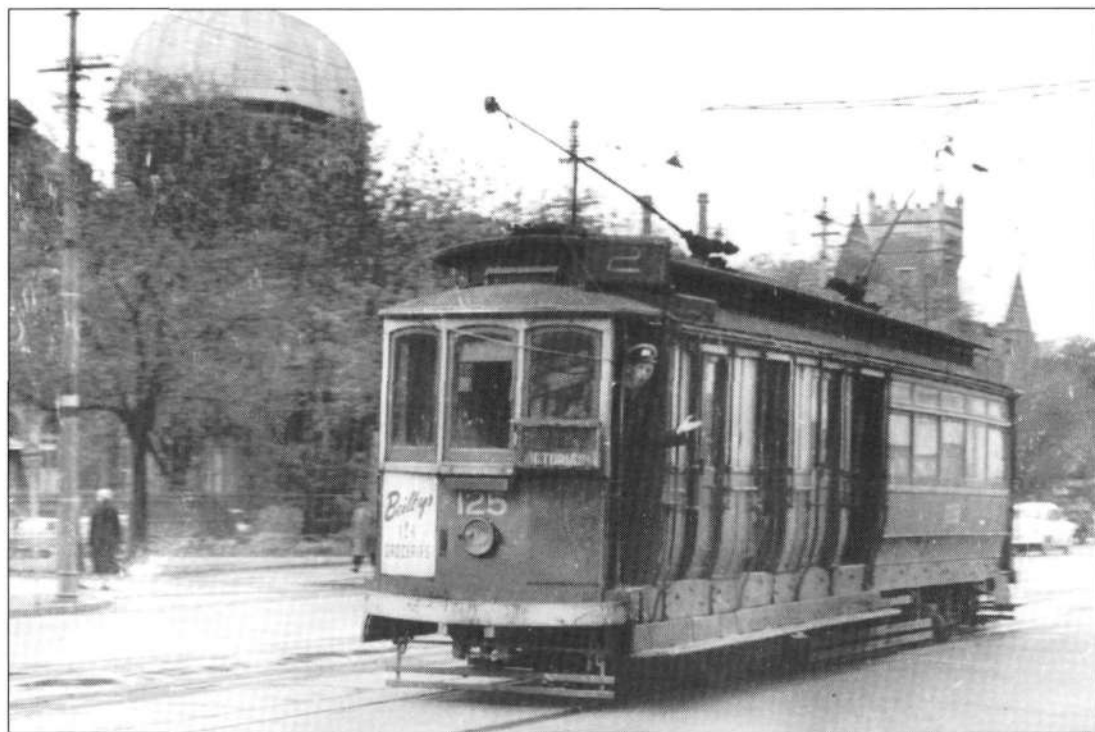
In March 1953, a sub-committee of the Victorian division of the Australian Electric Traction Association sponsored the retention of S class single truck car 164. This vehicle was built in 1916 for the Melbourne, Brunswick & Coburg Tramways Trust as their No. 11. The Melbourne & Metropolitan Tramways Board offered to store the car in Malvern Depot. This preservation initiative was the result of the M&MTB replacing the vintage four-wheel trams by buses on the 'All Night' services.

During April 1956, Bendigo California car No. 3 arrived at Malvern. This 1916 four-wheel tram still retained the cross seats in the open end sections. It had entered service as Hawthorn Tramways Trust No. 8 and later carried No 114 on the unified M&MTB roster.

The preserved museum fleet increased rapidly. In 1957, the Brill Birney Safety car 217 entered Malvern Depot followed by former MB&CTT No. 18 (ex-M&MTB T class 182) in September 1961 and Footscray enclosed single-trucker X1 class 467 during July 1962. Due to the better condition of former MB&CTT No. 16 (M&MTB T class 180), this vehicle replaced No. 182 in the Malvern collection in May 1969.

These trams retained access to the main Melbourne tramway system and in recent years have operated in the annual Australia Day parade and other festive occasions.

During August 1963, the AETA preservation sub-committee was incorporated as an



*Adelaide D class 125 in North Terrace inbound from St Peters, 31 August 1956.*

B.J. PARLE



*Victorian Railways dropcentre car 51 departs the entrance to Sandringham railway station bound for Black Rock on 4 September 1956.*

K.A. MCCARTHY

independent museum group, the Tramway Museum Society of Victoria Inc., to take over the preserved tramcar collection.

A long search was launched for a suitable museum display and operating site. A lease was settled in 1970 of a depot and display site at Union Lane, Bylands, 6km south of Kilmore. In addition, 1.6km of 5ft 3in gauge railway track and right-of-way northwards, on the roadbed of the East Kilmore to Heathcote railway (closed to traffic in November 1968) was included in the deal.

From July 1973, preserved tramcars began arriving at the new museum property and these gradually entered the first building as roofing progressed in October 1973. The first occupants were Ballarat 17, Geelong 22 and the former Ballarat scrubber car (ex-enclosed crossbench car No. 23).

By 1976, the carbarn tracks were under construction and the portion of the old railway track adjacent to the depot was reduced from 5ft

3in to 4ft 8in gauge for future tramway operation.

The first car to operate at Bylands was cable trailer No. 256 as a horse-hauled tram on 2 March 1975. These trials were used to train Charlie, the tram horse, to work the car at South Melbourne on 10 March as part of the Moomba Festival. On its return to Bylands, this horse operation continued for Sunday visitors.

Span pole erection commenced in September 1979 along the main line, followed by the fitting of overhead wires in 1981. The long-awaited day on which electric power energised the overhead arrived at Bylands on 1 June 1982. Public electric operation commenced soon after electric trials were concluded.

Unfortunately, on 6 November 1984 the power supply transformer failed, temporarily bringing electric operation to a halt. The TMSV met with success in gaining a government grant to improve the power supply and electric operation resumed

with a ceremonial reopening on 16 November 1985.

In the meantime, the running track had been prepared for tramway operation further towards Kilmore and additional display buildings erected.

The grand total of the TMSV fleet is difficult to determine, as several cable cars, for instance, have been dismantled to provide replacement parts in

the restoration of relics in better condition. The writer has evidence of 53 cars which have been in the museum's possession. The total includes 18 cable/horse cars, 28 Melbourne and Victorian Railways trams, and 7 from the Victorian provincial cities.

## HERE AND THERE

### NEWS ITEMS OF INTEREST FROM ALL OVER

#### Glenelg Tram Extension Study

Proposals to extend the Glenelg tramline along King William Street to North Terrace, Adelaide were announced by a new study released during May which says it would generate an extra 230 passenger trips a day for the trams.

The Study, by consultants Travers Morgan for the State Transport Authority, says the long-awaited extension, first suggested in 1976, would require more trams and scheduled services to generate extra passenger trips.

It suggested that the larger number of trams needed to cope with increased public use of the service would lead to greater frequency of trams, fuelling further peak demand for the service.

The extensions would provide extra convenience for passengers, many of whom had destinations closer to the northern city sector. The Report did not favour other options for tramway extensions, including continuing along King William Road to a point opposite the Festival Centre, because costs would outweigh benefits.

The Report suggested the free Beeline Bus service, operating between Victoria Square and Adelaide Railway Station, should be retained alongside the extended tramline to maximise the frequency of feeder services.

There are indications that there may be benefits in an increased number of express trams during

peak times, after finding that few passengers joined or alighted after the Goodwood Road stop.

The Report revealed 69% of the 1300 passengers who board during peak periods walked to or from tram stations, while most of the remainder drove or were passengers in private cars.

The Report concluded that the concept of feeder buses terminating at the Marion Road and Brighton Road tram stops would discourage overall STA patronage unless those services gave passengers the option of travelling to the city by bus.

#### News from Melbourne

Leaking roofs on W class trams has been a problem for many years and in recent times has reached 'plague' proportions every time rain falls for more than a few hours. Tram drivers frequently called for a changeover tram, and often there were no 'dry' trams left, resulting in a cut in the service, sometimes even at peak periods, until the rain stopped.

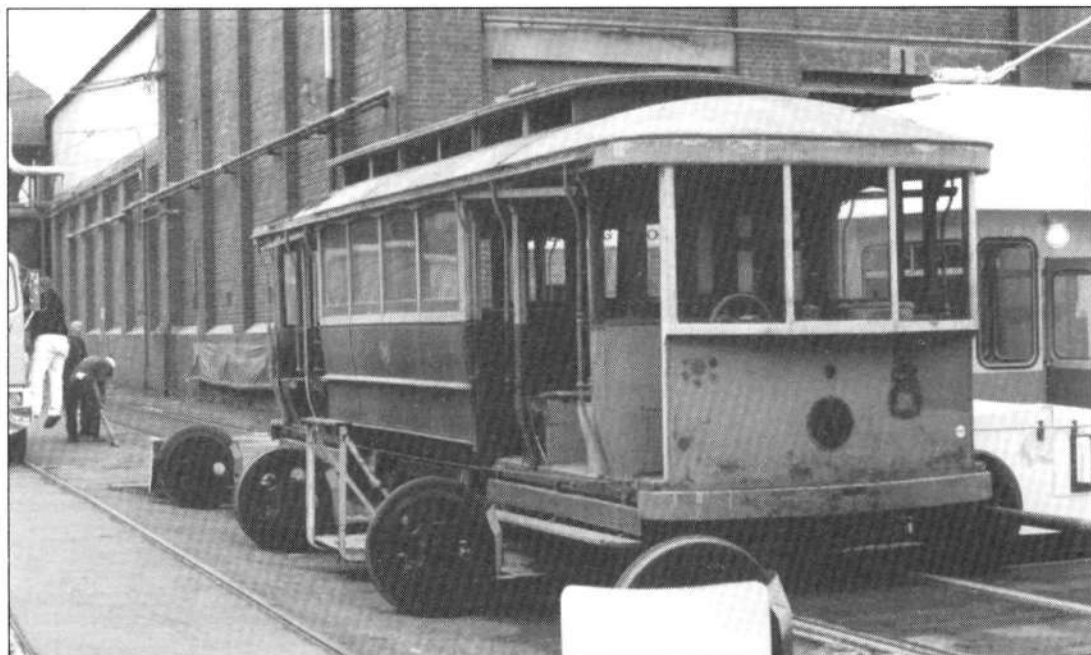
To overcome this problem, the weekend of 11/12 April saw a hive of activity at all depots with W class trams, when the cab roofs were painted with a grey rubbery paint. Initially many trams were painted only over the destination boxes and a little to each side. Most have now received a second coat which extends the full width and depth of the cab roof. However, nothing has been done to stop rain water from dripping over the passengers.





*Tram 255 is the first A class to be fitted with illuminated side advertising panels.*

R.J. MARSH



*Heading for a new life. TMSV tramcar HTT No. 8 (ex M&MTB M class No 114 and Bendigo SEC No. 3) sits on the traverser at Preston Workshops following its transfer from Malvern Depot (its home of the past 35 years) on 22 December 1991. The car is being restored to its original condition by the PTC.*

GRAHAM JORDAN



*The site of the former Richmond cable car depot (above), which stood in Bridge Road for many years, has been redeveloped as a hotel and office complex (below). The facade of the former depot has been incorporated in the redevelopment and can be seen behind tram 568.*

RAY MARSH





*Car 900 has joined 1040 in being painted in the 1950s green and cream livery. It is seen at Brunswick Street and Victoria Parade on 25 June 1992.*

RAY MARSH

Unfortunately, Glenhuntly tram 1040, resplendent in its 1950s paint scheme, was similarly treated, and was still that way in June.

On a happier note, South Melbourne tram 900 has also received the 1950s livery after an overhaul, and retains the bus type seating which it received when built. Most other trams of this type received standard back-to-back seating during similar overhauls. Presumably 900 received the grey roof paint before the finishing mustard paint was applied. It returned to service on 7 May 1992.

The first use of Malvern Depot based Z class trams on Swanston Street routes occurred on Wednesday 15 April, with car 107 being used on routes 6 and 8, which alternate at night. Since then, more and more Swanston Street services in the evenings are being run by this class of tram from Glenhuntly and Malvern Depots, with occasional daytime Sunday use being observed.

The problems with prototype B class 2001 had been overcome by the end of April and it was often seen in service on routes 96 and 111. Car 2002 also returned to service in early May, and a month later both cars were being regularly used

from both South Melbourne and North Fitzroy Depots, although the latter depot had previously 'banned' these two cars.

Thornbury Depot returned to service on Friday, 15 May owing to track upgrading at the nearby Preston Depot. Preston Depot had been hindered by track layouts which would best be described as awkward since the depot opened in the mid-1950s. The biggest problem was the need for every tram to reverse in busy Plenty Road in order to enter the depot, while the internal track design made shunting from one portion of the depot to another difficult.

Prior to 15 May, all trams stored in Thornbury Depot were removed, along with other paraphernalia which had accumulated over the years, and the paving of the depot yard was repaired. An Inspector was located there to supervise tram movements and was stationed in tram 906 which had been placed on the unwired road nearest the operational (western) part of the depot. Lighting was provided by a fluorescent lantern. 906 was later replaced by portable accommodation.

While Thornbury was used for W class cars,



*The Public Transport Corporation of Victoria's latest tram/light rail emergency vehicle is fitted with retractable rail wheels to enable it to run on reserved track. It is seen at Kew Depot on 25 April 1992.*

R.J. MARSH



*W2 class 600, W6 class 922 and W5 class 783 in store on the Preston Workshops test track.*

JEFF BOUNDS





*Z class 78 propelling W5 class 833 to the Preston Workshops test track for storage on 9 May 1992.* JEFF BOUNDS

portion of the adjacent Preston Workshops was used as required for Z class trams from route 86. The new trackwork was installed in stages, the job taking around five weeks. Z class cars were worked on route 86 on Sundays 17 and 24 May, the shorter Z cars being easier to store at the workshops than the articulated B cars.

A1 class 237, which has been promoting a local FM radio station, was due to complete its 12 months promotion late in June. The radio station appeared to have lost interest in the tram, with supplies of free handouts and live broadcasting having become a thing of the past. Its operation was not without problems, however. For example, it was out of action for about five weeks in April and May due to a defective traction motor. Earlier, it had been reduced to the status of a 'broken shift' operation, whereas at first it had operated during the middle of the day.

A number of W class trams, ranging from the first W5 (built 1935) to the third last W7 (built 1956), were moved for storage to the test track at Preston Workshops over the weekend of 9/10 May. The test track runs parallel to the Melbourne-Epping suburban railway line. To protect against vandalism, the windows were covered with galvanised sheet metal. By 17 May, there were 28 cars on the test track, most without trolley poles. These cars are 684, 720, 740, 744,

747, 755, 772, 783, 819, 823, 826, 833, 834, 859, 860, 877, 878, 879, 912, 914, 922, 966, 974, 978, 979, 988, 1016 and 1038. Three other cars without trolley poles were in the workshop yard. Their fate is unknown but it is unlikely to be an overhaul and return to service.

It has been announced that only 111 W class trams will be required when 'cross city linking' begins. The State Government has promised that no W class cars will leave Victoria, even though there will be over 200 cars surplus to requirements.

April saw a return of the popular on-tram live theatre shows, this time using tram 857, the last car fitted with tip-over seats. This feature allows the audience to view the action which takes place in the dropcentre portion of the tram as it journeys along.

Two Z class trams have been experimentally fitted with dot-matrix style destination indicators. Z1 class 71 formerly had flip-over type indicators which have a capacity for 40 destinations, while Z3 class 173 had the plastic roll type. While both types were more visible than the dots, both were particularly prone to failure. The former has a habit of stopping in the wrong place and displaying a destination or route number that was misleading or meaningless, while the roll type has



*Y1 class 613 at Batman Avenue terminus on 9 June 1992 for the launching of a new tram tour service aimed at the overseas tourist market.*

RAY MARSH

a habit of jamming. The two experimentally fitted trams are equipped with different types; the signs on 71 displays two lines of text together and is capable of flashing a third and fourth line, while those on 173 are like those fitted to the B class cars which have large letters and the ability to flash three lines one by one. Hopefully you will be able to read everything displayed before the tram passes you by! It is, however, difficult to overlook the reliability and longevity of the old style calico signs as used on the W cars. They seem to last for years before they wear out and, with the grouping together of the two destinations used on a particular route, take little effort to set.

W6 class 937 is at South Melbourne Depot and painted a reddish colour in anticipation of being fitted out as a new restaurant tram. Work will be carried out at South Melbourne Depot.

W class 891 was originally allocated to Kew Depot but went to Preston Workshops over three years ago for the fitting of a pantograph. It has

been returned to Kew fitted only with trolley poles. It is not known why the experiment failed, but the tram was sent to Kew at least once with a pantograph, and returned to the workshops because of problems.

Kew Depot now has four W class cars, mainly for use on the route 79 services where the overhead has not been converted for pantograph operation. Also appearing at Kew Depot in April was A1 class 255 which has been fitted with illuminated side advertising panels below the windows in the centre of the tram.

A class cars 238 and 239 have been reconverted to trolley pole operation for use on the Chapel Street services (routes 78 and 79) from Kew Depot.

Vintage tram Y1 class 613 was 'unveiled' on Tuesday 9 June as a new type of tourist tram. It has been partially signwritten on the outside and upgraded inside with red carpet and other

appropriate embellishments. It will attract a premium fare, believed to be \$27.00, but will not enter regular service until September. Further details will appear in these pages when they are known.

No sooner had Swanston Street been closed to motor traffic and been renamed Swanston Walk than planter boxes with trees and bushes were installed temporarily, and work commenced on moving gutters and installing permanent gardens. The work started at Latrobe Street and is moving south along the western side of Swanston Walk. Generally, the width of the footpath has been doubled and the road width halved, leaving enough space for one lane for service vehicles, etc., beside the tramline. The work will take about six months to complete.

The pedestrians of Melbourne, who are somewhat unruly at the best of times, have taken to straggling all over the road, much to the dismay of tram divers rushing to stay on time. Safety zone fences have been removed from all stops except that at Swanston Walk southbound at Flinders Street where there is a raised platform. The westbound stop in Bourke Street at Swanston Walk has also lost its zone fence. While this move greatly assists passenger flow on and off the trams at busy times, the lack of motor traffic to 'isolate'

the zones has resulted in people running towards trams at stops against the 'Don't Walk' pedestrian signals. This resulted in the loss of a foot by a female passenger who jumped on the footboard of a moving tram leaving the southbound stop in Collins Street, lost her grip and fell under the tram. Subsequently, police cracked down on pedestrian foolishness for a week or two.

In a move to win public support for the retention of W type trams, a mock funeral was organised by Preston Depot on Sunday 17 May in Brunswick Street, Fitzroy. W class supporters from South Melbourne Depot also attended.

Work on the tramway extension from Airport West to Shoppingtown was started in June. Completion is promised by December 1992, which is also the month the next Victorian State Government election is expected to be held....

### Trams Return to Paris

At 5.35am on 6 July 1992, trams returned to the streets of suburban Paris. The 9km line is the first section of a system planned by the RAPT as a ring line around the French capital and runs from Bobigny to La Courneuve in north-eastern Paris.



*The tram 'station' at La Courneuve in Paris on the opening day, 6 July 1992. The trams continue for about 100 metres behind the photographer and reverse over a crossover for the return trip to Bobigny. The extension from this point to Saint-Denis railway station is expected to be completed by the end of 1992.*

JOHN HUMBLEY

All track is in reservation and the trams only cross the carriageway where there are traffic lights. There does not seem to be any linking of traffic lights and tram movement, and this does delay the service as there are more lights along the route than stops. The nine stops on the line are all arranged as low level stations, and the one at La Courneuve is in a roundabout with direct tunnel access to the metro. A metro connection is also made at Bobigny. As the cars are low floored and the stations equipped with low platforms, there is no step to board the vehicles. The cars have been built by GEC Alsthom and are very similar to those operating in Grenoble, regarded by many as the best in the world. Our correspondent reports they are very quiet, both from inside and out, and very smooth riding. The service speed is 19km/h

and a top speed of 70km/h is attained between stations.

The journey time is 20 minutes with a frequency of 7 to 9 minutes Mondays to Fridays, 10 minutes on Saturdays and 12 minutes on Sundays. The new service has delighted the local people and comments were most laudatory. The people who came up to our correspondent when they saw him taking photos were mainly residents proud to give a few details about their latest acquisition in public transport. The line is to be extended to Saint Denis where connection will be made with the RER, the Paris suburban rail network. Trams now receive good press reports in France and it is hoped that this will continue.

## C.O.T.M.A.

### Council of Tramway Museums of Australasia



From Bill Kingsley, Executive Officer.

COTMA Conference,  
Rose and Crown Hotel, PERTH,  
29 May to 4 June 1992.

Thanks Perth Electric Tramway Society for a really wonderful time. Thanks for the welcome, for the friendly assistance of your members, for the excellence of the organisation, for the variety of the programme, and for the beautiful sunshine.

Apart from PETS' own members, some 41 delegates from 10 other tramway museums attended the Conference. Two and a half days were spent in actual Conference sessions, but these were interspersed with visits to places of rail interest.

We were fortunate to listen to some very special guest speakers. Mr Stuart Hicks, Director General of Transport, spoke with a real sense of enthusiasm and involvement on the present and future operations of transport in Western Australia. Mr Graeme Vellacott of the Hotham Valley Railway shared with conviction the passenger oriented management and operational principles which have helped that railway to great success. Mr Allan Cotton, General Manager—Urban Rail, and Mr Noel Zeplin of the ARHS

entertained us as after dinner speakers.

We were most fortunate to have with us throughout the Conference Mr Les Jean, Manager — Tram fleet, Public Transport Corporation of Victoria. Les is the key contact between COTMA and The Met and many of us knew him well before the Conference. It must now be true that Les knows even more of even more of us! Les participated fully in our serious discussions, our conviviality, our friendships, and our enthusiasm for our dedicated heritage tasks.

Les spoke to us formally about the present scenario within The Met and the problems created by the forced retention of W class trams. It was our privilege, Les, to have you amongst us. We all hope that you returned to Melbourne satisfied with the value of your visit and with a real feeling for who we are and what we are all about. Thank you, PTC, for making Les available to join with us. Thank you, PETS, for your initiative in bringing Les to us.

There were a number of Papers presented by speakers from within COTMA museums, discussion workshops on many important topics, and a deliberate attempt to balance the programme between management and technical subjects.





*The Conference delegates' introduction to Fremantle 29 was a night ride from Mussel Pool to the Country Kitchen. This interior view shows the fine restoration work carried out on the car by PETS members.*

HOWARD CLARK



*COTMA Conference delegates pose beside FMT 29 at Whiteman Park on 2 June 1992.*

BARRIE KING

For visits, we had the permanent use of a new Transperth Mercedes Volgren/Porter bus (no. 1044), adorned with cartoon representatives of all the AFL football teams around its body (being trounced by the Eagles), and Transperth also provided an articulated Mercedes bus for an inspection of the Northern Suburbs rail line construction to Joondalup.

Transperth/Westrail provided a complementary new electric (EMU) train set (222/322) for a demonstration trip to Armadale. Thank you, Transperth and Westrail for your great support.

We enjoyed visits to the Electric Train Depot at Claisebrook and to Train Control at Perth Terminal. The ARHS Railway museum at Bassendean received us and we toured into the Avon Valley and then around to Fremantle in a Prospector railcar.

Then, of course, there was Whiteman Park, always a wonderful, magic place. Tram rides, tram drives, the inauguration after restoration of Fremantle 29, a train ride behind a South African steam locomotive, kangaroos, meals at the Country Kitchen. Quite extraordinary was the reaction of BTPS delegates when Ballarat 31 went touring the Park.

Perhaps the Conference will be best remembered (apart from all the above) for three things. In no particular order they were gunzels, lawn mowers, and food. The first were everywhere (or so it seemed), the second were mentioned often, and of the third there was a sumptuous quantity.

Thanks to Australian Airlines for their sponsorship. Thanks to the PETS Conference Committee for a huge task so well done (18 meetings and a heap of organisational duties). Special thanks to Barrie King as Chairman of the Committee for his magnificent leadership and to PETS President Lindsay Richardson for standing in as Conference Chairman when Barrie's health faltered just before the start of the festivities. We all hope that you are now well again, Barrie.

Finally, thanks to all who came, participated, and contributed. Without you there could be no Conference. Thanks for your total involvement and for your sharing. As a well-known delegate would have been heard to say, "Thank you, my sons".

To misquote a much-heard Perth voice, "The next station stop for this train is.... Bendigo". See you there in 1994.

## BENDIGO

### THE BENDIGO TRUST

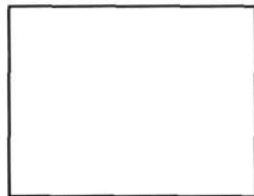
#### 20th Anniversary

On 16 April 1992, the Bendigo Tramways celebrated the 20th anniversary of the closure of the Bendigo tramway system. It was 20 years earlier, on 16 April 1972 that the last tram rolled down Arnold Street (now Tramways Avenue) into the depot to an unknown future.

It was decided to celebrate the anniversary as near as possible by re-enacting the last day the trams ran. The procession commenced at the Deborah Goldmine terminus using toastrack tram No. 17 and maximum traction car No. 26, this being the last tram into the depot 20 years earlier. No. 17 led the procession, complete with the Bendigo City Brass Band on board playing "Now is the hour...", the same tune they played in 1972 during the closing parade.

No. 26 followed behind carrying the official party, which included the Mayors of Bendigo and Eaglehawk. The two trams slowly made their way through the city, down Pall Mall to Tramways Avenue where No. 17 with the band went ahead to the depot. No. 26 was led down Tramways Avenue by a lone piper, Pipe-Major Neil Innes, to the haunting strains of "Will ye no come back again". Neil Innes played the same tune and re-enacted the same part he took in the closing procession twenty years earlier.

The day proved to be a very nostalgic and touching day, especially to many of the official party who had participated in the events of twenty years ago.





*Bogie dropcentre car 26 stands ready for the Anniversary function on 16 April 1992.*

DENNIS BELL



*Maximum traction car 26 follows lone piper Neil Innes along Tramway Avenue on 16 April 1992.*

JIM WILLCOX

# BYLANDS

Tramway Museum Society of Victoria



## Development Works

Work is still proceeding in Castlemaine where we are dismantling two Bristol buildings located behind the original red brick building of the

Castlemaine Technical School. The buildings have been completely stripped of all interiors and the roof sheets have been removed. We are now at the stage where the actual dismantling of the building shells can take place.



*W6 class 996 and X1 class 467 are seen at Preston Workshops on 10 April before their transfer to Bylands four days later.*

JEFF BOUNDS



*The scene at Bylands on 14 April 1992. At left is 467 whilst the crane is being prepared to unload 996.*

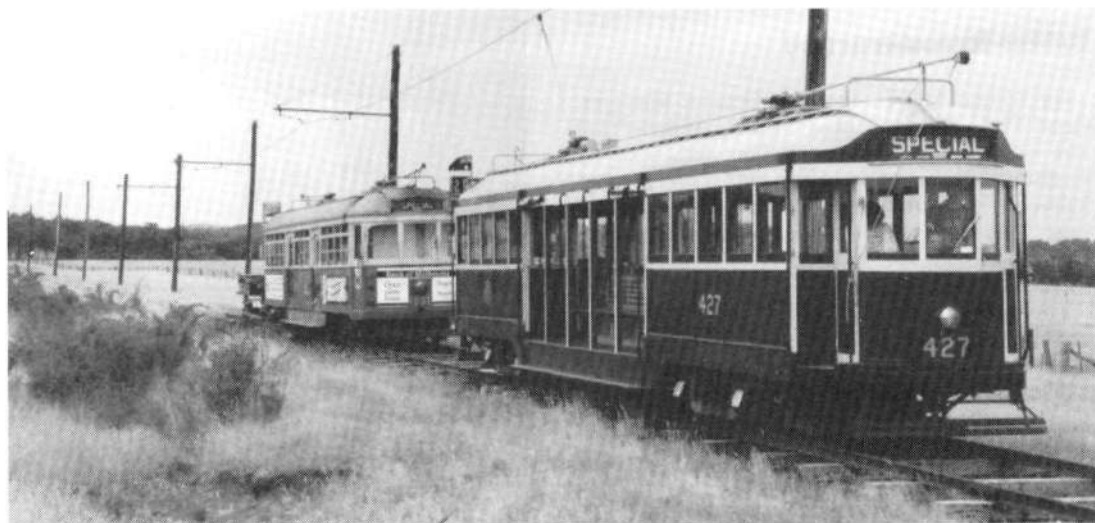
JEFF BOUNDS





*W1 at the northern terminus at Bylands during the Premier's visit on 12 March 1992. Standing at the rear are (L to R): Rod Adkins (Chairman) and Geoff Dean (General Manager); seated: Andy Hall (Deputy Chairman), Mrs Joan Kirner (Premier), Ian Rogers (Bradford Councillor), Max McDonald (local MLA); standing at left: Andrew Kirkup (The Met) and Ian Monroe (Premier's Press Secretary).*

KEITH KINGS



*The 'end of steel' at Bylands. W1 class 427 and W7 class 1001 at the extent of the main line in February 1992.*

RAY MARSH



*The Society's new tipper and tower wagon outside the two Bristol buildings at Castlemaine on 14 March 1992, shortly before dismantling work commenced.*

JEFF BOUNDS

These buildings will replace our old railway C van which is not coping at all well with the weather and the demands put upon it. The two Bristol buildings will make a vast improvement to our reception and sales area as well as make visitors feel welcome. We are therefore rather anxious to get them to Bylands and re-erected as soon as possible.

## Bridge Reconstruction

On Wednesday, 24 June our General Manager, Geoff Dean and Executive Officer, Andrew Hall met with Kilmore Shire councillors and engineers to discuss the crossing of the two water courses between McKertchers Road and the Wandong road. This work will be a joint construction of the Shire, VicRoads and the TMSV.

The general plan is to have these crossings reconstructed with pipes or similar and dispense with the original wooden trestle bridges which would require continuing costly maintenance.

## Tramcar News

X1 class 467 was returned to Bylands on Tuesday 14 April, the same day that W6 class 996 arrived. The trams were unloaded by Andrew



*TMSV General Manager Geoff Dean dismantles the floor in one of the Bristol buildings at Castlemaine on 14 May 1992.*  
R. LAMPRELL

Hall, Geoff Dean, Richard Lamprell, Jeff Stocco and Keith Kings.

Andrew, Richard and Geoff connected up the electrics and brakes so we could give the tram a successful test run that afternoon.

Work has proceeded on W class 220 at Bylands with Bob Serle and Rod Adkins finishing off the structural carpentry on the drop centre. Other work is slowly proceeding on restoring this car.

#### Other News

The trailer-mounted 'cherry picker' has spent the

last few months in Ballarat being worked on by Andrew's father, Maurie Hall. He has now got the 'cherry picker' working. The major problem was a break in the insulation on the field points. These have been repaired, new batteries purchased, and the rig will soon be returned to Bylands for use by the overhead department, or the painters.

Early in June, Geoff Dean and Andrew Hall took the PTC tip truck to Echuca to collect 50 sleepers from the Red Gum Works. This is one of the ways in which this vehicle is saving the museum money. Normally we would have hired a truck, as in the past, and this can cost around \$200 for the day.

## HADDON

### Melbourne Tramcar Preservation Association



#### Trackwork Stage 3

Work on packing and levelling the south west curve has now been completed and filling placed in position.

Weather at Haddon during winter usually results in the heavens opening up and therefore site drainage is a very important consideration. The opportunity has been taken during the course of track construction over the retaining wall to install additional PVC pipe drainage underneath the roadbed. This additional drainage will ensure that water will not lie on our track once it is constructed and is particularly important with the track being on the lower side of the slope on the property.

Craig Tooke and Tony Smith laid steel sleepers in position over the track formation and most of the seventy or so sleepers have had the necessary holes for track fastenings drilled in them. The reason for the additional holes being required in the sleepers is because they are ex-railway sleepers designed for broad gauge track, hence the need for modifying them to accept standard gauge track.

Arthur Ireland and Tony Smith have been busy commencing modification work on the 75 lb/yd railway track crossing which will be used at our double track terminus. This project includes building up and re-profiling the flangeways to

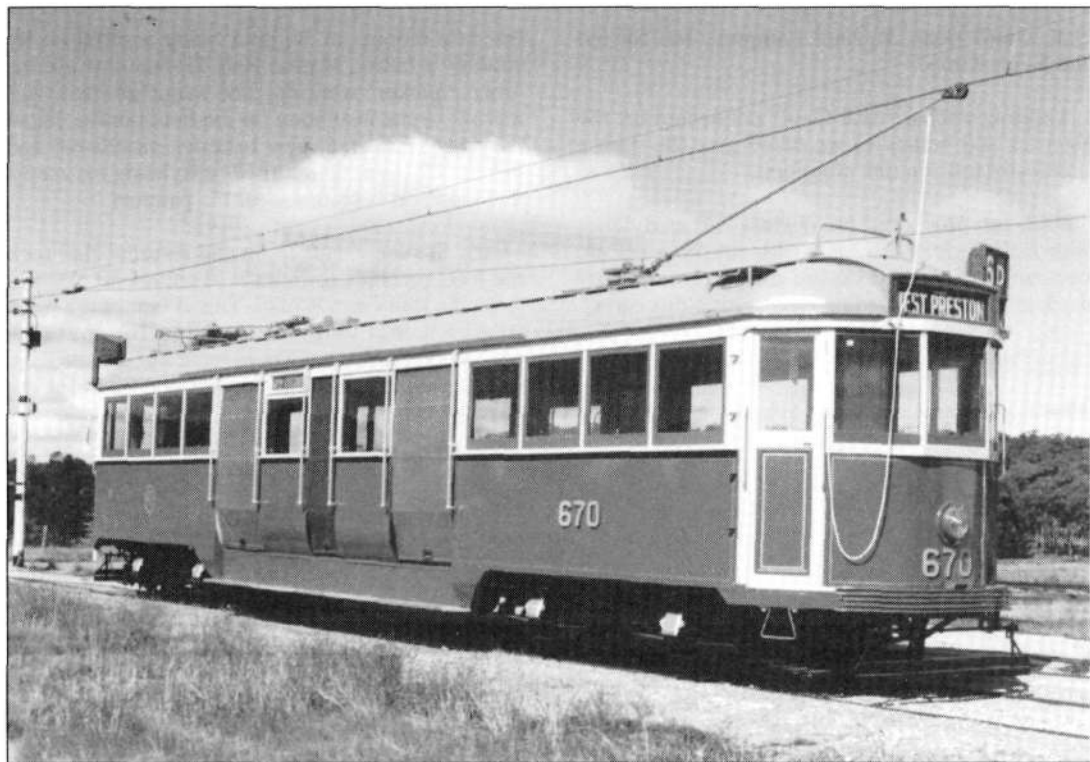
allow tramway profile wheels to go through the crossing.

Work has also begun on the terminus points which has already proven to be an interesting and patience-testing task. Problems were experienced in removing the pins that hold the spreader bar in position and, after many attempts to heat the pins and knock them out, both blades with the spreader bars attached were transported to a local engineering firm, Miller Bros, who were also unsuccessful in removing the pins. The only solution was to drill the pins out and manufacture new pins. Miller Bros drilled the pins out and Ted Ireland has turned up new pins at home on his lathe. This project can be summarised as one of those jobs that would try the patience of a saint!

#### W2 Class 407

Arthur Ireland, assisted by various other museum members, continues to make good progress in the restoration of this tram.

Recent work undertaken includes the installation of the new metal gutters along the side of the tram. Members involved with this work were certainly very pleased when the job was completed. 228 screws were used to fasten the lengths of guttering in position and no doubt they will not be volunteering to replace the gutter again if ever this should be necessary!



WH Class 670 on completion of restoration work.

NOEL GIPPS



Steel sleepers in position on the main line track formation.

CRAIG TOOKE

New timber floor slats have been made and installed in both motorman's cabins and in the dropcentre of the tram to replace ones either damaged or in poor condition.

#### **W4 Class 670**

Restoration work on this tram has now been completed following the lining out of the saloon panels and the positioning of the numbers and M&MTB monograms.

We are very proud of our achievement in restoring this tram, particularly as it had suffered from outside storage for a long period, which was not by choice. Congratulations to all those involved in the project and no doubt we have all gained further knowledge for future restoration projects.

#### **Shed Maintenance**

The guttering along the north and south sides of the running shed has for some time been showing its age and was in need of replacement. Tony Smith, assisted by Con and Frank Schroeder, have replaced all of the guttering on both sides of the shed and installed new PVC downpipes.

#### **Pit Pump**

John Withers and Tony Smith have completed

installation work on the pit sump and pump system in the running shed. During the course of the work, the opportunity was taken to install a 32 volt outlet in the tram servicing pit to allow low voltage lead lights to be utilised. The pit pump, which operates on 12 volts, quickly drains water out of the sump via a drainage system to outside the shed.

#### **Site Work**

Additional filling has been purchased and spread around near the museum entrance to allow easier access for large vehicles, such as trucks and coaches, as it was found the existing driveway was not quite wide enough.

An additional storm water drain has been constructed on the south east corner of the workshop building to improve drainage in this area.

#### **1992 COTMA Conference**

The Association was represented at the Conference by four members led by President Craig Tooke, all of whom found the Conference both enjoyable and informative.

We would like to thank our hosts, the Perth Electric Tramway Society, for a job well done in organising the Conference.

## **WHITEMAN PARK . . .**

### **Perth Electric Tramway Society**



Two very significant milestones in the development of PETS and our Museum were passed recently. First, the successful operation of former Fremantle Municipal Tramways 1921 bogie saloon car no. 29, after a long drawn-out period of restoration work with its associated setbacks and frustration; second, the hosting of the highly successful 11th Biennial Conference of COTMA. Associated with both of these major achievements were a number of "firsts".

#### **Fremantle 29**

From the beginning of April, the completion of no. 29 became a top priority in order to have the car operating in time for the COTMA conference. The carbarn was a hive of activity as the work moved into top gear and members of the PETS workforce devoted every possible spare hour to the remaining tasks.

With the car body fully supported on stands and



both trucks moved clear, several activities were often in progress at one time. Under the guidance of Noel Blackmore, the built-up rubbing plates and bolster plate were installed at the no. 2 end; work on the airlines and motorman's brake valves was completed; all under-floor metal brackets and fittings were rubbed down and painted black; and the trolley bases were relocated to the correct positions. Efforts were then directed back to the electrical circuits and controllers.

Meanwhile, Michael Stukely's team, working on the car body, installed the 28 amber-coloured upper-quadrant saloon windows in quick time and then concentrated on the associated filling and repainting of window frames, the completion of modifications to the livery, the installation of the remaining fittings, and other finishing touches including a good clean-up both inside and out. The apron numbers were repainted in the correct size and style, and numbers were renewed on the motorman's bulkheads and on the saloon sliding doors.

On Sunday 17 May, the major under-body work had been completed so the trucks were again rolled into place and the body lowered onto them using the hydraulic jacks. The necessary adjustments were made and all was ready for a test of the compressor and airlines. At 6.12pm, the trolley pole was raised onto the running wire over no. 3 road, and the compressor switch was thrown. For the first time (in situ below the car), the compressor burst into life and was successfully tested. This was cause for great excitement!

During the following week, all axleboxes were repacked, adjustments were made to the brakes, life-guards were attached, and the electrical connections to the newly-refurbished controllers and the motors were completed. All the electrical circuits apart from the lights were now tested, successfully.

Late on Saturday 23 May, the anticipation was building up as the time came to test the connection of the motors. At 6.35pm everyone



*For the Classic Car Show on 5 April, trams ran independent shuttle trips, terminating at Stockman's Crossing (Triangle Junction) at newly installed low level platforms. Here, poles are changed for W2 class 393 to return to Mussel Pool; SW2 class 426 is on standby at right.*

LINDSAY RICHARDSON



*Repairs are carried out at Horse Swamp Curve after the track was damaged by machinery crossing on 14 April. Tie-bars are laid out ready for installation. Earthworks for the new road construction at Bennett Brook are visible in the background.*

LINDSAY RICHARDSON

stood back to watch. First from one controller, then from the other, Noel Blackmore tested the operation of the two motors individually, in each direction, and then in combination. During each test the car moved a few inches forward or back. The tests were successful, and the reality now began to sink in — FMT 29 had at last moved under her own power.

On Sunday 24 May, further adjustments were made in preparation for the big event — the first track test. Late in the day our WALRPA friends, who had been keeping a close watch on recent progress, converged on the carbarn fan. No. 29 was fired up. PETS members downed tools and moved out to the fan. At 5.50pm the big moment arrived: with Noel Blackmore at the controls, 29 rolled out through the carbarn doors.

A final check was made and everyone excitedly boarded. No. 29 then made her historic first trip down the main line to Bennett Brook (first road crossing) and return. She was put through her paces along Swamp Straight and passed with flying colours; some astonishment was expressed at the high performance of the Kagoshima 77E trucks, and the wonderful 'trammy' sounds caused great delight.

For the first time in 34 years (since the closure of the Perth tramways in 1958), a Western Australian tram was again carrying passengers — a dream come true.

This was followed by several round trips of the tramway, with members experiencing the thrill of a first drive. memories came flooding back for many; probably most of all for former FMT employees, PETS members Arthur Chadwick and Eddie Vagg.

During the next week, replica roof-mounted destination boxes designed by Ray Blackmore were installed — here again, the body of sister car FMT 28 proved to be a most valuable source of information concerning the positions of the boxes. further adjustments were made and the lighting circuits were completed and tested.

No. 29 made her first official appearance during the COTMA Conference visit to the Museum in the evening of Sunday 31 May. Viewed from near the Mussel Pool railway station, she made an unforgettable sight as she coasted down the straight from the carbarn towards the Mussel Pool tram stop with her lights shining through the amber glass in the saloon windows.

FMT 29 will be officially commissioned on Sunday 16 August. Later this year, on Sunday 8 November, she will play a central role in the commemoration by PETS of the 40th anniversary of the closure of the Fremantle Municipal Tramways.

### Eleventh COTMA Conference

The 11th Biennial Conference of COTMA was held at the historic Rose and Crown Hotel, Guildford, between Friday 29 May and Wednesday 3 June. Forty-two representatives from 10 museums in the eastern states and New Zealand travelled to Perth for the Conference; in addition, a large contingent of PETS members attended.

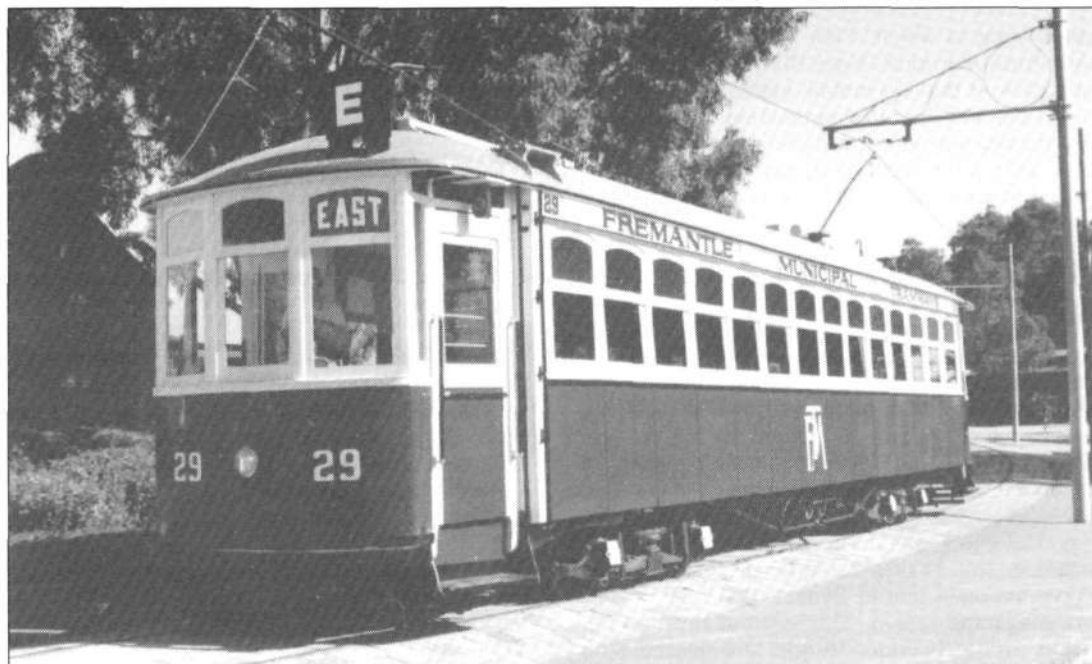
During the Conference proper on the Sunday-Monday, a wide range of subjects was covered in the prepared Papers and Workshop sessions. Without exception these were well presented and reflected the high level of professionalism of the presenters and the Museums concerned.

Guest Speakers included Gavan Troy MLA (Official Opening); Stuart Hicks, Director-General of Transport, WA (Keynote Address);

Les Jean, Manager Fleet, PTC of Victoria (The politics of tram and spare parts acquisition); Ken Gow, Willis Engineering, WA (Workshop – Manufacturing wheelsets, truck frames and bogies); and Graeme Vellacott, Hotham Valley Tourist Railway, WA (Promotion). Noel Zeplin, ARHS (WA Division), gave an illustrated talk on the history of Perth's Inglewood tram route on the Saturday evening. At the Conference Dinner (Tuesday), Allan Cotton, General Manager Urban Rail, Transperth, spoke on his experiences in public transport developments overseas and in Perth.

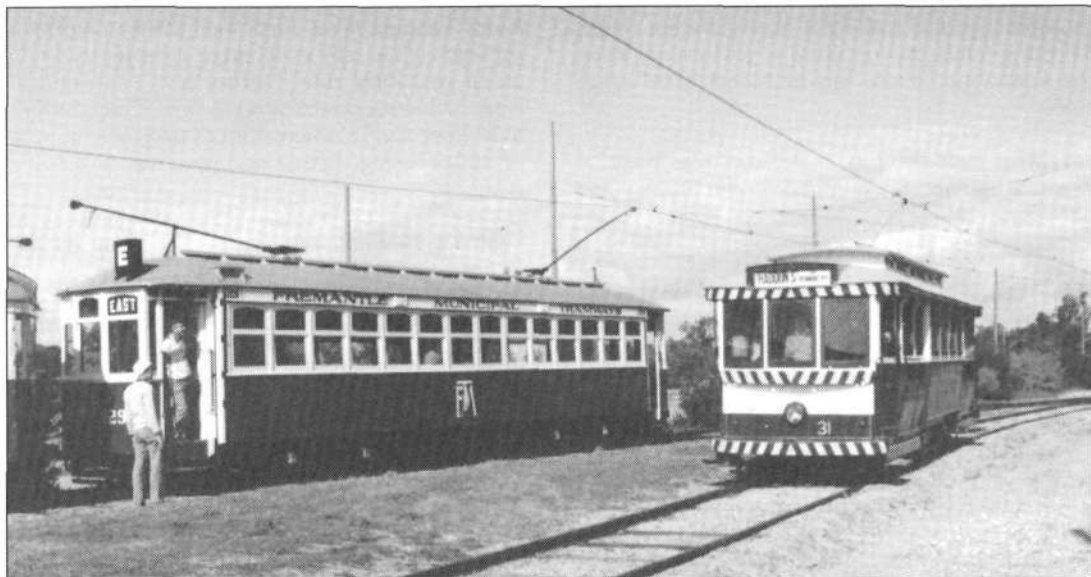
The Museum Progress Reports on the Monday evening were run to a strict time limit and were thoroughly enjoyed by all — who will ever forget the BTMS lawnmower?

Among the highlights of the Conference were several visits to Whiteman Park. The first of these, in the evening of Sunday 31 May, included a ride on WALRPA's steam train around the loop and back to Mussel Pool. Here the group boarded Fremantle tram No. 29 and travelled to the Country Kitchen in the Village for dinner. This was followed by night tram rides, with Lindsay Richardson coordinating tram movements. A



*Newly restored Fremantle Municipal Tramways car no. 29 poses in the Village at Whiteman Park on 2 June 1992.*

MICHAEL STUKELY



*On Thursday 4 June, COTMA Conference delegates enjoyed tram rides and driving at Whiteman Park. Here, FMT 29 has just arrived on the outside road at the entrance, and Ballarat 31 is moving down the inside road.*

record was created when six trams (Fremantle 29, Ballarat 31, Melbourne W4 class 674 and W2 class 393, 368 and 329) were lined up near Bennett Brook for photos.

On Tuesday 2 June, the WA Shooting Complex was the venue for the Conference General Meeting. The official Conference photograph was taken in the Village with FMT 29. After lunch at the Country Kitchen, the group was conveyed back to the Entrance on no. 29.

Wednesday morning (3 June) was set aside for tram rides at the Park. On the Thursday, the trams were again running, and new records were set with all seven operational trams in convoy (the six listed above plus Melbourne SW2 class 426) visiting the Entrance, Village and Whiteman Village Junction (formerly Central Station).

Other tours held before and after the Conference proper included inspections of the Northern Suburbs Rail Project, the electric railcar depot at Claisebrook and the Westrail Control Room at East Perth; a non-stop run from Perth to Armadale by electric train; a visit to the ARHS Rail Transport Museum at Bassendean; and a trip on a Prospector diesel rail car from Midland to Moondyne (in the Avon Valley), Leighton Yard and Fremantle Esplanade. Transperth generously supplied free of charge an articulated bus for the Northern Suburbs tour and an EMU set for the Armadale trip.

Needless to say, PETS members and the Conference Committee in particular (Barrie King, Chairman; David Brown, Kevin Clarke, Robert Pearce, Lindsay Richardson, John Shaw and Michael Stukely) are feeling very relieved now that it is all over and we can return to a rather more normal pace to catch up on some of those outstanding tasks. However, there is also a strong sense of satisfaction that the conference was a great success in all respects.

### Operations

On Sunday 5 April, the Classic Car Show was held at Whiteman Park for the first time. Around 20,000 people gathered at the Park to see some 1000 cars from 40 classic car clubs which were on display. Park Manager, Alan Brien, described this as the most successful public day the Park has had.

Four trams were in service and a different method of operation from those used at previous major events was tried. Three cars ran independent shuttle legs which terminated at Stockman's Crossing (formerly Triangle Junction): W2 class 393 ran to Mussel Pool, W4 class 674 to Village and W2 class 368 to Entrance. SW2 class 426 made extra trips Village-Bennett Brook and Bennett Brook-Entrance as required. This operation overcame the problem of passengers staying on board continuously for

multiple trips and making it impossible for others to board, which has occurred at past events when the Park gate charge has included "free" tram rides.

Traffic over the Easter holiday was busy as usual, with two cars required on the Sunday and Monday.

### Track

On 14 April, the track at Horse Swamp Curve was damaged by machinery crossing on a special roadbase ramp while transferring topsoil to the new picnic area at Mussel Pool East. The outside rail was badly buckled and dogspikes ripped from six sleepers. Lindsay Richardson's team, together with a work team supplied by the Park, repaired the damage by despiking seven sleepers and replacing two of them, crowing the rail, installing new screw spikes, restoring the camber and installing 10 new heavy-duty tie bars at 3m spacing along the curve. As a result, this is now a very good section.

In late April, contract maintenance work began on the section between the Village level crossing and Triangle North. Next, the sharp Triangle

North-Triangle West curve was lifted to a 50mm superelevation, and joints were crowed to give a much smoother ride. During May, substantial work was done on the straight from Triangle East to Bullpen Curve, where 80m of track was in need of resleepering, lifting and packing, and some rerailing.

On 13-14 June, regauging was done on the Bennett Brook East curve. On the carbarn fan, the 1 to 2 Road points received attention to a collapsed section. Richard Gilbert, Bill Kingsley, Len Millar and Bruce Worthington assisted the PETS track team with this work.

General

The rewiring of the lighting circuits and replacement of the above-floor traction cables in W2 class 329 was completed in late May. This car is now fully equipped for night running. The lighting circuits of SW2 class 426 are now being renewed.

David Brown has produced a set of display boards with information and photographs relating to the Western Australian tram bodies in the car storage shed.



*At the Village, FMT 29 leads a record lineup of seven trams on 4 June. Visible behind her are Melbourne SW2 class 426, W2 class 329, 393 and W4 class 674.*

MICHAEL STUKELY



Peter McPhee is progressing well with respraying the ex-MTT tow-truck. It is to be returned from yellow to its original green and cream livery.

New amenity blocks are being constructed by Park management in the Village opposite the

## LOFTUS ...

### South Pacific Electric Railway

#### Works Report

Following completion of the concreting of the scissors crossover, our trams have been negotiating it without incident. The frequent usage appears to have 'bedded it in' and our traffic operations staff are very pleased with the final result. The final touches will shortly be applied when the four covers for the pits containing the underground point levers are completed. Mike Giddey is well advanced with the manufacture of these covers, three of which are reproductions of the original style.

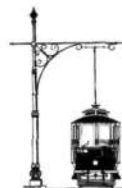
Elsewhere in Tramway Avenue, one large cast iron street lamp base has been erected and a Sydney Municipal Council street electricity distribution box has been installed. These items are now being painted by John Matts.

Staff and students from the St George & Sutherland Shire Regional Evening College have been continuing their work on extending the footpath brick paving in Tramway Avenue. Breaking up and removal of the rock shelf which previously blocked progress should now allow this work to be completed. Derek Butler has also recommenced work on his rock wall and is making good progress.

Good progress is also being made on the rubble drain and on backfilling behind the retaining wall at the north-east corner of the display building. Bob Cowing supervised the pouring of concrete to the final level for the return wing of the retaining wall on Monday and Tuesday 4-5 May. He also arranged with Alex Canini and his earthmoving machinery to remove the large rock pile inside the building extension, which has blocked progress on tracklaying for some time.

With this obstruction removed, Wayne Armitage

Country Kitchen and at the expanded Mussel Pool East picnic area (east of the Bennett Brook tram stop). The road layout at Bennett Brook is being rebuilt to give motorists better visibility at the two tramway crossings.



quickly arranged for the extension of Road 6 which is nearing completion. Work on the extension of Road 5 will follow. An area has also been excavated beside Road 1 for a concrete slab to be poured to provide additional storage space for heavy items such as the traction motors and compressors for our yet to be restored trams.

Further work on the Tramway Traffic Office roof, above the substation, has been undertaken and it is expected that the tiling will be carried out soon.

#### Restoration Work

The restoration of R1 class 1971 is now rapidly nearing completion, with the successful testing of the air brake system being performed on Saturday 16 May. Only a small amount of varnishing is required to be completed on the two end vestibule bulkheads, some minor items refitted and the bogies replaced under the car after inspection by the State Rail Authority's Accreditation Unit, and it will be ready for its grand re-entry into service.

R class 1740, which is another unfortunate victim of being left out in the open over the past few years, is now in the paintshop and is receiving a major touch-up.

Further progress has been made on O class 957, with the south end drivers' cab having been completed, even to the fitting of a destination box. The flooring has been completed and all seats in the four enclosed centre compartments have been restored or remade and refitted.

Jim Jowett has been busily manufacturing new footboards for our next restoration project, O/P class 1089, and he is also well advanced on stripping the deteriorated woodwork from the car.

Our CSO workers have also been very busy, and our boilermaker has been progressing well on repairs to car bumpers and repairs to the rusted frames of our trams under reconstruction. Barry, our panel beater has completed the body work on the tower wagon and commenced spray painting. Barry has now completed his CSO time but has very kindly volunteered to continue with the project in his own time. Our thanks are due to Barry for his assistance and excellent workmanship in this project and for contributing his own time to ensure its completion.

### National Park Line Update

The Roads & Traffic Authority (RTA) commenced upgrading the Princes Highway level crossing in cold, wet and very miserable conditions at 7.30pm on the evening of Friday, 22 May. This involved complete closure of first the northbound lanes of the highway and later the southbound lanes, with traffic being diverted via Loftus Avenue. This must be a history-making event — the first tramway works performed in a

Sydney public street by a Government Authority since when...1960 or earlier?

So far the RTA has removed the former heavy rail crossing and superelevated the highway. The eastern edge is now about 500mm higher than the original rail level. A contract has been let to a private firm to manufacture the replacement prefabricated concrete tramway crossing. This crossing is being cast on site in two sections and will be lifted into position late in July.

The amount of local support for our National Park extension has been evident in recent weeks, following the removal of the railway crossing. The number of reports and telephone calls received from concerned local residents fearing that we had been betrayed by the RTA, SRA and others was very reassuring and we were pleased to explain the real story to them.

Negotiations regarding the details of the transfer of the line to the Museum management are continuing with CityRail. At this stage, CityRail



*With its drivers' cab reconstructed and refitted, O car 957, at left, shows the progress from many hours of restoration work. Sister car 1111 is at right.*

BOB MERCHANT



*The National Park line level crossing has been removed and the road cambered. The new concrete crossing is being constructed just 100m to the right of this scene, which is looking north towards Loftus.*

BOB MERCHANT

has agreed to our using the former electrical sectioning hut adjacent to the Princes Highway and the electrical feeder cable alongside the line to boost our power supply. We are also expecting confirmation of disconnection of the line from the CityRail network, removal of remaining live 1500 volt dc overhead and SRA signal circuits in the near future.

Negotiations between the Museum and CityRail's Illawarra Regional General Manager, for the replacement of the overhead wiring and missing span poles are nearing a satisfactory conclusion. At a meeting between both parties on 2 July, CityRail took details of our requirements and it is anticipated the matter will be concluded soon.

Joint action by the Museum, the RTA and CityRail will occur in the near future to adapt the Princes Highway warning lights for tramway operation. This will include the provision of repeater, or flashing amber, lights on the approach sides of the crossing, to provide advance warning to motor traffic. These are being funded by the RTA. The Museum has recently obtained a micro-processor to control the tram-driver-actuated level crossing warning lights and repeaters.

An initial survey of the southern extension of our line to link up with the former railway line has now been completed.

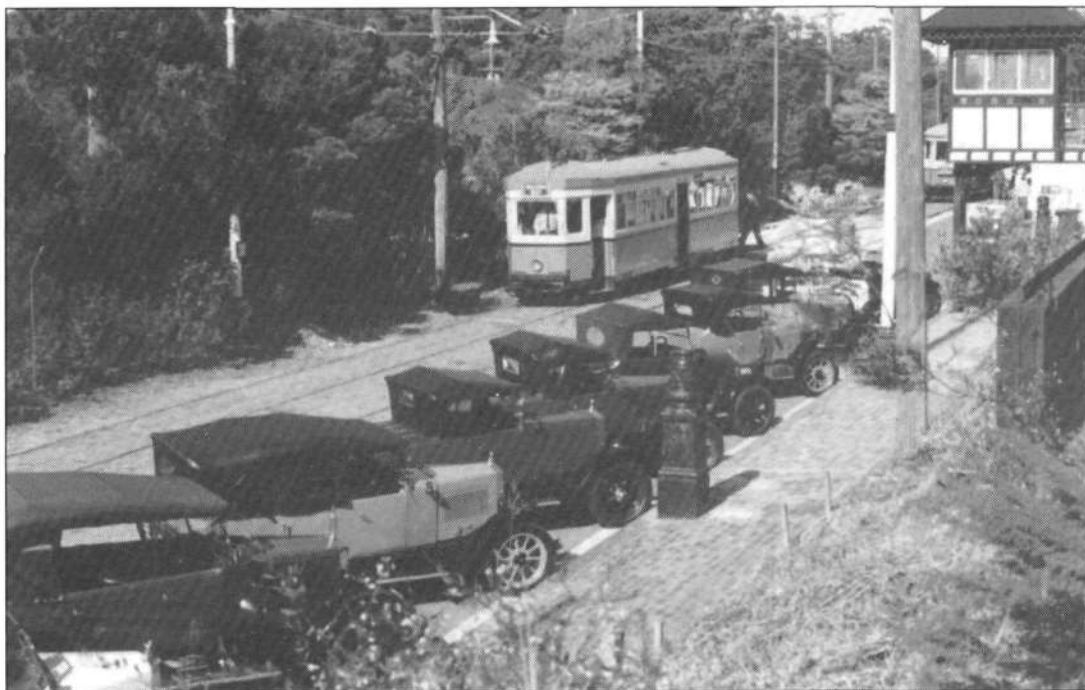
Finally, a consignment of 800 sleepers, purchased through the Zig Zag Railway Co-op. Society, portion of which are for construction of the 140m missing link between our current southern railhead and the point where we will join the National Park line, has arrived at Penrith and awaits delivery to our site.

Meetings have been held with the RTA, Telecom and Sydney Electricity to finalise details of services associated with the level crossing and power supply for the National Park line.

Local State MP, Chris Downy, in a recent letter to the Hon. Bruce Baird MP, Minister for Transport and Tourism, expressed his concern at the delay in finalising this matter and expressed his desire to see our trams operating to the Royal National Park by the end of the calendar year.

#### **Off-Site Activities**

Saturday, 20 June was a busy day for several



*Tramway Avenue during a visit by members of the Morris Vintage Car Club. R1 class 1979 is making a service run in the background.*

DICK HALL

members of our workforce, who were engaged in collecting a number of tramway relics from various areas of Sydney.

Some time ago, we wrote to the State Transit Authority for permission to remove a redundant clock post from the former Birchgrove terminus and a phone call was subsequently received from the Area Manager, advising that we could have this item and also enquiring whether we would like another small waiting shed.

The waiting shed was on the western side of Glebe Island Bridge and formerly served the Ryde line. However, as a result of traffic diversions in the area, it was no longer required. It was to have been demolished had we not been interested, and the decision was made to obtain it for preservation.

The waiting shed was dismantled without too much difficulty and is now stored until a decision is made where to re-erect it. It is possible that it may be utilised at the terminus of our future Sutherland extension. Unfortunately, the ever-

present risk of vandalism rules out any thought of it being erected at our Royal National Park terminus.

The opportunity was also taken to fulfil an agreement with the Truck and Bus Museum at Tempe, to exchange two double deck buses and this resulted in double deck bus 1694 from our collection being exchanged for Leyland double deck bus 2086. Bus 1694 was of interest to the HCVA as it is of an unusual body style, having been constructed on a single deck bus chassis.

We have also recently obtained a mercury arc rectifier from State Rail and the collection of this item is being arranged by Laurie Gordon.

#### **Nagasaki 1054**

Arrangements are still proceeding for the shipping of this tram from Japan to Melbourne, where it is now expected to arrive during August.

# ST. KILDA . . .

## Australian Electric Transport Museum



### Track

Track work continues to occupy the time of a number of members. We have now passed the halfway point in our programme to replace all the second-hand sleepers laid in 1973 with new sleepers. We have relaid 1294 of our 2560 mainline sleepers since our track renewal programme commenced in 1980. However, a concerted effort has seen much of this work completed in the past two years. The track to pole 24 (two thirds of the way along the lake) is substantially finished, our latest relay job has been the renewal of most of the Samphire Road curve. We have calculated that once the whole of the track has been upgraded, maintenance will need to continue at the rate of 100 sleepers per year on average. This is within our own capabilities.

### Tram Restoration

After some years of concentrating on site activities (bodyshop and track), we are now returning to tram restoration. Toastrack B 42 has been taken off its truck for replacement of the steel plating on the sides.

Cab timbers have been replaced with new timbers obtained from Marleston TAFE by Chris Dunbar. Some minor parts have been cleaned, primed and painted ready for refitting. The ceiling veneers are now being replaced with new ones. The new veneers have been cut and are being worked on. Preparation has begun on the new lighting circuits and some wiring has commenced.

Timber has been delivered for steps, barrier rails and barge boards (for the top of the seat stiles).



*John Pennack (left) and Ian Seymour replace sleepers at Mangrove Loop. Works car W2 class 354 has brought both men and their equipment to the scene. The pneumatic track tamper "fat boy" is in the right foreground.*

JOHN RADCLIFFE



As previously reported, the floor of the eastern saloon of car 111 was removed and revealed major structural damage to the chassis. No further work has occurred, pending a decision by our 'experts' on the best way to tackle the problem.

### Trolley Troughing

Trolley troughing (ex City Depot) has been erected on Road 2 in the workshop and the old stranded steel wire has been replaced with grooved copper wire. The task was carried out over two days. Each section of troughing was winched up to the roof beams by means of rope and pulley blocks at each end. The original City Depot steel hanging brackets were used to support the troughing while pine joiner bits were also used.

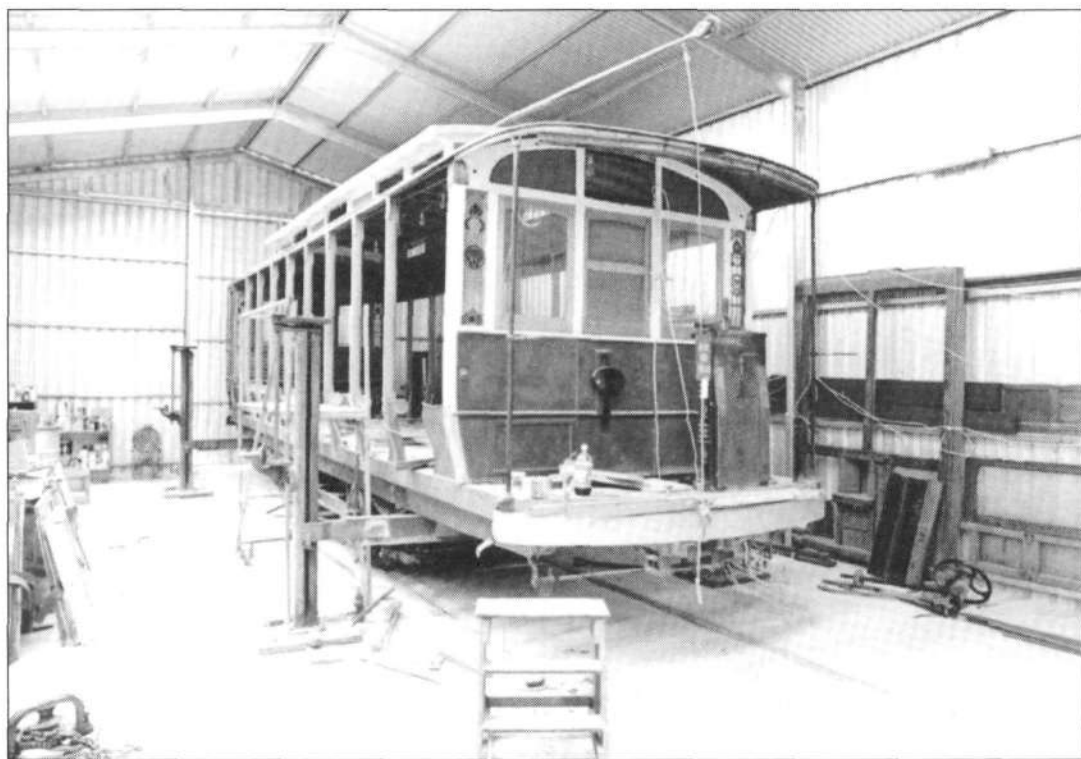
The wire was also extended to the front of the bodyshop to provide extra running length for shunting. A permanent feed for the welding shop air system, which operates three compressors and a welder, has been tapped from the new overhead.

### New Service Vehicle

Ian Seymour is constructing a small self-propelled diesel-electric shunter on one of our spare W2 trucks. The project is being carried out as part of Ian's studies at Regency TAFE College. The shunter is powered by a Zetor tractor motor driving a Crompton generator (ex Gladesville Bridge, ex SPER, ex AETM's first power generator). The motor and generator are mounted transversely on the W2 truck.

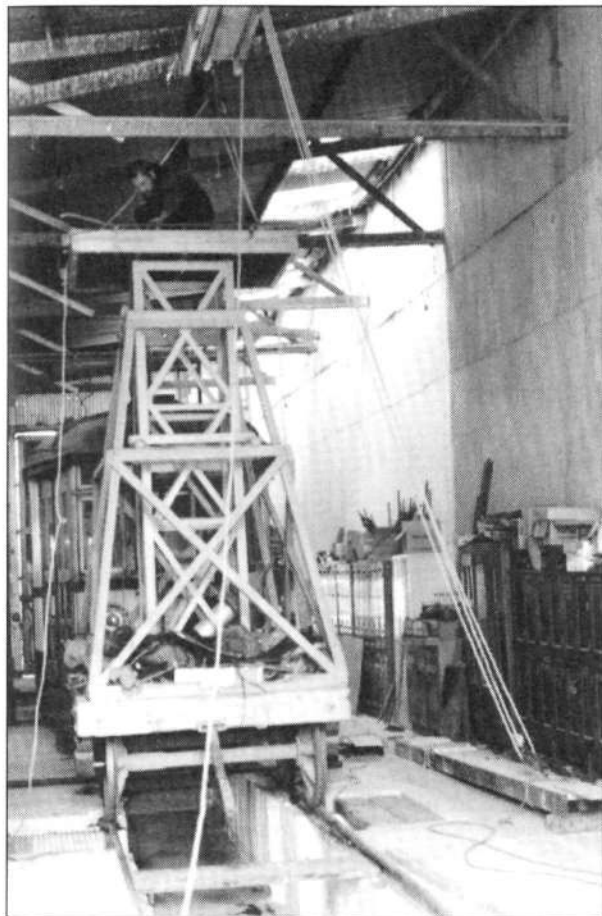
Braking is provided by a brake cylinder off a W3 truck mounted on two longitudinal channels pushing the arch bar of the truck through a brake lever operating vertically. A CP27 compressor, driven off the connecting shaft between the generator and the tractor motor, will provide air to the brakes. Speed control will be achieved by controlling the tractor motor and regulating the generator's magnetic field.

This interesting service vehicle will be used in situations where it is difficult or dangerous to use the tractor, eg: along the track during power



*Toastrack 42 is up on the jacks in the bodyshop for replacement of its steel side plates.*

PAUL SHILLABEER



*Ian Seymour is perched on top of the tower wagon ready to hoist another section of trolley troughing into position on road 2 of the workshop.*

PAUL SHILLABEER

failures, around point lever blades or straddling the workshop pit.

### **Theft and Vandalism**

Generally, in its 33 year history, the St Kilda Museum and tram line have been relatively free from major acts of theft and vandalism. However, 1992 has provided us with two disastrous events.

Firstly, in February we suffered a break-in to the main depot and a graffiti attack. Cars 186, 294, 303 and 354 were covered in graffiti. Cars 303 and 354 also received broken windows. The exterior of the Display Gallery, cafeteria, main depot, advertising beacon, signal cabin and horse box were also defaced to varying degrees.

Members worked hard to ensure that cars 186 and 294 were available for service as usual on the Sunday, while all evidence was removed from museum buildings. Works car 354 has been repainted in a darker (similar to SEC) green supplied by Pichi Richi Railway Society, while further work is required to return Birney 303 to traffic.

On the second occasion, almost 700 metres of our copper overhead wire was stolen over two separate nights during one week in May. The first night saw the theft of approximately 300 metres of overhead from near the playground on a Tuesday evening. Members arriving early on the following Saturday morning to replace the overhead discovered that a further 400 metres of wire had been stolen from the lakeside track. Ironically, this theft occurred on the Friday evening of our Annual General Meeting (held many kilometres away at Hackney Depot). Once again, members worked hard to ensure that a service was able to be run as usual on the Sunday to the town, and to the playground on the following Sunday.

It is an absolute credit to the dedication of our members that our service to the public was maintained following these disasters. It has not been possible to replace the last 150 metres of overhead to the beach as we have exhausted our supply of copper wire. Trams now terminate at the playground stop.

### **Annual General Meeting**

The 35th Annual General Meeting of the AETM was held in the Goodman Building at Hackney Depot on 22 May 1992. The Executive Committee comprises Colin Seymour \_ President, Paul Shillabeer \_ Vice President, Ron White \_ Secretary, John Hoffman \_ Treasurer, Jim Burke \_ General Manager, Max Fenner \_ Operations Manager, Kym Smith \_ Rolling Stock Manager, Ian Seymour \_ Site and Safety Manager and John Pennack \_ Track and Overhead Manager.

It may be our last AGM at the former administration building of the Municipal Tramways Trust. Hackney Depot will cease to exist from about mid-August 1992 when the new Mile End bus depot opens. Although the heritage-listed Goodman Building will remain, it will be handed to the National Trust. The remaining parts of the once magnificent tram barn (Roads 1-6 and 22-24) which was the focal point of Adelaide's tramway system from 1909 to 1958, and is also heritage-listed, will make way for botanic



*Our recently constructed track spraying unit sits behind the set of maximum traction trucks, for eventual use under car 118, on the short length of connecting track between the workshop and the bodyshop (just seen at right). The welding shed is in the background.*

PAUL SHILLABEER

gardens. The Goodman building is named after Sir William Goodman, who was Chief Engineer and General Manager of the MTT from 1908 to 1950.

#### Other News

Repairs and repainting are being carried out on the Inspector's cabin (ex Victoria Square). This building is now used as the AETM's dispatcher's office.

An excellent colour photo of H1 type 381 appeared on the front page of the Adelaide

Advertiser on 6 July 1992 as part of an article on a "Radical plan for new-look Adelaide". The development plan for the next thirty years featured, among many recommendations, a proposal to extend the Glenelg tramline to the Adelaide railway station with branch lines to North Adelaide, Prospect and Mile End. In looking 30 years ahead, many of us can't help but remember back 30 years! In the meantime, forgive those of us who are sceptical about yet another transport plan!

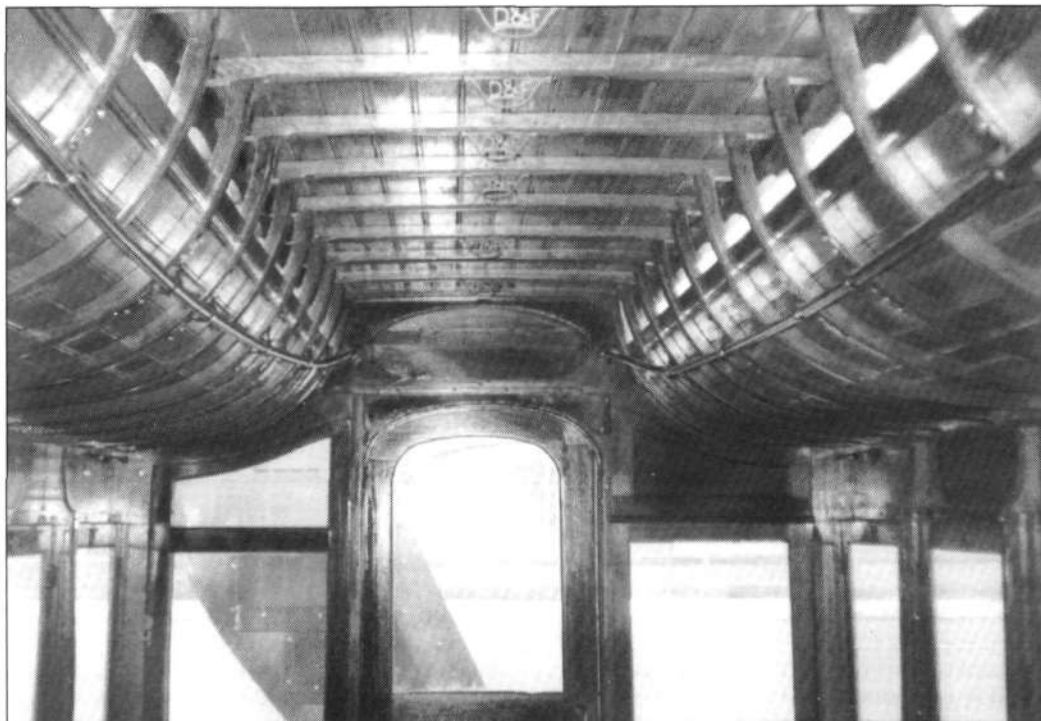
## BALLARAT . . .

### Ballarat Tramway Preservation Society

Work on both the horse tram and museum projects continues to inch closer to completion. The handrails on the horse tram are being assembled, which involves a fair amount of pipe bending and cutting of threads. A balance has to be struck between making the handrails exactly



the height that they were or slightly higher to allow for the greater height of today's public. Looking at century-old photographs, it can be seen that the people can all stand upright in the doorways and under the end canopies, but in the 1990s everything seems to be too small with everyone hitting their heads or finding handrails



*Interior of Ballarat horse car No. 1. The 'Duncan & Fraser' brackets for the leather bell strap (still to be fitted) can be seen along the roof centre line, while the special roof truss rods are apparent, tensioned and positioned for the double deck vehicle. January 1992.*

STEPHEN MCCARTHY

uncomfortably low. Somehow, historical accuracy has to be preserved without making the exhibits downright dangerous.

With the museum area all but completed, attention has been turned to connecting up the storage area above the crew room with the smaller area over the change room with a catwalk, and both areas with ground level via a permanent staircase, replacing the entirely unsatisfactory access by ladder. A general depot clean-up is planned.

The April school holidays produced a rash of failures that tried the patience of all. On Easter Sunday, No. 28 dewired and knocked a fair length of contact wire out of the ears, which took the rest of the day to repair; on Monday, No. 40 had a failure of the No. 1 motor, which will keep it sidelined for at least the end of the year; on Tuesday, No 14 had a dewirement and snapped its trolley pole in two; on Wednesday, No. 13 ran out of air in the parade and had to be brought in on the handbrake. This was later diagnosed as worn brushes in the compressor, the first time we had

struck this problem, though six days later No. 14 did exactly the same thing. That's the sum total of our failures in traffic this year, and it all happened in the space of ten days!

With some of the long-term jobs nearing completion, more time being spent on the restoration of 671, particularly as there is only one serviceable bogie car at the moment, though all seven serviceable single truckers are now available. 671 has reached that stage of preparation where things can only improve. It presents a patchwork quilt of old paint, body filler, wood primer, metal primer and missing fittings. The paint has been obtained, and appearances should steadily improve over the next few months. The saloon windows have already reached the final top coat stage.

1992 was the 40th birthday of the Begonia Festival, and the Director promised a festival we would never forget. He was right \_ they went broke! The past few months in Ballarat have seen frantic fund-raising drives to pay off the Festival's debts and to hopefully set up a new organisation

to ensure the Festival's continuance. At the time of writing, it is still not known what the future holds, and whether there will be any form of Festival in the future. As the tramway makes a fair percentage of its revenue from Festival

patrons, it is a matter which we are monitoring carefully. Who knows, perhaps those days in March with the three car tram service picking its way through the bumper to bumper motor traffic may already be a thing of the past.

## FERNY GROVE



### Brisbane Tramway Museum Society

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#### Display Building

Town Planning consent has been received from the Brisbane City Council. However, this project is presently on hold as manpower is being diverted to the restoration of dropcentre 341. This project will be resumed when 341 is finished. We have set a target date of 28 September for the display building project, this date being the 30th anniversary of the Paddington Depot fire.

#### Substation

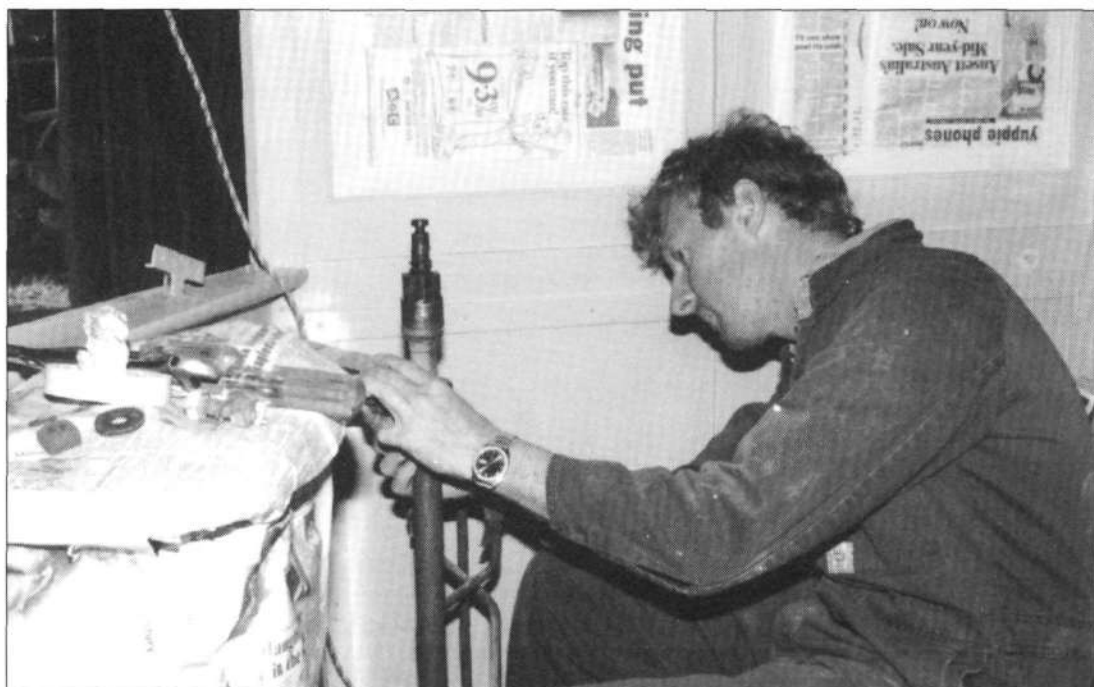
Additional spare 11kV switchgear has been obtained from the SEQEB. This was part of the initial equipment (see May 1992 TW) and it was only recently that we were able to take delivery. Regular maintenance is performed each month, resulting in a reliable power supply with very little down-time to traffic operations.



*Mick Topp (front) and Wayne Chaseling at work on the new wall between depot roads 3 and 4.*

JOHN LAMBERT





*Troy Thomas at work in the No. 2 end of dropcentre 341.*

JOHN LAMBERT

### Site Cleanup

The store cleanup/tidyup has been completed by John Lambert and his team of CSO workers. A considerable amount of rubbish was removed during this project, resulting in a sizeable vacant area remaining within the building. This area will be used to sort and catalogue all the spare parts on hand. However, due to its low priority, this task is to be designated a wet weather project. The sleeper wall between roads 3 and 4 in front of the depots has finally reached the end of its useful life due to termite infestation and is presently being replaced with concrete core test samples. This is a public area and the new wall will look much better than the previously used sleepers.

### Buildings

The northern and western ends of depot 2 have been secured in the last month. A sizeable gap used to exist at the bottom of the depot walls and this has now been sheeted up. The only hole now present is to allow the museum's pet possum access to her nest complete with young ones.

### Workshops

Restoration of Dropcentre 341 continues. The bodywork of the tram has received attention; the saloon window bars were straightened and all traces of rust removed prior to undercoating. The lattice gates from the end platforms have received the same treatment, as have the metal frames around the windscreens and the four external downpipes. The saloon windows at the No. 2 end have been masked ready for colour coating. Underneath the floor, the brake rigging has been oiled and greased, and the No. 2 lifeguard has been straightened.

On the electrical side, the motors were cleaned and tested (both are satisfactory although the motor leads have been replaced). Inside the No. 2 motor was found a well-shredded 1967 copy of the *Courier-Mail* and assorted streamers and pamphlets — extraordinary what a tram will pick up off the streets and carry around in its motors, in this case for two years, in service. The controllers have been stripped down, overhauled and re-assembled. Finally, on 23 June the car was driven



*Peter Burden and Anna Bowley removing the side panel from the Scammell.*

MICHAEL HARRIS

under its own power for what is believed to be the second time in 24 years.

The Scammell has had a portion of its sheeting removed to ascertain what body repairs are necessary to allow it to pass a Queensland Department of Transport machinery inspection. Initial inspection has revealed some dry rot in the timber frame and some rust in the panel that has been removed. Plans are presently being organised to effect the necessary repairs to this vehicle.

#### **Vandalism**

The June school holidays have left their mark on

the museum with the buildings and several of the buses being hit with spray paint from pressure cans. Fortunately, a heavy dew and some paint thinners removed the offending words before it had time to dry.

#### **COTMA Conference**

The museum was represented at the Perth Conference by Robert Thomson, Peter Hyde and John Lambert. The Conference was well organised by PETS and a special thanks must go to Lindsay Richardson and John Shaw.

## **ALBION PARK . . .**

### **Illawarra Light Railway Museum Society**

February 1992 marked the 20th anniversary of the formation of the ILRMS. The light railway museum group was established following a public meeting held in Wollongong during December 1971. By April 1972, regular work and retrieval parties were being held while the initial lease at the Albion Park aerodrome site was finalised in 1974.



To mark 20 years of Museum progress, a public ceremony was organised for Sunday, 9 February 1992. Unfortunately, that weekend was one of heavy rainfall in the Illawarra district so the official activities had to be conducted in the large locomotive shed.

Two restored items were recommissioned on this occasion: a Drewry petrol-engined cane inspector's rail car from Victoria Sugar Mill at Ingham, Queensland, and former Sydney C class tramcar 95.

An ILRMS member purchased the rapidly decaying body of former Sydney C car 95 from the Steam Tram & Railway Preservation Society during 1982 after the standard gauge Peckham truck was sold to the Tramway Historical Society at Ferrymead in New Zealand. The body arrived at Albion Park on 7 January 1989 and restoration commenced on 23 February. The project occupied three years. Much of the deteriorated window sills had to be replaced while removal of the side panels, which were replaced by marine ply, revealed many damaged and missing side body ribs.

Car 95 was built by Clyde Engineering for the opening of the George Street electric tramway in December 1899. It received its last major overhaul in Randwick Workshops between August and October 1914 during the outbreak of World War I, and was sold as a garden shed in August 1922. The Parramatta museum obtained the body in May 1962 and it was mounted on a Peckham truck obtained from Randwick Workshops. No.

95 opened the Parramatta Park steam tram service on 20 September 1964 hauled by steam motor 103A.

No. 95 follows the ILRMS policy for restoring passenger cars. It is mounted on a heavy steel underframe, fitted with automatic knuckle couplings and carried on heavy duty bogies. Should the car need to return to its original standard gauge, the body can be removed from the 2ft gauge running gear by removing several accessible bolts!

The next major car restoration project will be former Melbourne cable trailer No. 110. At present, this 106 year old vehicle is a sorry sight, with the roof sitting on the floor and all the uprights broken. Pattens have been prepared for new uprights and one trial member has been made. All metal items, however, were received with the car.

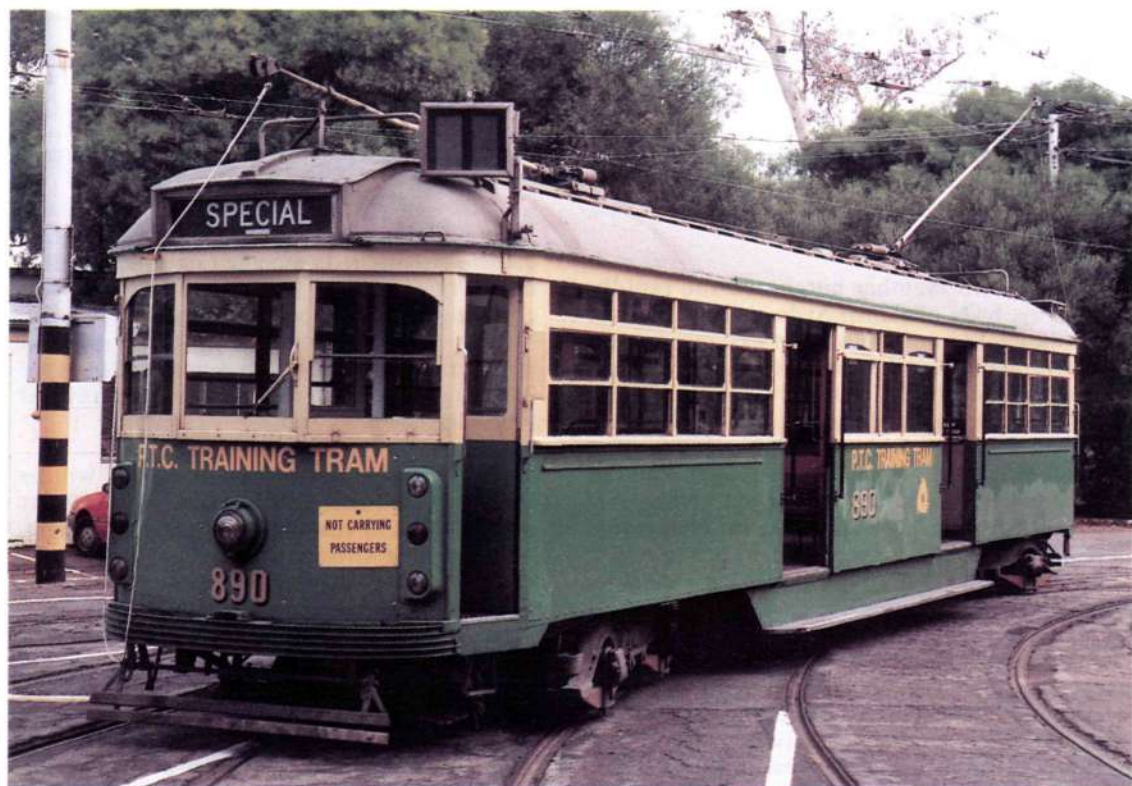
Former Sydney C car 95 and Melbourne cable trailer 430 are in operation each steaming day at Albion Park on the second Sunday of each month. Our newly reestored Drewry car is planned to be on display at the AMRA Model Railway Exhibition at Liverpool over the October Labour Day weekend.



*Sydney C class car 95 fresh from the carpenter's shop at Albion Park in February 1992.*

KEN MCCARTHY





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