TROLLEY WIRE

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LIVERIES, EXTENSIONS & DESIGN

TROLLEY WIRE

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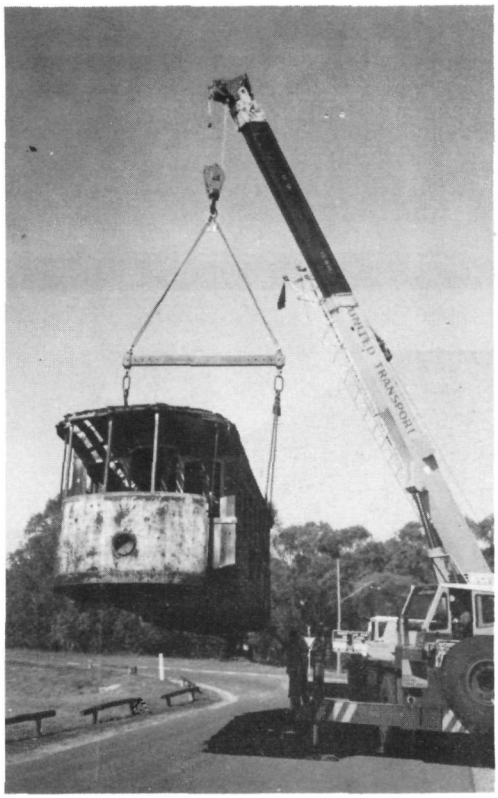


The PETS newest acquisition is the body of Kalgoorlie single truck car No. 4. It is seen here being lifted from the semi-trailer at Mussel Pool on 14 August 1989. DUNCAN McVICAR

FRONT COVER

Steam tram engine "John Bull" and Dundee steam tram trailer 21 at the National Tramway Museum, Crich, on 10 April 1989. JS WEBB

BACK PAGE

Top: Ex-Melbourne L class 103 sits on the depot fan at Haddon during pointwork testing.

Bottom: Ballarat bogie car 36 in operation on the TMSV's line at Bylands on 24 September 1989. WILLIAM F SCOTT

SYDNEY TRAM COLOUR SCHEMES

By William M. Denham

Through the years of tramway research the historians have generally passed over the details of the colour schemes applied to the Sydney trams during the tramway era. Little was ever related of the steam tram era; the cable cars were generally grouped with the electric stock. In this regard it was usually thought sufficient to refer to colour schemes in four main groupings:— varnish/maroon; chocolate and cream; olive, fawn and grey, and cream and green.

More recently this has been found to be only part of the story. As the date for the opening of the new museum at Loftus drew ever closer, the Sydney Tramway Museum was offered a donation of funds to enable the Display Hall area to be made presentable for public inspection, the exhibit area to be finalised and major exhibits, at least, to be given cosmetic paint treatment. The first car chosen to be repainted in this new session was the scrubber D car 134s. This emerged from the paintshop in cream and green. Most observers criticised the green colour as being much too dark, but the Paintshop Supervisor, Norm Chinn, was able to produce evidence from the Tramway Files in the State Archives to support the colours. Further examination of the question of colours disclosed that the scrubber cars were usually painted in the darker colour for practical reasons. They were run for longer periods between visits to the paintshop than were the lighter coloured passenger cars. It was also discovered that the D cars were mainly painted in the repair shop and not the paint shop. Strict tradesman hierarchy dictated that only senior or special staff could apply gold lettering and certain signwritten lining. For this reason the D cars were returned to service with plain cream numbers and "No Passengers" signs while the black separation lines were absent.

Norm Chinn's next endeavour was with the museum's oldest electric tram, C class car No. 290. At this stage it was determined that the whole fleet of trams would be restored to colour schemes appropriate to the general period of the structural condition of the class in question. For this reason, No. 290, with its enclosed ends would have to represent the 1908-1916 period of chocolate and cream, and C car No. 29, when returned from "The Old Spaghetti Factory" restaurant, would be open-fronted and in the 1896-1908 varnish or maroon colours.

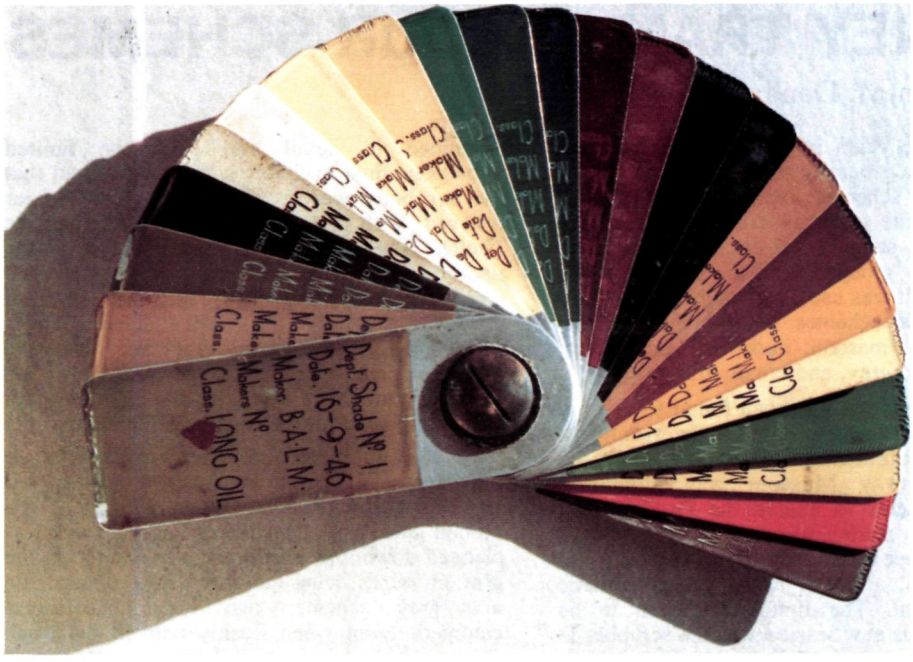
An official photograph of C car No. 6, a sister car to No. 290, in closed front form was examined in detail and from the limited knowledge then available it was determined that the car body was in a deep chocolate colour relieved with deep cream (later defined as "buff). The colours of the roof and the underframe and truck were still not resolved when the body was ready for lining out. A chance observation by Norm's elderly father, himself a former tramway employee, disclosed that the trucks were "shop grey". This tallied with the photos and explained the "light colour" which appeared on the truck and lifeguards.

Removal of underframe fittings revealed bright red gloss finish paint; the possible area of red was traced by observing a good print of the official glass plate negative. When the truck was cleaned down and experimentally painted in the grey on hand, being the grey of the olive, fawn and grey scheme, two important factors emerged. Even when freshly painted the truck seemed as though the tram had been out running on a dusty road. Little effort was needed to realise that in the period that these colours were used the tram would have operated over unsealed macadamised roads and the grey colour would have concealed the road grime thrown up by the passage of the tram.

The other observation made, while the truck was being stripped down, was the presence of a strong tar-like smell. Examination of the paint scrapings would reveal that in later years the truck was painted with bituminous black paint — obviously introduced to conceal the effects of the tar thrown up onto the tram trucks as tar sealing of roadways came into vogue. Later information would come to hand to confirm that the choice of mid grey for the floors and cream for the roof was close to the mark.

With the C car nearing completion, efforts were then directed at the K class car 1296, to have its olive, fawn and grey paint scheme revived. Before any final work was done on the car, the historical investigation took a strange twist. Although Randwick Tramway Workshops had closed for that purpose after February 1961, the area, in gradually shrinking form, continued as a workshop for the Public Transport Commission/State Rail Authority/Urban Transit Authority until the mid 1980s. At this stage, demolition of many of the remaining major buildings was planned.

Before any work was commenced, however, an offer by the Sydney Tramway Museum to explore the Workshops for Industrial Archaeo-



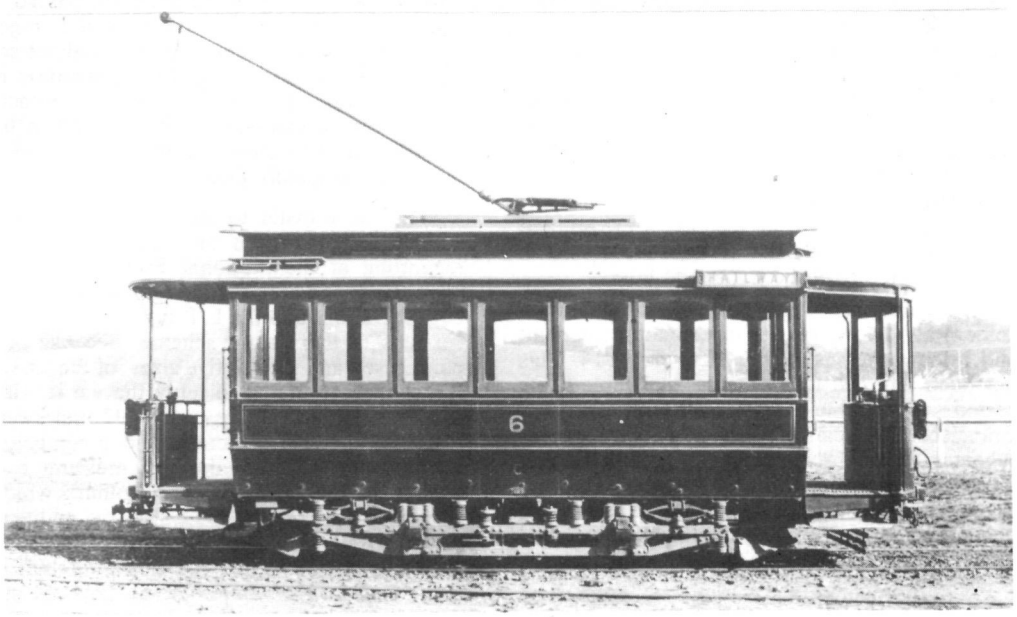
The paint swatch discovered in the former Paint Shop at Randwick Workshops. Both oil-based and synthetic paint colours are shown. SPER ARCHIVES

logy purposes was accepted by the transport authorities and a treasure trove of artifacts was discovered in abandoned storerooms and shelves. Significant items were placed in the care of the Sydney Tramway Museum and many have gone on display in the new museum, much to the wonderment of the visiting public. Apart from some documents from the former Workshop Manager's office which were viewed by the Museum, little appeared of assistance to colour scheme research until the former paintshop was made available for inspection. The key to the paintshop door was the key to the whole "in depth" study of the Sydney tram colour schemes.

Tucked away in a corner was a dust covered box which revealed not only colour sample panels prepared in the 1930s when the change of image was being planned and would see the general introduction of the cream and green colours, but also the Paintshop Superintendent's official colour swatch. This was painted with samples of most of the colours used between the turn of the century and 1933, but, more importantly, was annotated with the Departmental colour numbers, the official supplier's name and manufacturer's colour number. It was this relatively insignificant artifact that was to play the most important role in the further development and research of the colour schemes.

The K car was restored to the correct olive, fawn and grey colours mixed to the departmental samples. However, in examining a large number of photos of trams in these colours, Norm Chinn discovered a significant number of anomolies. At this stage, Bill Denham entered into collaboration with Norm on the matter of research. Together they labouriously dated as many photos as possible and collated the apparent endless variations on the colour scheme of olive, fawn and grey. Allowing for vagarities of films of the period, for the actual condition of the paintwork on the cars and for apparent "artist's licence" exercised by some coachpainters, they were able to determine that three distinct variations of the olive, fawn and grey scheme had existed. Some of the aspects of the variations would take quite a while to resolve.

The paint manufacturing firm of Pascol Paints Australia Pty Ltd was approached to ascertain whether they would be able to become associated with the project. Pascol showed a ready interest in the work. They had previously introduced a "Heritage" range of building paints for specialist restoration projects and indicated a keenness to expand the range to include transport heritage colours. The outcome would



C car no. 6. The "light coloured" truck shows clearly in this view. OFFICIAL PHOTO

be a range of 26 colours developed as a result of the researches of the Sydney Tramway Museum. The help given by Pascol to the Museum in this matter echoes Pascol's own recognition of the mutual assistance.

With 1988 upon us, the colour research produced almost weekly revisions to the growing file of notes and it was decided to assemble the material in a printable form. A request by the convenors of the 1988 Council of Tramway Museums of Australasia (COTMA) Conference to be held in Sydney in September was made of Norm and Bill to present a paper on the research. To this end, it was decided to distribute a first draft copy of the material to all the delegates. Major changes were being made to the information right up to the day the first pages were being printed.

In 1988, Vic Solomons came to assist the research team, having embarked upon a project of examining, in some detail, the tramway section of the State Government Archives. Vic was able to turn up copies of tramcar building specifications of the 1900s and 1910s, some of which gave full details of colour schemes to be applied. With this information on hand, further detailed examination of the thousands of photographs at the Museum's disposal was undertaken with the result that the colour schemes could be further divided into:—Varnish, replaced by maroon on the C and D cars; Chocolate and buff introduced on the G and F cars and extended to the N, E, L and, possibly, J cars; Chocolate and buff adapted for the C and D cars; Tan and straw introduced to the N, E and J cars and applied to the new H, M, K and O classes; Tan and straw with olive green and red trim applied to the final batches of the new O and K class cars; Fawn and grey with olive trim introduced in 1916 and gradually applied to all passenger classes; Olive, fawn and grey amended with the introduction of the new P class trams; Olive,green and grey on an experimental basis on some 49 O class and several P class cars in 1933 before the cream and green colours were finalised; Cream and green.

The research in the State Archives produced documents which outlined the experiments in the 1920s with blue colours and a proposed general change of colour scheme for the trams. This was abandoned when the pigments used failed under test. Other memos and letters detailed the reasons or dates for previously unsuspected variations to the colour schemes.

With the K car in its new coat of paint, work then progressed on the F class car 393 to allow it to take its rightful place as official car on the "State Occasion", 19 March 1988, when the new museum was officially opened to the public. Prison car No. 948 was ready in the last official scheme carried by this car, being the service

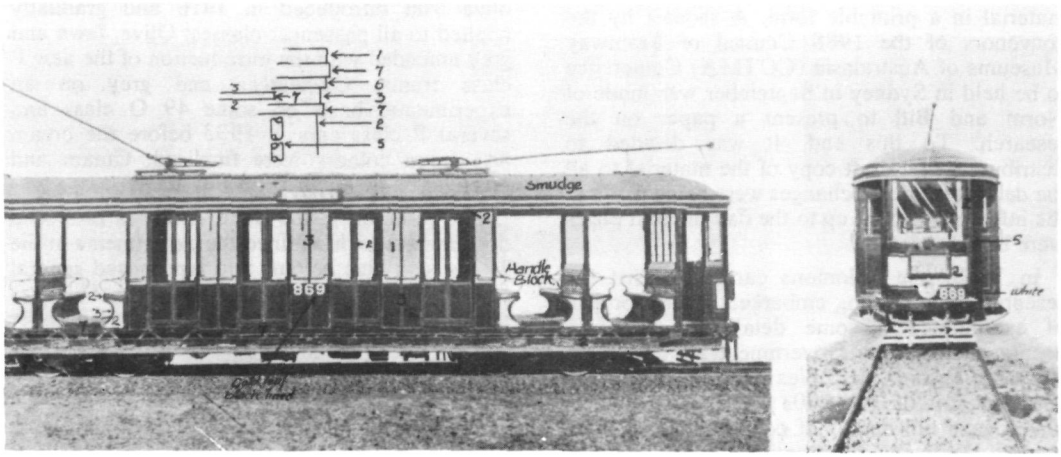
stock version of the fawn and grey with olive trim, and R1 class 2044 had temporarily been repainted in the ivory and deep blue carried by two other cars of this class in 1954 to commemorate the Royal Tour. Plans to repaint R class car 1740 in the carmine and cream carried by Royal Tour liveried R 1925 at North Sydney in 1954, to celebrate 1988 did not eventuate due to time limitations. No. 1740 has since been repainted in the 1933 cream and green, colours slightly darker than those used in post war painting of the trams and buses.

The paintshop then diverted its attention somewhat to arrange the investigation of paint and colour schemes for the PCC car 1014. This has been returned to a scheme applicable to its period of double-ended operation in San Francisco. Research into tramway colour schemes was broadened to include street furniture associated with tramway streets so that the Museum's Tramway Avenue could be painted progressively in colours of the late 1920s to early 1930s.

It was discovered that a tramway "corporate" colour scheme existed, virtually unchanged, from the early days until the late 1930s. This was based on deep Brunswick green and light grey. Signal boxes, tramway telephone boxes and steel span poles are now gradually sporting these colours to great effect, while the two waiting sheds carry the early and the late cream and green colours respectively.

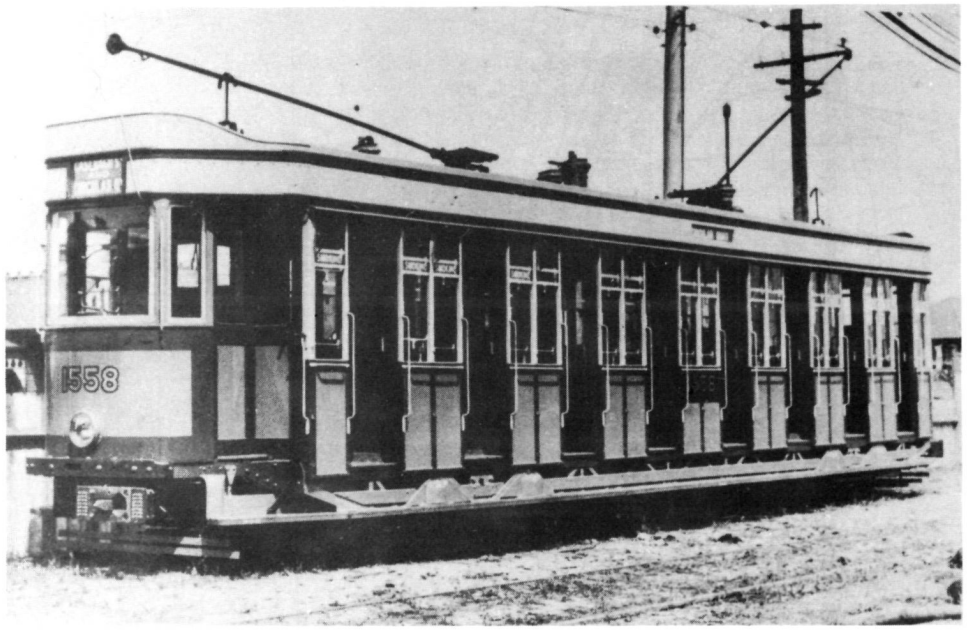
With the opening of the Museum passed, the work of painting trams continued as did on-going research. Hardly a week went by without some item of interest being produced. Sometimes new material was tendered, on many occasions further critical examination of material to hand provided further clues as the pieces of the puzzle are gradually pieced together.

With the transfer to the new site of L/P car 154, which had been the last car to undergo repainting at the National Park depot, in the olive, fawn and grey colours, it was realised that both the K car and the L/P car were in identical versions of this colour scheme. Because of the paints used and the relative sizes of the cars, the K car was altered to display the earlier fawn and grey colours. P class car 1497 underwent a repaint in the post war cream and green colours. N class car 728 was the first museum car to emerge in the tan and straw colours which it would have carried in 1912 after the addition of the enclosed ends. This car returned to service after completion of extensive runs of buff pin-stripe lining. The matter of the tan and straw colours invoked, possibly, the most discussion within the paint research group. For a long time the exact shade of brown represented by "tan" defied identification. It was variously described as "nearly Indian red", "red-brown", "dark brown" and "nearly black". The answer, by the way, is a light "milk chocolate" colour. "Straw" was fairly obviously a light cream, while our



Portion of one of a number of tramcar illustrations found interleaved into a volume of tramcar outline drawings located at Randwick. The departmental paint numbers have been added to indicate the position of the colours used on the car.

SPER ARCHIVES



P class car 1558 wearing the amended olive, fawn and grey livery first adopted in 1916. The introduction of the P class cars in 1927, with their deep fascia, necessitated a change in the application of the livery. OFFICIAL PHOTO

railway oriented members suggested that "Pullman Car colour" was a dark green.

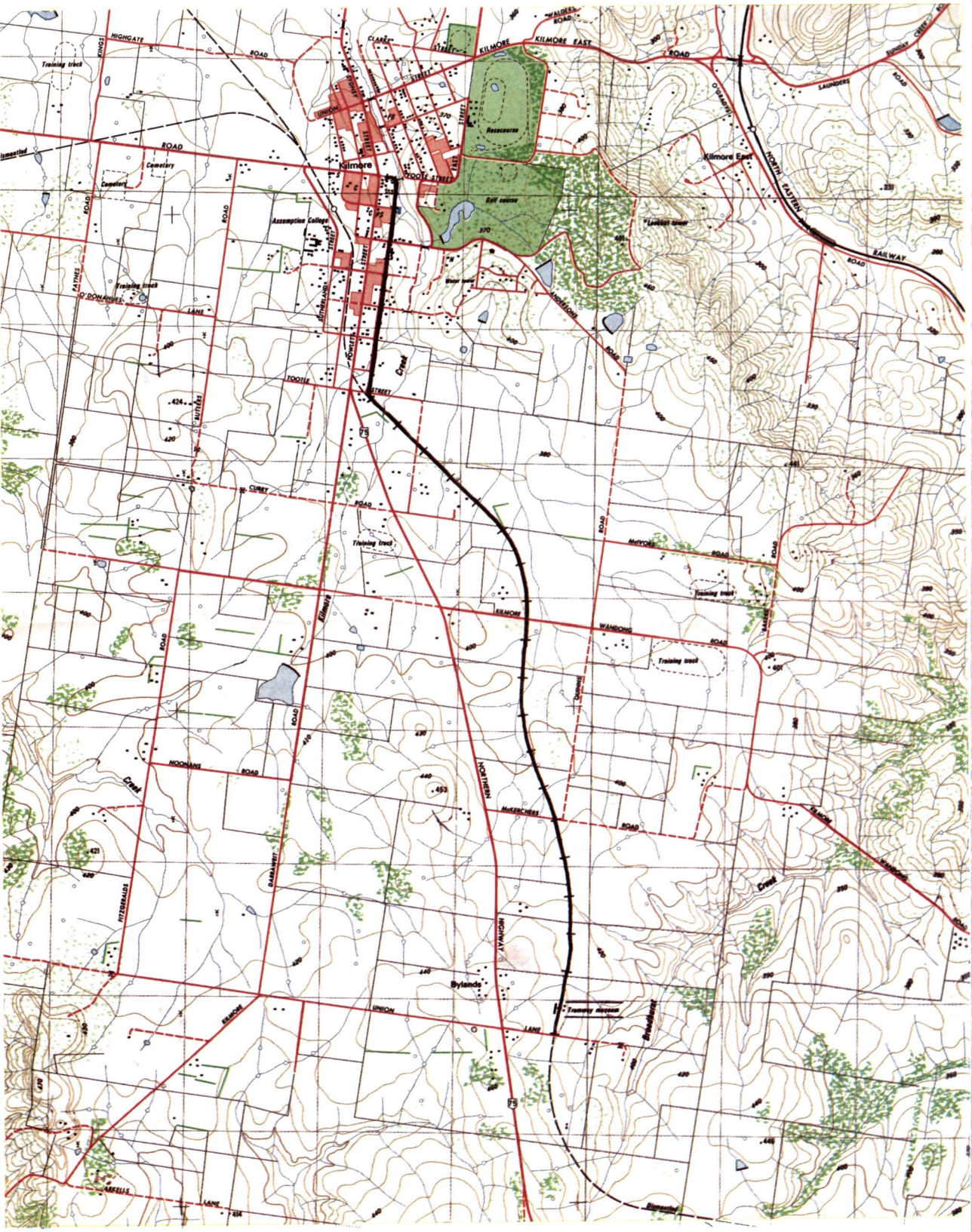
Since dark (ie: Brunswick) green was a fairly extensively used Sydney tram colour, it was assumed that this was the colour referred to in the specifications.

The materials to be used for "standard light straw", "standard tan colour" and "standard Pullman Car colour" were found in a specification for the last batch of J class cars ordered in 1905. No quantities were indicated and the information was passed over until a re-reading of the details brought the information back to light. The Pascol representative was able to confirm that the light straw colour would have been a light cream, the tan would be a red-brown and the Pullman Car colour could in no way be have been very dark green as had been suggested. It would have been a deep brown, probably the same as an earlier brown or the chocolate already identified! It was, in fact, British Pullman car colour and not the American Pullman green.

The work on the New South Wales electric tram colour schemes is now reaching its conclusion. This exercise in historical research has proved to be facinating, frustrating, rewarding — often at the same time — and has closed a gap in the subject of New South Wales tramway history. The next page in the project is to work backwards through the steam and cable tram colours, a task of collating the few remaining fragments of information collected on the steam and cable tram colours, made all the more difficult by the destruction of vital documentation as sadly indicated below. There seems little doubt that this challenge will be met and prove as satisfying as the work done to date.

In the matter of official archival material, just days before the COTMA Conference, a copy of a Departmental minute from the State Archives was viewed. It detailed the recomendation by an officer of the State Library that the old redundant tramway files examined at the request of the Tramways Department were of no further value! They could be surrendered to the paper pulpers to help the war effort. This unhappy note helped to explain the dearth of information on steam trams and cable trams in the tramway archives. We are, however, pleased to note that a change of policy in later years will prevent such a decision being taken again.

The decision to destroy the files took place in 1940. Only eight years later the first steps were taken in a venture which became the Sydney Tramway Museum.


Kilmore
Kilmore East
Bylands
Assumption College
Racecourse
Golf course
Cemetery
Tramway museum
Training track
Creek
HIGHWAY
NORTHERN
EASTERN
RAILWAY
ROAD
LANE
STREET

TMSV MUSEUM LINE EXTENDED

By William F. Scott

The TMSV's Bylands Museum main line was extended as from Sunday, 24 September 1989, northwards towards Kilmore. The original main line ran only 400 yards from Union Lane, the southern boundary of the museum premises. The extension comprises 700 yards of single line, but owing to unavoidable delays, is 60 yards short of the planned length to the first passing loop.

This loop will be a standard D configuration, as was the normal practice on the Melbourne Tramways, which will maintain authenticity for the predominantly ex-Melbourne tramcar museum. Indeed, the loop location, from which the single line rails had previously been removed, was examined on the same day as the opening ceremony, in connection with future construction. The loop will be of sufficient length to hold two bogie cars on each leg.

The main line comprises ex-Victorian Railways 60lb per yard, 5ft 3in gauge line, regauged to 4ft 8-1/2in. Delays occurred from unusually wet weather and extensive rock strikings in some areas where the overhead poles were to be planted. The subcontractor had to engage in rock blasting before several of the poles could be erected.

The poles were new ex-State Electricity Commission of Victoria stock, and surplus to their requirements. They were placed 90 feet apart with bracket arm construction using fittings purchased from the former SECV tramway system at Ballarat when it closed. The Society, along with an MTA overhead crew, fitted the bracket arms. Painting was carried out by the Society before installation.

The MTA generously assisted further by erecting the stays, spanwires and hangers, and stringing the overhead with good used ex-MTA trolleywire. They employed new hangers rather than earlier styles, to avoid heavy labour costs, as older hangers take so much longer to fit and adjust. The track was regauged by sliding over the western rails. Selective resleepering was also undertaken. The trackside drains are still in place but require cleaning out to improve drainage, thereby prolonging sleeper life.

The commissioning of the extension took place in perfect weather conditions, with two cars, W1 class 427 and Ballarat 36. The SW2 car 644 was also on the main line, and accommodated TMSV members for their Annual General Meeting followed by a Directors' Meeting. Len Millar, Chairman of the Society, opened the commissioning proceedings, succeeded by Mr Maxwell McDonald, MLA for Whittlesea. The keynote address was given by Mr Kevin Shea, who was the Managing Director of the MTA when the extension overhead was strung. He is presently Chairman of the County Fire Authority.

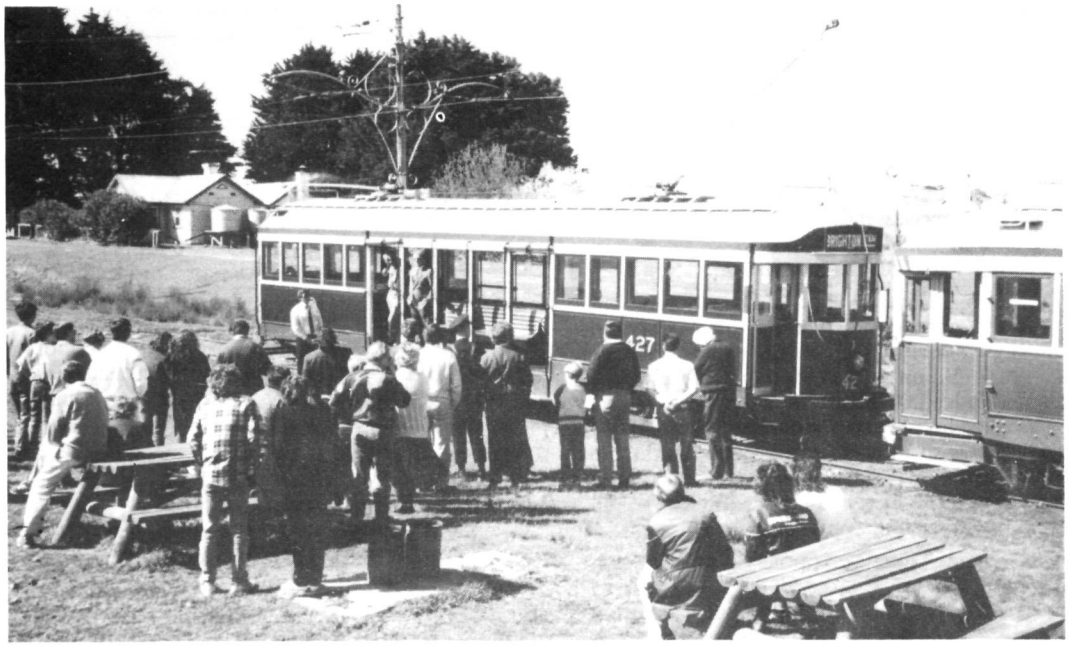
Mr Shea referred to the Society being able to have a more authentic tramway operation once the loop is installed. He also pointed out that the museum is no further out, time-wise, than the ever popular Puffing Billy steam railway for many Melburnians. Car W1 427 and Ballarat 36 formally opened the extension, running in tandem. Several trips were made during the afternoon until dusk. The W1 car ran even later.

The extension is part of the plan to run electric tramcars to Kilmore. The distance is four miles from Bylands, and would connect with the Kilmore Tramway, now a cable car style line. In July 1989, a submission entitled "Bylands to Kilmore Tramway" was made to the Victorian Minister for Transport, The Hon. James Kennan QC, MLC, in respect of the proposed line to Kilmore. The submission requests the supply of second-hand materials with the Society organising volunteers and Community Service Order workers, plus specialised MTA assistance, or government funding for the whole project.

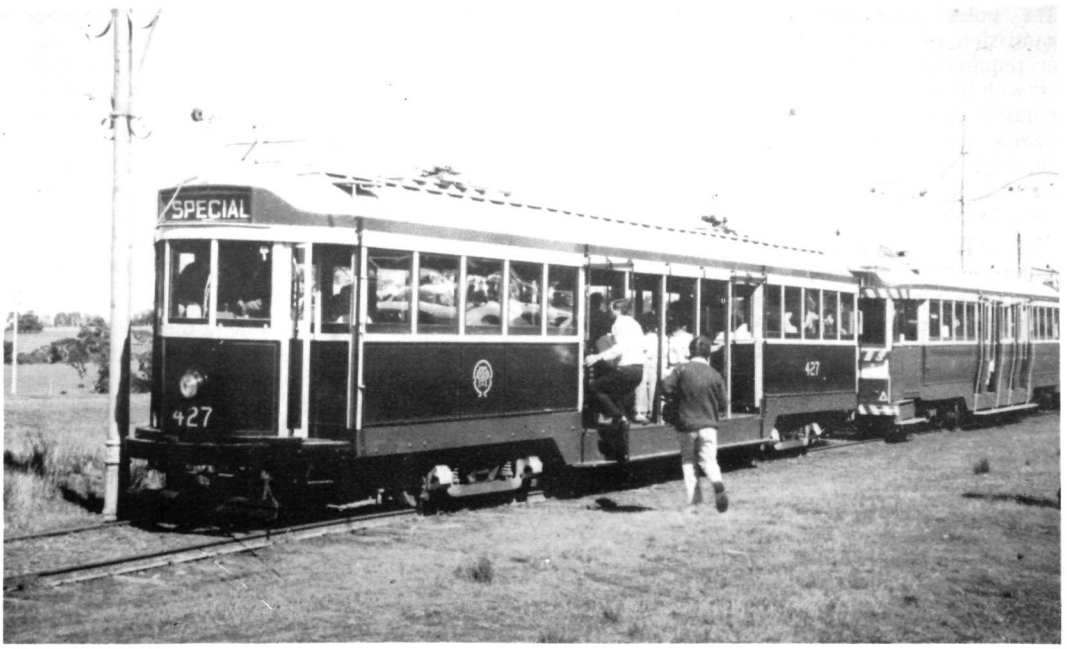
The request is for continuing the existing line along the abandoned railway formation to Tootle Street, Kilmore. From there the line to run northwards along the eastern side of White Street, turning left and terminating in Skehan Place, which is the southern boundary of Hudson Park where the Kilmore Tramway operates. The electric line would therefore

OPPOSITE: *Plan showing the track bed of the former broad gauge Heathcote junction to Bendigo Railway between Bylands and Kilmore, the route of the proposed Bylands to Kilmore Tramway. The TMSV owns the first mile between Union Lane and McKerchers Road, from which section the rails were not lifted.*

FROM TMSV "BYLANDS TO KILMORE TRAMWAY" SUBMISSION



Cars W1 427 and Ballarat 36 set for the first run after formal opening of the extension. Mr Kevin Shea gives his address from the centre section of car 427.
WILLIAM F SCOTT



With the speeches made, cars 427 and 36 are about to proceed, with Mr Kevin Shea at the controls of 427. These two vehicles are currently the Society's regular service cars
WILLIAM F SCOTT

View along the extension from the cabin of car 36. The nature of the terrain is evident. A continuance of the line would include pleasing treed areas.

WILLIAM D SCOTT

eventually partly parallel the Kilmore Tramway thus facilitating passenger transfers.

The railway formation still includes rails to McKerchers Road, one mile north of Union Lane, but the rails were lifted beyond that point. A White Street trackage would be one mile long and entirely new. The Kilmore Shire Council has indicated a preference for the line to follow Kilmore Creek rather than White Street. Such a route would be more picturesque, but earthworks would be required.

Just four miles south of Bylands a multimillion dollar tourist development is planned, in the Wallan area. It would include shopping and convention centres, a theatre, five star hotel, bunk accommodation, 18 hole golf course, fauna park, plus aircraft, motor and railway museums. The ARHS Railway Museum at North Williamstown is under pressure to relocate and may transfer to the Wallan development.

All these projects are in the Kilmore shire, as it is one of the fastest growing shires in Victoria, with a 15% annual growth rate. The shire is close to Melbourne, has two major highways and the main Melbourne to Sydney rail link nearby.

All these developments mean much more activity in the general region of the Society's operations. The Society can look forward to greatly increased attendances as these tourism projects come to fruition.

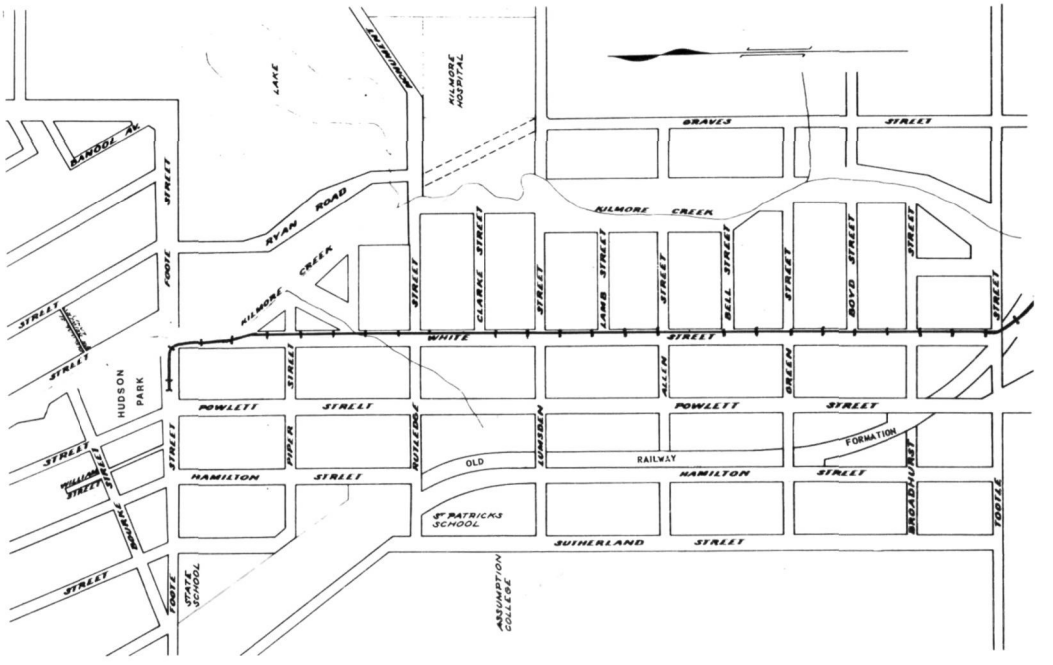
The recent extension of the museum main line and moves to lengthen it further, can thus be seen as actions compatible with the general thrust of expansion in the Kilmore shire.

Cars 427 and 36 arrive in convoy at the temporary terminus, just beyond which the loop will be laid. The neat and orderly planting of poles can be seen.

WILLIAM F SCOTT

Looking south from the present Kilmore tramway outer terminus, towards White Street. The parked motor vehicles are in Skehan Place, which has a centre reservation ideal for a tramway off street terminus that would be visible from the main highway through Kilmore.

WILLIAM F SCOTT



Street map of southern Kilmore delineating the proposed route of the Bylands to kilmore Tramway in the township. The line may leave the railway formation a Tootle Street, then proceed northwards along the entire length of White Street on the eastern side, and turn left to a terminus in Skehan Place.

FROM TMSV "BYLANDS TO KILMORE TRAMWAY" SUBMISSION

Looking northwards with the existing Kilmore Tramway terminus just in sight. The electric line could turn left into Skehan Place in this general location.

WILLIAM F SCOTT

Scene between the northern end of White Street and near the eastern end of Skehan Place, illustrating the ballasted formation for the Kilmore Tramway extension. Parallel running could occur here. WILLIAM F SCOTT

The northern end of White Street, Kilmore and looking south. the recent proposal is for the Bylands to Kilmore Tramway to operate along the eastern side of this street, the side nearest to the camera. Ballast for the planned Kilmore cable car style tramway lengthening is on the left. Parallel running could commence here.

WILLIAM F SCOTT

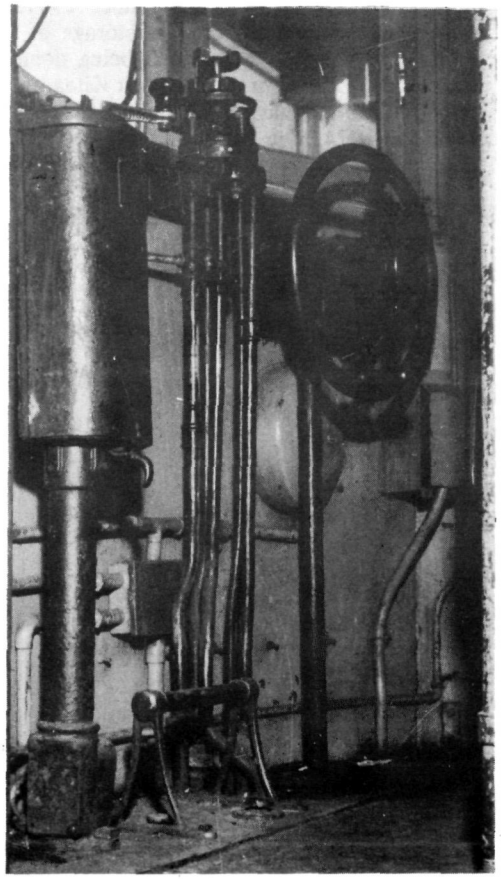
EVOLUTION OF DESIGN — TYPE H-1

By John Radcliffe

Visitors to the Australian Electric Transport Museum at St Kilda may be surprised to find on display two very large trams, seemingly of a similar class, yet radically different in appearance, and constructed 23 years apart. These are H type car 362 and H-1 type car 381.

Recently a series of tracings have come to light showing how the design of the H-1 type progressively evolved from the H type, and they are reproduced in this article.

Drawing no. 1, derived from MTT drawing 7406, and signed by General Manager WGT Goodman on 12 August 1929, shows the H type car as built. The first trial run of cars of this type was made on 17 October 1929, and they came into regular traffic from the opening of the Glenelg line on 14 December 1929. The State Transport Authority of South Australia still has 22 of these cars, including 378 which is being retrieved for refurbishment from the Port Adelaide Redevelopment Authority, to whom it was given when City Depot closed several years ago. Apart from the replacement of some components with those of similar appearance made from fibreglass, and the replacement of trolleypoles by pantographs, the cars are essentially similar to their original design. Three other cars (355, 360 and 362) are at St Kilda.

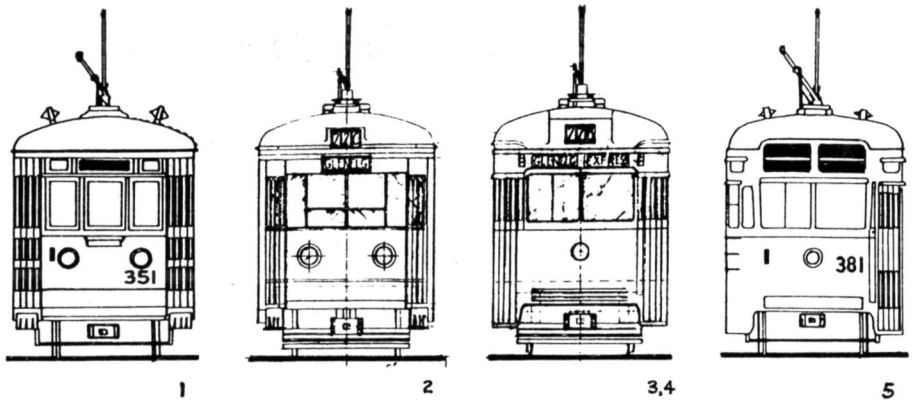


H type motorman's controls BARRY TOOKER

Drawing no. 2, being MTT drawing 13619, and signed by WGT Goodman on 1 August 1947, shows a more streamlined version of the H type, but with almost identical frame details, outward folding doors and steps, and a front-end treatment reminiscent of some early postwar European cars. The plan drawing (not reproduced) shows the motorman continuing to operate behind a metal screen as on the H type cars, but with the screen set a little further back on the platform — a change also made to the two most-recently refurbished H cars, 358 and 361.

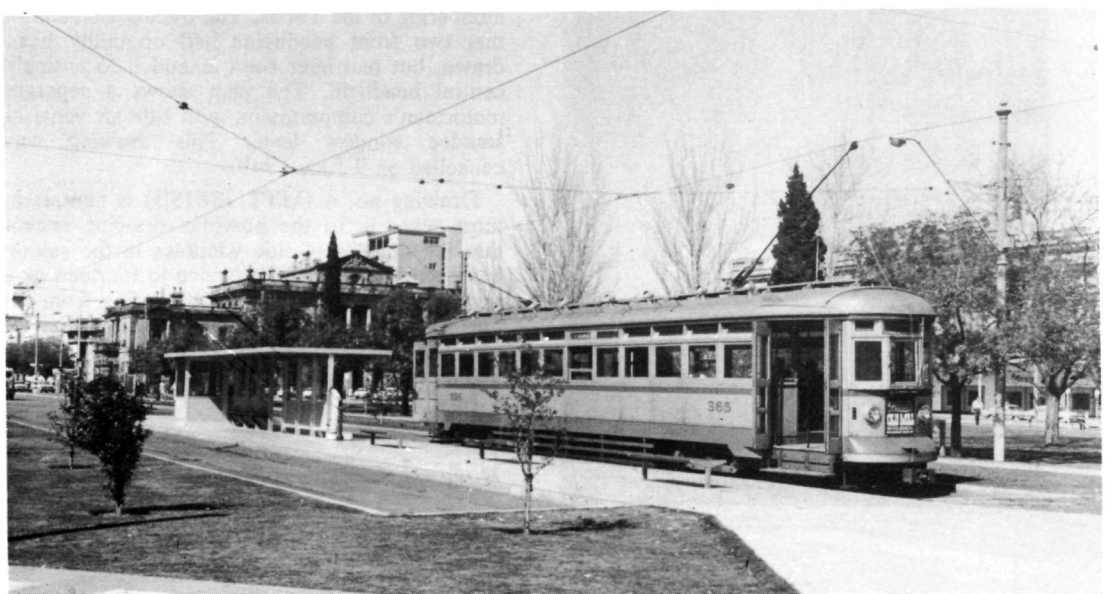
Drawing no. 3, being MTT drawing 13619A, was drawn by Ron Stucker and checked by Engineer WF Elford (later Chief Engineer), but is not signed by the General Manager, nor dated. It now includes inward folding doors without a folding step, a body skirt, a further revision of the front end design including two destination signs, and retention of the destination number box included on the previous drawing. it is interesting that number 22 is shown, then allocated to Henley Beach (Glenelg had no assigned route number at the time), but later notionally allocated to Glenelg in the route numbering of the 1960s. The tracing also shows that two front headlights had originally been drawn, but had later been amended to a single central headlight. The plan shows a separate motorman's compartment, with side air vents at standee window level. This drawing was cancelled on 9 June 1949.

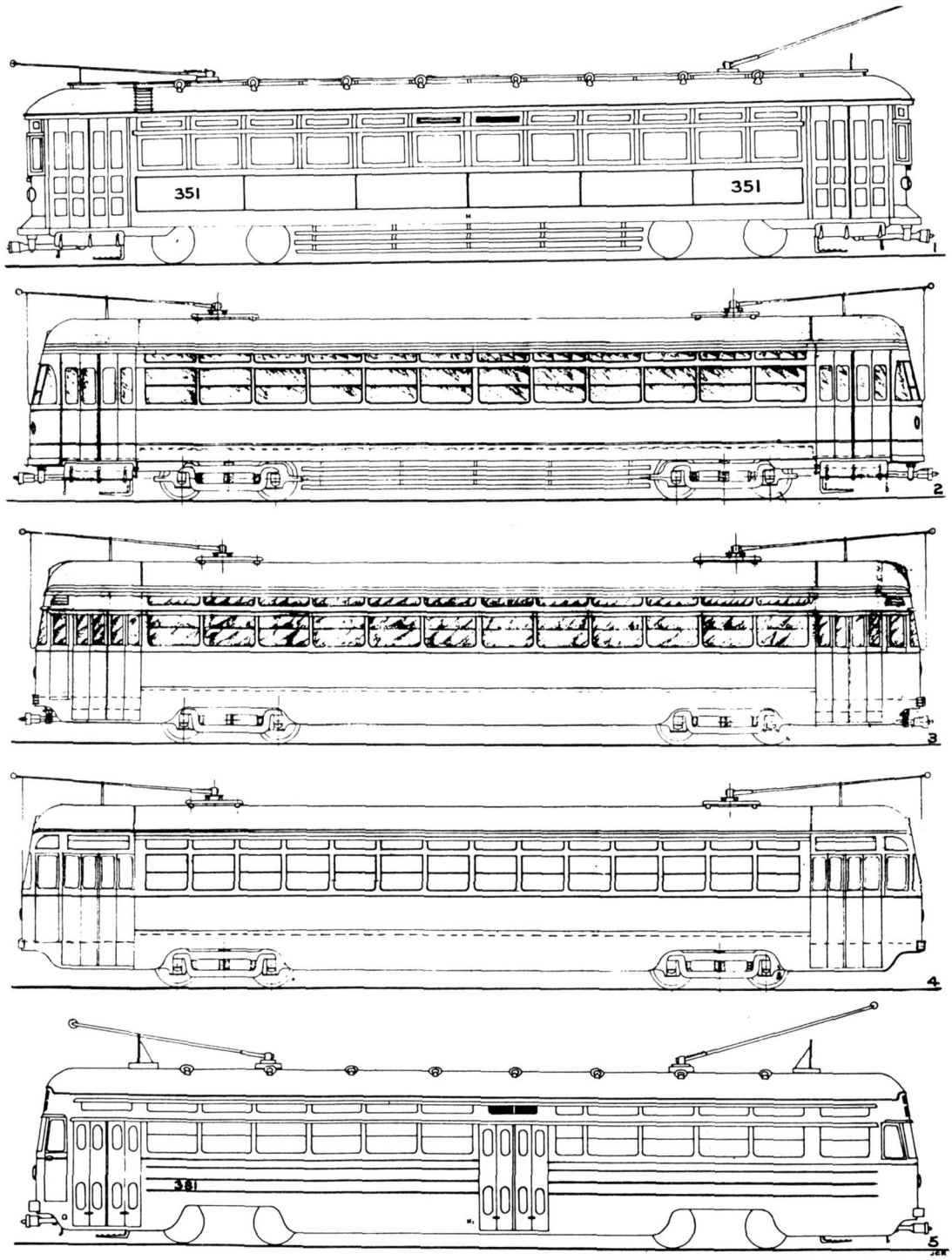
Drawing no. 4 (MTT 13619B) is similar in most respects to the previous drawing except that the number of side windows in the saloon has been increased from twelve to fourteen as a result of decreasing the pillar spacing from 3ft 6in. to 3ft 0in. No separate end elevation was provided for this drawing., and it is assumed to be identical with drawing no. 3. It was cancelled 9 June 1949.



Drawing no. 5 is derivied from MTT drawing 101V5056, and shows the major change introduced into the design at a relatively late stage, namely the relocation of the rear door to just aft of the centre of the car, and the consequent creation of a "mini-dropcentre" to accomodate the two sets of side doors which are displaced from each other. This design change would have involved considerable penalties in both cost and weight compared to the earlier designs due to the increased complexity of the underframe. Car 381 weighs 3 tons more than the 23.1 ton H type cars, though it should also be recorded that it is steel rather than wood framed. The MTT drawing also shows some evidence of other design changes including the elimination of standee vents or windows above the motorman's door as shown in drawings 3 and 4. The final design for the H-1 type car as shown in drawing no. 5 was approved by WGT Goodman on 22 February 1950. The body of car 381 was delivered to Hackney on 9 November 1952, it underwent trial running in January 1953, and made its first traffic run on 24 February 1953 when it ran to Kensington Gardens and Henley Beach. It continued in traffic until withdrawn in December 1957. It was subsequently transferred to storage at the Maylands Horsecar Depot until being donated to the AETM. The car arrived at St Kilda on 13 August 1965, and has run there in regular traffic since mid-1974. The trucks and underframe for a second car were assembled, but were then scrapped when it was decided not to proceed further with the H1 type project in 1953.

H type car 365 at Victoria Square in October 1969. It is in original condition except for the silver and carnation paint scheme. BARRY TOOKER

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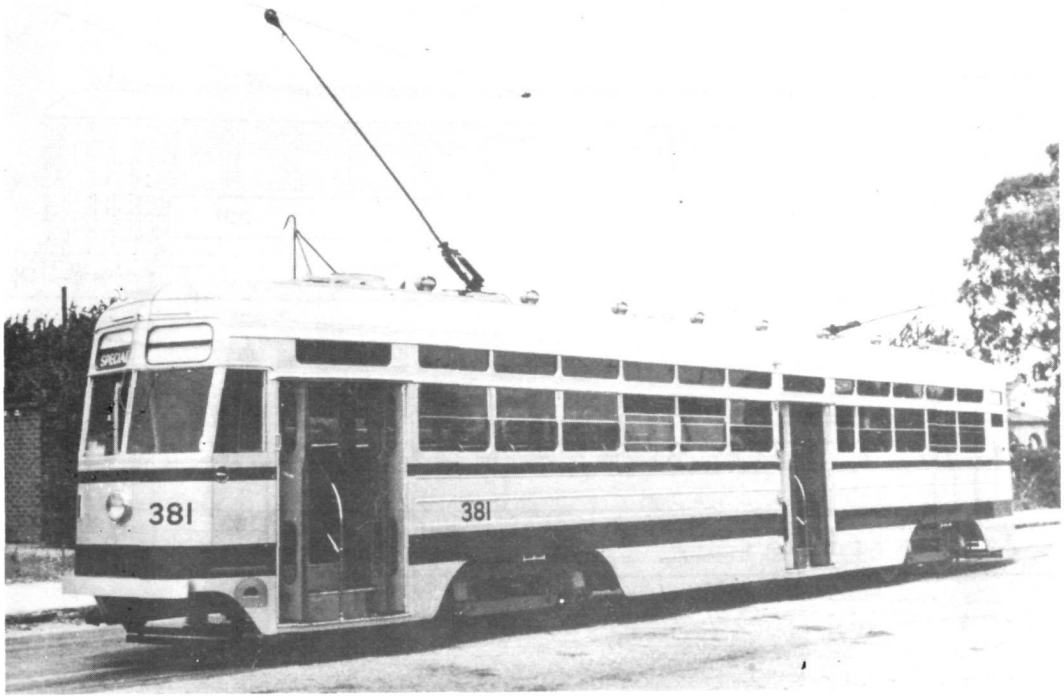
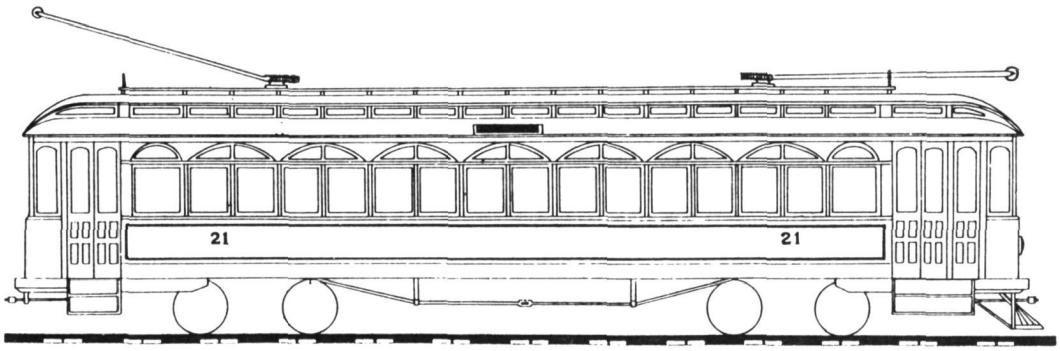


H1 type car 381; the final design. BARRY TOOKER



Proposed car for electrification of Glenelg South Terrace line by SAR in 1909

JOHN BULL AND HIS BRIDE

Compiled by Peter Stock

John Bull, his bride and the bridemaids. Steam tram group members with John Bull and the Dundee trailer at Crich. The gentleman at the front of John Bull is Dr R Tebb, wearing a Parramatta Park Steam Tramway tee-shirt. G WILTON

On 10 April 1989, at the National Tramway Museum, Crich, Derbyshire, a steam tram engine was posed with a steam tram trailer. (In the United Kingdom steam trams were hauled by "engines", not "motors" as in New South Wales.) The tram engine, No. 2, is a Wilkinson vertical-boilered steam tramway locomotive. It was built in 1885 by Beyer Peacock & Co. Ltd of Manchester. The trailer is ex-Dundee and District Tramway Company No. 21, a 66 seat double-deck car.

The history of the tram engine has been documented in a number of books and journals. A short history follows.

The engine was originally built for the New South Wales Government Tramways in 1885, builder's number 2464. It arrived in Sydney in 1886 where it underwent trials. It was said the


This Tram is Powered by COALITE
SMOKELESS FUEL
JUST AS GOOD FOR
OPEN FIRES
ROOMHEATERS
BOILERS & COOKERS
NEW SOUTH WALES
GOVERNMENT TRAMWAYS

engine did not compare favourably with the Baldwin motors in use in Sydney. This was reputedly due to its high consumption of fuel (coke) and problems maintaining a sufficient head of steam. Whilst in New South Wales the engine was referred to as *John Bull*.

After these trials (possibly always at night, as no photographs appear to exist) *John Bull* was transferred to the then isolated Wollongong to Clifton section of the Illawarra railway, then being built. It remained there until this section was connected to the line from Sydney in 1888.

John Bull then disappeared from sight, until it turned up at Beyer Peacock's Gorton works, Manchester, in 1890. It was then numbered "2". The tram engine remained at Gorton for the next 70 years where it was used as a works shunter. From there it was transferred to the Tramway Museum Society at Crich for preservation.

The trailer car was built in 1894 for the Dundee and District Tramway Company as their no. 21. When the body was found by the Society it comprised only the lower saloon, without platforms, and was being used as a fisherman's shelter. Since rescue, the lower saloon has had new platforms, ends and top deck built. What else existed has also been rebuilt.

Both these preserved items of British steam tram rolling stock were united at the museum and the accompanying photographs were taken on 10 April 1989.

It was reported that work has yet to be completed on the tramcar. The bogies have to be fitted with proper coupling gear. They are re-gauged Douglas (Isle of Man) cable tram bogies. The wheels are also ex-cable tram, being made of chilled iron. The wheels have thin tyres and are described as having "mythical flanges". Braking equipment is yet to be fitted.

The photographs in this article were taken at the museum on a day not open to the public, with *John Bull* and the trailer being operated over a level and straight track. It was reported as a very rewarding and satisfying experience for members of the Society's steam tram group.

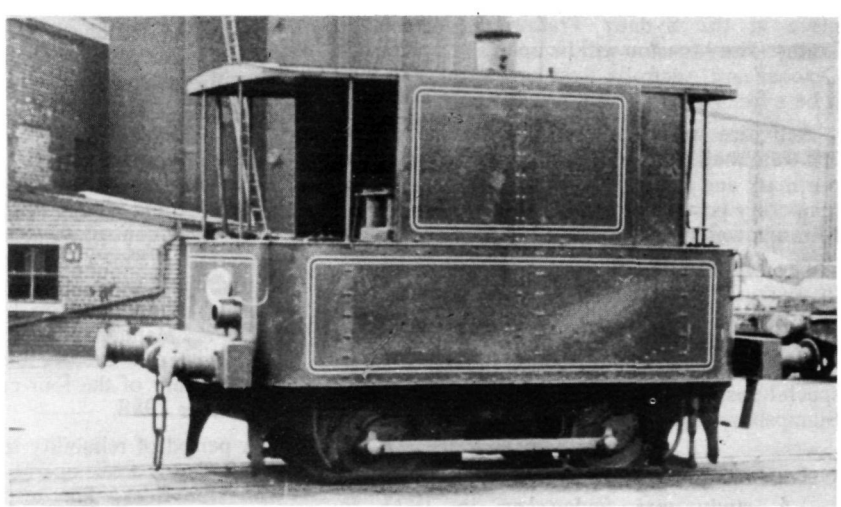
Whilst this milestone has been achieved, work on the project continues. The car is yet to be completed to a standard for operational use.

John Bull was operated on the next public steaming day (without the trailer) as a light engine. On that day a spring-hanger bolt sheared off and shattered. The group is pondering how to replace this bolt. They commented that Beyer Peacock probably built *John Bull* starting with the bolt, and constructing the engine around it!

Congratulations to the National Tramway Museum and the steam tram group on their achievement.

References

National Tramway Museum Handbook; "The Strange Tale of No. 2", W Hyde, Modern Tramway, Feb. 1963; Notes and photographs by Dr R Tebb, UK; NSW Tramway Handbook, Vol.2, SPER; "John Bull and the Illawarra Railway Centenary", K McCarthy, Trolley Wire, Aug. 1987; In and Around Sydney with the Steam Trams, Books 1-4, ST&RPS.



ABOVE: *Beyer Peacock's Gorton Works shunter no. 2* R J GUTHRIE

OPPOSITE: *John Bull and trailer at the end of their run. At this point the tramway tracks interlace to pass beneath the ornate Victorian bridge, the spandrels and decorative ironwork of which came from the Bowes-Lyon estate in Hertfordshire.* G WILTON

HERE AND THERE

NEWS ITEMS OF INTEREST FROM ALL OVER

Tram Stamps Update

Australia Post has announced that the special stamp booklet (*Trolley Wire* May '89) will contain ten stamps of the cable car design. They will be printed on different paper and with a different perforation to the stamps in sheet form. The sheet stamps will not have the designs *se-tenat* within the sheet but will have one design per sheet.

W1 class car 431 is to be fitted out as a travelling post office during the five days of the exhibition. It will run from Spencer Street along Bourke Street to the Royal Exhibition Building between the hours of 9.30am to 6.30pm from 18 to 21 October and 9.30am to 5.30pm on 22 October. A special TPO postmark will be used on the tram.

The Met's tourist car V214 is to be placed on display in the exhibition hall for the duration of Stampshow '89.

The postmarker to be used at the exhibition post office is in the form of a Met all-day ticket.

The stamps and booklet are to be released on 11 October 1989, with the launching taking place at the Sydney Tramway Museum at Loftus. The Museum will be open as usual on 11 October and Australia Post have requested that it be a free day.

Activities will include a re-enactment of the last tram mail on 19 February 1961 with special postmark and cachet, and the establishment of a temporary post office to be located in the former Miranda waiting shed at the Museum entrance.

The Museum is preparing a set of five covers to mark the first day of issue of the Historic Trams stamps. Stamp dealer Ron Madden will be taking a supply of the Museum's covers to Melbourne to be cancelled with the various special postmarks in use during the five days of Stampshow '89.

Galvaston, Texas

A study was undertaken in 1973 to investigate the possibility of devising a transportation system for Galvaston that would connect various downtown points and the beachfront areas. The "Galvaston Connection Study", completed in 1979, proposed a streetcar network to draw together the disparate visitor attractions and facilitate access to them, while minimising visitor impact on the residents of Galvaston.

Funding was requested from the US Department of Transportation's Urban Mass Transportation Administration in 1984. Eventually a US$8.5 million grant was forthcoming from this source.

During 1985 preliminary engineering work was completed. Final design of the trackwork, buildings and vehicles was completed in 1986 and put out to tender. Construction of the system began on 1 December 1986.

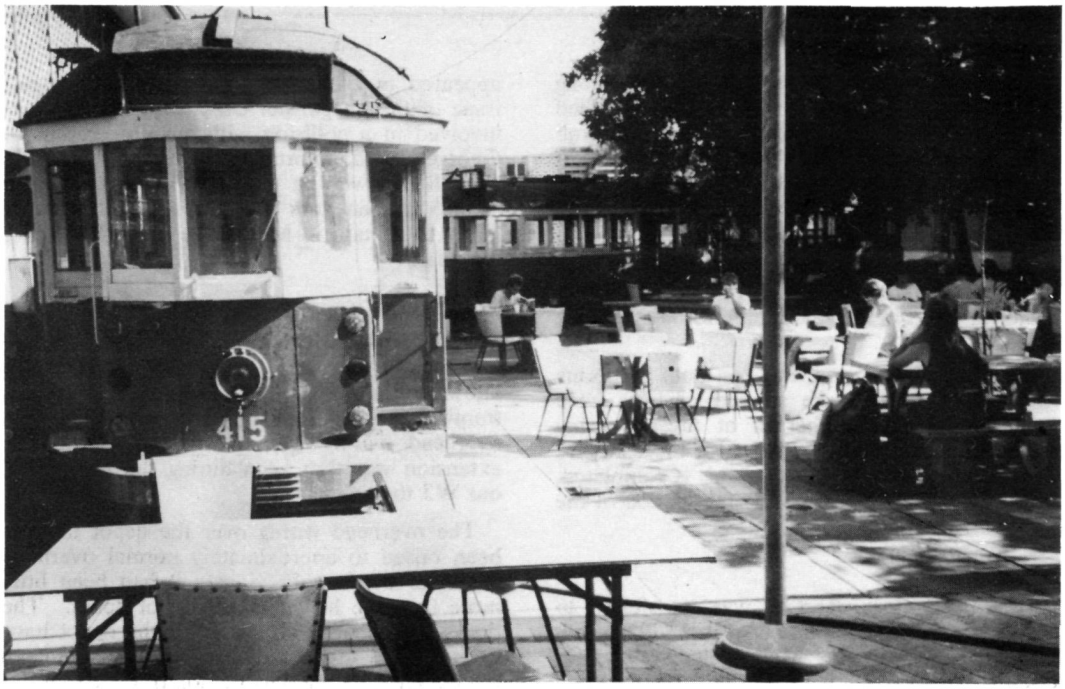
"The Galvaston Trolley" consists of 7.1km of standard gauge track laid in 10 streets in a loop from the city centre through the Strand historical district to the beach. The track is girder rail laid flush with the street surface. There are 21 stops in 17 locations, about every 2 or 3 blocks, and service is offered every 10 to 30 minutes daily from 7am to 7pm. The fare is one dollar paid into the farebox beside the driver.

Initially, funding would not stretch to electrification of the system. Bids were called for four diesel-powered "turn of the century" appearing trolleys which were built by the Miner Car Company of New Castle, Pennsylvania at an all-up cost of US$600,000 each. Each car is fitted with a Caterpillar diesel engine with a generator and four 40hp motors. Electrical power and control systems were furnished by Maverick Technical Systems Inc. of Longview, Texas. The bodies are modelled on those of the former Portland, Oregon, Council Crest cars, the trucks are standard Bettendorf freight car bogies fitted with new motors and straight spur gears. The delivery of the four cars was completed in December 1988.

A period of reliability testing of the tramway saw 7 day a week operation from 9 July 1988 with free rides. The testing was successfully completed and revenue service commenced on 23 July 1988. Initial patronage on the tramway has proved encouraging with up to 1000 passengers per day at weekends and 200 to 300 passengers on weekdays.

W2 class trams have spread far and wide. Cars 350 and 415 are now located in an open-air cafe behind the Darwin Transit Centre in downtown Darwin. They are minus bogies and the interiors, which have been mostly removed, are in poor condition.

BOTH: DAVID BURKE



Editor's note: It has been advised that after several derailments, the manufacturer of the replica trams withdrew its warranty, and the line was closed while a consultant carried out a study into alleged imperfections in track tolerances.

Portland, Oregon

The Tri-County Metropolitan Transportation District of Oregon Board of Directors has authorised a contract for the manufacture of vintage trolley cars that should be running by autumn 1990.

Vintage Trolley Inc., a non-profit corporation established to manage the trolley system, recommended that Tri-Met contract with Gomaco Trolley Company of Ida Grove, Iowa, to manufacture three trolley cars and their spare parts at a cost of US$1.3 million. The project budget allocates $999,500 for rail vehicles, but the Vintage Trolley Board of Directors said it would guarantee payment for the third car in order to take advantage of a $33,800 discount Gomaco offered for a base order of three cars.

The trams will be built with modern operational features, but have the appearance of Portland's old Council Crest bogie cars which ran on voltage and track gauge different from Portland's light rail system. Gomaco's design calls for cane seats and wood bodied interiors, with the improved technology of steel frames and modern controls. It is expected that PCC trucks will be used under the cars and that bow collectors will be fitted which will carry pantograph-type contact devices.

Vintage Trolley Inc. will contract with Tri-Met to operate and maintain the vehicles, paying expenses from fare and advertising revenue, and interest from a City of Portland trust fund. The service is expected to start running on MAX tracks (Portland's light rail line is known as Metropolitan Area eXpress) between the terminus at 11th Avenue and Lloyd Center, a large shopping centre across the Willamette River from the main business district and one of the busiest stations on the line, in November 1990.

BALLARAT . . .

Ballarat Tramway Preservation Society

Horse Tram No. 1

Internal support rods have been placed along the length of the car under the ceiling, attached to the roof ribs. The rods appear to form grab rails, but in fact are to enable the roof to support the weight of passengers on the top deck. The roof slats have been fitted and varnished, and shortly the roof will be canvassed.

Malthoid has been applied to the saloon floor and a coat of paint applied on top. The only major task left in the saloon interior is the fitting of seats.

Handrails have been fitted on both platforms and the two handbrake support castings have been completed. Timber is at present being steam bent to allow fabrication of the canopies above the end platforms. After this is completed, the next major job will be the fabrication of the spiral stairways.

W3 661

Our W3 class car 661 was transferred to Preston Workshops on 5 April 1989 to run charter trips on the Melbourne system for Yapper Tours. Details of the the trips operated appeared in Bill Scott's article in the August issue of this magazine. On 7 May the car was involved in a collision with a motor car in St Georges Road, Thornbury. Fortunately damage was light, with a damaged footboard and scratched paintwork on one side. The car is likely to remain in Melbourne until the end of the year.

The Depot

No. 5 road, which has a rear door, has been extended to the footpath at Gillies Street. This allows trams being moved to and from the tramway to be lifted by crane without the overhead wiring getting in the way. The extension was first used during the transfer of our W3 to Melbourne.

The overhead wiring over the depot fan has been raised to approximately normal overhead height of 17 feet. Previously it had been little more than the height of the depot doors. The doors on the original section of the depot have been re-clad in bronze-olive sheeting to match the cladding on the new section of the depot.

PARRAMATTA PARK . . .

Steam Tram and Railway Preservation Society

Making Tracks

After many weeks of hard work, No. 1 Road was brought into use on Sunday, 20 August. The two goods wagons will be shunted onto this track, and still give us plenty of room to back the loco and trailer up. All round, it will mean a longer ride for the public, as well as offering easier and safer access to the carriage.

Now Road 1 has been completed, Laurie McCulloch will be cracking the whip up at the top of the hill, just past the War Memorial, rebuilding towards Old Government House. When that job is complete, the remainder of the main track will be lifted up out of the dirt and stablised.

An estimate of sleepers needed to finish the main line is 250. The Society has recently spent $6400 on track and dogspikes.

Works Manager's Report

Tram Motor 103A: The motor is still at Thirlmere with the Rail Transport Museum. The boiler has been converted, and is sitting in the frame. Cylinder and motion work has been completed. The new saddle tank is finished and is ready to be collected from the Hunter Valley Training Company. The wheels were re-tyred and machined to railway profile by the HVTC but they had problems with one set of journals. The wheels were brought back to Sydney and are now residing at Thirlmere for the time being. They will shortly be taken to an engineering shop at Narellan for rectification. The body of the tram is nearing completion at BATL, Lidcombe. All things being equal (which they seldom are), we should see the tram back together and in operation by the end of the year.

Steam Loco 1308: The engine is now ready for sandblasting and painting of the wheels, frame and boiler. Assembly of the engine will then commence. Special thanks goes to Jeff Knox, as, in his own time, he has spent many hours restoring items for this engine.

Steam Loco CPC No. 2: This loco sits at the back of the shed, patiently waiting for restoration. An attempt is being made to have a new saddle tank made at the Hunter Valley Training Company. This engine was received in running order and will only require minor work to make it again operational.

Steam Loco 1022 Since October 1988, 1022 has received a lot of attention. 26 boiler tubes were replaced, and also a new fusible plug bush has been fitted. There is still work to be done, and current problems will be rectified as time permits. This engine has run on the last three operating days, and it is great to see and hear steam once more in Parramatta Park.

Rail Motor No. 5: It ran most of the operating days this year, which showed us where the problems are (usually in the driver's seat!). The batteries need to be replaced due to old age. The sanding gear has to be made operational, and the electrics require attention. The rail motor needs a good paint job.

Replica Motor 133A: A gearbox has been found and is being fitted at present.

Trailer Car 191B: Received a cleanup and is still in service.

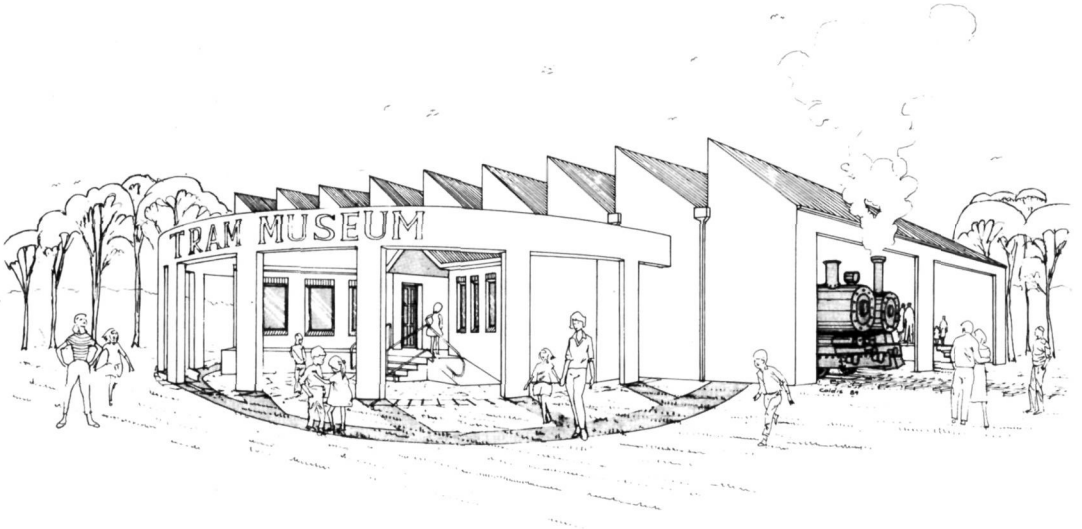
Trailer Car 74B: Work has stopped at the present time due to Wal Sagar, our carpenter, retiring from the tramway. During the last three weeks the tramway was broken into and some mentally disturbed individual actually lit a fire and burned a six inch hole in the floor of this car. Luckily, this is more or less the extent of the damage, but the possible consequences of this mindless act of vandalism are too great to contemplate. This car needs painting and attention to the bogies to complete the restoration.

Carriage FA 1864: Since the Society is running out of room, this car might temporarily be converted into a shop/souvenir store. It also needs a clean and paint job.

Tramcar KA 84: This car is fully restored.

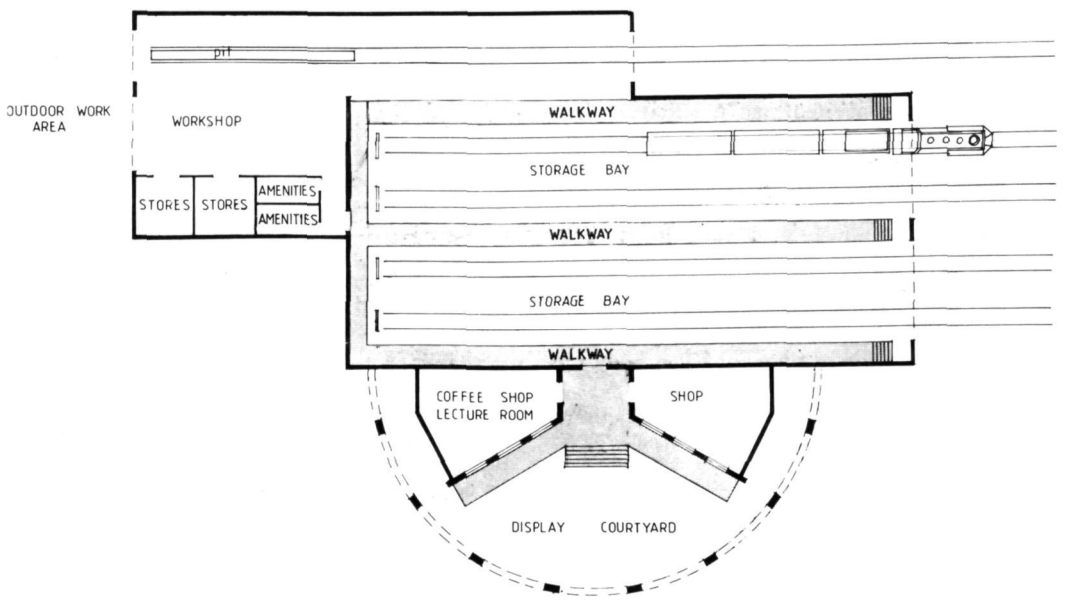
From the Secretary

The spate of rain which affected our operations in the early part of the year appears to have abated, and several sunny weekends of late have seen steam trams, diesel rail motors and hand trikes again operating in Parramatta Park. The sound of 1022's whistle really pulls the people into the park. We have been visited



PARRAMATTA PARK STEAM TRAM MUSEUM

One proposal for the new museum building is shown above. The sawtooth roof is typical of Sydney's tram depots but would be expensive to reproduce.



FLOOR PLAN

0 1 2 3 4 5 METRES

The Mayor of Parramatta, Alderman Alan Hyam, addresses the gathering at the protest rally held at the Society's depot on 30 July 1989. BOB MERCHANT

by overseas enthusiasts from West Berlin and our close neighbours, the Kiwis. Interstate visitors from as far afield as Western Australia and Darwin have also made the pilgrimage to the museum and enjoyed their ride on the tram.

Controversy still exists as to the future operation of the steam tram in Parramatta Park. Several alternative sites have been investigated by the Society's Board of Directors, but Parramatta Park is still considered the best venue, and all efforts are being made towards maintaining the operation within the park.

Recent developments in the new Plan of Management for Parramatta Park, published in July 1989, indicating the possible cessation of steam tram activities by the end of this year, have been given wide coverage in both the Sydney and local newspapers, and also on the ABC and commercial radio networks. This has resulted in an overwhelming tide of support from the general public, visitors, and historical societies and their members throughout the Sydney area. A petition from visitors to maintain our operation in Parramatta Park has been taken up and presented to Parramatta City Council. The Council publicly indicated their their "total support" for the Society and its operation within the park at a public meeting held at the museum on 30 July 1989.

We all hope to have 103A fully restored and back in service by the end of this year. The vastly improved trackway, thanks to the efforts of Laurie McCulloch, and 103A back on the rails will lead to a resurgence of popularity of the steam tram operation. We even look forward to operating extra days.

Four running days in July resulted in 867 paying passengers being carried.

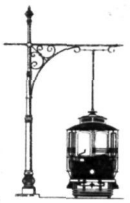
103A Appeal

Since its inception in January 1987, the 103A Appeal has raised $1353 from members. Considering our numbers, this is not a bad result. However, more is sorely needed. The Society has spent $6500 from its own funds to date on the project. With grant monies covering $50,000 of the $80,000 restoration price tag, it can be seen that there is still a big gulf in the funding to be covered by the Society. Donations from readers would be most welcome. Remember, they are tax deductible.

1022 and trailer 191B depart the depot yard for another well-laden trip to the end of the line on 30 July 1989. BOB MERCHANT

The Society's track gang at work inserting new sleepers under the yard trackage. BOB MERCHANT

LOFTUS . . .



South Pacific Electric Railway

Works Report

After many months of hard work by Laurie Gordon, with assistance from a small number of members and participants in the CSO scheme, the removal of the remaining equipment from the old Park site was completed by the end of September and the site, including the depot and substation buildings, is now under the control of the National Parks & Wildlife Service.

The steelwork on the Display Hall extension has been completed and the former rear wall dismantled. A temporary wall has been erected and will remain until all work on the extension has been completed. The extension of roads 1, 2 and 3 (the operating depot) into the new section of the building will provide space for another six cars and will temporarily solve most of our storage problems.

The laying of sewer lines to the Workshop Building and the Display Building extension commenced late in August but was interrupted by red tape resulting from the retirement of our plumber, Alex Kettlewell and the necessity for a new plumber to take over the unfinished work. This work was completed in late September.

Concreting of the diamond crossing in Tramway Avenue took place at the end of August, in conjunction with the plumbing work and is now ready for use. With the completion of the facing turnout of the scissors crossover on the main line, all that remains to have our double track terminus at Railway Square operational is some track levelling and packing.

The wiring of the western track was carried out on 7 October over the entire length of the line so as to avoid the necessity of joining the wire when the double track is commissioned for its ultimate length.

Tiling of the Railway Square Waiting Shed roof commenced on 16 September. There will still be quite a bit to be done to complete this project but the tiled roof makes a big improvement to the appearance of the building.

Car News

Freight car 24s and R1 class 1971 have been placed inside the workshop building and work will soon commence on the rebuilding of the latter. Funds have previously been allocated under a Heritage Grant for this restoration and will enable some of the work to be carried out by a professional carriage builder.

Ballast Motor 93u, which was the last vehicle to leave the old site, continued on to Maitland

93u is checked at Loftus before being transferred to the Hunter Valley Training Co. for rebuilding. DALE BUDD

Dismantling the Depot Junction pointwork at National Park in early August 1989. DICK HALL

Looking south from the site of the platform adjacent to the depot yard in mid-August. The overhead is still in situ and would be removed using the tower wagon once the sleepers had been removed from the former main line. WAYNE ARMITAGE

instead of being unloaded at Loftus with the other cars. This vehicle is being restored by the Hunter Valley Training Company to its original U4 class ballast motor condition.

Following the end of its working life, 93u was cut down for use as a trailer at Randwick Workshops, being towed around by our R1 car 1979. It suffered badly through the ensuing years and its condition deteriorated to such an extent that scrapping the vehicle had been contemplated.

However, this action was not taken and the offer was made by the HVTC to restore it to its original condition as a training exercise for apprentices.

Progress has been quite rapid and the two drivers cabs are now taking shape. Some parts used in the reconstruction are being duplicated for use in the future rebuilding of Overhead Line Car 99u, a former ballast motor which will be retained in its present body style.

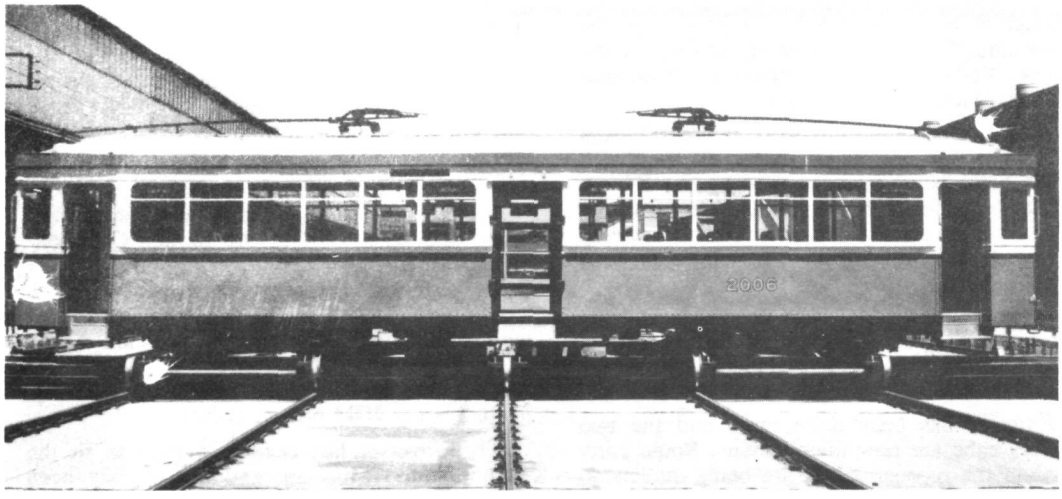
Traverser

The Museum now has a traverser to link the tracks from the display and workshop buildings with the depot fan at road 4. This item, a familiar feature of most tramway workshops, has always been planned as an integral part of the layout of the new site.

The traverser was purchased at the auction of plant and equipment at the former Commonwealth Engineering Co's works opposite Clyde railway station in Sydney's suburban west. The traverser carried a large range of locomotives and rolling stock built over many years at this factory. Between 1950 and 1953 it carried the 100 new R1 class trams built by Comeng, including car 2044 now at Loftus.

The traverser has been shortened to fit the layout at the Museum, and has already been delivered. Its installation must await excavation of its operating area and the laying of the necessary rails.

The National Park tramway in its heyday. Coupled O class cars 1111 and 1030 climb the hill from South terminus on one of the rare occasions that 1030 has been used in passenger traffic. Saturday, 28 February 1981. Well known from its days on the Manly system, it is now 50 years since 1111 and the other cars left there for the last time following closure on 30 September 1939. LAURIE GORDON



Brand new R1 class car 2006 on the traverser at Commonwealth Engineering's works a few days before delivery in February 1952. This traverser is now awaiting installation at Loftus. DALE BUDD COLLECTION

Will the traverser now at Loftus look like this when installed? This one is located at the Alsthom factory at Belfort in France. It is used to move TGV power cars and other items from one area to another. The TGV power cars are progressively painted during manufacture, and the covered traverser keeps rain and dirt off the units when they are in this partly-painted state. DALE BUDD

OPPOSITE:

E class cars 529 and 530 are driven to the end of the existing rails to give as much room as possible in the Display Hall before the temporary wall is erected on 19 August. R1 class car 2044 was also moved to the end of its track. BOB MERCHANT

WHITEMAN PARK . . .

Perth Electric Tramway Society

Rally Australia Comes to Whiteman Park

Australia's first-ever round of the World Rally Championships was held in Perth from 14 to 17 September under the banner "Commonwealth Bank Rally Australia".

The event covered a variety of routes out of Perth each day, with Whiteman Park being the centre of activity on the final afternoon, Sunday 17 September. This stage involved a circuit running northwards from Central Station.

There was a good deal of publicity in all the media in the weeks preceding the Rally and it was estimated that up to 8,000 spectators could be expected at Whiteman Park, depending on the weather.

The role of PETS would be to provide a public tram service for spectators, mainly from the Lord Street Entrance to Trade Village and return. It was clear that four trams would be required on the day and to make this possible, a marathon effort was put in by all our working members from July onwards.

Preparations:

W2 car 393 had been out of service for a considerable time with a defective motor. Overhauls of two No. 1 trucks (*T.W.* Aug 1988) were proceeding on schedule and it was anticipated that 393 would be returned to service in time. Then, in mid-July, service car W4 class 674 was derailed by an obstacle place on the track, causing some damage to one truck which necessitated a replacement. Suddenly the workload was doubled — a No. 9 truck now had to be overhauled as well — and Rally Australia was less than two months away! A No. 9 truck, which had received no attention since its arrival from Melbourne in the mid-1970s, was retrieved from under the body of Perth B class single truck car 46 and tested satisfactorily. Then it was 'all hands to the pump'. To the great credit of all concerned — in particular Noel and Ray Blackmore (our Electrical and Rolling Stock Supervisors, respectively) who put in a tremendous effort — the truck overhauls and associated jobs were completed in time (Ray spent 8 days straight at the Museum at this stage!) The bogie exchanges of both cars were smoothly carried out on the weekend of 9 and 10 September, the hydraulic jacks again proving their worth; and both 393 and 674 were tested and passed with flying colours. Four trams were ready! A number of urgent tasks on the track and

overhead were also completed prior to the Rally.

The reverse curve on the inner road at Entrance, which had been troublesome for some time, was completely replaced on an easier alignment on 26-27 August and ballasted, lifted and packed on 2 September by Ron Waters' team. On 16 september they respiked about 80 metres of track just west of Bullpen Crossing on the Triangle Junction to Entrance section.

The troublesome overhead frog at Entrance was re-positioned and the overhead re-aligned for the new inner road and pulled up. a good deal of work was also done by Duncan McVicar's team at Triangle Junction and all legs of the wiring were retensioned.

The Big Day:

The roster for 17 September read: "All hands on deck to handle many and varied tasks".

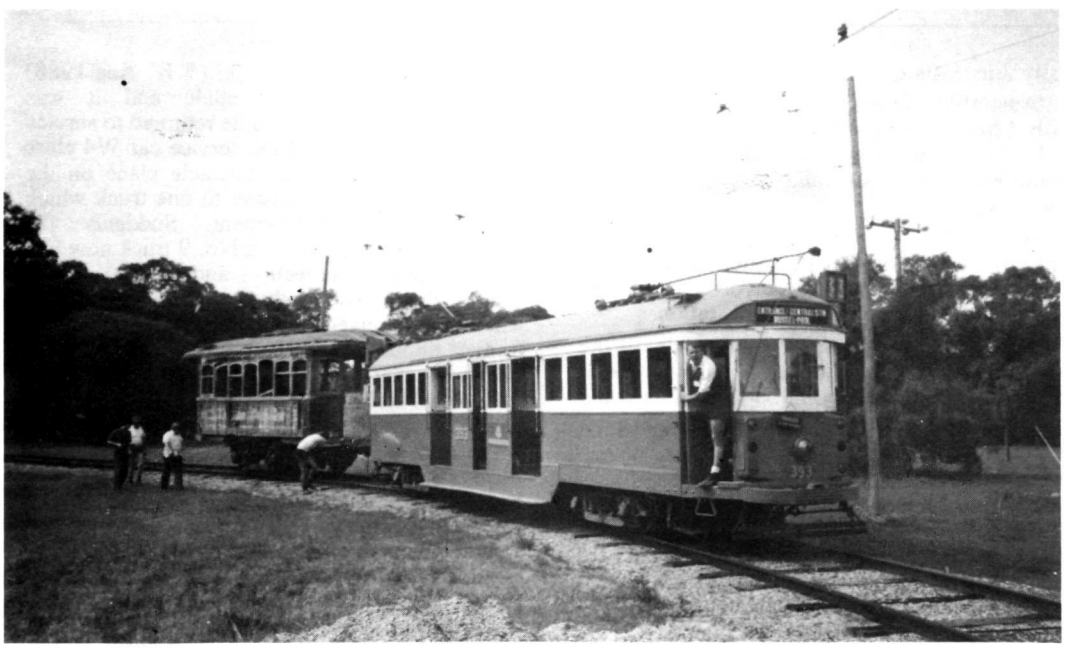
The first car (W2. 368) entered service on the usual route at 10am, immediately followed by W2. 393. Two conductors per tram were rostered but tickets did not have to be sold as the pre-sold Rally ticket was all-inclusive. The tow truck and a tower wagon were stationed centrally at Triangle Junction 'just in case'. The third and fourth cars (W2. 329 and W4. 674) began operating the usual service route on a 15 minute headway, with crossings at Triangle Junction. Inward-bound cars were filling to capacity.

In spite of threatening clouds and a few showers, the crowds of rally fans continued to swell, and all services were now running Entrance — Trade Village — Entrance only. A headway of 8 minutes was maintained, with pairs of cars crossing at Triangle Junction (empty cars shunting to allow loaded cars to run through).

From about 4.00pm at the completion of the Rally, the spectators left the Park in a surprisingly short time. Trams were filled to capacity and many people chose to walk back to the Entrance.

The whole day's operations went faultlessly and the event was proclaimed a resounding success by all parties involved. The final estimate of attendance by the Park Administration on Sunday 17 September was 16,000 — a figure far in excess of all advance estimates and by far the biggest crowd ever handled by the Park.

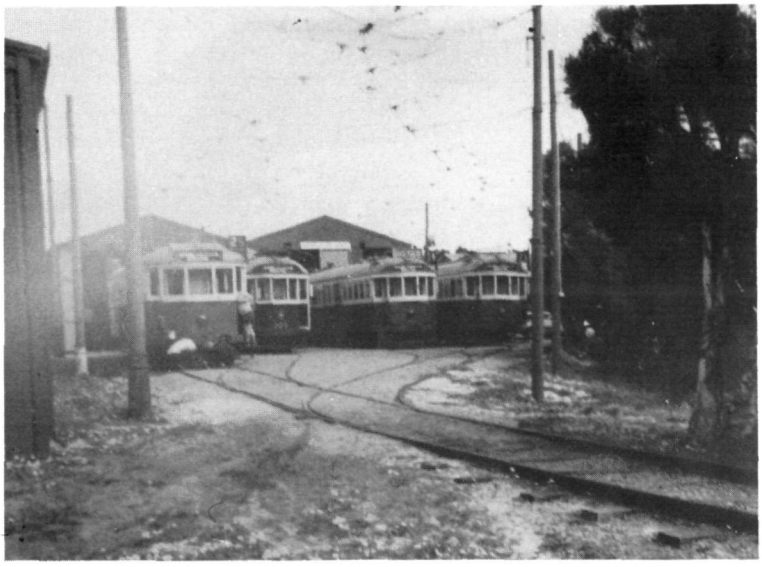
It was an exhausted but elated group who relaxed at the end of the day with a well-earned drink. Our President, Lindsay Richardson, was heard to breathe a long sigh of relief that there were no mishaps to cars or passengers, and



Kalgoorlie 4 is towed very carefully around Bennett Brook curve by W2. 393 on the way to the tram body shed on 14 August 1989. DUNCAN McVICAR

Ray Blackmore steam-cleans the No. 1 truck for the bogie exchange of W2. 393 on 9 July 1989.
MICHAEL STUKELY

Ron Waters plans the next moves in the laying of the fan for the tram body storage shed on 20 August 1989. Kalgoorlie 4 is visible on the turnout from the main line.
MICHAEL STUKELY



The four service cars, W4. 674 (left), W2. 329, W2. 393 and W2. 368 undergo final preparation before entering traffic to move the huge crowd of spectators for Rally Australia on 17 September 1989. SCOTT PARKER

grateful thanks to our hard worked traffic staff and other support members.

New Arrival — Kalgoorlie 4

After many years in storage in a transport company's yard at Kalgoorlie, the body of Kalgoorlie Electric Tramways single-truck tram No. 4 was moved to the Museum by road on 14 August. It was off-loaded onto a former Commonwealth Railways bogie on the Mussel Pool siding (the first such use of the siding), then towed to the body-shed spur line by W2. 393.

Annual General Meeting

The Annual General Meeting of PETS was held on Saturday 12 August at the Maylands Hotel. The following officers were elected for 1989-90: President: Lindsay Richardson; Vice President: John Shaw; Secretary: Robert Pierce; Treasurer: Frank Damen; Councillors: Ray Blackmore, Martin Grant, Brent Luscombe, Duncan McVicar and Michael Stukely.

Other News

The equipment for the installation of an overhead feeder line from the Carbarn to Triangle Junction is now on hand.

Replacement No. 1 trucks for SW2. 426 arrived from Melbourne on 22 August.

Work is progressing on laying the fan for the new tram body storage shed — there will be four shed roads plus a "scrap" road alongside the south wall. Kalgoorlie 4 became the first tram body to occupy the shed on 16 September, as soon as the first road was connected.

Lindsay Richardson, Martin Grant, Paul Edwards and Scott Parker used reject sleepers to construct a retaining wall at the west end of the tram body shed on 8 July. A new members' carpark is being constructed on the south side of the complex with an access road running from the Carbarn fan between the tram body shed and the Carbarn. Site preparation is also under way for an extension of the compound on the south side of the Carbarn, to enclose the proposed electrical supply shed and heavy equipment store (*TW* Aug 1988).

Restoration of Fremantle 29 had to be 'put on the back burner' during the hectic period of preparation for Rally Australia. This work is now again receiving a high priority.

Lindsay Richardson (left), Brent Luscombe, Ray Blackmore, Paul Edwards and Scott Parker inspect the damaged No. 9 truck withdrawn from W4. 674 while the newly overhauled truck awaits spray-painting at right (9 September 1989.)

MICHAEL STUKELY

Kalgoorlie 4 after its arrival at the tram body shed spur line showing the former Commonwealth Railways bogie used to move it from Mussel Pool. The body has many orignal fittings still in place including handbrake bases with one wheel, line-breaker switches, gongs, towbars, resistor-banks, and trolleybase (removed from roof). Although it appears badly weathered, the body is structurally quite sound.

MICHAEL STUKELY

HADDON . . .

Melbourne Tramcar Preservation Association

Substation Progress

Work on the 24 volt sub-board was completed during April by John Withers. Also during this period, the first 25 kVA isolating transformer, which had been rewound, was assembled and connected to the substation.

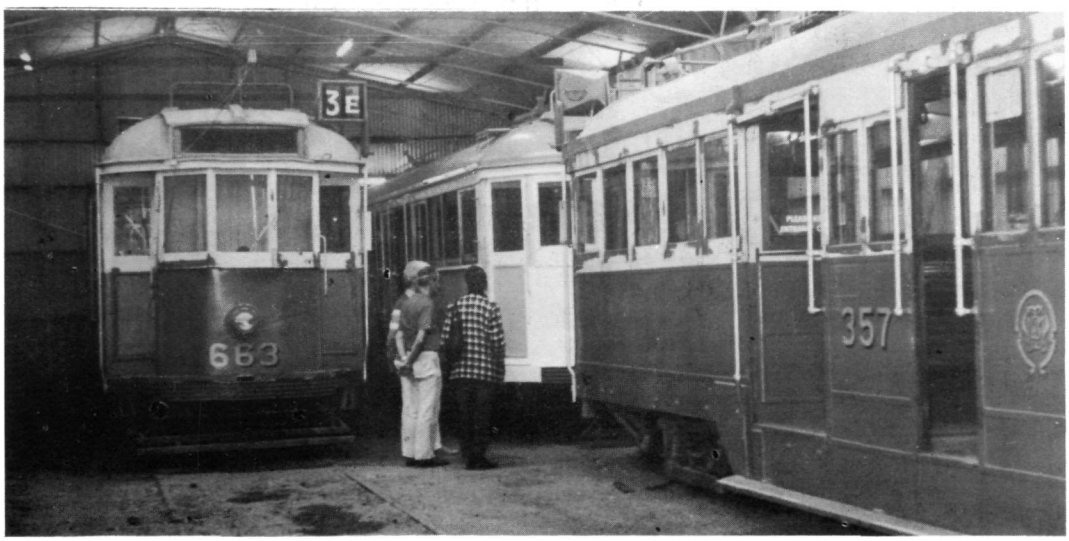
Testing of Substation

During May the successful testing of the first 25 kVA transformer (one of two 25 kVA transformers to total 50 kVA) permanent connections were established to the supply and rectifier sides of the transformer. A temporary connection was made to the 480 volt single phase supply and the main AC breaker closed, along with the 24 volt DC and 240 volt AC auxiliary supplies. The key switch on the remote control board in the lifting bay was turned on, closing the main contactor and energising the transformer and rectifier. With the bus voltmeter indicating 550 volts DC, the carbarn and mainline rectifier circuit breakers were closed and opened several times. Operational overload or tripping conditions were simulated by manually operating the overload relay latch. This tested the circuit breaker status indication lights and alarm condition, which, apart from some minor relay contact adjustments, worked satisfactorily.

During testing the DC breakers were subjected to the designed 3 auto operations and reclosures establishing a shut down and lockout condition. (The lockout feature of either DC breaker can only be reset in the substation, thus preventing the re-application of supply to the fault condition.) Tramcar W2. 407 was then electrically, mechanically and pneumatically checked and a temporary connection was made between the feeder and 407. The breaker was then closed and the carshed reverberated for the first time to the honoured sound of a GE CP27 commpressor. Another stepping-stone towards electrification has been achieved. Noel Gipps and his workers are to be thanked for their efforts.

Trackwork

The remaining concreting of trackwork on No. 1 road and the top end terminus was completed during May, along with the associated

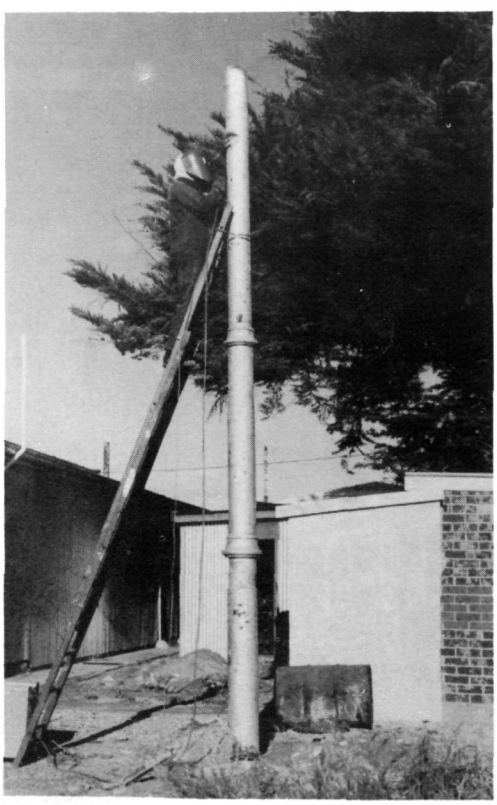


An internal view of the running shed at Haddon showing W3. 663, W2. 357 and W4. 670 under restoration. TONY SMITH

filling and levelling work. Stage 1 of our track construction programme, which comprises the running shed fan, workshop road, bogie storage track and top end terminus, is now complete. Stage 2, the main line and curve around the back of the running shed, will commence early in 1990. During May 1989, the spare bogies, which were stored on No. 5 road, were moved to the No. 2 road bogie storage track. The opportunity was taken to test all currently operational pointwork during this move, and with the exception of some minor grinding of the open mates on the No. 3/4 road and workshop lead points, the bogies tracked perfectly. On the same day L class 103 was tested through the No. 3/4 road turnout without incident.

Tower Wagon

Lusky Engineering of Ballarat machined and overhauled the replacement cylinder head for this vehicle during May at no cost to the Museum. The head has been refitted and the motor tuned. The strip gutters over the locker doors on the tower body are being renewed as the originals were crushed and dented.



Tony Smith welds a bracket on one of the newly erected ex-Adelaide poles.

The vehicle and tower have been repainted and should be ready for service shortly. Thanks are due to Tony Smith, Frank Schroeders and 'Bill' from Lusky's.

Wash Plant

The ex-railway signal cabinet has been stripped back to bare metal, primed and given two coats of grey gloss. During September this unit was mounted on the previously installed brackets near the wash dock area. The electrical panel, completed by Craig Tooke earlier this year, was fitted and currently awaits connection to the underground service which will be run shortly.

Troughing and Pole Erection

Nine ex-Adelaide steel poles were erected during May for stage 2 of our trackwork programme and work on cleaning and painting these poles is in progress. The twelve poles already in situ have been painted dove grey with black collars, caps and bases. During 1988 William Smith and Arthur Ireland constructed bays of troughing. After welding a special headbeam across the front and fitting mounting brackets to the remaining trusses, lifting these troughing units into position commenced. By early October both No. 3 and No. 4 roads had been completed, with the exception of the last bays. Fabrication of new uprights for the back wall from which the tie spans can be attached is now being carried out.

Restoration of W4. 670

The stripping and sanding of all the internal panels and bulkheads is now complete. The first coat of clear lacquer has been applied to these areas, along with the ceiling cover straps. The lined ceiling has received two coats of ivory gloss and the cover straps refitted. The louvres previously removed from this car have been stripped of all old paint and varnish and are ready for repainting.

W2 Class 407

Whilst preparing this car for its part in the substation testing, it was found that the conduit and wiring on the roof, which was added by the MMTB to modify the compressor circuit during the final years of these cars, had deteriorated badly. This wiring was removed and the circuit restored to its original condition. The lightning arrestor was repaired and both trolley base platforms, which had major cracks in the timber bearers, were rebuilt. This work was undertaken by Arthur Ireland and John Withers. The roof of this car is currently receiving two coats of paint.

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