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ADELAIDE'S DESERT GOLD TRAMCARS

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Paddington bound, Brisbane Centre-aisle car 118 is seen in George Street approaching the Anne Street corner. 118 is one of the first ten "Dreadnoughts" built for the Brisbane Tramways Company in 1908-09. It saw nearly 50 years service before being scrapped in the late 1950s. POSTCARD, R MERCHANT COLLECTION

FRONT COVER

San Francisco PCC 1014 heads north along the Sydney Tramway Museum's main line during one of its trial runs. The car entered service at the Museum on 9 April 1989.

BOB MERCHANT

BACK PAGE

TOP:

Sydney P class car 1497 stands on the depot connection behind the picnic area at the Sydney Tramway Museum after its recent repaint. The photo was taken between showers on 8 April 1989.

B MERCHANT

BOTTOM:

Brisbane trams are still running twenty years after the tramway system closed. Turn of the century California combination 47 contrasts with the last car to see service in the Queensland capital, Phoenix 554 of 1964, at the Brisbane Tramway Museum.

TROY THOMAS

ADELAIDE'S DESERT GOLD TRAMS

By Colin G. Seymour

Introduction

Following the recent launch of the AETM's Desert Gold tram No. 186 at the St Kilda Museum (see page 38) it is opportune to reflect on this interesting class of tram. During the First World War Adelaide's fleet of 170 trams was taxed to the limit. Early in 1918 the Municipal Tramways Trust (MTT) adopted General Manager William Goodman's design for a new large capacity enclosed dropcentre tramcar of which 50 were to be built. However, it was previously foreseen that wartime shortage of materials would prevent immediate construction of any new type of tramcar, and a contingency plan was devised. It was decided to construct 20 trams immediately to an existing "off the shelf" design.

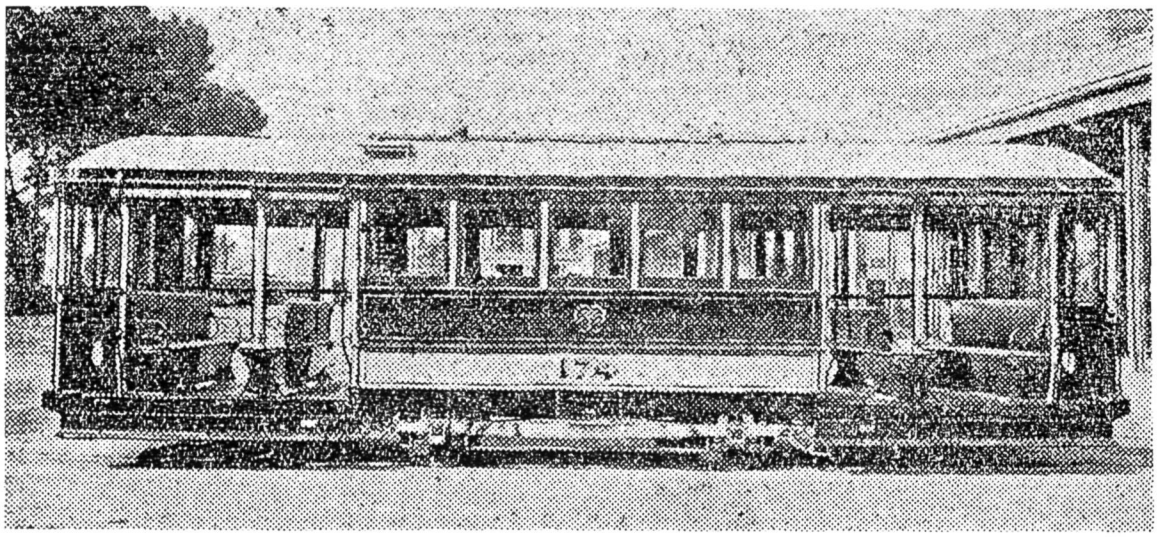
The design chosen was the obsolete California Combination (a central saloon and two open drop ends) style, a popular design for single truck cars for almost 20 years. Tenders were called and the following quotes were received:

Duncan & Fraser, Adelaide
£764/15/0 per car
Pengelley & Co., Adelaide
£769/00/0 per car
Meadowbank Engineering Co.
Sydney £774/00/0 per car

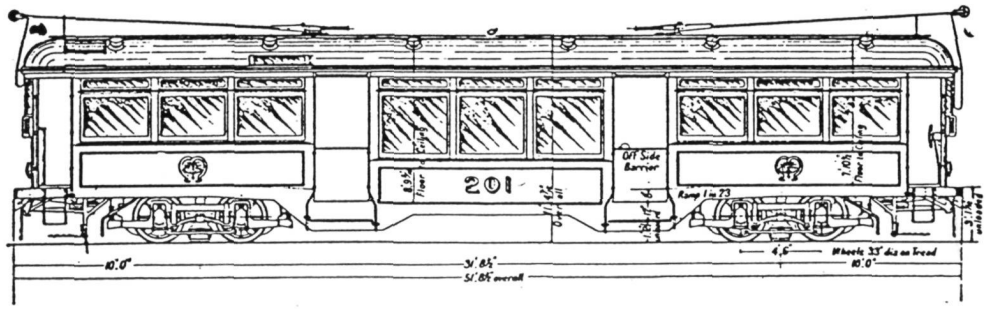
The car builders selected on 21 April 1917 were Duncan & Fraser, who had been building tramcars to the California Combination style for many years. Duncan & Fraser had built Adelaide's first 100 trams, 70 of which were California Combinations. They also exported many bodies of this design to Victorian municipal and provincial tramways as recently as 1916. In 1917 they rebuilt 16 of the B type "toastrack" trams to a similar design (without the drop ends).

Construction

The 20 trams were built during 1918-19, numbered 171-190 and were known as "straight roof combination" cars. In the 1923 alphabetical classification system they were designated C type cars. They were outwardly similar to the 70 A type cars except for substitution of the simpler and more "modern" straight style roof (as planned for the proposed fleet of large capacity cars) for the clerestory type used on all previous Adelaide cars. Although described by the MTT as being "straight-roof" cars, the shorter



Brand new C type 174 was pictured in 'The Mail' on 13 April 1918. the original caption states the new cars ". . . attracted considerable public interest. (They) embody several improved features (and) supply further evidence of Adelaide's determination to keep 'right at the front'."



The design adopted early in 1918 for a new large capacity enclosed dropcentre tramcar. Wartime delays caused production to be postponed and twenty C type cars constructed instead. The "straight style" roof was used on the C trams. By the time the drop-centre trams entered traffic from 1922, the design had been altered considerably.

appearance of these single truckers caused the roof to appear dome-like. Other noticeable differences to the A type were the installation of fixed Hale & Kilburn rattan seating in the saloon instead of the reversible Brill "Winner" seating, and the higher speed of the cars.

The "Winner" seats were difficult to obtain from America and during the tendering process temporary longitudinal seats were suggested, but the MTT stated its preference for "Winner" seats. The compromise Hale & Kilburn seats installed (4 double seats back to back and a single seat at each end) were to be "rattan covered without springs". This reduced the cost of each car by 90 shillings. Another cost saving measure was the construction of single doors at each end of the saloon in lieu of the previous double doors.

The higher speed was brought about by the use of 50hp GE 202 motors (the A type cars were fitted with two 33hp Westinghouse motors). The motors were removed from the E type cars which were remotored with two 65hp GE 201 motors. Like the A type cars, the C trams were fitted with magnetic track brakes, the normal service brake being the hand brake.

Some not so noticeable differences included the extra length of 7 inches (to 34 feet) and the extra width of 1 inch (to 8 feet 11 inches), making them the widest cars to operate in Adelaide. Although seating capacity remained at 40, the "extra" room enabled the crush load to increase by one to 102! The car bodies sat on Brill 21E pattern trucks of 9 feet wheelbase, had Westinghouse T1F controllers and weighed 11.2 tons.

On 14 February 1918 Duncan & Fraser informed the MTT that one car was finished, the second would be ready in a day or so, the next three were ready for finish coats of varnish, the next five were filled and the third batch of five were well on the way. The last batch of five were in hand with timbers roughed out. The first ten cars were delivered to the MTT by 31 May 1918 and the remainder delivered by 31 August 1918.

The motors appear to have been removed from the E type cars for transfer to the new cars in dribs and drabs as replacement motors arrived from the USA. Consequently the last C type tram did not enter service until September 1919. It also appears that when the motors were ready, they were placed under the closest body as the cars did not enter service in numeric sequence. In fact No. 188 was one of the first cars to enter service! Cars entered traffic on the following dates:— 172 on 3 April 1918, 175 on 7 September 1918, 188 on 25 September 1918, 180 on 5 April 1919, 173 on 15 April 1919, 176 on 17 April 1919, 182 on 3 May 1919, 181 on 14 May 1919, 185 on 26 May 1919, 178 on 31 May 1919, 171 on 12 June 1919, 174 on 28 June 1919, 179 on 30 June 1919, 183 on 10 July 1919, 177 on 17 July 1919, 186 on 1 August 1919, 189 on 9 August 1919, 184 on 28 August 1919, 187 on 12 September 1919 and 190 possibly on 3 October 1918 (?).

Entry into Service

The new trams were used to open a new single track extension to Keswick on 17 September 1918. The new line fulfilled the strong demand for convenient transport to the Keswick Military Hospital, railway marshalling yards and various heavy industries in the area. Before the line was laid to the Barracks gates, only horse buses travelled specifically to the district. *The*

King William Street north is bedecked with flags for the South Australian Centenary celebrations as C type car 172, bound for Kilkenny, stops at a safety zone to pick up passengers on a December morning in 1936.

DOUG COLQUHOUN COLLECTION

Advertiser reported that "Two of the new type combination cars, decorated with the Union Jack and Australian flag, left the Town Hall at 3.00pm for Keswick." *The Register* stated that "Several ribbons were broken en route, and immediately in front of the administrative department at Keswick a length of red tape was severed. When the cars pulled up at the terminus, they were greeted with rousing cheers from invalid soldiers and others."

Desert Gold

As the two 50hp motors made the new trams much faster than earlier Adelaide trams, they were nicknamed "Desert Gold" after a prominent racehorse of the day. Recent information has revealed that the horse was New Zealand bred and never raced in South Australia. From 59 starts between 1914 and 1918, Desert Gold had 36 Wins, 13 Seconds, and 5 Thirds, including the then Australasian record of 19 consecutive wins, mostly in New Zealand. Early in 1918 the champion horse came to Australia, winning races at Caulfield, Flemington and Randwick. Now doubt the newspaper publicity surrounding the "wonder" horse at this time influenced Adelaide's tramway employees and tram travellers who were similarly impressed with the speed of the new trams.

"Nark Trams"

After the War, many ex-servicemen purchased trucks or cars and built primitive motor buses to run suburban services in competition with the trams. They frequently ran only in the profitable peak hours, leaving the poorer off-peak services to the MTT. However, MTT General Manager William Goodman took on the private buses by using the fast Desert Gold trams as "Nark" cars. They were run without timetables, and the motormen were instructed to take as many passengers from the buses as possible by keeping ahead of them. The dictionary describes Nark as

"a Police decoy, an informer or spy".

An astute motorman often had success as many of the private buses were small and underpowered. The trams frequently won on single track lines. If the car was running empty to the terminus, the motorman would stop as

THE NEWS

ADELAIDE: THURSDAY, NOVEMBER 8, 1923.

BUSMEN WILL FIGHT

Challenge of Tramways Trust Accepted

"OCTOPUS ATTEMPTING TO CRUSH US"

(By our Special Representative)

The gauntlet flung down by the Municipal Tramways Trust to motor bus proprietors has been accepted. Busmen strongly disapprove the action in calling tenders for 20 buses to compete with their service.

"Busmen will accept the challenge," said Mr. C. J. today, "and we appeal to the public to assist us to octopus which is attempting to crush our service."

A meeting for the formation of a busmen's a be held on Monday night.

The announcement yesterday by the ... fleet of modern buses ... to compete with ... owners ...

TRUST DECLARES WAR

Motor Service Competing With Trams

BUS PROPRIETORS TAKE £300 A WEEK

(By our Special Representative)

... has been declared between the Tramways Trust and ... plying for hire in the suburbs. The latter con... are taking about £300 a week in fares.

"... Trust is assuredly going to take action," says Mr. ... dman (general manager), "and we will fight to ... an announcement today that the Trust ... motor buses of the most modern ...

THE MAIL

ADELAIDE, SATURDAY, NOV. 3, 1923.

"NARK" TRAMS

DODGING CAR INSTALLED

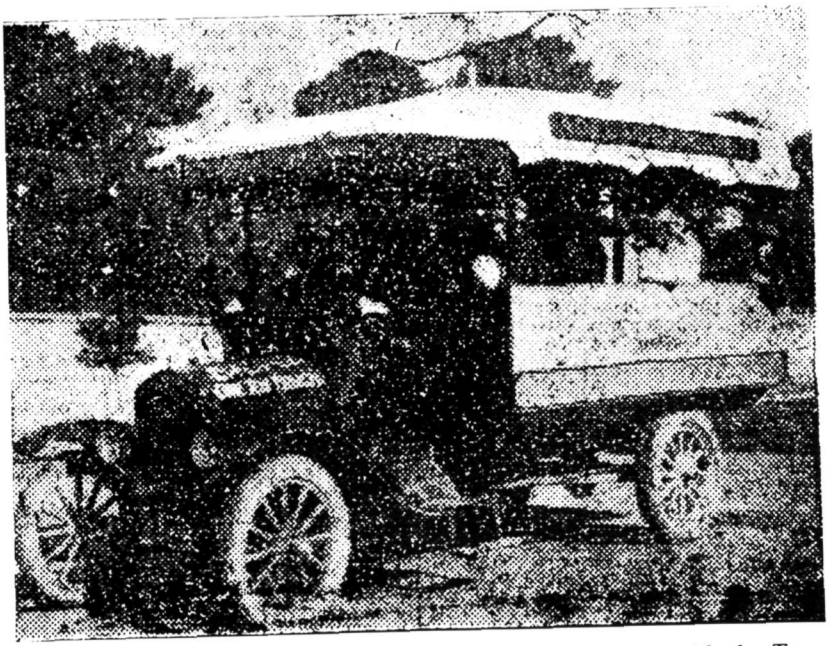
Trust Fights Busses

... is plying for hire, ... ssociation."

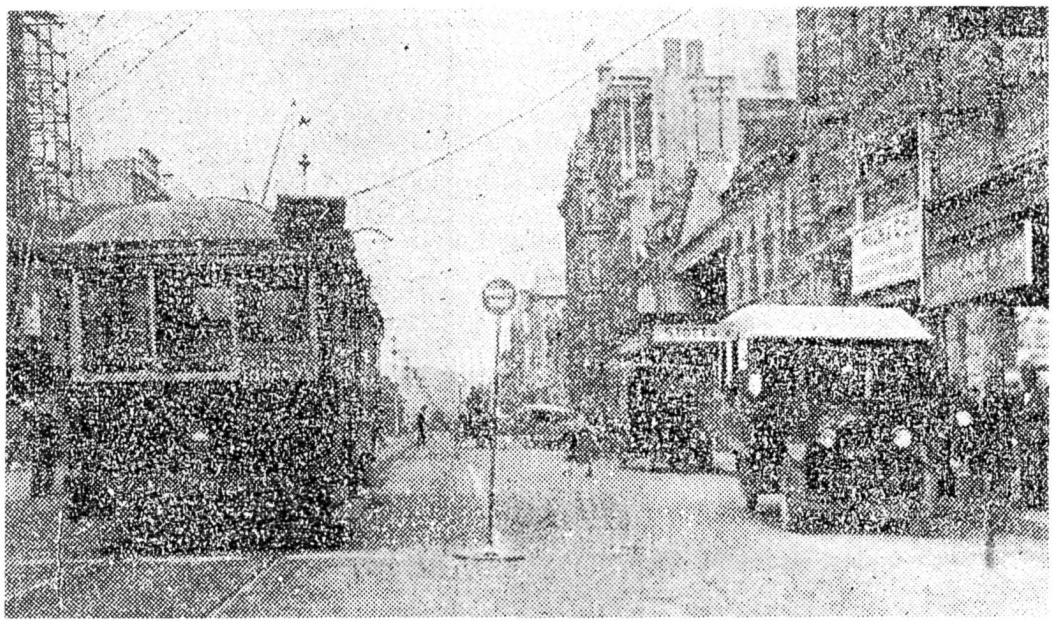
... he will have to bring ... competition on the ... Goodman is planning ... delaide's traffic. Already "nark" ... th no timetables or fixed destina... nd no objective except to prevent ... uses from getting passengers, have ... put on the lines.

Goodman maintains that he is right ... oing this.

The cars belong to the community, ... d when questioned, "and it is up to the ... mmunity to support them. In addition ... other responsibilities we have to ...



One of the large fleet of motor buses which were competing with the Tramway Trust. T "THE MAIL"



Although of very poor quality, this photo shows a "nark" tram and its prey on the Unley line. It is ready to move off just before the time the bus on the right is due to leave. It will keep just ahead of the bus to pick up waiting passengers and thus deprive the bus of customers. "THE MAIL", 10.11.1923

soon as he saw a city-bound private bus. While he ran to the controls at the opposite end, the conductor would quickly swing the single trolley pole from one end to the other, and they would soon be off back to town collecting passengers ahead of the bus. Success was short-lived, however, when the motorman had the misfortune to meet a regularly scheduled tram travelling in the opposite direction on the single track! Under the heading "Fight to a Finish" in *The Mail* on 3 November 1923, Mr Goodman was asked if it was true that the MTT was using "Nark" cars to fight the motor buses. "Sure, the Tramways Trust is a public institution, run with public money. We are obliged to maintain 16 feet of roadway besides our other responsibilities, and it is not likely that we are going to take the position lying down. We will run extra cars where motor bus services are competing with us, and we will fight to a finish. We are going to beat them." The private buses were eventually regulated in 1928 and subsequently taken over by the MTT.

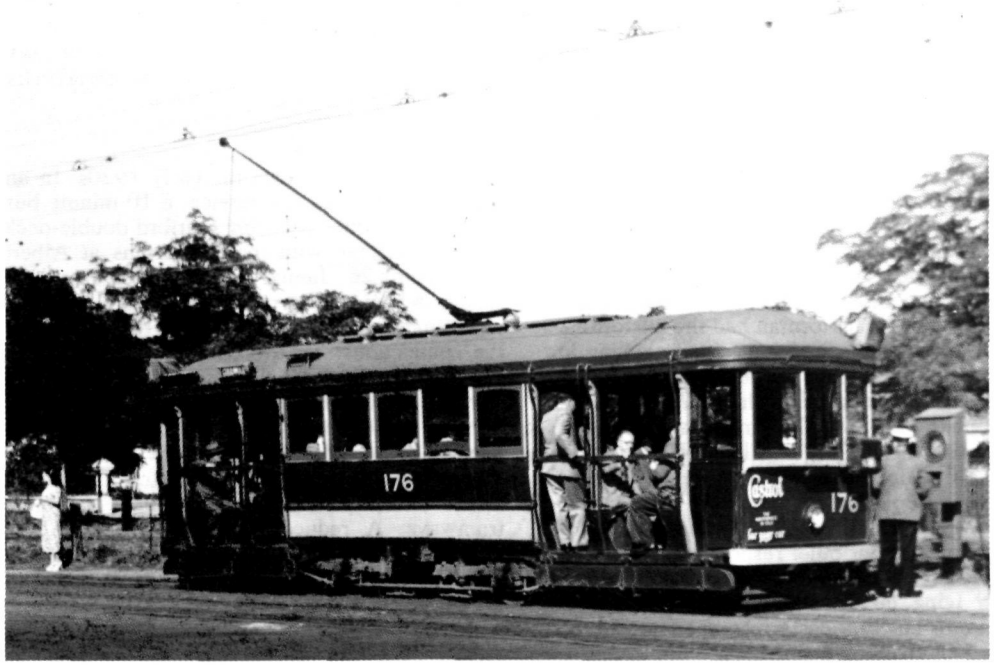
Transfer to Port Adelaide

Isolation from the main Adelaide system had resulted in operating deficits for the Port Adelaide tramway since the early 1920s. In an attempt to improve the service, a 10 minute bus service from the City using Garford double-deck buses connected with the Port trams at Albert Park from 26 January 1930. However, the slower A1 and A2 type trams at Port Adelaide were unable to cope and failed to make some of the connections. To overcome the problem, the MTT sent at least 10 of the faster C type cars to Port Depot where they entered service from 10 August 1930. Cars 181-190 are known to have been at Port Adelaide. Although an improvement, the use of the C type trams did not alleviate the problems of the Port Adelaide tramways. A reduced timetable from 7 June 1932 required the use of only five C cars (It is possible that 187-190 may have been returned to the main system after this). The Cs were withdrawn altogether on the closure of the Albert Park line on 11 November 1934. The A1, A2 and Birney trams provided the service on the remaining three lines until complete closure on 18 July 1935.

Return to the Main System

After returning to the main system, the Port Adelaide Cs joined others in their class in

C type car 186, its apron bearing a noticeable dent on the left of the headlight, at the corner of Albert Street and Light Terrace, Thebarton, in the early 1950s. The car is just entering Holland Street on its outbound trip to Findon. CJM STEELE



The motorman of C type car 176 waits to punch the "Reliance" clock at Wayville Junction on a February day in 1952. The side sign box is still displaying a "Goodwood" destination, so the run is probably a morning peak one from Goodwood to the city and thence Hackney Depot. The catenary overhead wiring visible between the Wayville wires and 176's roof marks the path of the Glenelg tramway. DOUG COLQUHOUN

C type car 186 travelling north along King William Street passes a southbound C car at the northern end of Victoria Square on Friday, 16 October 1953. Car 186 is on an afternoon peak run to St Peters. F type car 232, bound for Paradise, follows 186 up the street. LIONEL E BATES, — COLQUHOUN COLLECTION

providing many of the runs on the Kilkenny line. The long single track extension from Croydon to Kilkenny, which was opened on 14 July 1929, was ideally suited to the fast little cars (now that the private bus battle was over). However, their high speed, short wheelbase and hard fixed seating gave patrons a rocky ride. Following a number of complaints, the MTT announced that "new" seats were to be fitted to the cars on the Kilkenny line. In actual fact, the fixed Hale & Kilburn seats were swapped with Brill "Winner" reversible seats from withdrawn A type cars. Passengers were now pleased, little realising from where the "new" seats came! (A cars 10, 69 and 92, which were sold to the SEC in Ballarat in 1937, were fitted with ex-C type Hale & Kilburn seats).

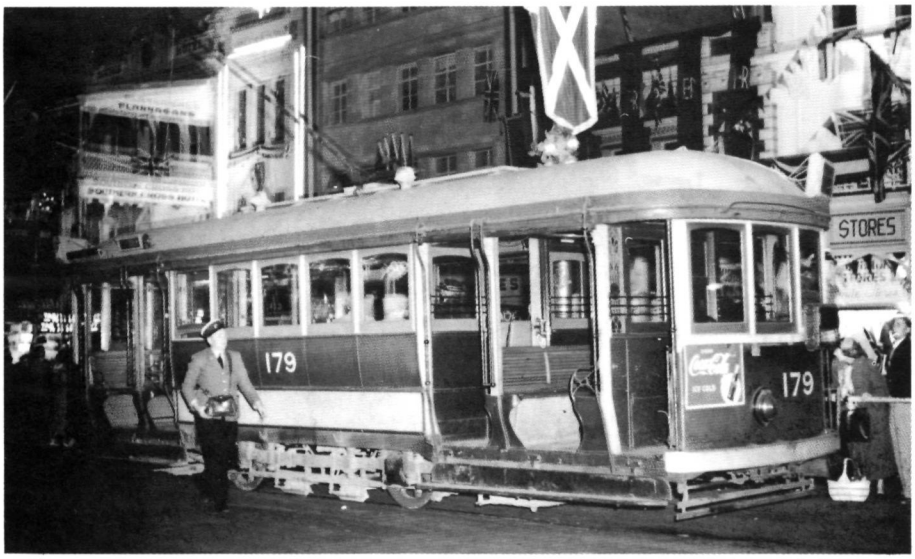
The C type cars were probably not coupled in "Bib and Bub" sets during the Second World War as were many of the A cars because the combined 4 x 50hp motors would have overloaded the T1F controllers.

Several cars were fitted in the late 1940s with black painted plywood skirts over the truck sides as part of a modernisation programme. These became unsightly through water damage and track obstructions, and were subsequently removed, No. 189 being the last car to carry them. Plans were made to install air brakes, but the Cs retained their magnetic track brakes, with the handbrake being the normal service brake for the rest of their lives.

In fact, reliance on the hand brake eventually forced the withdrawal of the Desert Golds. The last of the A type trams had been withdrawn in May 1952 following union complaints over the use of hand brake cars in post war traffic conditions. The C type trams lingered a little longer in limited peak hour service because of their speed. In 1953, members of the Tramway Employees' Association refused to drive the C cars because of reliance on handbrakes. This necessitated the MTT converting the Glen Osmond and Findon tramlines to bus operation on 18 October 1953 — Adelaide's first major tram to bus conversions. They were retained for emergency use and many returned to service briefly on 23 March 1954 for the Royal Visit, before being withdrawn completely.

Cars 173 and 186

The AETM was fortunate to retain a fairly representative collection of Adelaide's trams soon after its formation in 1957. A notable omission was the C type tram. All cars were scrapped and the bodies sold in 1954. The body of No. 173 was purchased and used as a beach shack at St Kilda where it suffered badly from the elements (especially salt water at high tide) until obtained by the AETM in 1968 for eventual restoration. The biggest problem facing the Museum at that time was the lack of a 9 foot wheelbase Brill 21E pattern truck. Fortunately, the AETM purchased two 21E pattern trucks from the Societe des Transports Intercommu-



With its side destination box displaying "Col Light Gardens", C type car 176 waits at the corner of King William and Grenfell Streets in the early evening of Tuesday, 23 March 1954. The decorations on the tramway centre pole and the buildings are in celebration of the day's Royal Visit, which saw the last of the C type cars taken out of storage for their final runs in passenger service. LIONEL E BATES, DOUG COLQUHOUN COLLECTION

naux de Bruxelles, Belgium, which were delivered in December 1978. Initially one truck was placed under car 173 while the other was later placed under B type No. 42.

Circumstances changed in May 1983 when the Museum was offered the body of car 186 by the Woodlands Church of England Girls Grammar School at Glenelg. It had been used as a playroom in the Junior School since 1954. Inspection revealed that although 186 had been in the open for nearly thirty years, it was slightly better than No 173. It was transported to St Kilda on 26 May 1983 and placed in covered storage on 173's Brussels truck. Poor 173 was relegated to the rear yard.

Restoration of 186

Restoration of 186 commenced in December 1986 following advice in September that the Museum had been successful in obtaining a Bicentennial Grant of $24000. An additional Grant of $4300 was subsequently received. Major reconstruction was required to bring the tram back to life. In fact much of the tram is brand new. The motorman's cabins were completely reconstructed. New end floor, window sills and summers were manufactured and new steam bent oregon roofing timbers fitted. Brake rigging components were fabricated and air piping installed. The roof was recovered with dynel and new exterior metal panels fitted. New window sashes were manufactured and the Brill "Winner" saloon seats were upholstered with new rattan. 186 can also be described as being a representative collection of C type trams, as parts from 171, 173, 175 and 181 have been used in its restoration.

The Brussels truck used under the tram has two powerful 75hp motors, so the tram will continue to live up to its "Desert Gold" name. It has been "modernised" by installing air brakes, a feature greatly appreciated by AETM motormen (No. 1 remains as our authentic hand brake operated car). The comfortable Brill "Winner" reversible seats have been installed, although externally the tram will represent the Port Adelaide era of C type trams. Through the dedicated efforts of a few AETM members, the name "Desert Gold" will live on. And car 173? It may yet survive.

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Adelaide Road Passenger Transport 1836-1958, JC Radcliffe and CJM Steele.
Destination Paradise, RT Wheaton.
MTT Correspondence (J Morphett collection).
Racing History of Desert Gold, R Papps.

TRAMS RUN AT RUTHERFORD

By J. Nyman

On Sunday, 27 November 1988, the Mayor of Maitland drove the first official passenger carrying tram at Rutherford, the new home of the Maitland Tramway and Museum. The operation of W2.432 inaugurated tramway running in a restricted way. The Newcastle Tramway Museum Ltd, who own and operate the new tramway, plan to have a much grander and proper opening when the depot has been built, the trams are using overhead wire and all operations are concentrated at the southern end of the site.

During the fortnight before the opening, one member had worked almost every day at the Museum site. The work entailed the partial stripping of our caravan and the erection of suitable supports for the display boards. Three 6ft x 3ft Caneite boards had been prepared, one depicting Newcastle trams, one on Maitland and one on our own tramway. Some tramway uniforms were prepared for display, together with suitable descriptive signs. The exterior of the caravan was painted bright red and has been the object of much comment.

The dropcentre section of car 762 was stripped of seats and two of them were installed in one saloon in place of the longitudinal seats. (Did you know that these centre section seats are higher than the saloon seats?) Tables were installed between the seats, giving seating for 16 with two small seats for children.

The newly cleared well in 762 was fitted with a shop counter, a large refrigerator and shelving to hold a pie oven and a water container for the small sink. Our friends at National Textiles ran a cable to the centre of the tram, so we now have power.

Outside the car are five wooden picnic tables and seats, and three shade umbrellas. There is seating accommodation for 40 people inside and outside the tram, with cushions for ten.

The Museum was ready for the opening by about 11.00am. Some people came early and several unofficial trips were operated for them. The cafe-in-a-tram was soon in use with visitors consuming pies and coffee.

Dark clouds appeared from the south-west about 12.30pm and fifteen minutes later a heavy storm broke. We feared that the opening would be literally a wash-out, but at 1.30 the rain ceased. We certainly had some luck as Newcastle had very heavy storms all afternoon

Car 432 moves down the line at Rutherford on 27 November 1988.
COURTESY "THE MERCURY"

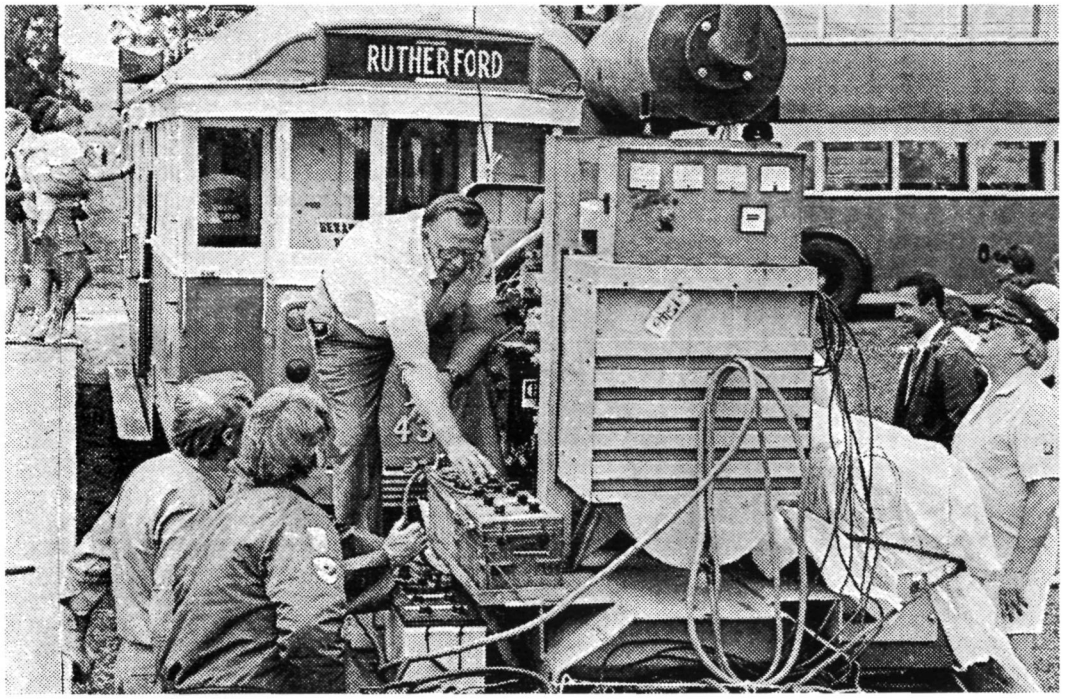
and this deterred some of our Newcastle visitors from attending.

At 1.45pm, Peter Blackmore, Mayor of Maitland arrived and everyone moved to where car 432 was standing in the middle of the station, the end of the line. A member went to the diesel generator, mounted on a four-wheeled trailer attached to the tram, and tried to start it — but without result. The battery was flat and a short-circuit had developed in the starter. The electrical fault was soon rectified, Frank Bugby lent us the use of the batteries from his double-deck bus and the generator roared into life. During the 15 minute delay, the opportunity was taken to give the Mayor a crash course in driving. He proved to be an apt pupil and can bring a tram to a halt without a shudder.

At 2.10pm, ten minutes late, Museum President Stephen Cornish welcomed the Mayor and paid tribute to the foresight and courage of Russell Phemister, the founder of the Museum, to Stan Shorte for his generosity and to Jack Nyman for organising the present tramway. The Mayor congratulated the Museum on its venture and announced that the Council was enabling the Museum to borrow $55000 for further works.

People packed onto the tram and we had to ask some to wait for the next trip as our insurance policy does not allow us to carry standing passengers. The tram ran smoothly with lots of small clicketty clack noises and some gentle swaying. Seven trips were run during the afternoon and the takings for the day from rides and our cafe-in-a-tram were very pleasing.

We are very grateful to Mayor Blackmore and other members of Maitland City Council who visited us and gave such encouragement. Thanks are also due to Hawkins Plant Hire who lent us the generator for several weeks, free. Our own generator would have been hard pressed to cope with the load.



Overcoming the minor technical hitches. A bus battery is used to start the generator. COURTESY "THE MERCURY"

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AN OVERVIEW OF DEVELOPMENTS OF THE MELBOURNE DROP-CENTRE TRAMS

By Bruce MacA. Thomas

Introduction

The Melbourne drop-centre trams are unique, and no doubt their success is due to the wise improvements made in their design, and to the upgrading programmes undertaken particularly in more recent times. Although it is often stated that New Zealand pioneered the concept of the drop-centre trams, it was soon after, in 1913[1] that Melbourne operated its first drop-centre tram, which was to form the basis of a long series of designs leading to the W7 class in 1955. Although the "all-electric" Z class was a complete departure from the drop-centre concept, it is interesting that the design of the more recent A class, although not a drop-centre, has reverted to include some of the features (although completely modernised) of the earlier drop-centre trams.

Other Australian tramway authorities also took up the drop-centre design: the Victorian Railways on its St Kilda-Brighton Beach line (in 1917)[2], Adelaide (F type in 1921)[3,4] Brisbane (in 1925),[5] and Sydney (R class in 1933)[6]. This article gives an overview of the major drop-centre trams operated by the Melbourne and Metropolitan Tramways Board (MMTB) and the earlier separate Trusts. It supplements, in some respect, the excellent detailed reference on Melbourne trams, "Destination City"[1], which has extensive (exterior) photographs, summary of technical data and details of modifications. The table and the line-drawings of the saloon and drop-centre sections given in this article for the drop-centre trams further illustrate stages in development.

The Melbourne Drop-Centre Trams

Although the early series of Melbourne drop-centre trams (C, E, N and P classes) were built in Adelaide, the L class (the forerunner of the W series) and most of the W series, were built in Melbourne. The early series of drop-centre trams also had drop-end sections (see Fig.1). All early modifications included an aisle cut through the seats in the drop-centre section, so that in the case of the modified C and E classes (Fig.1b), they resembled the later W2 design (Fig.3c), particularly with the widened external entrance in the drop-centre closest to the saloon. The N and P classes (see Fig.1d) had "reverse" seating in the drop-centre compartment, leading to four narrow-width entrances. Various modifications were later undertaken such as enclosing the off-side drop-end entrances and, in some cases, the central entrance of the C and E classes. The Bendigo Trust has some fine examples of the drop-end trams, and has restored an E class to its original layout (Fig.1c).

The first drop-centre tram without drop-ends was that built by the Victorian Railways in 1917, followed soon later by the F type for Adelaide, and the MMTB L class, both delivered in 1921. Figure 2 shows the similarity between the F type and the L class, particularly in the drop-centre compartment. The F type is considerably larger, however, and is straight-sided, whereas the L class has curved sides with reduced width at floor level. The drop-centre sections of both trams were built with "reverse" 3+2 seating. The entrance in the drop-centre closest to the saloon of the L class is smaller, and the saloon shorter. the length of the saloon in the F type is identical to that used in the later W-W2 classes. A major difference in the drop-centre sections was the use of an enclosed seating section for the F type (see Fig.2a). The drop-centre of the L class was later modified so that it is now similar to the W2 class.

The L class was the forerunner of the W series. Figure 3(a) and (b) show the drop-centre arrangements for the W and W1 classes, the seating layout being different from earlier classes. The W1 is an open configuration, which must have tested even the hardy in Melbourne's winters! The W2 configuration soon followed in 1927. The layout in the drop-centre compartment was subsequently used for the conversions of the L, W, W1, and SW2 classes, and also used in the design of the later W series up to the SW6/W6 classes. It was not until the appearance of the W7 class that the drop-centre seating was universally altered. Note, however, that with the early upgrades of the W5 trams, the centre entrance was filled in. No centre entrance is used on classes with sliding doors (see for example Fig.4e).

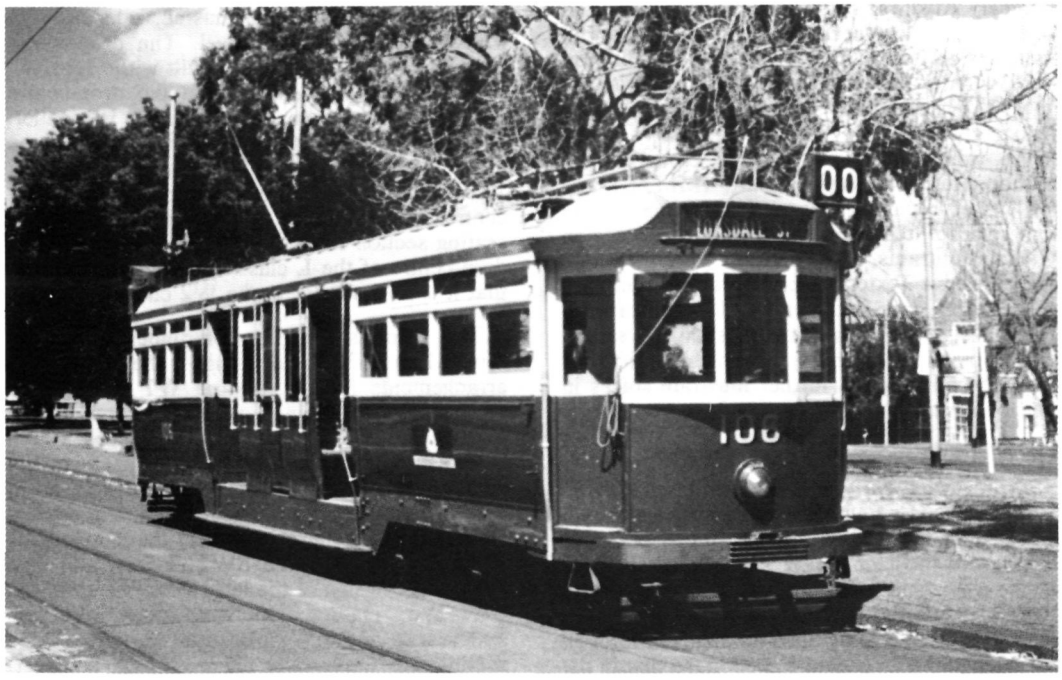
The advent of the W3 class was a further stage in the development of drop-centre trams. Fifty years later an upgrading programme for these trams began, most now having been upgraded to SW5b class. The seating arrangement in the saloons (later termed "C" seating) is shown in Figure 4(b); this is very similar to that adopted in the later-series SW6, the W6 and W7 trams (termed "D" seating). "Tip-over" seating (termed "A") and tubular-steel bus-style seating (termed "B") were used in the early models of the SW6, but these are now being replaced with "D" seating. Figures 4(c) and (d) show "A" and "B" seating an a SW6 tram. The ten SW5a class trams introduced in 1939 had many interesting features, including the universal introduction of driver-operated sliding entrance doors in the drop-centre and upper hopper windows in the saloons. Their external appearance is virtually identical to the later series SW6/W6 and W7 classes. Figure 4(f) shows the drop-centre arrangement for the W7 class. The longitudinal seating, although reducing the seating capacity, provides more standing room for short-distance passengers. It is interesting that the recent W5 conversions to SW5b also uses this layout.

Finally, it is interesting to compare the layout of the A class currently being delivered to the MTA with that of former drop-centre designs. Three entrances are used (see Fig.5), a front entrance and two side entrances — somewhat similar to that used on drop-end, drop-centre trams (but without the centre door). Nearly all seating is transverse and the longitudinal seats between the two central doors used in the W7 and SW5b classes have not been retained. Another interesting fact when comparing the number of seats in the various classes is the steady reduction from a maximum of 56 with the L class (as built), then 52 with the W2 to W6 series, 48 with the W7 and SW5b classes, and now 42 with the A class.

Melbourne's drop-centre trams, both past and present, are a subject of considerable interest. It is hoped that this overview will stimulate further study. Areas which could be investigated are the present W5/SW5 series, the early drop-end trams, the relationship between the Adelaide F type and MMTB L class, and the background to the open W1 drop-centre compartment design.

Acknowledgments

The author wishes to thank Mr BF Kelly and



The L class were the first drop-centre trams built for the MMTB without drop-ends. MTA-preserved 106 is seen at the Simpson Street shunt awaiting a relief driver. WILLIAM F SCOTT

Car 427 has been restored to its W1 configuration with longitudinal seats in the drop-centre. It is seen resting at the southern terminus at Bylands. WILLIAM SCOTT

the Metropolitan Transit Authority for the tram layout drawings, the Bendigo Trust for access to the various classes for measurement, the Australian Electric Transport Museum, S.A., and the Ballarat Tramway Preservation Society for inspection of their drop-centre trams, and Mr KS Kings for kindly checking the manuscript.

Notes on the Drawings and the Table

The drawings show only one saloon (S), the drop-centre (DC), and, in the case of Figure 1, the drop-end compartment. The driver's compartment and any interconnecting door with the saloon are omitted. The windows and seats in both the saloon and drop-centre are indicated, and the steps between the saloon, drop-centre and drop-end are indicated by heavy dashed lines. The doors between sections (if present) are shown. Trams which have straight (vertical) sides have the external entrances at the same position as the outside dimension of the tram. Trams with curved sides have reduced width at floor level and hence at the entrances. The centre-line of a tram (in the drop-centre) is indicated by a light broken line. All drawings have been accurately scaled from engineering drawings or from actual measurements on trams. The scale shown represents 1 metre.

The figures are referred to in the table. Where two figure numbers are indicated the first refers to the saloon section and the second to the dropcentre. Note that the number of seats is based on an allowance of 405mm (16 inches) per passenger. This criterion appears to have been used by the MMTB for the various W class trams, and has been applied to all earlier classes in the table. The "a" and "b" attached to the SW5 nomenclature is used (by the author) to distinguish the original class and the recent upgrading of the W5 trams. This is considered necessary because of the considerable differences between the two classes of tram.

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2. "The Brighton Electric Line", L Marshall-Wood, Traction Publications, 1966.
3. "Latest types of tramcars in Melbourne, Adelaide and Brisbane", FN Maclean, *Trolley Wire*, Vol. 27 No. 5, October 1986, pp. 3-19.
4. "Destination Paradise", 2nd edition, RT Wheaton, Australian Electric Traction Association, 1975.
5. "Brisbane dropcentre type cars", South Pacific Electric Railway.
6. "New south Wales Tramcar Handbook, 1861-1961, Part One". K McCarthy and N Chinn, South Pacific Electric Railway, 1975.

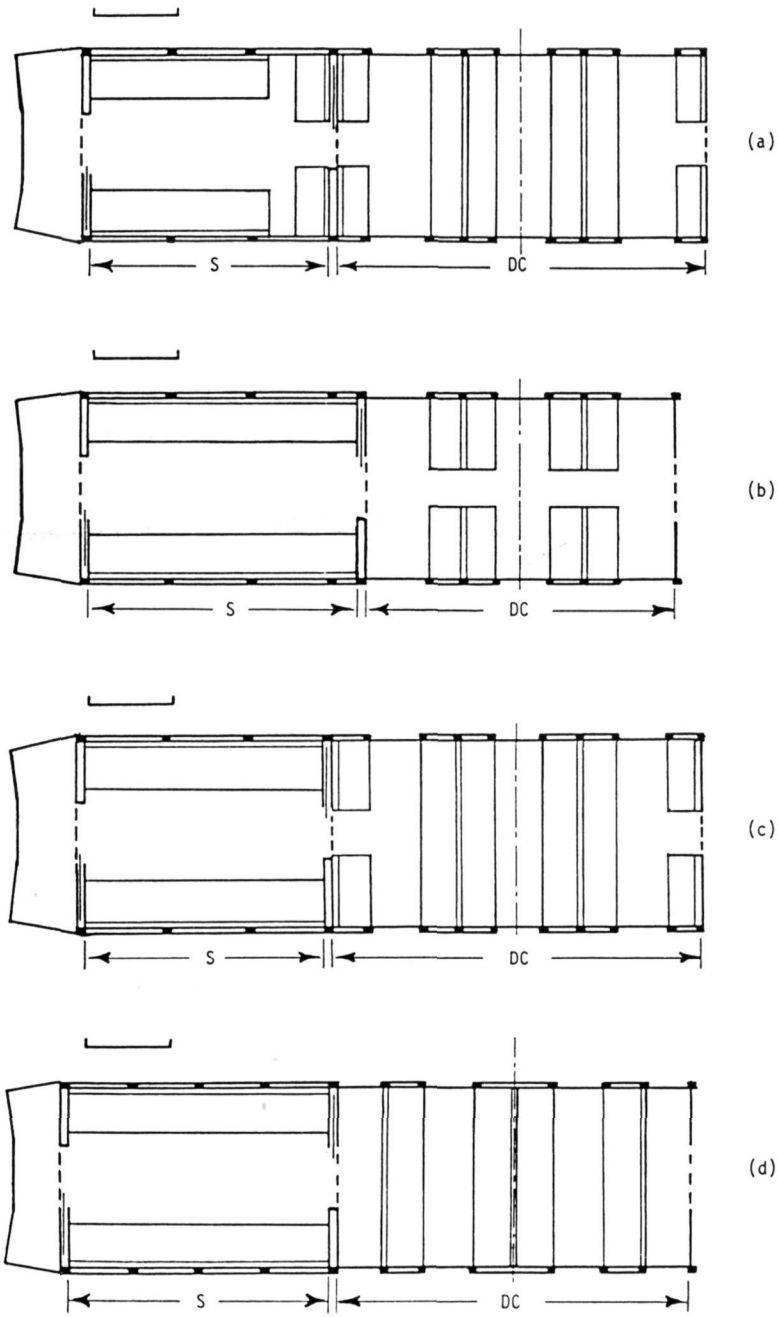


Figure 1
The early drop-centre trams with drop-end loading:

(a) C class as built
(b) C class as modified (also E class)
(c) E class as built
(d) P class as built (N class is similar)

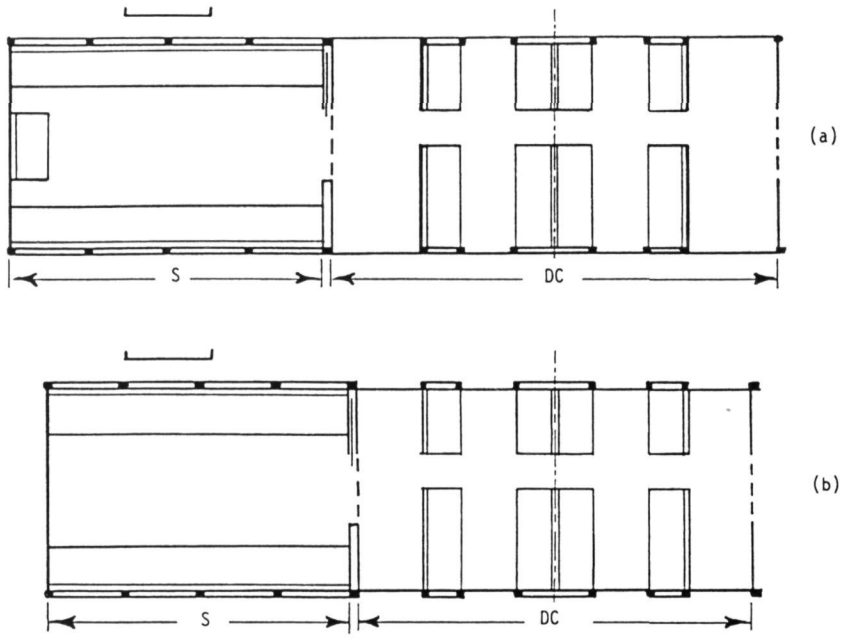
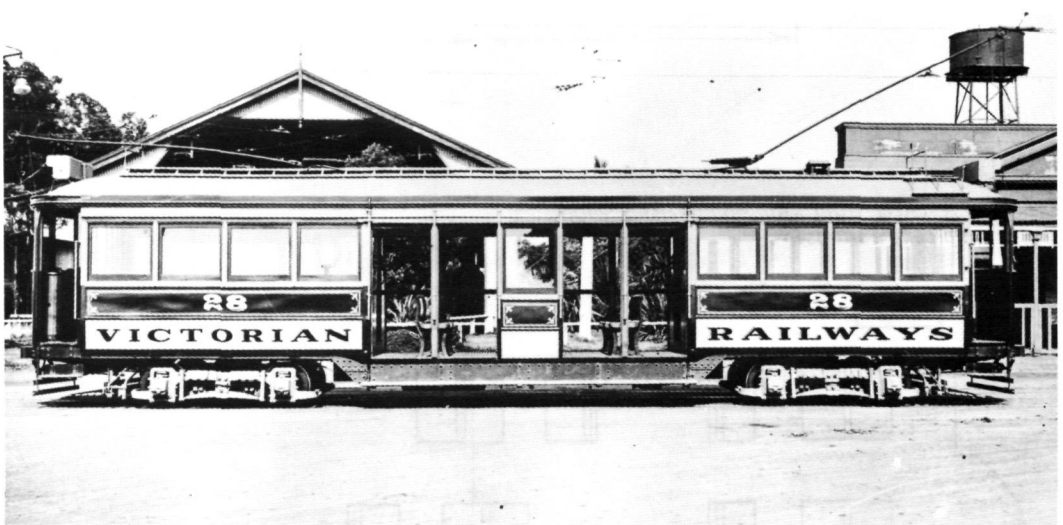


Figure 2
A comparison of the Adelaide F type and Melbourne L class:
(a) F type
(b) L class



The first drop-centre tram built without drop-ends was No. 28 built by the Victorian Railways at their Newport Workshops in 1917. VICTORIAN RAILWAYS

Figure 3
Stages in the development of the veteran W2 class trams
(a) drop-centre layout, W class
(b) drop-centre layout with tip-over seating, W1 class
(c) the W2 class

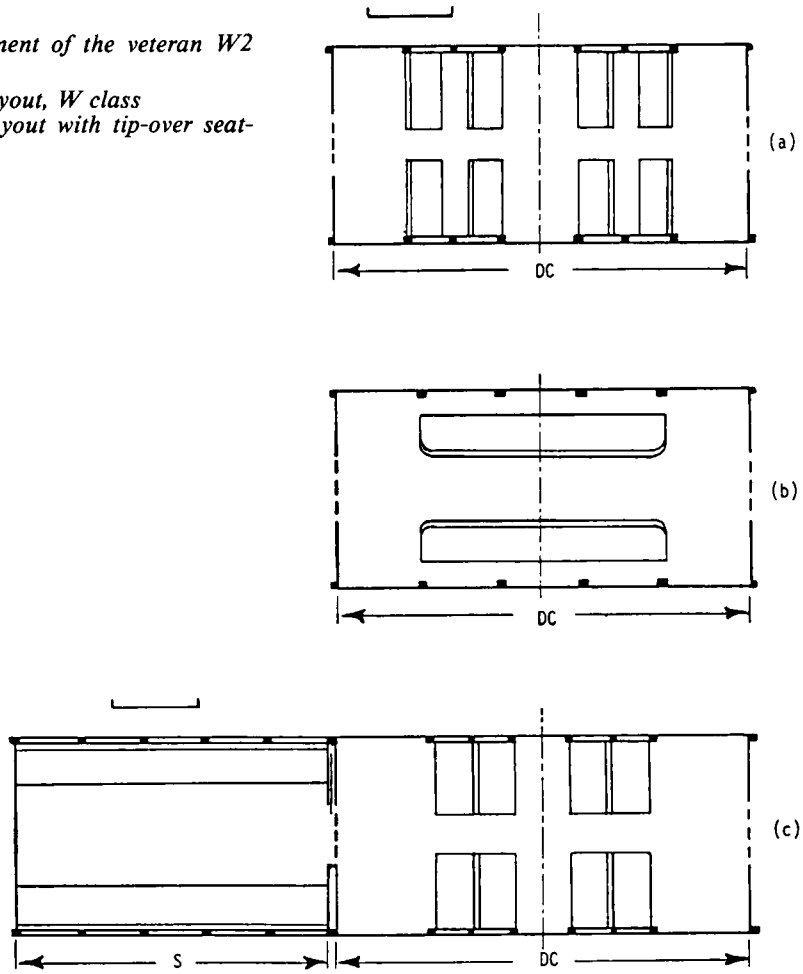
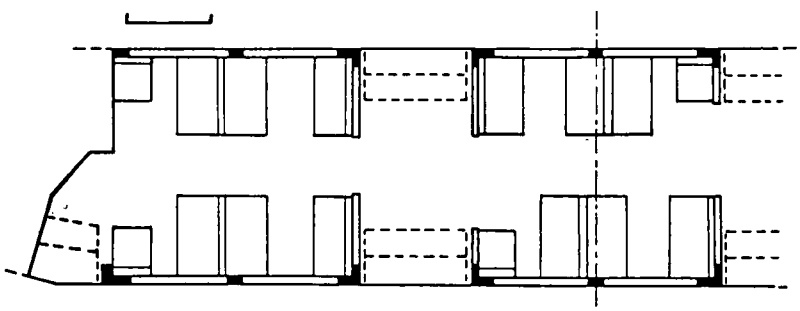


Figure 5
The new A class tram (for comparison with earlier drop-centre trams)



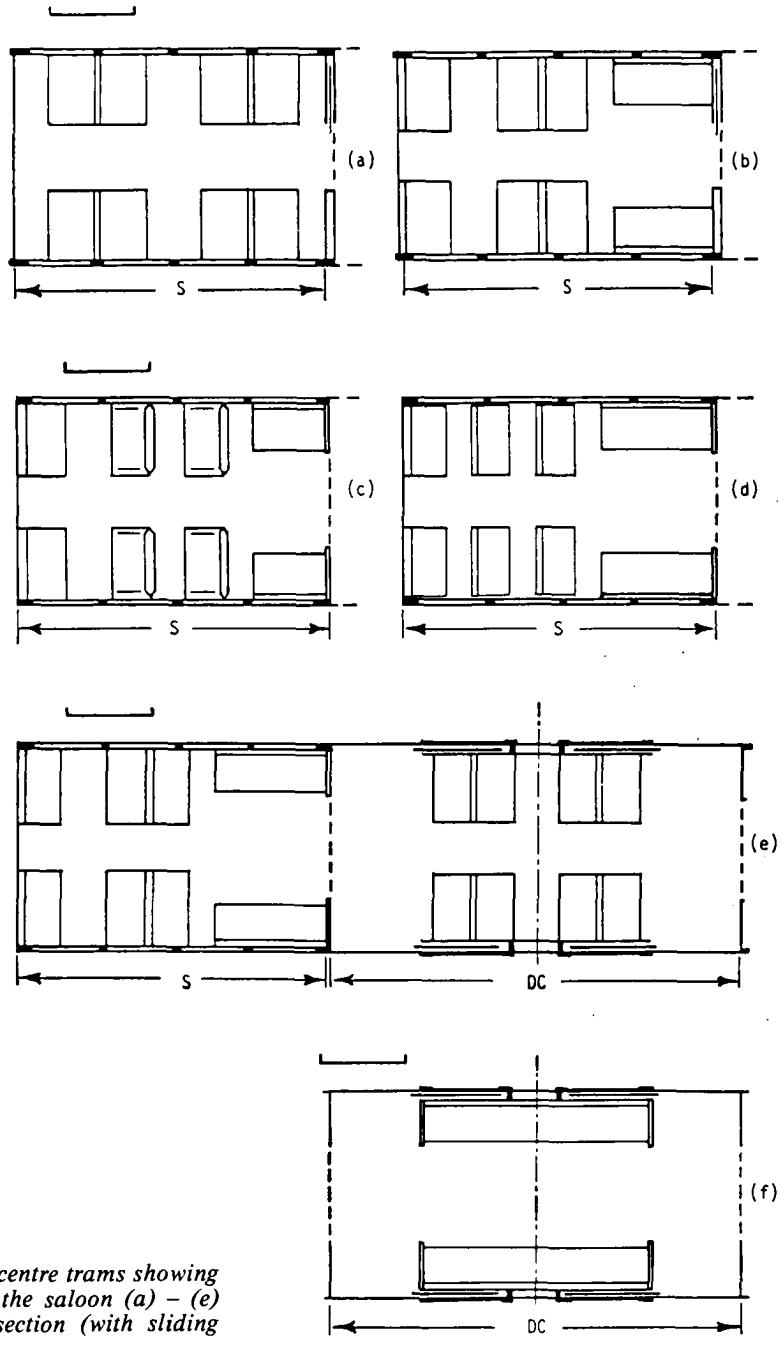


Figure 4
Later development in dropcentre trams showing various arrangements for the saloon (a) – (e) and for the drop-centre section (with sliding doors), (e), (f)

(a) W4 class
(b) W5 class ("C" seating)
(c) SW6 class ("A" seating)
(d) SW6 class ("B" seating)
(e) SW6/W6 class ("D" seating)
(f) W7 class (drop-centre), also SW5b

SUMMARY OF DIMENSIONS AND GENERAL DESIGN FEATURES OF MELBOURNE DROP-CENTRE TRAMS

MMTB Class	No. built	Year first built	Dimensions (m) External		Dimensions (m) Internal		Seating Number			Seating Style		Entrances	
			Length	Width*	S	DC	Total	S	DC	S	DC	Ends	DC
C	11	1913	13.50	2.24r	2.80	4.30	56	14	28	1+t	t	✓	3
					"	"	52	14	24				
					3.20	3.50	48	16	16	1			
					3.08	3.74	44	14	16				
E	10	1914	13.50	2.24r	2.80	4.28	56	14	28	1	t	✓	3
N	10	1916	13.52	2.24r	3.07	3.83	48	14	20	1	t	✓	4
							44	14	16				
P	8	1917	13.83	2.24r	3.07	4.13	48	14	20	1	t	✓	4
[F]		1921	14.93	2.69	3.66	5.20	60	20	20	1	t		4
							56	18	20				
L	6	1921	13.87	2.54r	3.50	4.57	56	18	20	1	t		4
							48	16	16				3
W	200	1923	14.59	2.29	3.66	4.79	52	18	16	1	t		3
W1	30	1926	14.63	2.29	3.66	4.79	50	18	14	1	l		5
W2	406	1927	14.63	2.29	3.66	4.79	52	18	16	1	t		3
SW2	6	1938											2d
W3	16	1930	14.32	2.39	3.70	4.73	52	18	16	1	t		3
W4	5	1933	14.02	2.6r	3.58	4.80	48	16	16	t	t		3
W5	125	1935	14.17	2.44	3.58	4.80	52	18	16	t	t		3
													2
SW5a	10	1939					52	18	16	t	t		2d
b							48	18	12	t	l		
SW6	120	1939	14.17	2.44	3.62	4.80	48	16	16	t	t		2d
							52	18					
							52	18					
W6	30	1951					52	18	16	t	t		2d
W7	40	1955	14.17	2.44	3.62	4.80	48	18	12	t	l		2d
A	-	1984	15.00	2.67	2.83	5.52	42	14	14	t	t	✓	2d

*External width measured across saloon
S = saloon, DC = drop-centre
r = maximum, but reduced in width near floor level (to accommodate part-recessed running-board)
l = longitudinal seating, t = transverse seating, d = sliding door

Date indicates first year of manufacture or modification

Figure	Notes and major modifications
1(a)	Aisle cut in DC Seating similar to W2-class
1(b)	DC entrances increased from 600 to 750 mm [1]
1(c)	[2] Modifications as for C-class
1(d)†	Aisle cut in DC (1924), [3]
1(d)	Modifications as for N-class, [4]
2(a)	Adelaide tram similar to L-class End saloon seats removed, driver's door installed
2(b)	First class without end-loading, first with 4-motor bogies
2(b)+3(c)†	DC modified similar to W2 (1934)
3(a)+3(c)	Converted to W2 (1928)
3(b)+3(c)	Converted to W2 (1936), SW2 (1938)
3(c)	Total includes conversions from W and W1
3(c)+4(e)	First class with sliding doors
3(c)†	Layout similar to W2
4(a)+3(c)	First class with transverse seating in saloon
4(b)+3(c)	Seating arrangement "C" Some modified to include removal of centre door (1970's)
4(b)+4(e)	External and internal appearance somewhat similar to SW6, *Seating arrangement "C".*
4(b)+4(f)	Major upgrade (1983) of W5, includes longitudinal seats in DC, removal of doors between S and DC
4(c), 4(d)+4(e)	Seating arrangements "A", "B", "D" (as built) in saloon
4(e)	
4(e)	Seating arrangement "D"
4(e)+4(f)	Longitudinal seating in DC
5	Modern equivalent of DC tram (for comparison purposes)

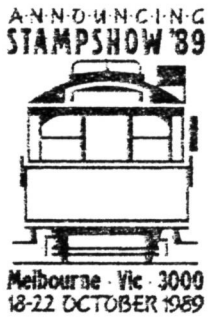
† = layout as for figure, but dimensions differ slightly
[1] from Bendigo 5 (C26); [2] from Bendigo 44 (E44);
[3] from Bendigo 23 (N126); [4] from Bendigo 26 (P135)

HERE AND THERE

NEWS ITEMS OF INTEREST FROM ALL OVER

Tram Stamps

The five trams to feature on the stamps to be issued by Australia Post in October 1989 are a Sydney steam tram, Brisbane single truck combination car, Hobart double deck electric tram, Adelaide horse tram and Melbourne cable tram. The issue date will probably coincide with the opening of Stampshow '89, a major stamp exhibition to be held in Melbourne from 18 to 22 October. Melbourne's trams have been adopted as Stampshow's logo, pictured here. A working model of the MTA's tramways (?) is one of the many planned activities to amuse children who attend.



Australia Post has announced a unique joint "rail and mail" booklet, also planned for release in October. The stamp booklet is being produced in conjunction with the Metropolitan Transit Authority and Stampshow '89.

In addition to ten 39¢ (domestic letter rate) postage stamps, the booklet will contain an "all day" ticket for travelling on the Met, plus an admission ticket to Stampshow '89.

Stamps contained in the booklet will be one of the Trams issue 39¢ stamp designs mentioned above. Price of the booklet is expected to be $8 each.

Tramway enthusiasts with a philatelic bent will probably guess that the tram stamps will be issued in sheets containing all five designs. The booklet mentioned above is quite likely to have two strips of five stamps containing two of each of the five designs.

Brisbane Closure Anniversary

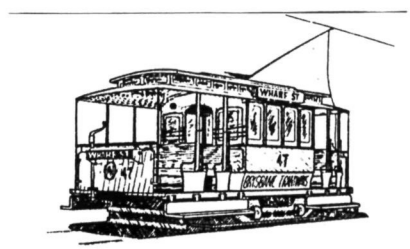
While, to those of us who were in Brisbane on the night of 13 April 1969, it seems only a few years ago, it is now twenty years since that fateful night when what was still quite a large tramway system, with ten routes and almost 150 cars, literally closed overnight.

Many of us can look back with a knowing smile at certain events, such as the mysterious power failure which stranded several trams on the Ascot-Doomben and Ascot-Oriel Park lines. This delayed the Lord Mayor, Clem Jones, who was waiting at the Warner Street loop at Fortitude Valley in specially decorated Phoenix 554, the last tram built for Brisbane, which was to be the last tram to operate in the city.

Car 534 from Ascot-Doomben, on which the majority of passengers were enthusiasts, was the last service car to pass through the Valley and, in fact, the city streets, and it was to our credit that the car arrived back at Ipswich Road Depot intact.

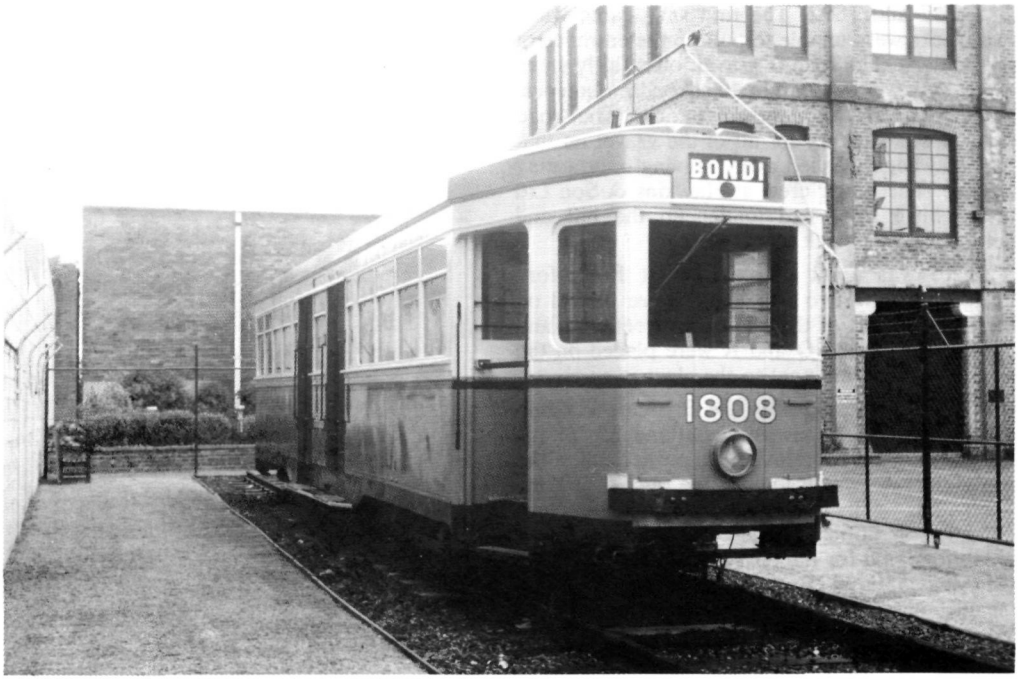
Some may also recall Motorman Boddenberg, in charge of the last Balmoral tram, Phoenix 547, who, after having sufficiently delayed departure to have been the last car back to the depot, lost out as a result of the decision of a Tramway Inspector to kindly give him preference over the equally late-running 534, which arrived at "The Gabba" only a matter of seconds later.

There were many other interesting happenings that night but it was the grim reality, or the after-shock, the next morning when we were confronted with what resembled a ghost town, devoid of the trams which gave Brisbane so much life, that brought us down to earth.

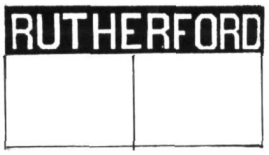


R class car 1808 has been restored by Waverley Municipal Council as a Bicentenary project after being rescued from a property at Ashford in northern New South Wales. The car has been equipped with W2 trucks, poles and trolley bases, and is now on display at the "Boot Factory" in Spring Street, Bondi Junction.

ABOVE: DALE BUDD
BELOW: VIC SOLOMONS



RUTHERFORD . . .



Maitland Tramway Museum

Arrival of Trams

Most of the fleet is now at Rutherford. On Saturday, 14 January, R1 class 1995 arrived at Rutherford after a 4.00am start from Shortland for the two semi-trailers and a crane lift in Sydney for 6.00am. The body of 1995 went on one truck and the bogies and the four lengths of rail on which the tram had stood went on the other. No problems were experienced during the move.

1995's move was covered by the media in Newcastle. *The Newcastle Herald* ran a story on Saturday morning, Television station NBN ran a segment on Sunday night, and the *Maitland Mercury* gave it a front page picture on Monday.

The big move occurred on the following Saturday. It was a 6.00am start at Rhondda. Loading was straightforward: W2.244, 245, R 1892 and O class 824 each sat on a semi-trailer, while the fifth semi carried the bogies from 244, 245, 247 and 1892. The first snag came when two trucks were unable to pull up the entrance of the colliery. The road is gravel, on a fairly steep slope and with a hairpin bend on the steepest grade. It was, of course, raining. The road surface was slippery for all of the gravel on that part had been washed away leaving only a clay surface. The repair crew at Hawkins & Son Ltd ran a huge front end loader up the hill and helped the two stuck trucks.

There was a lot of shunting at Rutherford using 432. The two W2 trams were placed on the western part of the station between 471 and the L/P, while the O and R were placed on the unused double line next to the electric carriage.

We hope to bring 550, the Brisbane Phoenix car, to Rutherford via the Maitland Steamfest. Again, we have been invited to participate in the festivities at which locomotive 4472 "Flying Scotsman" will be a visitor. Last year we exhibited W3.668 and the contribution made to exhibitors paid for the cost of cranes. We intend to bring 550 to Rutherford using the same means.

The N car will be the last car to be moved. Our problem for a year has been the softness of the ground around the car. The crane owner will not risk bogging his vehicle!

Track

At the time of writing the track is open from the northern terminus to the bridge. The loan of a 6 tonne fork truck for three hours on two Saturdays enabled an assault to be made on the track pile. The amount of work done by the small work force, using only hand tools, is remarkable.

Relaxing in the saloon of 762, our cafe-in-a-tram. **JACK NYMAN**

Inside the cafe-in-a-tram. JACK NYMAN

WHITEMAN PARK . . .

Perth Electric Tramway Society

A great deal of activity has taken place at the museum during the first three months of 1989. The most noticeable progress has been made in the construction of the new tram body storage shed and in the track upgrading programme.

Tram Body Storage Shed

Delivery of the materials for the new shed had been delayed by several months. Then on 14 February the materials arrived and the contractors, Highline Constructions, started work immediately. After just three days, the site (which had been nothing more than a bare patch of sand since September) had sprouted an almost complete steel shed framework measuring 108 by 45 feet! The

"Colorbond" roof, wall cladding and doors were added swiftly over the next fortnight and by early March the shed was complete.

The next stage will be the laying of track for the four shed roads and the fan. This is expected to start in April.

Track Upgrading

In December-January, Ron Waters' team cross-spiked the section eastwards from Triangle junction to Bullpen Crossing. They also lifted and packed 200 metres of this section.

Their most intensive jobs come in February, under very trying weather conditions. Services were shut down for the full month to enable the team to relay the track through the entire paved street in the Trade Village (approximately 800 metres). The second-hand wooden sleepers used previously have been replaced with brand new steel sleepers from BHP. These had to be specially fabricated to take our 60lb per yard rail, as all the other systems with steel sleepers in Western Australia use much heavier rail. Several lengths of poor quality rail were also replaced. Electrical bonds on the new track were installed by Ray Blackmore.

Replacement of the brick paving of the street surface was delayed to allow the track to settle and permit any repacking that may be necessary.

Services resumed (as far as the Trade Village stop) on 4 March and over the full section to Central Station soon after. The performance of the trams over the new track is dramatically better, due largely to the properly crowed rail joints and improved camber on the curves.

Grooved Rail

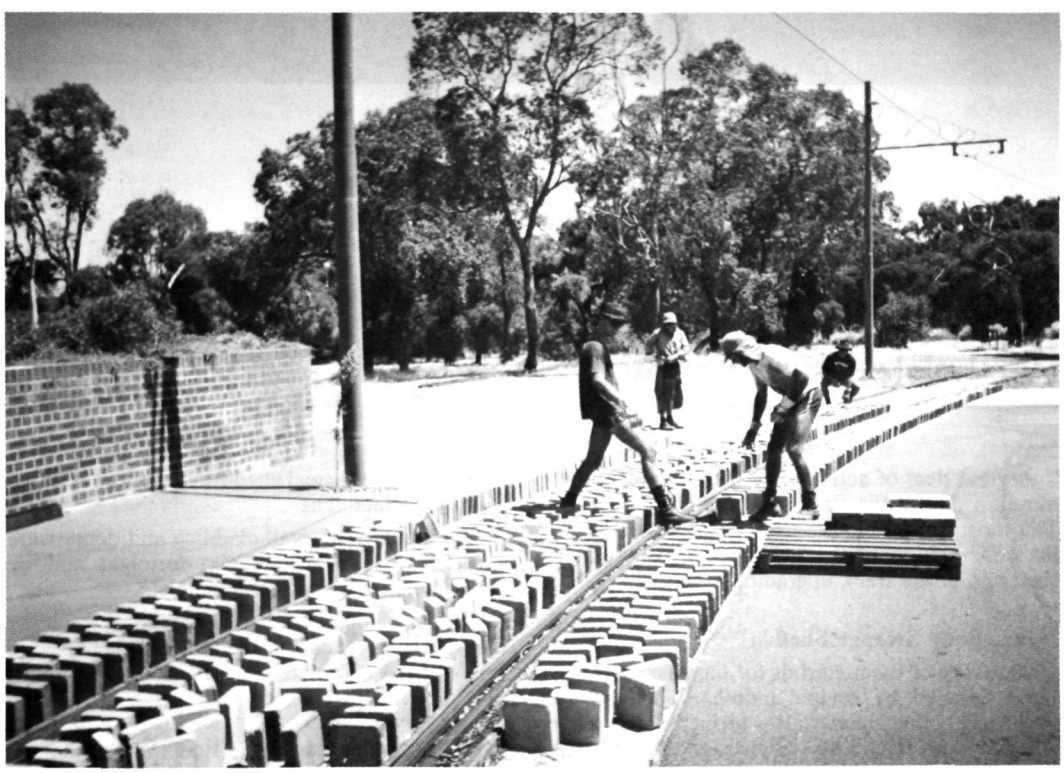
Six full (30 feet) lengths of grooved rail were delivered to the museum on 15 February. Four of these were donated by the Bassendean Bowling Club, where they had been in use as light standards some years ago. The other two were recovered from near the old Maylands brickworks.

It had been hoped (TW November 88) to use grooved rail in the Trade Village street. However, this was not possible due to the use of steel sleepers there. It is now planned to use the grooved rail in the depot area.

Perth Trolley Bus 889

Ex-MTT Sunbeam trolley bus 889 (formerly WAGT 89) arrived at Whiteman Park on 18 March. It has been given to PETS on permanent loan by television station TVW7 (*TW* November 87).

Duncan McVicar and Ray Blackmore spent a day earlier in the week preparing No. 889 for the



Preparing for the relaying of track through the Trade Village street — a start was made on removing the brick pavings on 28 January 1989. REG FRANCIS

Ron Waters (foreground) supervises the loading of rail at the carbarn fan on 28 January 1989. It was hauled on these two former railway bogies up to the Trade Village by the tractor visible at right. REG FRANCIS

By 18 February 1989 the relaying of the Trade village track is well in hand. The old track has gone and the roadbase has been prepared. New panels of track with steel sleepers have been assembled alongside, and here a panel is lifted into place at the northern end of the Village. MICHAEL STUKELY

move — inflating the tyres, disconnecting the tail shaft, checking that the brakes were free — before moving it from the display canopy to the studio workshops area on the other side of the complex. Ray's Landcruiser proved more than adequate as the motive power for this move — it didn't even break the surface of the lawn! As the Museum's former Perth MTT tow wagon (No. 2) is unregistered, a tow truck had to be hired for the trip to Whiteman Park. This was achieved without incident, with Duncan McVicar at the wheel of 889. Tow wagon No. 2 was then used to move the trolley bus from the Carbarn fan to the workshop, where 889 has been stowed in front of Sunbeam trolley bus 84.

Fremantle 29

Further progress has been made on the restoration of this car. Momentum has increased since the goal has now been set for No. 29 to move under its own power in September 1989.

The GE compressor has been dismantled, cleaned and overhauled by Noel Blackmore. It was tested on 5 February, with very satisfactory results.

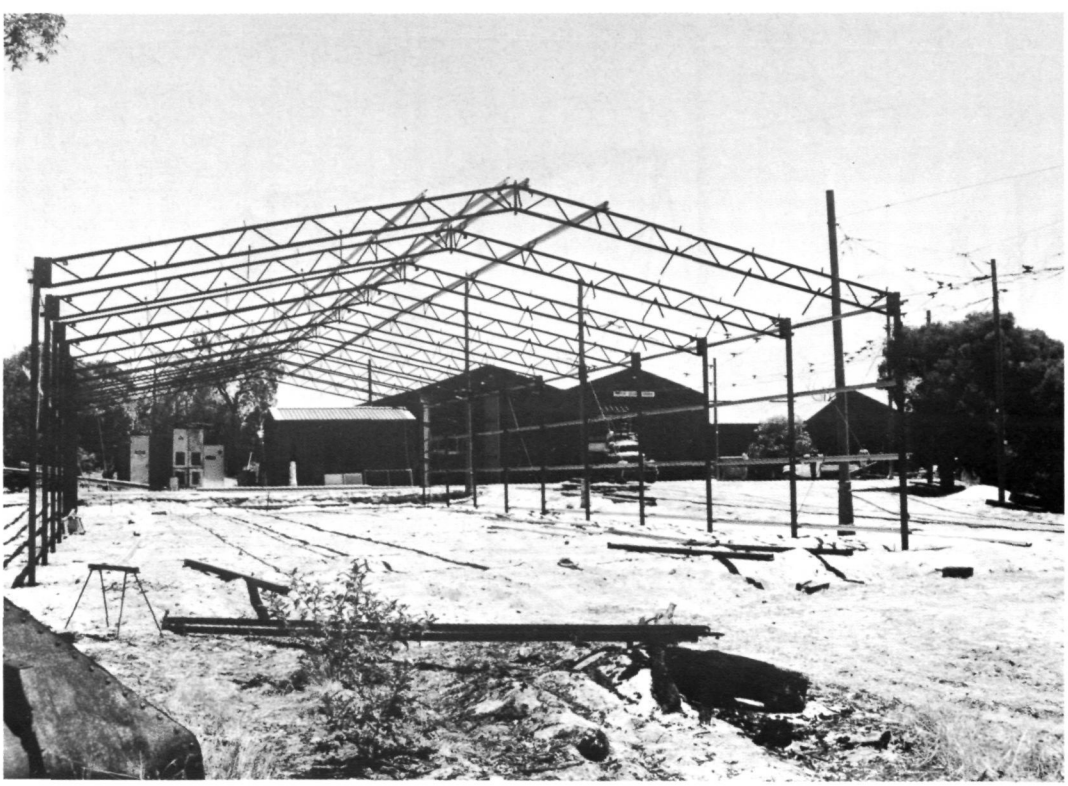
The air tank frame has been fitted and the tanks and straps painted. Handbrake mechanisms (ex-Adelaide) were fitted in January.

Work has continued on fitting window catches, repairing woodwork and preparing seat throw-over mechanisms for installation (ten newly cast sets have had to be used as insufficient numbers of originals were available for the car's 28 seats).

Other News

Victor Sweetlove and his helpers have carried out major repairs to the gearboxes of the two former WAGT tower wagons, with excellent results.

The members' Leisure Garden on the northern side of the Carbarn fan, which has been established largely through the efforts of John Shaw, now has the benefit of a new reticulation system. This was designed and installed in February by Reg Francis and Terry Verney.



On 18 February 1989, the framework of the new tram body storage shed at Whiteman Park is nearly complete. The carbarn is visible behind.

MICHAEL STUKELY

Former MTT Sunbeam trolley bus 889 is towed through the gates at the studios of television station TVW7 in Tuart Hill on 18 March 1989. MICHAEL STUKELY

Trolley bus 889 has arrived safely at Whiteman Park and is pushed from the carbarn fan towards the workshop by former MTT tow wagon No. 2 on 18 March 1989. MICHAEL STUKLEY

BALLARAT . . .

Ballarat Tramway Preservation Society

Begonia Festival

The Begonia Festival, held this year from 10 to 19 March, is always a busy period for our traffic staff. Trams operated on weekdays during the Festival and averaged over 100 passengers each day. The Labour Day weekend (11-13 March) was the busiest, with 1706 passengers carried, and three trams operating at the busiest times. The trams ran until 9.30pm on the Saturday and until 7.00pm on the Sunday and Monday.

Horse Tram No. 1

Further progress has been made with the restoration of No. 1. Metal dashes have been fitted to both end platforms. Windows have been fitted to the bulkheads at both ends, and the saloon doors re-installed.

Inside the car, copies of the by-laws governing Ballarat horse tramway operation have been installed on the bulkheads at both ends of the saloon. This is to comply with Section 24 of those by-laws, which states that a copy of the by-laws must be displayed in a conspicuous position! The copies were made from an original found inside the car after it was brought to the depot for restoration.

Other Cars

The windows on No. 39 have been refitted to the side facing No. 2 road, and the green and cream paint has been applied to the front and side.

No. 33 was withdrawn from service in November for repair and repainting of its

Car 27 in Wendouree Parade on 12 March, with 26 in the background. ALAN BRADLEY

window frames. This task was soon completed and No. 33 is now back in service.

Depot Works

A look around the back of the tram shed will reveal a new extension to 5 road. The track now leads out the back door to the footpath.

This is not the start of a new route along Gillies Street but it will make it easier for the delivery and removal of trams. With the track filled to the railhead and no overhead wiring, our latest track extension will be almost invisible.

W3.661 Goes to Melbourne

The Society recently gave permission for a group of tram enthusiasts from Malvern Tram Depot, who have formed an association called "Yapper Tours", to hire our W3 class car 661 and transfer it back to Melbourne to run a number of charter trips.

It has been twenty years since the W3 class trams were withdrawn from service in Melbourne and No. 661 will be sure to attract attention throughout the enthusiast community.

661 was prepared for transport and was transferred to Preston Workshops on Wednesday 5 April. It was the first tram to use the new track at the rear of the depot.

Wedding Bells

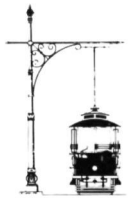
BTPS Board member Paul McDonald married Melissa Phillips in Ballarat on Saturday 21 January 1989. After the ceremony the wedding guests were taken aboard bogie trams 38 and 40, which were suitably decorated with streamers, and were served drinks and savouries. The two trams made several trips along Wendouree Parade while the newly-weds had wedding photos taken in the Botanic Gardens.

Afterwards the wedding party posed for photographs beside the trams, then joined their guests for a ride back to Lake Lodge (opposite the Gardens gates) for the reception. The Society provided a "wedding crew" of two drivers and four waiters for the occasion.

The wedding party poses beside cars 38 and 40 on 21 January 1989.

COURTESY "BALLARAT COURIER"

LOFTUS . . .



South Pacific Electric Railway

Works Report

Progress is at last being made on the extension of the Display Building, after much procrastination by the builders and an enormous amount of effort by Bob Cowing to get them moving. Work recommenced at the beginning of March and the steel wall and roof framework is complete. The roofing was finished, except for some ridge capping and guttering, by 7 April. Concreting the footings is the next item, followed by levelling of the floor area and the cladding of the walls.

The maintenance pit on Road 2 of the running shed portion of the building is now under construction, with the floor already laid. This much needed facility will be much appreciated by our members undertaking maintenance on the trams and will also enable Road 2 to be extended beyond the the present one car length.

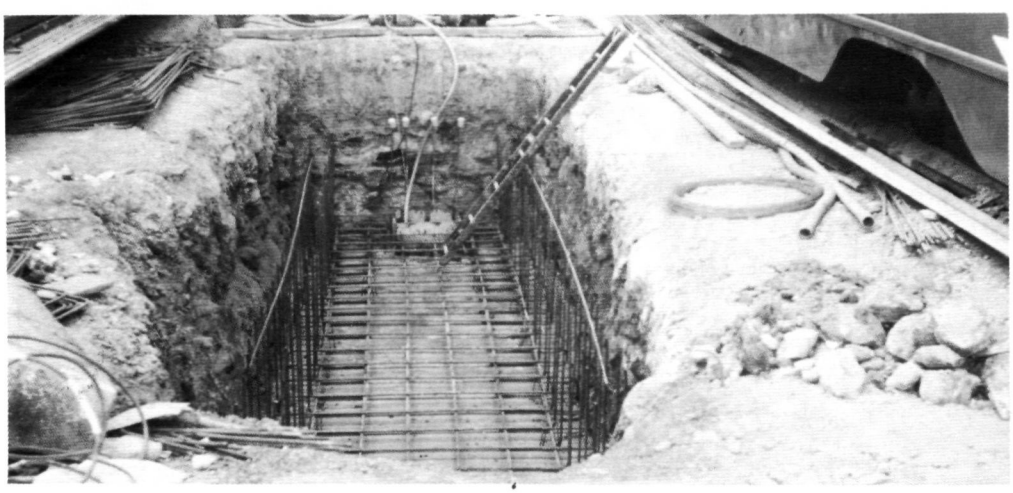
Good progress is also being made on the completion of the Workshop/Restoration Building, with construction of the pit and concreting of the floor now complete. Our standard grooved rail, consisting of tee rail with welded angle, has been used. The rails for the pit have been held in place with bolts set into the edge of the pit, then concreted to rail level.

Paintshop

Norm Chinn is still busily engaged in the repainting of the tramcar fleet, with N 728 now completed. The laborious task of applying pinstripe lining to this car, the first museum car to appear in the tan and straw livery, was carried out by Bill Denham. It had been planned to place O car 1111 in the paintshop for a much needed repaint but an inspection of P car 1497 revealed some problems which needed more urgent attention, so it was given priority. It was withdrawn from service at the beginning of March and was ready to be returned to traffic on 2 April in a fresh coat of cream and green paint. Its actual re-entry to service was one week later.

Street and Track Work

The scissors crossover and adjacent diamond crossing for the Cross Street triangle are both



Progress is also being made on completing the pit in road 2 of the depot. This view shows the reinforcing mesh in place before pouring the concrete for the floor.

VIC SOLOMONS

near completion. Two frogs on the diamond crossing are complete, with the other two well advanced. Excavation work for the drainage required for the four point pits for the scissors crossover was undertaken on 25 March.

The brick kerbing on the western side of Tramway Avenue is now being extended towards Pitt Street and along the side of the restoration building. The kerb and gutter in front of the Miranda waiting shed at the entrance gate has been completed, along with brick paving which has greatly improved the appearance of the main entrance.

Old Site

Dismantling of the trackwork and removal of equipment at the old National Park site is progressing slowly. All that remains of the trackwork is depot tracks 1, 3 and 4 to two car lengths south of the depot junction and from the depot junction to the Princes Highway terminus loading ramp. This trackwork must stay in place until the remaining seven trams have been moved to our new museum.

Railway Square Waiting Shed

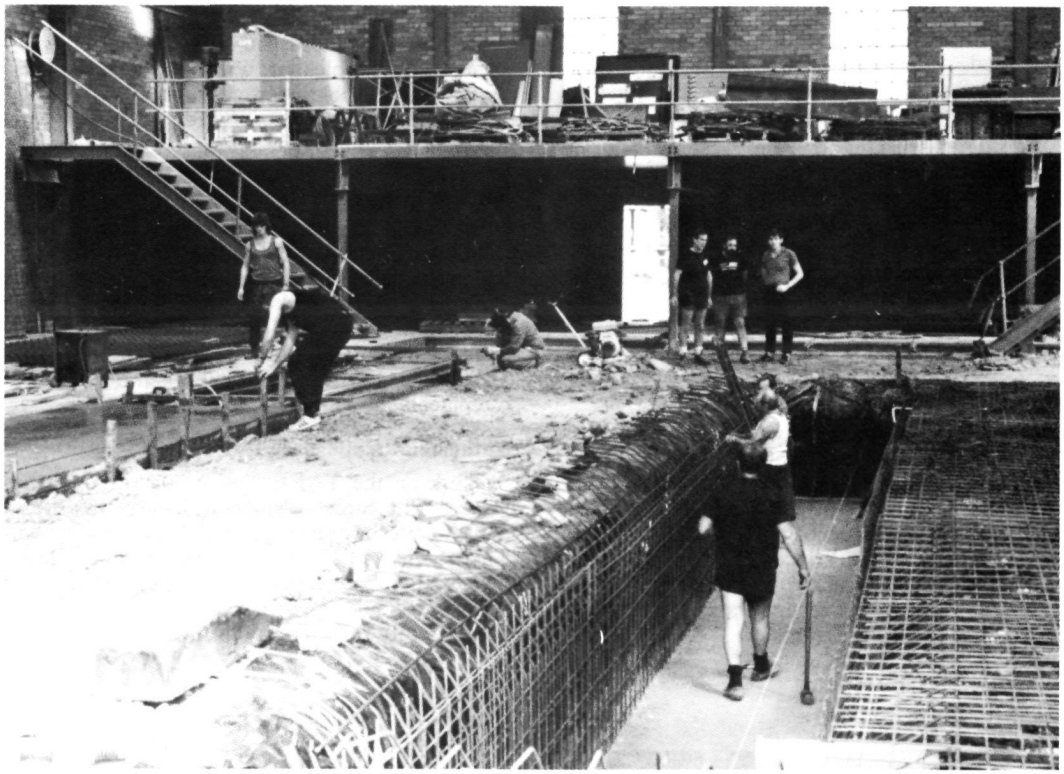
Derek Butler, faced with a number of projects, was no doubt pleased with the arrangements made for the continued reconstruction of the Railway Square structure which is gracing our southern terminus. An allocation of funds for this project was made by the Heritage Council late last year.

BATTLE, a company formed specially to train building trades apprentices, has taken over the project and is now making rapid progress, carrying out the work on weekdays. The roof framework, including the gables, had been completed by the Easter weekend. There will be a slight delay as our tiler has broken his leg, and a replacement will have to be found.

Sutherland College of TAFE

Work on the TAFE College on the opposite side of Pitt Street commenced early this year and the site has since been cleared and fenced. There was a slight misunderstanding about where the boundary fence adjacent to our tramway should have been, but the matter was subsequently resolved in our favour.

The former main line at the National Park site has been lifted, leaving just enough track to enable the remaining cars to be shunted up to the loading ramp at the highway. VIC SOLOMONS



These two views show progress being made on concreting the floor and construction of the pit in the workshop/restoration building on 18 March (above) and 23 March (below). BOB MERCHANT

Kerb and gutter work in progress at the museum entrance during March 1989. Across Pitt Street, the land has already been cleared for the construction of Stage 1 of the TAFE College. VIC SOLOMONS

All new timber is being used in the construction of the Railway Square waiting shed roof as little of the original timber was reuseable. The reconstruction was progressing well when this photo was taken in March 1989. Continuing wet weather has slowed the progress being made, however. BOB MERCHANT

HADDON . . .

Melbourne Tramcar Preservation Association

Substation

During the past few months John Withers has been making steady progress on the 24 volt sub-board with the installation of the various meters and protection devices. He has also made and wired the charging terminal for the substation batteries.

Recently, work commenced on installing an insulated baseboard on which to mount the air-cooled transformer inside the enclosed area of the substation, the cutting and preparation being undertaken by Arthur Ireland.

Permanent Way

During October 1988, the Museum acquired a quantity of 75lb rail from V/Line. This rail was located at the now closed Creswick railway station and formed a section of the No. 3 road. Over a period of three days the rail was unspiked, bolts cut and towed clear to a loading area from where it was transported to Haddon. This rail will be used in the construction of the curve around the back of the running shed.

During February the No. 1 road track outside the workshop was concreted and work has since continued, forming and pouring towards the junction of 1 and 2 roads.

In March, Arthur Ireland took the opportunity during a site clean-up to create one central area in which to sort and stack the Museum's large quantity of per-way fittings.

Tower Wagon

The restoration of this vehicle continues, with numerous small dents now filled. The cabin and floor-pan have been cleaned and painted, as was the dash.

During January, sticking inlet valves gave trouble when the engine was started. We were able to free the valve on the first occasion, but it jammed solid when next started. On removing the head for examination, it was found to have major cracks around the ports and in all cylinders and bent valve guides. A replacement head has been obtained and is being overhauled by Tony Smith, who hopes to have the vehicle running shortly.

Site Maintenance Equipment

The overhaul of the Museum's tractor has been completed, but not without drama. It was tested after final assembly and the water pump seal developed a bad leak. The entire front cowl and radiator had to be removed to gain access to the pump. A new bearing and seal kit were fitted and, after reassembly, the tractor was spray painted and placed in service.

A 5ft rotary slasher was obtained during December. After overhauling the gearbox, fitting

Mildura bound, No. 8107 Passenger passes through the closed Creswick station while Tony Smith cuts fishplate bolts.

a new drive shaft made by Arthur Ireland, a new steel top plate and rear chains, the unit was painted and placed in service. It was used during January to slash the grass around the site and performed perfectly.

The poison spray trailer was completed with the fitting of a high pressure 12 volt pump. It was towed behind the tractor to carry out the annual weed spraying and achieved in two hours what would have taken a man with a backpack two days to complete.

Building Work

The roof over the lifting bay of the workshop building was replaced with new iron during February. During the same month a small shed was constructed to house the tractor and implements. It has been clad with the best iron removed from the lifting bay roof.

Restoration of W4.670

The outside panels received their first undercoat during December and are now being given a second coat. The strap hanger rails and fittings have been removed and and the lined ceiling cleaned and sanded. Work is continuing in the eastern end saloon with old varnish being removed, and sanding down the bulkhead and wall panels. The saloon windows and louvre blinds are being taken to Melbourne for stripping and overhaul. Arthur Ireland continues to be the main worker on this project, with occasional assistance as required.

The restored dropcentre quarterpanel timberwork of W4 class 670.

Arthur Ireland gives the destination fascia of W4.670 its first coat of paint.

Other Projects Completed or in Progress

The railway signal cabinet for the wash plant electrical panel has been modified and overhauled. A steel support stand on which to mount the cabinet was fabricated and concreted into position. Fitting out and wiring the control panel has been completed.

All the steel poles required for the second stage of electrification have had inserts welded into their bases. An overhead wire height and alignment gauge pole and base has been manufactured.

The extensive overhaul of the colour light signals has been completed, with only local wiring to be attended to. The overhaul and modification of SEC and Adelaide type signal overhead contactors has commenced.

ST. KILDA . . .

Australian Electric Transport Museum

Double Celebration

Sunday, 12 March 1989 was a day of Double Celebration for the AETM — The Official Opening of our Display Gallery and the Official Launch of "Desert Gold" tramcar No. 186 by the Hon. John Bannon, Premier of South Australia. The day was billed as a "Vintage Transport Display" and included an impressive range of vintage vehicles.

Operations commenced at 10.00am instead of the normal 1.00pm start. For a number of members, the day started much earlier as trams were shunted to position, and finishing touches were being added to the exhibits. All operable trams except Works Car W2.354 were moved during the shunt. The Tram Display Hall (Roads 7 & 8) was half cleared of trams to make room for Devonshire Tea for the large number of Official Guests. Only Ballarat 34 and W2.294 were stabled outside the front of the shed. Back at the main depot, H 360 shifted from Road 4 to Road 5 to enable the partially restored toastrack 42 to be on display at the front of Road 4 in front of E1.118. A photographic display depicting "Trams Under Restoration" was set up next to car 42. D 192 and G 303 were on display on the Depot fan but were not used. Cars A 1, E1.111, F1.264, F1.282 and H1.381 formed the initial service fleet. Later in the day, 282 was replaced by 294.

AEC Regal IV diesel bus 623 and Leyland "Canton" trolleybus 488 were positioned in front of the trolleybus shed. Nearby were the STA's two vintage buses, Garford 208 and Hercules 164. The Vintage Sports Car Club of SA provided a range of 21 vintage cars, while other vintage vehicles included a truck, three fire engines and the SA Police Historical Society's "Black Maria".

The day looked promising when 381 commenced the first trip at 10.15am with a capacity load. Prime time television publicity on channels 7 and 10 was given on the preceding days. Trams were run in convoys for most of the day. In fact 30 trips were run carrying over 1000 passengers (average 35 per trip).

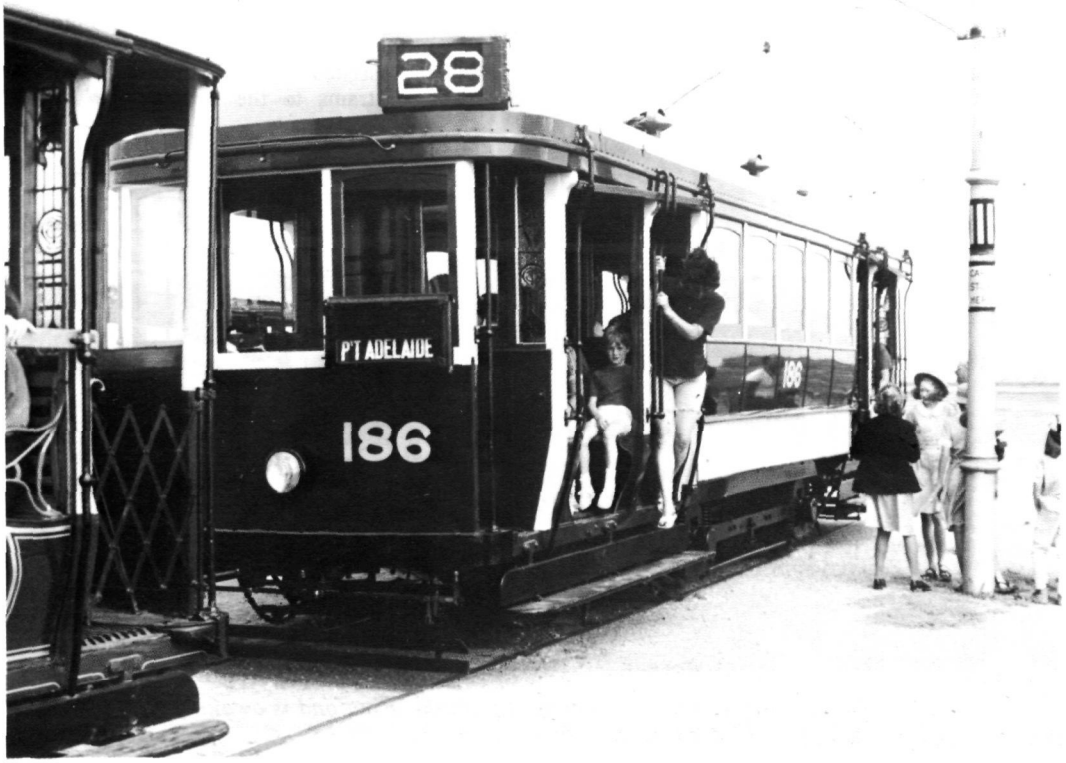
At 2.30pm the Premier and the Mayor of Salisbury, Mrs Pat St Clair-Dixon, arrived and were shown through the new Display Gallery. At 2.45pm, AETM President Colin Seymour outlined the circumstances leading up to the Double Celebration to the large crowd gathered in front of the Display Gallery. The Mayor of Salisbury spoke about the importance of the St Kilda area as a tourist centre. The Premier outlined the recent growth of many of the States's museums and their importance for tourism. Instead of unveiling the plaque commemorating the Opening of the Display Gallery, Colin handed the plaque to the Premier with a screw driver and four screws! (the holes had been predrilled). The Premier and the crowd appreciated the novel approach. Meanwhile, the doors to Road 2 had been opened to reveal a

AETM President Colin Seymour stands by as the Hon. John Bannon, Premier of South Australia, screws the plaque commemorating the opening of the Display Gallery onto the wall, 12 March 1989. FRANK S SEYMOUR

gleaming "Desert Gold" No. 186 behind some tuscan and yellow streamers. Driven by Operations Manager Max Fenner, car 186 broke through the streamers to applause and pulled up in front of the Display Gallery. The official party of 100 guests then boarded cars 186 and 1, while the public crowded onto cars 111 and 264. "Desert Gold" 186, driven by the Premier (assisted by Max Fenner), led the convoy of trams to the Beach. The Premier

Desert Gold 186 has just emerged from the depot and is awaiting the Premier for its official first trip to the Beach, 12 March 1989. FRANK S SEYMOUR

Desert Gold 186, driven by the Premier, heads off past the display of vintage cars for the beach. PAUL R SHILLABEER



Car 186 waits behind car 1 for its return journey to the museum. The young girls in school uniform actually played in the tram when it was a playroom at Woodlands School. PAUL R SHILLABEER

Right: Invited guests enjoying Devonshire Tea in the Tram Display Hall watched over by cars 21 and 362. FRANK S SEYMOUR

drove dropcentre 264, the SA Jubilee 150 tram, on the return trip (assisted by Paul Shillabeer). The Mayor of Salisbury drove 186 back to the Museum. The new addition to our fleet was used on three more trips during the afternoon.

Appropriately, our Double Celebration occurred just three days after the 80th anniversary of the opening of Adelaide's electric tramway system on 9 March 1909. We are fortunate to have in our restored collection tram No. 1 which led the procession on that opening day.

Display Gallery

For some years the AETM saw a need to augment its living display with a complementary display of photographs and similar artifacts

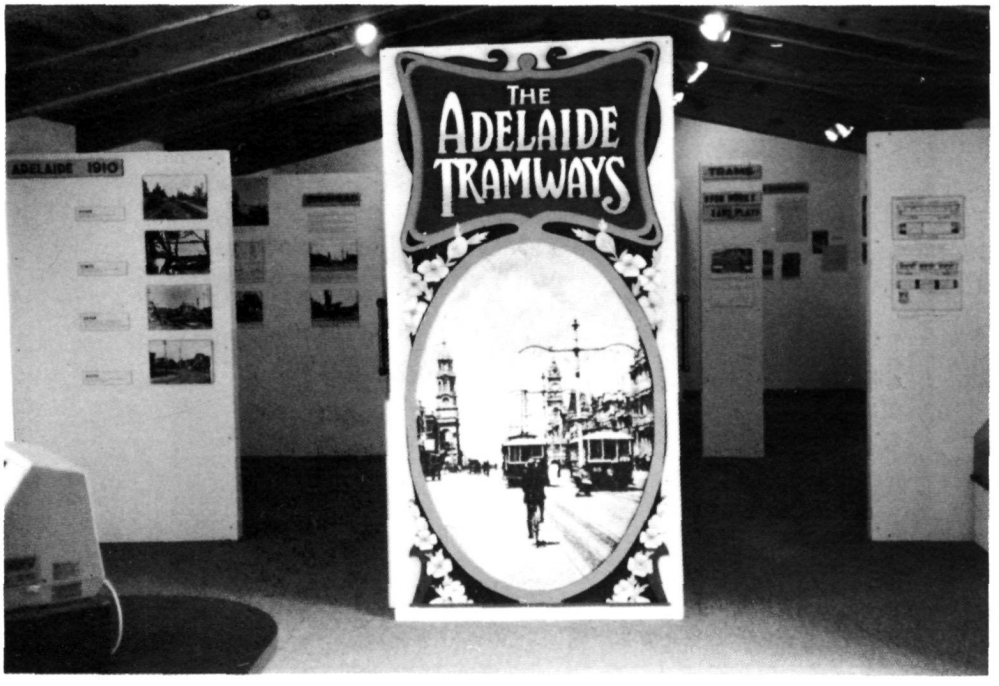
depicting Adelaide's electric tramway era from 1909 to 1958. However, the funding of a suitable Display Gallery was beyond our means, so various grants from the history Trust of SA were applied for. Fortunately, the History Trust agreed with our proposals and grants totalling $31000 were received under the Museum Accreditation and Grants Programme. The AETM contributed another $25000 to the project.

The building has been designed to protect the displays — it has restricted natural (ultra-violet) lighting, and is airconditioned and carpeted. The building also contains the Museum bookshop and Entrance. Entrance pathways have been brick paved and ramped for access by the disabled. The Gallery surrounds have been landscaped with bark gardens.

The Gallery contains a number of display panels which have been designed to give an insight into Adelaide's tramway and social history and currently depict:

* Picnic trams to the foothills and Gardens
* The Tramways Band
* Trams to school, work and sporting events
* Depots, Workshops and ancillary operating equipment

Trevor Triplow and John Radcliffe preparing one of the display panels in the Display Gallery.
PAUL R SHILLABEER



The new Display Gallery as seen from the museum bookshop which shares the same building.
TREVOR TS TRIPLOW

* The Opening of the system, and
* Its Demise in later years.

Photographs are mounted on 9mm custom board with black edges for clarity and are laminated for protection. The accompanying text is mounted on artist board and is also laminated. A four-minute continuous audio-visual display shows tramway scenes from horse tram days until 1958. A small room enables the projectors to be hidden — a screen has been built into the dividing wall, the film being projected by reverse image. Much of the display is the result of the hard efforts of Trevor Triplow and John Radcliffe.

Desert Gold 186

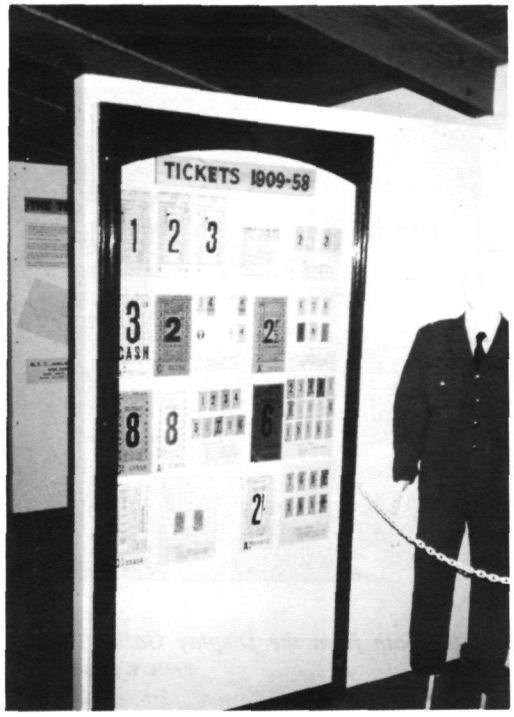
Tram No. 186 was one of the 20 C type trams built in 1918-19 which were nicknamed "Desert Gold" after a prominent racehorse of the day. The Museum had tried for several years to find out more about that particular horse, but without success. A request to local racing Radio Station 5AA met with success, when race caller Ron Papps phoned Colin Seymour two days before the big event. It seems "Desert Gold" was quite a horse. As a two year old it had 6 wins, 5 seconds and 1 third from 12 starts. It had 14 starts and 14 wins as a three year old; 5 wins, 1 second and 1 third from 7 starts as a four year old, and 9 wins, 2 seconds and 2 thirds from 13 starts as a five year old. This impressive performance included the then Australasian record (during 1915-16) of 19 consecutive wins.

The AETM received word in September 1986 that it had been successful in obtaining a Bicentennial Grant of $24000 to restore 186. This gave the Museum a little over two years to return the tram to life — a mammoth task as the body was in much poorer condition than our previous trams restored. Unfortunately, as no reasonable C type bodies were available for restoration, car 186 was the best chance of almost completing our representative collection of Adelaide trams. An additional grant of $4300 was subsequently received to enable the Museum to employ contract labour to help speed the process along.

The new museum bookshop which is situated in the Display Gallery building. TREVOR TS TRIPLOW

CSO workers laying brick pavers on the path from the Display Gallery to the depot fan. PAUL R SHILLABEER

The Conductor display in the new Gallery. TREVOR TS TRIPLOW



The ticket display panel and dummy in the Display Gallery. TREVOR TS TRIPLOW

A small group of members put in a frenzied attack on the tram in the last few weeks to ensure that it would be adequately complete for the Official Launch. The recovered rattan Brill Winner reversible seats were fitted in the saloon. Floor slats were fitted and painted. Timber lining (including beading) was completed. The new saloon and motorman's cab windows were fitted. Bulkhead panel mirrors and leadlight windows were inserted. Drop-end crossbench seats and tip-over backs were positioned. Metal panels were painted in the appropriate tuscan and cream colours, and grab rails fitted. Final work was carried out on the brake rigging and hand brakes. The roof was undercoated, then painted orange, allowing the route number boxes to be fitted. Destination boxes were fitted to the aprons.

Port Adelaide destination rolls originally made for B type 42 were installed (this car is being restored to its pre Port Adelaide "toastrack" form). Temporary numbers (circa 1940s) were fixed, as it is intended to fix the more ornate circa early 1930s numbers. Although the car requires further finishing, it looked splendid on the day, and can be used in traffic when warranted. Desert Gold 186 will prove a valuable addition to our regular service fleet. Special thanks must go to Max Fenner, Jack Pennack, Ian Seymour, John Hoffmann, Peter Keynes, Chris Dunbar and the other members who worked so hard on the tram.

The Museum's recently repainted AEC Regal IV bus 623 on display in front of the Trolleybus Shed. PAUL R SHILLABEER

W2.354 and the toilet block are almost camouflaged by the museum's growing trees and shrubs. PAUL R SHILLABEER

A CSO worker assists Peter Perin (right) erect the pergoda in front of the tea rooms. PAUL R SHILLABEER

New Tea Rooms

The "big day" also saw the opening of the Museum's new kiosk/tea rooms in the former entrance building/bookshop. The tea room has been set up by Bev and Neville Smith and family, and replaces a temporary facility at the rear of the tram display hall. It has been appropriately named the "Bouncing Billy" Tea Room. "Bouncing Billy" was the nickname given to Adelaide single truckers in their later years because of their rocking motion. Patrons are able to sit either inside or outside the kiosk in replica Garford bus seats. The new facility certainly did a roaring trade on 12 March.

Site Works

The weekend preceding the Vintage Transport Display also saw a hive of activity around the site and down the track. Peter Perin erected handrails along the new Display Gallery entrance paths, installed plumbing facilities in the tea rooms, and supervised the laying of paths and many other sundry tasks. Mark Skinner ensured that the CSO Workers carried out many tasks to improve the Display Gallery surrounds, the grounds and carry out track repairs. In fact, Mark arranged for 20 CSO workers (instead of the usual 8) to assist on the preceding two Saturdays. The Community Service Order Scheme has proved its worth to the AETM over the past 18 months.

The restored and recovered Brill "Winner" reversible rattan seats in the saloon of 186.
PAUL R SHILLABEER

Patrons enjoying afternoon tea outside the new "Bouncing Billy" tea rooms located in the former entrance building/bookshop. PAUL R SHILLABEER

Desert Gold 186 in the AETM's workshop during its extensive rebuild.
PAUL R SHILLABEER

MELBOURNE . . .

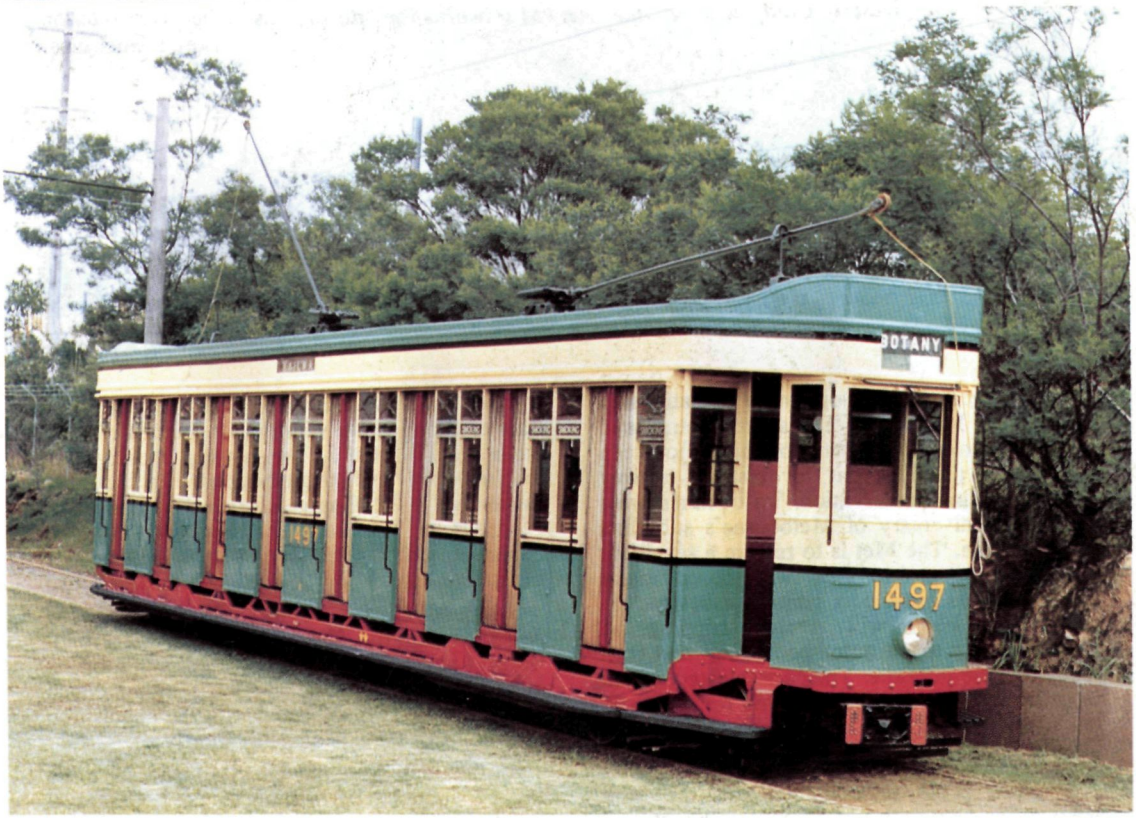
ElecRail

The successful co-operative relationship between the Ministry of Transport, Metrail and volunteer preservationists continues to keep Victoria in the forefront for historic railway electric traction preservation. To commemorate the 70th anniversary of Melbourne's suburban electrification, The Met is to restore a seven-car Harris (blue) train. This will be a major undertaking as most cars contain asbestos, the removal of which will involve stripping the vehicles down to an outer body shell and then rebuilding the interiors. The cars selected, which represent the three series of Harris rolling stock, are motor cars 522M, 798M and 799M, and trailers 515T, 606T, 850T and 883T.

ElecRail plans to commemorate the 70th anniversary year with two tours. Sunday May 7 will see the recreation after 30 years of an E train to Stony Point with double-headed electric motors (107M and 327M) hauling country cars to Frankston and steam beyond. On Saturday September 9, Melbourne's first electrified lines, Flemington Racecourse, Sandringham and Essendon, and Upfield, which is a candidate for Light Rail conversion, are planned destinations.

Swing-door cars 107M, 341T and 327M passed their first Departmental annual road-worthy test on February 13. Restoration is proceeding on swing-door electric motor coach 137M. Progress is expected with the acquisition of withdrawn parcels coaches shortly.

Further details about ElecRail and its tours can be obtained by writing to 2/51 Campbell Street, Heathmont, Victoria 3135.



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