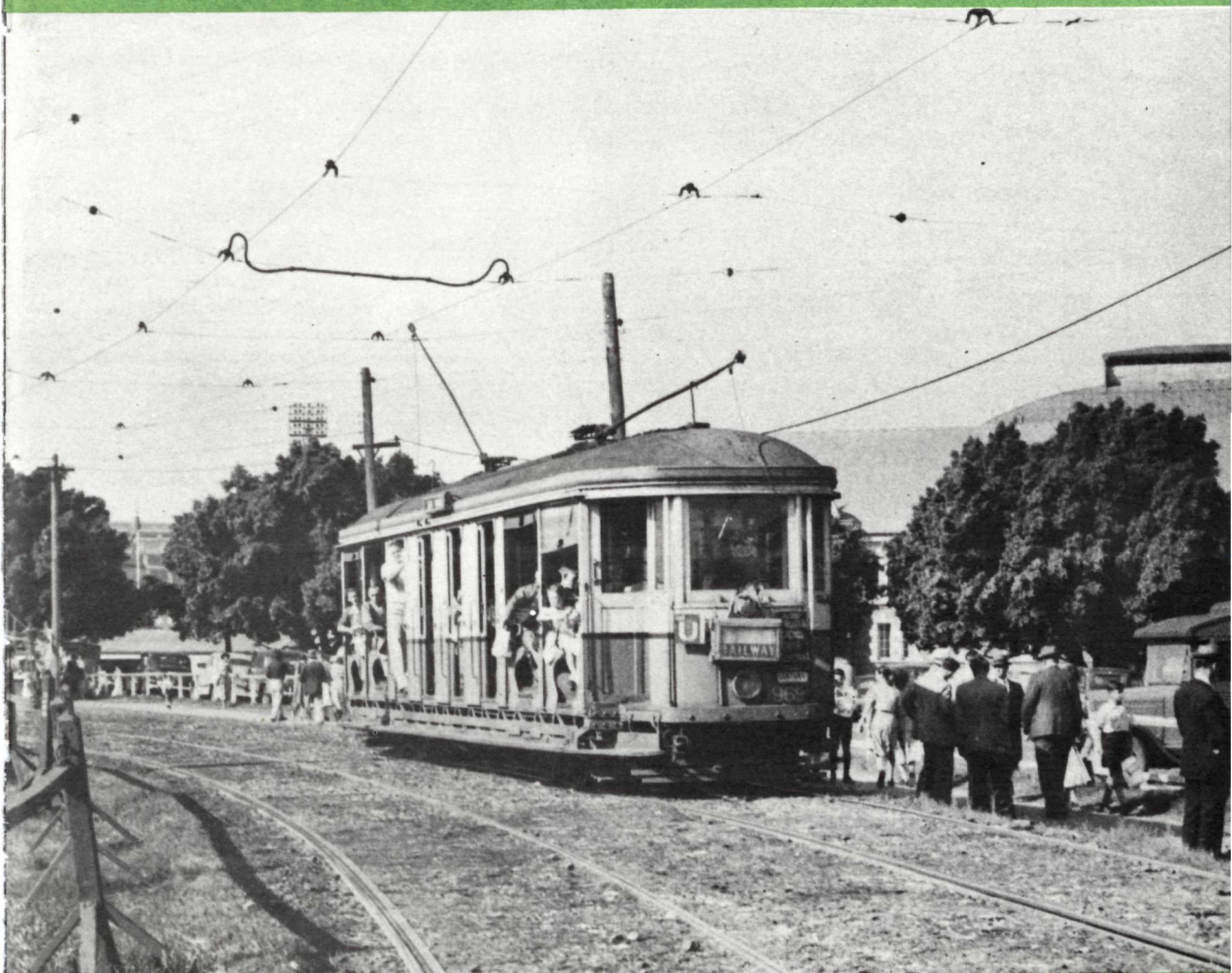


TROLLEY WIRE



Journal of
AUSTRALIAN TRANSPORT MUSEUMS

NUMBER 171
AUGUST, 1977



DESTRUCTION OF AN ASSET

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TROLLEY WIRE

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- Ballarat Tramway Preservation Society
- Brisbane Tramway Museum Society
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- South Pacific Electric Railway
- Steam Tram Preservation Society
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NEXT ISSUE

*Destruction of an Asset part 2
and more*

Silver Anniversary Articles

FRONT COVER

'O' car 969 leaving the Sydney Showground Easter 1951. The front apron mounted depot code plate was carried by trams on special services to aid signalman and traffic inspectors direct such cars onto home routes at the end of such special workings.

Photo, B.Parle

Comment...

One tends to accept, what one is used to, as the normal way that things are done.

At Loftus, as in Sydney in both steam and electric days, when work is in hand and the assistance of a tram is required, a works vehicle, either purpose built or a converted passenger car, is available for the job.

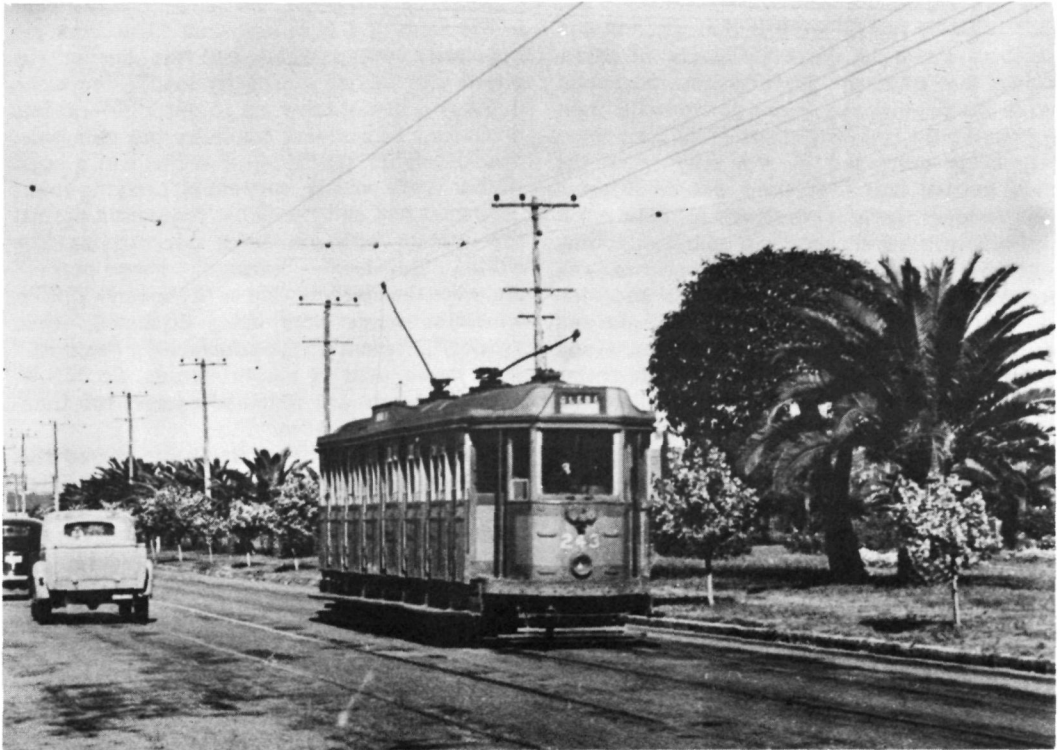
At St. Kilda, as reported in Museum Notes & News, it is necessary to requisition a passenger car for the job, none of the small fleet of works cars in Adelaide having survived.

It is very easy, in Sydney, to forget that most systems did not have the vast fleet of specialised non-passenger cars that was available, to meet the everyday needs of our once great system.

SUPPORT YOUR MUSEUM

ATTEND WORK PARTIES

AND PARTICIPATE !



Destruction of an Asset — THE LAST TWENTY FIVE YEARS—

Compiled by K. McCarthy.

This brief article traces the decline of tramways in Australia over the last quarter century; a period spanning the production life of this magazine. It is perhaps a paradox that, on one hand, this magazine bemoans the shortsightedness of those who destroyed this country's tramway assets during this period, yet on the other hand, transport circles now hail Australia as being an enlightened country in the western world in tramway matters, due to the retention and modernization progress carried out in Melbourne. Of the seventeen separate tramways undertakings still operating on these shores in 1952 only two now remain in regular public service.

In the light of the current fear of an impending world wide oil fuel shortage, the success of Melbourne certainly does not balance the closing of the Brisbane, Sydney, North Sydney and Adelaide (street lines) systems. The first three named locations were receiving new trams as recently as 5 to 8 years prior to closure, while much of the tracks had been relaid in

mass concrete construction since World War II.

In Adelaide, the advanced age of the rolling stock did not aid the case for street tramway retention, but like Melbourne, the South Australian capital has advanced along a geometrical town plan since its inauguration and in many localities the trams were able to use broad boulevards unhindered and not hindering adjacent rubber tyred transport modes.

A fair proportion of Sydney's tram tracks were located along "off street" reservation, especially in the Eastern Suburbs area, while the sacrifice of the segregated Sydney Harbour Bridge tracks and the underground entry into the main business district used by the North Sydney system, was a step beyond comprehension.

The reader may say that it is all very well to condemn steps taken 20 to 25 years ago

"LP" 243 bound for Glebe in Glebe Rd. The Junction, Newcastle, February 1950.

B. Parle photo.

with the experience of hind sight but what must be remembered is that the museum members active in the early stages of establishing the tramway preservation movement across the country, were also active in the fight to preserve the tramway assets at the time these were being destroyed. It was only when the cause seemed lost that these people diverted their energies towards preservation. As a result Australia now has six regularly operating tourist museum tramways, in Sydney (steam and electric), Ballarat, Bendigo, Adelaide and Melbourne (horse), while ventures at Brisbane and Perth will soon reach operating status. Good progress is also being made in Hobart in restoring a small fleet of Tasmanian trams while small groups in Rockhampton (steam) and Newcastle (electric) are passing through initial stages of tramway museum establishment.

When the magazine "Trolley Wire" first appeared in 1952, Australian urban areas were still served by sixteen separate electric tramway systems in addition to the summer only horse worked line between Victor Harbour and Granite Island in South Australia. Of these systems, some outer sections of the giant main Sydney network had been pruned, while portions of the Launceston, Hobart, Kalgoorlie, Fremantle and Perth tramways had also closed. On the other hand, the Brisbane, North Sydney and Adelaide tramways were practically complete, while the Victorian Provincial systems at Geelong, Ballarat and Bendigo were at their maximum extent.

In Melbourne, after a brief flirtation with the use of motor buses on trunk routes in 1940, work was advancing on the conversion of the Bourke Street routes from bus to electric tramway operation, concurrent with a physical connecting line aimed at joining the isolated Footscray lines with the main metropolitan system. The Victorian Railways were operating two isolated tramways in the south eastern bayside suburbs of Melbourne feeding into their electric railway system.

New South Wales.

Generally, the tramway abandonment movement, did not reach its zenith in Australia until the 1950's and 1960's. New South Wales, however, was the exception . . . tramway abandonment was initiated in that state in the 1920's.

From the early 1920's Sydney residents were fed a diet of news items which hinted at the tramway system being an inferior method of transport by insidious and subtle ways. This was at a time when the Sydney trams were carrying an average of one million passengers per day. One example of this appeared in "The

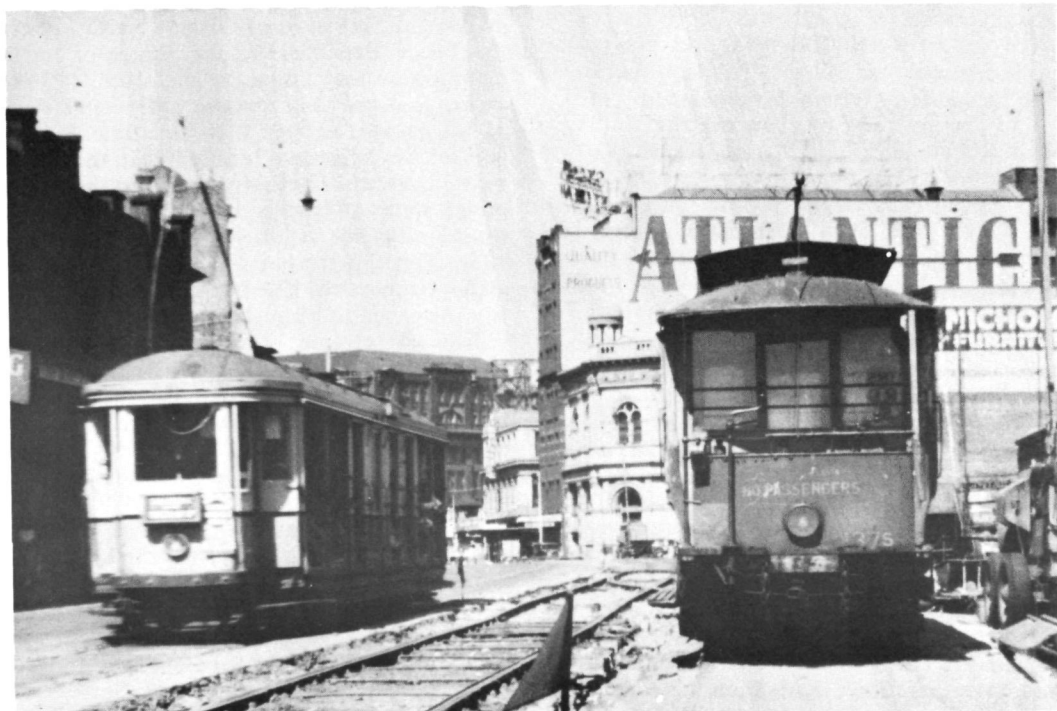
(old) Daily Telegraph" on January 20th, 1922 in the form of a photo caption. "The trams are hopelessly overcrowded and the bus in the photo also carried a capacity load". The scene depicted a line of crowded coupled "O" car sets in Oxford Street with a solitary bus alongside. The miserable specimen of a bus was a solid rubber tyred vehicle, capable of carrying about 26 passengers and providing protection against the weather with roll down side curtains. The words "hopeless", "rattled", "bone-shaker" etc. were the epithets used until the early 1960's, whenever trams were being discussed, while "glided", "silent", "comfortable", "smooth" were those used in bus references. So N.S.W. public opinion was moulded against the tramways over four decades.

By the late 1940's, after being served this anti-tram diet for years, the N.S.W. resident was generally surprised to find the exact opposite opinion prevailing when visiting other states. Tram routes were being extended, new rolling stock progressively built, and the press, as a rule, generally presented fair reports on this transport mode when it was earned, and constructive criticism when it was deserved.

The first major N.S.W. tramway closures took place on December 31st, 1926 when the steam operated systems at Broken Hill, Maitland, Parramatta (government line) and Arncliffe-Bexley were abandoned. The Sutherland-Cronulla steam tramway closed to passengers on August 2nd 1931 but a freight service continued to operate on Mondays, Wednesdays and Fridays until February 13th 1932. The last government steam tramway between Kogarah and Sans Souci was converted to trolley buses on July 3rd, 1937. Steam trams continued to puff along Sydney streets until March 31st, 1943, when Sydney Ferries Ltd., closed its Parramatta tramway, bringing 64 years of Sydney steam tram operation to a close.

In Newcastle the two steam lines not converted to electric traction, those beyond Wallsend to Speers Point and West Wallsend, closed on November 1st, 1930 but a limited service between Cockle Creek Station and Speers Point functioned during the Christmas-New Year holiday period in 1930/31, and similar holiday services continued until May Day 1932.

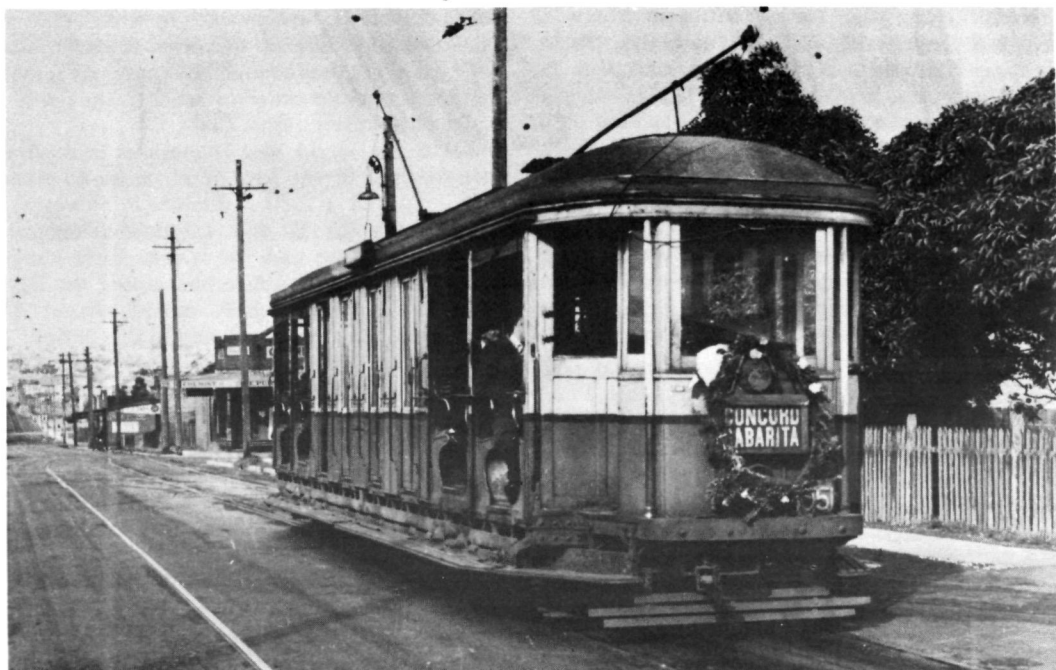
The first electric tramway closure of note prior to World War II occurred when the Georges Heights branch on the North Sydney system was abandoned on December 17th, 1923 but this re-opened for a few hours on the afternoon of Wednesday April 9th, 1924, to carry home the crowds who had walked to that headland to view the arrival of the British fleet. With



"O" 1051 outside Enfield depot on the last day of passenger operation, August 21st, 1948.
B. Parle photo.

Scrubber car 137 "S", the first tram on the new down track in Broadway, Sydney and "O" 938 on the old line, January 22nd, 1950.

K. McCarthy photo.



the opening of the Sydney Harbour Bridge and the extension of the North Shore trams into Wynyard on March 20th 1932, the two routes, to McMahon's and Milson's Points, which served the former ferry terminals were closed.

In the interests of economy the Hurlstone Park to Summer Hill Station feeder line was converted to bus operation on July 9th, 1933, and the Ryde to Ryde Station route followed on March 12th, 1934. This latter tramway provided a convenient connection with the railway tracks and was used for the transfer of rolling stock to the isolated North Sydney system. The conversion of the level railway crossing to a road underbridge, robbed the outer end of its physical railway connection.

The cross country connection between Matraville and Yarra Junction on the La Perouse tramway closed to regular operation on November 3rd, 1930 but a special tram continued to operate on Tuesdays and Thursdays to and from Waterloo taking visitors to the Coast Hospital along this line. This spasmodic operation closed entirely on March 16th, 1935 when the instruction was issued that "under no circumstances are trams to run between Military Road and Yarra Junction". Rails from this connecting tramway were retrieved by the SPER tramway museum in December-January 1956-7 to provide the initial plant for the Loftus Museum.

The Summer Hill and Ryde Station lines were unusual in that catenary overhead was employed, this form of wiring also provided current along the long Narrabeen tramway beyond Brookvale. The Summer Hill, Ryde Station tramways, as well as the Matraville to La Perouse line remained in position as electric feeders. The Summer Hill stretch served as a feeder for Ashfield and Burwood until 1948, the Ryde Station lines served the Ryde to Gladesville circuit until 1949, while the Yarra Bay wire and tracks linked the Matraville substation and the La Perouse tramway until scrap thieves removed some of the overhead wire in February 1953 causing the mains section to install a pole line feeder for this purpose.

The Quay to Woolloomooloo tramway was converted to motor bus operation on July 29th, 1935, the city end being through-routed to Pyrmont. This alteration was planned to be a test route for possible trolley bus extensions, but this never reached fruition.

The Newcastle to Port Waratah and Carrington electric lines were also converted to bus operations on November 20th, 1938, while omnibuses replaced trams on the isolated Manly to Narrabeen, Harbord and The Spit network on October 1st, 1939.

Due to the development of a structural fault in the old Suspension Bridge at North Sydney the Police Department took charge of traffic direction on the bridge on May 16th, 1936 to ensure that only one tram or heavy vehicle was on the suspended span at the one time. Further detailed investigation revealed that the bridge would have to be entirely rebuilt, so the North-bridge tramway was permanently pruned back to the city side of the bridge on May 29th, 1936. This shorter working was closed entirely on September 9th, 1939 when the rebuilt bridge was re-opened to through bus operation.

The last closure of the era took place on January 6th, 1940 when the Erskineville tramway was converted to buses. The short branch from the Alexandria line which served the eastern side of Erskineville station by way of Henderson Road had closed earlier on July 9th, 1933.

Another closure at this period was the back entrance track which connected the Leichhardt depot to Lilyfield. An exact closure date has not yet been discovered but this line was observed during 1944 well covered in places with tar. Around 1941 the elaborate double track depot junction at the corner of Norton and William Streets, Leichhardt was simplified to a trailing crossover and single line turnout. This depot, completed during 1915, was never used as a running shed.

Efforts to re-open the Manly system to The Spit and Brookvale during the early wartime period failed, but trams were re-introduced on the Suspension Bridge tramway on July 30th 1941, enabling the through bus route to become a feeder service in order to assist in the conservation of imported liquid fuel.

These pre World War II closures of electric lines resulted in the loss of 20 miles of route in Sydney and a further 4 miles in Newcastle. If one adds the ¼ mile Lilyfield-Leichhardt Depot connection and the ½ mile Rifle Range siding on the La Perouse line closed on February 25th, 1922, N.S.W. closed almost 25 route miles of electric tramway in this period.

While this destruction progressed, there were some improvements being undertaken at other locations in Sydney and Newcastle. The York Street city loop at Market Street in Sydney was opened on September 4th, 1922 but was closed on September 19th, 1932. Revised traffic flows, developed with the new Harbour Bridge resulted in road traffic moving in the reverse direction to this tramway loop. The Adamstown line at Newcastle was extended for 5½ chains to a new terminus on August 26th, 1938 and a 44 chain extension from Bondi Beach to North Bondi

TROLLEY WIRE

opened on February 16th, 1929. The West Kensington tramway reached its final terminal point on June 7th, 1937 when 11 chains of tramway between Carminya and Baker Streets opened.

Duplication of the long single track Ryde line pushed ahead, the last portion being treated was that on Gladesville Bridge on March 16th, 1936. The last single track sections on the Earlwood and Rosebery lines were duplicated on March 12th, 1934 and March 11th, 1942 respectively. The Rosebery line had been a late extension beyond Zetland opened on September 15th, 1929. Another extension was one of 20 chains on the isolated Brighton-le-Sands tramway, opened on March 28th 1929 to serve a new bathing enclosure, while on January 10th, 1938 a city loop terminal was opened at Hay, Barlow and Parker Streets near Railway Square.

This general picture of gloom in the N.S.W. street transport scene developed prior to the general era covered in this article, but it must be presented here to indicate how the decay of the tramway system commenced in the late 1920's and matured as a policy in the 1930's while the other Australian undertakings did not generally follow this path until the 1950's.

The Stevens-BruXner coalition conservative government in N.S.W. launched the progressive closure of the electric tramways. When addressing the North Sydney Rotary club on March 11th, 1936, the Transport Commissioner, Mr. S. Maddocks, stated that over the next ten years it was likely that trolley buses and motor buses would be completely substituted for trams. He added that trams did not appear to be in favour and his Department must give people what they ask for even though trams gave a greater degree of safety and more seating accommodation than any other form of transport. Trams were the cheapest method of carrying masses of people, he concluded.

This State Government realised that the final abolition of the trams could not be justified until the working life of the fixed plant was at an end and this would be a gradual process. To carry the public through this abandonment period 250 modern saloon tramcars were constructed between 1933 and 1936, the first 195 being constructed to the 48 seat "R" type design while the remaining 55 were modified to seat 56 and were classified as "R1".

The arrival of this new rolling stock enabled the withdrawal of most of the four wheel stock from regular service as well as some of the older bogie cars. All but 10 of the 202 "E" type cars were scrapped, while only 2 of the "K" type remained in regular service. These 12 trams

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were retained for working the steeply graded Neutral Bay line. Ten "K" cars were scrapped while the remainder were retained for peak hour operation or placed in store. The single truck enclosed "J"s were all withdrawn and the "N" cars were gradually removed from all regular services, being retained for peak operation, while a batch were stored at Randwick Workshops. The new tramcars also released the two tourist "H" cars, while the closure of the Erskineville line released the two larger bogie "M" types.

Thus the NSW tramway undertaking entered World War II with the following rolling stock:-

SYDNEY

"E" cars	10
"K"	98 many in store.
"LP"	153
"N"	96 many in store.
"O"	617
"OP"	9
"P"	258
"R" & "R1"	250
TOTAL	1,490

NEWCASTLE

"LP" cars	98
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Grand total Sydney + Newcastle

= **1,588 passenger cars.**

The Sydney tramways amounted to 146 route miles comprising four separate physically isolated systems, while the Newcastle network comprised 21 route miles.

Newcastle.

The closure of the Carrington and Port Waratah lines in November 1938 was planned to be the first step in the progressive abandonment of the system. This was interrupted by World War II and the then current liquid fuel shortages. Ten trams were withdrawn from service in December 1938, but these had been overhauled and returned to operation by 1942.

The condition of the tracks on the long Wallsend line left much to be desired. Between June 8th, 1936 and December 23rd, 1937 the route along Lambton Road between the Wara-

tah line junction and the Gully line crossing was reduced to single track working due to the sorry state of the tracks. This section was patched, but by the end of World War II the joints were sunken, the fishplates loose and the foundation uneven due to the former swampy nature of the area.

Many thought that the lessons learnt by the fuel shortages of the War years would cause the tramway abandonment plans to be reconsidered. At a Rotary luncheon in Newcastle on April 23rd, 1945, however, Mr. C. Neale, the Transport Commissioner stated that the closure plans initiated in 1938 would continue as new buses became available with the return of peace.

During mid 1947, the tram track in Hunter Street west in the vicinity of Civic station was relaid. This proved to be the only major renewal in Post War Newcastle. Although track repairs in Nelson St. Wallsend undertaken in 1948 come to mind and the attention paid to the balloon loop at Parnell Place in 1950 is noted, these were only expedients carried out due to extreme urgency, and were not planned to extend the life of the system by any appreciable amount.

During September 1947 Newcastle celebrated the 150 years of European settlement. The organizing committee requested that the Transport Department transfer several relatively modern "R" cars from Sydney to provide a comfortable shuttle service between Broadmeadow and the City during the celebrations. Although this reasonable request was considered it was rejected. The political decision to close the undertaking had been made and the appearance of these trams would have, more than likely, strengthened the argument for tramway retention. It must be remembered that two thirds of the trunk Wallsend route was located in off street reservations while other portions of tracks in the busier areas of the city were situated on wide thoroughfares.

The Newcastle City Council expressed interest in taking over the city transport system from the Department of Road Transport and Tramways in 1947. The success of the Brisbane undertaking, operated by the Brisbane City Council, prompted this proposal, and it would appear that the Act which enabled the amalgamation of the separate Newcastle Municipalities into the Greater City Council made provision for such a takeover.

The Minister for Transport, Mr. M. O'Sullivan visited Newcastle on February 5th and 6th, 1948 to discuss this possible transfer. Both the City Council and the 'Newcastle Morning Herald' were shocked to learn that while the State

Government had been publicizing the worn out state of the Newcastle tramway plant and rolling stock as the reason for the proposed bus conversion, the Transport Department suddenly found that the tramway assets had a high value. The whole tramway undertaking was valued at £792,000 (\$1,584,000, In 1948 the basic weekly wage was \$15 per week so this valuation at today's rates would be close to \$10,000,000) included in this figure was permanent way worth £363,000 and rolling stock to the value of £145,000.

This rolling stock figure was particularly objectionable to Newcastle Council. At that stage the Melbourne tramways were constructing large SW6 type cars for £5,000 each while the Brisbane workshops, with limited resources, were manufacturing their 400 class, four motor trams, at £6,000. The rolling stock figure submitted to Newcastle priced each "LP" tramcar at approximately £1,450 . . . a high price for vehicles with 48 year old underframes and electrical equipment, 25 year old bodies, constructed to the obsolete cross bench design.

The "Newcastle Morning Herald" of February 5th, 1948 stated that the permanent way would require an expenditure of £450,000 to continue tramway operation while the rolling stock was nothing more than junk and would need an immediate modernization bill of £500,000. To add insult to this injury the Council would be responsible for the accumulated deficit of £376,814 and the "N.M. Herald" thundered in its editorial "To ask council to take over this would be tantamount to arguing that the less solvent a business was, the higher the price it should command".

The gross assets of the Newcastle bus fleet in 1948 was £178,737. On February 9th, 1948, the Lord Mayor, Alderman, Quinlan, stated that it may be "fairly safe to assume that the financial adjustment would be successfully negotiated with the Transport Department and the Treasury" . . . Alderman Quinlan continued "I believe that the transfer would be in the best possible interest of the community" The City Council did not take this step. The fact that the transport unions were against such a move and that the liability for pensions and free holiday train travel for families of employees finally tipped the scales against the council takeover.

The weakening of the tramway bridge just short of the Wallsend terminus was detected at the time of these negotiations and the route was truncated further north near the Kemp/Nelson Streets corner. By September 1948, however the terminal was extended southwards to the city end of the damaged bridge. The

heavily used Mayfield tramway closed on September 25th, 1948, but the next closure was delayed until November 5th, 1949 when the long Wallsend route abandonment initiated a progressive closure timetable culminating in the substitution of buses for trams on the Waratah service after the last tram journey on the evening of June 10th, 1950. Thus 63 years of tramway operation in Newcastle came to an end.

According to a report in the "N. M. Herald" for February 5th, 1948, the Newcastle tramways had been allowed to deteriorate from 1938 by the Stevens-Bruxner Government. In 1941 the returned Labour Government under the leadership of Premier McGirr decided that further new trams were required for N.S.W. but the entry of Japan into World War II and the conversion of Australian industry to a total wartime construction schedule prevented this plan reaching fruition.

The Swift report of November 1946 and the Richardson report of October 1947 recommended the abandonment of the Newcastle tramways and the so called "Experts Report" compiled by Messrs. Sinclair, Andrews and Ellen and released in May 1949, featured a timetable for such a bus conversion.

Immediately following the tramway closure, the Newcastle Council requested the Sydney division of the Australian Electric Traction Association to compile a report on the feasibility of the municipal takeover of the bus system with the possible re-opening of some tramway routes.

The report, released on November 7th, 1950 recommended, amongst other features, the gradual re-opening of some trunk tramway operations commencing with the Telford Street—Waratah route using six overhauled LP cars and nine M&MTB maximum traction "C" type trams as a temporary measure until local manufacture of modern tramcars could be initiated. With the delivery of the new vehicles the re-opening of the Telford Street—Racecourse, Telford Street—Mayfield and finally the Parnell Place—Wallsend services could be undertaken.

The Council skillfully timed this release to follow the tramway closure, for it was felt that the State Government could no longer demand payment for tramway assets which were now not earning income or causing expenditure.

The Transport Department's response to the report was that some of the predicted costs of tramway re-instatement were incorrect, but research conducted since then and experience gained in the preservation field has revealed that the estimates in this report were much

closer to the mark, than predictions and costs produced in the so called "Experts Report" of 1949. The design suggestions for the standard bus and tram illustrated in this Newcastle Report proved to be a successful prediction. The seating and loading plans and other refinements in these vehicles appeared almost two decades later in experimental Melbourne tram 1041 while by the late 1950's the suggested bus layout was the one considered standard in new vehicle design.

It is not suggested here that this report influenced the design of these later vehicles but it does indicate that the panel responsible for the compilation of the report was well versed in overseas public transport design trends more than a decade before the local public transport "professionals" discovered what trends were being followed overseas.

So the once large Newcastle tram fleet was dismantled at Gordon Avenue Depot at Hamilton between 1949 and 1951, LP car 269 being the last vehicle on the tracks on August 28th, 1951. The adoption of the A.E.T.A. Newcastle Report was defeated by a single vote in Council.

to be continued



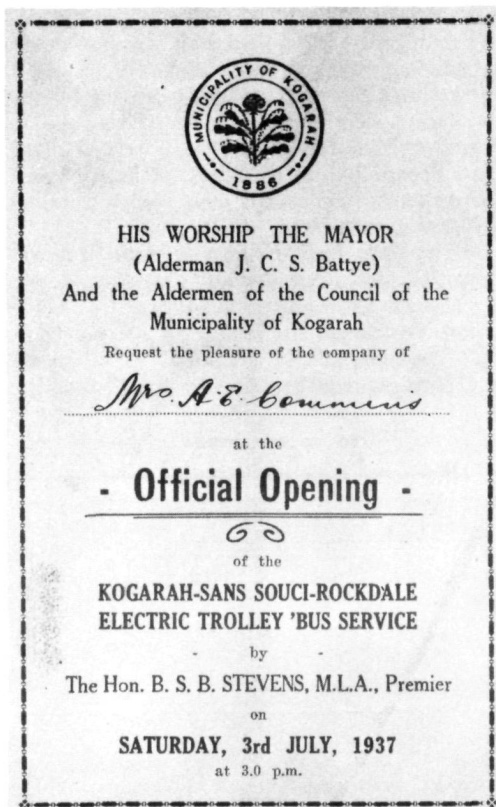
Track relaying in progress along Oxford St. Bondi Junction, showing P cars 1542 and 1628, March 21st, 1958.

Sydney Morning Herald photo.

THAT CURIOSITY~ THE TROLLEY BUS

Part 2

Compiled by K. McCarthy.



Invitation to the opening of the Kogarah Trolley Bus System. Mrs. Commens did not attend but sent her grandson, R. F. Moag, later well known in steam tram preservation circles, instead.

POST WORLD WAR II DEVELOPMENTS.

Two further bus systems were established in Australia after World War II. One at Brisbane and the other at Launceston. The undertaking in the Launceston city area in Tasmania was the only example in Australia of trolley buses being used in a location other than the state capitals.

THE BRISBANE NETWORK.

For many years the Brisbane City Council

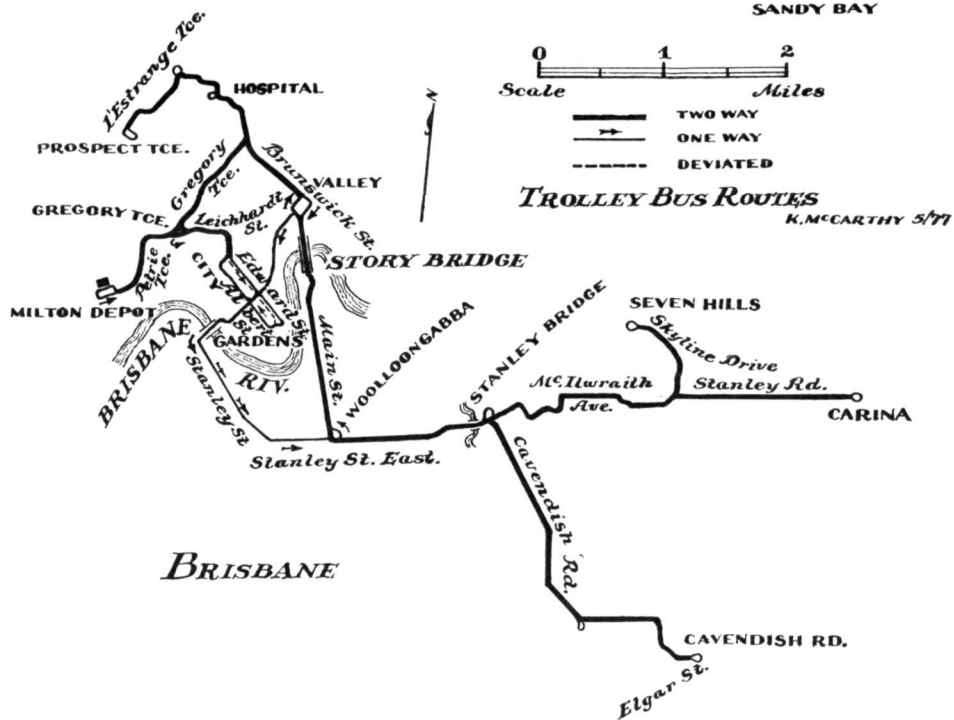
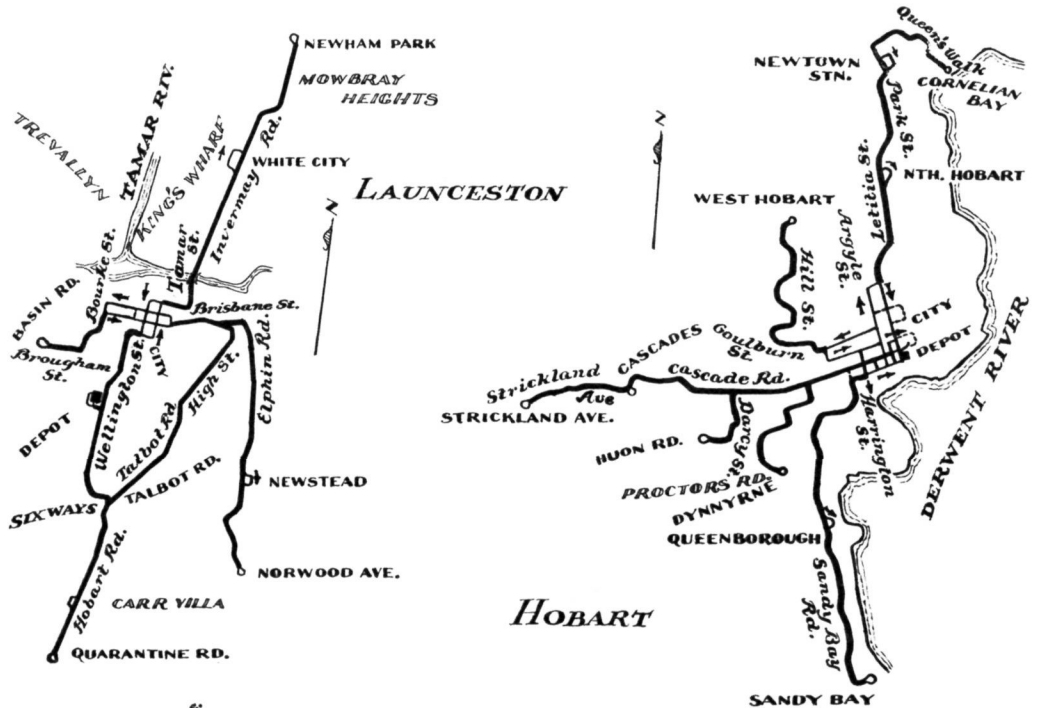
had expressed the desire to establish a trolley bus route through the prestige areas of the city to the University of St. Lucia, upstream from Brisbane on the banks of the Brisbane River. This scheme never reached fruition, but during August 1951 (21) a short 1.2 mile route, with a further $\frac{3}{4}$ mile extension to Milton Depot, was opened from the Botanical Gardens, along the major cross city Edward St., followed by a tortuous climb to the suburban terminus at Gregory Terrace. Prior to 1947 this line had been served by two tramway workings using antiquated single truck tramcars.

One tram service linked the Gardens, along Edward St. East, then turned into the main Queen St. thoroughfare to terminate in the vicinity of North Quay. The other tram route commenced in Edwards St. West, on a dead end spur at the Queen St. intersection, and traversed Edward St., Upper Edward St., and Gregory Terrace.

Prior to the opening, on August 12th, 1951, drivers had trained on the buses around a circuit in the yard of Milton Depot. Thirty single deck vehicles were ordered but as only eight were needed for the initial Gregory Terrace working, the remainder were stored in the bus section of the Light Street tramway depot. On November 29th, 1942 an extension from Prospect Terrace through the Valley business area, across Storey Bridge to Stanley Bridge, East Brisbane opened, and over the next eight years the trolley bus routes expanded into the East Brisbane areas of Carina, Seven Hills, Cavendish Road, while a large one direction loop working extended through the city and into South Brisbane.

The entire 30 original buses were hard pushed to cater for these extensions and even when a further 6 buses entered service in 1960, employing chassis which had been stored for some time, diesel buses had to be sandwiched into the operation at peak periods. Bus 34 of this last batch (nos. 31 to 36) was the last trolley bus to enter service in Australia, on February 23rd, 1960.

The last major Brisbane trolley bus installation occurred on March 28th, 1960 when Edwards Street was made a one direction thoroughfare and new wires erected along paral-



lel Albert Street were brought into use for the Gardens - Gregory Terrace service. Most of the trolley bus systems experienced some form of rerouting due to traffic flow changes, even the suburban Kogarah system in N.S.W. had the last half mile of the north bound wire at the Rockdale end relocated in 1953 due to thoroughfare being widened. Hobart experienced major reorganisation on October 25th, 1959 when considerable new wire came into regular use when vehicular traffic flow altered in the inner city area.

CLOSURE OF THE WYLDE STREET (SYSTEM) ROUTE.

The Wylde Street service in Sydney was established in a very awkward area. Except for the last outer half mile beyond King's Cross, all streets were shared and/or crossed by electric tramways. The bus overhead crossed the positive tramway wires in no less than 21 places on the running circuit, it intersected its own wires once, while the negative wire on the route shared with the trams between King's Cross and Rushcutters Bay Depot crossed the tramway wire in three places.

A short length of the line in Park Street, between Pitt and Castlereagh Streets was deviated on August 16th, 1936 when the widening of the thoroughfare reached completion. The service was replaced with motor buses on various occasions when road surface repairs blocked the way. One recorded major replacement occurred between October 3rd and December 3rd, 1939 due to road works at the Wylde Street terminus. From the time of service resumption until January 29th, 1940, the state of the road still prevented passengers using the trolley buses along the last block due to difficulty in alighting. The buses, however, were able to reach their terminus.

It was major roadworks which finally caused this Sydney trolley bus route to close. The service received motor buses as a temporary expedient from April 12th, 1948 due to road reconstruction, but the replacement became permanent. By March 1949 the two single deckers, numbers 1 & 2 had entered peak hour service at Kogarah and double decker buses numbers 4 and 5 followed soon after. Double decker number 3 had been scrapped in June 1948 after smashing into the museum fence in College Street.

Local groups at Rockdale hoped that the transfer of the electric buses to Kogarah would be used to replace the elderly tramcars on the short line from Rockdale Station to Brighton-Le-Sands, but diesel buses were finally used

on this conversion in September, 1949.

THE LAUNCESTON SERVICE.

The only other new system established after World War II was that at Launceston, Tasmania, where trolley buses were used to replace part of that city's tramway system. This conversion was the result of a report drawn up by Sir William Goodman, the Manager of the M.T.T. in Adelaide. Until the release of this document in 1946 the Launceston Tramways had been well maintained, while major track alterations had been undertaken as late as 1945.

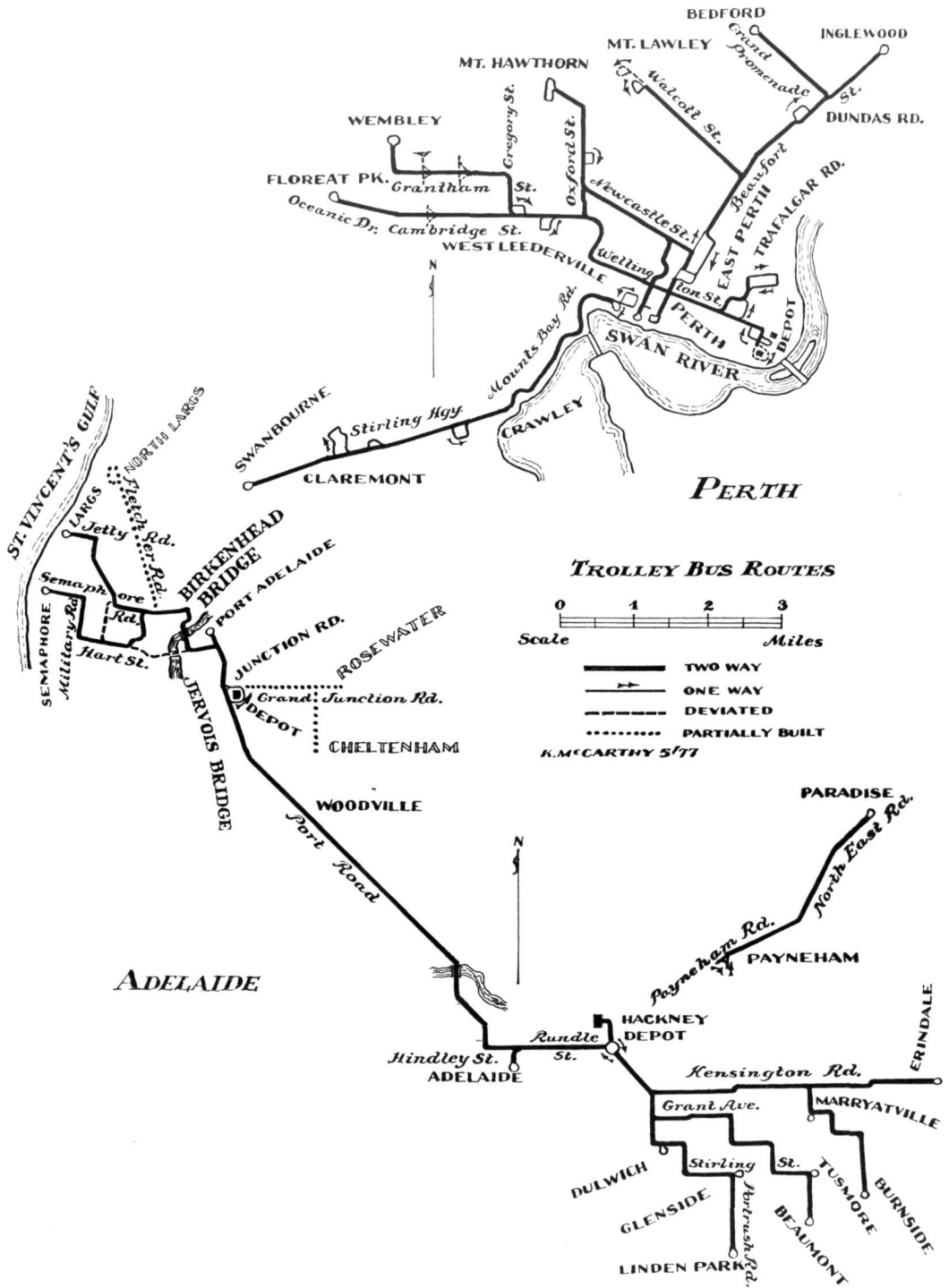
Thirty single deck buses were ordered for this conversion, but only ten vehicles were required when the initial route to the Quarantine Road, terminus along Hobart Road opened on December 24th, 1951. As Launceston trams alone in Australia carried British type swivel trolley heads, tram services were able to continue while the conversion preparation advanced due to their ability to use the offset positive trolley bus wire. The last tram service closed on December 13th, 1952, but trolley bus extensions beyond the former tramway areas continued until 27th November 1961 when the final extension to Norwood Ave., beyond the former Newstead tramway terminus, opened.



Launceston 312 & 319 show both ends and sides of their distinctive design. L.B. Manney.

OTHER POST WORLD WAR II EXTENSIONS.

One unexpected windfall during World War II was the arrival in Australia of 64 Leyland trolley bus chasses in 1942. These had



been destined for Canton, China, but the escalation of the war into the south east Asian area resulted in this consignment being diverted to Australia.

Eighteen of these chassis were received in Perth, twenty-six in Adelaide, and twenty in Hobart. These received single deck bodies between 1942 and 1946 of local design to suit each city. The arrival of these buses enabled existing services to be strengthened under the strain of increased wartime traffic due to the then current petrol restrictions, while Hobart was able to convert the Cascades tramway to trolley bus operation in August 1942 and the Proctors Road, (Dylnnyrne) tramway followed in June 1946.

Trolley bus expansion in Perth recommenced in 1951 as the gradual arrival of 50 new single decker buses between 1950 and 1953 enabled portions of the dwindling tramway system to be converted. The first of such substitutions occurred to Mount Hawthorn on August 8th, 1951 (22) followed by expansion to Inglewood on July 19th, 1958 and Mount Lawley. The Wembley and Floreat Park lines also received extensions beyond the original trolley bus terminals, while a branch from the Inglewood route to Bedford tapped new housing development not previously served by the tramways.

In Adelaide, the immediate post war trolley bus expansion was planned for the Port Adelaide region. Indeed, part of the overhead was erected for the Largs North branch and the Cheltenham via Rosewater extension and by 1950 some 30 Sunbeam chassis had been delivered to provide vehicles for these new services. During 1951 sudden changes were made to future plans for the entire Adelaide street transport system. The Largs North and Rosewater route proposals were scrapped and the decision reached to extend the trolley bus services into the eastern suburbs replacing several tram routes and giving an "opposite end" balance of terminals to the Port Adelaide end of the undertaking. These new chassis received bodies by the local firm of J. A. Lawton between 1951-53 after that firm had completed the Launceston order.

During 1952 the original Tusmore line was extended to Beaumont, a terminus not previously served by tramways, while in May 1952 the Linden Park, Erindale and Burnside tram services closed and were gradually replaced by trolley buses between October 1952 and May 1953.

Two tramway extensions had been carried out in Adelaide during World War II, that from Kilkenny to Cheltenham in 1942 and from

Marryatville to Erindale in 1944. Retrieved track from the long abandoned Port Adelaide tramway was used on Adelaide tramway extensions from the late 1930's and when the short lived Erindale tramway received trolley buses in 1953, second hand material again came to the aid of the conversion in the form of span wire retrieved from the conversion of the Glenelg tramway overhead from catenary to simple span wire suspension. The nine years life of the Erindale tramway proved to be so short that some Adelaide street directories never recognised its existence.

Hobart post war extensions resulted in trolley buses reaching into the foothills from the Cascade line to Strickland Avenue in October 1948, while the long scenic Sandy Bay tramway received trolley buses as a substitute in December 1952. This tramway was gradually truncated towards the city from June to December 1952 to enable overhead wire conversion to proceed. The Hobart system reached its maximum extent on February 23rd, 1958 when trolley buses replaced trams to West Hobart. Between 1950 and 1952 the Hobart Tramways received 36 new single deck trolley buses to enable these extensions to be undertaken.

Except for the closures of the Paradise experimental line in Adelaide, the Kensington Racecourse circuit in Sydney and the awkward Town Hall - King's Cross-Wylde Street working also in Sydney, trolley bus expansion continued through the late 1950's and into the first year of the 1960's.

Even at its maximum extent the Launceston system could not find work for all 30 buses, so between November 1963 and March 1964, the last five buses in the Launceston roster were transferred to Hobart enabling some units of the initial fleet to be withdrawn. In the meantime the outer end of the Cornelian Bay line, beyond Newtown in Hobart, was closed in March 1959, while in August 1959 the long Perth route, along the Swan River to Claremont was converted to motor bus operation. Both closures were brought about by nearby expressway intersections disturbing part of the established trolley bus route which would have required expensive wire deviations if the electric buses were to continue through these locations.

With the closure of the Perth tramways in 1958, Hobart in 1960 and Sydney expected in 1961, it became obvious that if trolley bus operation had to continue, both motor bus maintenance staff as well as duplicate electrical trained personnel would have to be retained to enable the existing rubber tyred services to

continue.

The Adelaide trolley buses were extensive enough to justify such a retention after the last street tramway route closed in 1958 (the single Glenelg tramway route continued to this day) while the extensive hydro-electric power supply network in Tasmania seemed to guarantee cheap power which favoured continued trolley bus operation in that state.

TROLLEY BUS CLOSURES.

The Kogarah fleet in Sydney was nearing the end of its economic life by the early 1950's, but a major programme of body rebuilding (20 of the 21 buses were so treated) enabled the system to continue until August 29th, 1959 when the undertaking closed without ceremony, and diesel buses substituted.

In Adelaide, extensive rerouting of the Semaphore and Largs routes occurred in 1960 when the elderly Jervois swing bridge received a weight limitation. In August 1960 and February 1961 both respective routes were reopened via the lifting span Birkenhead bridge. The operation along this new deviation was short lived, however, for on July 12th, 1963 the entire Adelaide trolley bus network was converted to motor bus operation after the afternoon peak hour working. The availability of one man operation on the motor buses, the loss of their own generating station and the advanced age of half the trolley buses caused this major, 25 route mile system, to be converted while at its maximum extent.

During 1968 the seemingly plentiful hydro-electric power potential in Tasmania had to be rationed, due to a severe and unexpected drought. This brought about new thinking on the future of that state's two trolley bus services. The Launceston system closed in stages between July 15th and 26th, 1968. The last Hobart operation concluded on November 24th, 1968 when ceremonial last day trips were worked from the City to Huon Road. Regular trolley bus operations had ceased on the Cascades, Huon Road., Dynnyrne and Strickland Ave. routes on Friday November 22nd. The Newtown and West Hobart buses had been converted to motor buses on August 23rd, 1968, while the long Sandy Bay line expired on October 8th.

The Brisbane and Perth undertakings remained. By 1968 the Perth service to Mount Hawthorn had closed and the East Perth (Trafalgar Rd.) line pruned. Brisbane, on the other hand, continued to function over maximum route mileage, but there had never been sufficient trolley buses in that city to service all

routes at peak hours. The rapid closure of the Brisbane tramway services was announced in June 1968, to be completed by early 1969 and the trolley bus abandonment would be included in this scheme.(23) The entire Brisbane system closed when bus 9, the vehicle which opened the first part of the network in 1951, arrived back at Milton depot shortly after 8pm on March 13th, 1969 just one month before the final tramway closure in that city. Like Adelaide, the Brisbane trolley bus network was at its maximum extent when closed.

Perth therefore, became the last Australian city to close its trolley bus system. Regular services ceased on the evening of Friday August 29th, 1969 with the closure of the Wembley, Floreat Park and East Perth lines. On the following day an enthusiast tour in buses 887 and 846 completed the last ceremonial circuit of the undertaking. The Inglewood, Bedford and Mount Lawley routes had closed in December 1968, due to reorganisation of their thoroughfares for freeway construction, after the short life span of ten years.

PRESERVED VEHICLES.

Of the 337 trolley buses once used in Australia, only 13 have been preserved.

Sydney No. 1	single decker	Built 1933
<i>Museum of Applied Arts and Science.</i>		
Brisbane No. 1	single decker	Built 1951
<i>Brisbane Tramway Museum Society.</i>		
Brisbane No. 34	single decker	Built 1960
<i>Brisbane Tramway Museum Society.</i>		
Hobart No. 74	single decker	Built 1942
<i>Tasmanian Transport Museum Society.</i>		
Hobart No.235	single decker	Built 1952
<i>Tasmanian Transport Museum Society.</i>		
Adelaide No.216	single decker	Converted 1932
<i>Australian Electric Transport Museum.</i>		
Adelaide No.417	double decker	Built 1937
<i>Australian Electric Transport Museum.</i>		
Adelaide No.488	single decker	Built 1945
<i>Australian Electric Transport Museum.</i>		
Adelaide No.526	single decker	Built 1953
<i>Australian Electric Transport Museum</i>		
Perth No. 38	single decker	Built 1945
<i>Western Australian Transport Museum</i>		
Perth No.846	single decker	Built 1950
<i>Western Australian Transport Museum.</i>		
Perth No. 30	single decker	Built 1944
<i>Western Australian Transport Museum</i>		
Perth No. 84	single decker	Built 1953
<i>Western Australian Transport Museum.</i>		



Trolley bus 1 working on the Reserve St. (Wembley route) run in Perth, 1938.

Late W. Jack photo.

Hobart Trolley Bus No.74 at Sandy Bay, Hobart Built 1941: The chassis was part of an order to be delivered to Canton, China. The Second World War intervened and the order split between the Hobart, Perth and Adelaide trolley bus systems. Preserved T.T.M.S. 1964.

Photo – I. G. Cooper.



Adelaide 432. One of the six Leyland 3 axle double deckers.

L.B. Manney.



TABLE OF TROLLEY BUS SYSTEMS IN AUSTRALIA

STATE	SYSTEM	APPR.ROUTE MILES	SINGLE DECK BUSES.	DOUBLE DECKERS	OPERATIONS
NSW	Kensington train- ing circuit	---	1 (†)	1 (†)	18.12.1933 to 6.1937(@)
	City-Wylde Street	2½ miles	2	3	23. 1.1934 to 11. 4.1948
	Kogarah	7 miles	2 (†)	2(†)+21	4. 7.1937 to 29. 8.1959
QLD	Brisbane	17 miles	36	0	12. 8.1951 to 13. 3.1969
S.A.	Adelaide	25 miles	56 + 1(†)	35	5. 9.1937 to 12. 7.1963
	Payneham-Paradise	2½ miles	1	0	(*)18. 5.1932 to 11. 8.1934
W.A.	Perth	25 miles	90	0	1.10.1933 to 29. 8.1969
TAS.	Hobart	15 miles	63 + 5(†)	0	29.10.1935 to 24.11.1968
	Launceston	15 miles	30	0	24.12.1951 to 26. 7.1968
TOTALS	8 Public Systems	109 miles	278	59	37 years
			337 buses		

Table Notes.

† = Listed against other systems in this table.

@ = Possibly in "driver training" use December 1933 to January 1934. Then October 1936 to June 1937.

* = Private trials and public trials conducted from March 2nd, 1932.

General Notes.

1. "The Development of the Trolley Bus" H. Brearley. Oakwood Press.
2. "Transactions of the Institute of Engineers" W. Goodman. August 1932.
3. See note 1.
4. "Fares Please" J. Miller. Dover Publications.
5. "Trolley Coach". M. Seabee and P. Ward. "Interurbans" publications.
6. "Overground" S. Newman. Ian Allan Ltd.
7. "A History of Bradford Trolley Buses" H. Brearley, Oakwood Press. and "Modern Tramway" P.174, May, 1972.
8. See note 5.
9. "Railway and Tramway Magazine" N.S.W. Reported in issues 1911-1913.

10. For detailed accounts of the Adelaide undertaking see "Adelaide Road Passenger Transport 1836-1958" J. Radcliffe and C. Steele. Adelaide Libraries Board of S.A.
11. "Electric Traction" p.5 February 1955.
12. "End of the Penny Section". G. Stewart. Reed Publishers.
13. See note 10.
14. "Trolley Wire" p.6 February 1970.
15. For further details see:-
 - "Trolley Wire" p.6 February 1971.
 - "I Remember" J. Lang. Invincible Press.
 - "The Great Bust" J. Lang. Angus & Robertson.
 - "The Turbulent Years" J. Lang. Alpha Books.
 - "Dismissal of a Premier" B. Foott. Morgan Publishers.
16. See "Trolley Wire" p.6 February 1971.
17. See "Trolley Wire" p.22 April, 1973.
18. "Sydney Morning Herald" p.10 Monday April 5th, 1937.
19. Ibid
20. "Road Transport Passenger Operations". S. Pilcher P.44 1930.
21. "Hotpointer" January-February 1952 p.13.
22. See note 14.
23. The electric railway at the Bulimba Power Station in Brisbane, was also forced to revert to diesel traction as the Brisbane Tramways maintained the two electric locos used on the power house railway.

Footnote.

Much of the material for this article was originally researched when the history of the NSW trolley bus systems was prepared for "Electric Traction". These accounts eventually appeared in issues dated August and September 1962 and February and March 1963. The present writer again acknowledges the major assistance given by Mr. R. Willson when the original accounts were prepared, as well as additional information provided by Messrs. N. Chinn, D. Greenwald, D. Keenan, K. Winney, the late R. Field, C. Woodside, K. Charlton. In addition, information for this article has been provided by R. Francis, K. Magor, P. Simpson and the Research Officer of the Public Transport Commission of N.S.W., Mr. J. Forsyth.



Perth 54, a postwar sunbeam with center-entrance body. The lines in the foreground are railway, not tramway.
L.B. Manney.



WHAT GAUGE IS THAT?

It has been pointed out by readers that the number of gauges listed on page 15 of the June 1977 "TW" is 27 and not 26 as stated. The list was not claimed to be exhaustive and since publication another 9 have been added. There are undoubtedly others as the known number of gauges used by all forms of traction is nearly double that listed and some may have been electrified at various times.

Of the 36 gauges listed, 21 were used in feet and inches applications and 9 were used in Australia and New Zealand. Some of those listed are, or were, to be found in one place only. The users shown against each gauge in the table are in most instances representative only.

600		French Canals
610	2' 0"	Queenstown (Mt. Lyall)
630		Danzig
750		Saravejo, Dudrovnik
760		Italy, Poland
762	2' 6"	Japan
800		Wengernalp Bahn
825	2' 8½"	Volks - Brighton
838	2' 9"	Seaton
900		SECV - Yallourn
902	2' 11½"	Cork
914	3' 0"	Mt. Bischoff, Manx Electric
925		Karl-Marx-Stadt
950		Centovalli
1000	Meter	SNCV, Antwerpen, Stuttgart
1067	3' 6"	Hobart, Perth, Los Angeles
1100		Braunschweig, Kiel, Lubeck
1118	3' 8"	Napier
1219	4' 0"	Wellington, Bradford
1373		Japan
1416	4' 7¾"	Glasgow, Huddersfield
1422	4' 8"	Dunedin
1435	4' 8½"	Adelaide, Auckland, Brisbane, Melbourne, Sydney
1440		Rostock
1458		Leipzig
1473	4' 10"	St. Louis
1495	4' 10-1/8"	Toronto
1524	5' 0"	USSR, Louisville, Jacksonville
1575	5' 2"	Trenton
1581	5' 2¼"	Philadelphia
1588	5' 2½"	Cincinnati, Pittsburgh
1600	5' 3"	VR, Brazil, Altoona, Dublin

1638	5' 4½"	Baltimore
1665		C.P. (Portugese Railways)
1674		RENFE (Spanish Railways)
1676	5' 6"	Argentina, Chile, India

As will be evident from the above table, the majority of the gauges are, or were, used by tramways and interurbans as well as suburban and mountain railways. It should also be noted that a number of the gauges shown against tramways and railways are used by industry.

The Portugese and Spanish railways interrune despite the variation of gauge, neither of which are 5'6" as popularly believed.

Extra !



Brisbane trolley bus No. 5 and tramcar 493 at the Edward and Adelaide Sts. corner, May 27th, 1952. The terminal tracks for the former Gregory Terrace tramway can be seen behind the bus.

K. McCarthy photo.

★ *Museum Notes and News*

C.O.T.M.A.

News from the Council of Tramway Museums of Australasia

The Third Conference of Australasian Tramway Museums held in Adelaide last April is now another recorded milestone in the history of our development. The printed copies of the proceedings (Papers and Workshop Discussions) are expected to be available in September for distribution to delegates and Society libraries. COTMA Chairman John Radcliffe participated in a course held in Sydney from April to June (except for our Conference period!) and was able to pay official visits to both S.P.E.R. at Loftus and S.T. & R.P.S. at Parramatta Park. Returning home to Adelaide via Melbourne, John and COTMA Executive Officer Keith Kings visited the B.T.P.S. at Ballarat and H.T.W. at Haddon. These visits enabled more

matters to be discussed to the benefit of all concerned, and COTMA's appreciation is expressed to the Society members involved for their hospitality.

COTMA and its constituent Societies have evolved a code which should prove of benefit to ourselves and the M. & M.T.B. in relation to the acquisition of tramcars and equipment from Preston Workshops. Matters involved include the preliminary approach, negotiations, payment, arrangements for collection, competency of the carrier (suitable truck, equipment and packing), and promptness of removal. Also, the M. & M.T.B. desire that no more than two or three Society representatives should be present when items are being collected.

ST KILDA . . .

Australian Electric Transport Museum



The awakening interest in Adelaide's transport history resulted in the Department of Adult Education in the University of Adelaide holding a seminar on July 7, 1977 entitled "Land Transport in South Australia: An Historical Introduction". The seminar was jointly sponsored by the AETM, the Australian Railway Historical Society, the Horse Drawn Conveyances Committee of the National Trust and the Institution of Engineers, Australia. Over three hundred people attended. Four papers were given, including a fine presentation by AETM Secretary Mr. Christopher Steele entitled

"The History of Street Transport". On the following Sunday, seminar delegates participated in an afternoon excursion which culminated in a visit to St. Kilda to examine and ride on vehicles owned by the AETM.

During June, 1977, the Museum took delivery of two M. & M.T.B. No.9 trucks from W-3 class cars as part of a distribution of surplus Melbourne equipment arranged through COTMA.

The recent closure of a Rundle Mall department store and the subsequent auctioning of its shop fittings allowed the Museum to obtain a number of useful items of furniture and equip-



ment for future developments.

One of the first items to be completed on the works budget approved at the Annual Meeting held in April was the installation of the new lineside service telephone. Previously a temporary line had been strung from the Museum to Mangrove loop, but it has been damaged on several occasions by local contractors or by flocks of birds. New wire has been installed and the line extended to provide for an additional telephone at the terminus. A telephone is also provided for dispatchers in the depot yard, being located in the Bundy clock case.

All members of the previous Executive Committee of the Museum were re-elected at the 1977 Annual General Meeting.

With the onset of winter, the roofs of cars 294 and 381 have been sealed and repainted. Car 294 has already seen extensive use on the St. Kilda tramway since its arrival from Melbourne. Within the first three months it had operated nearly 250 miles. By contrast, Ballarat 34 has seen no regular passenger use for many months, having been serving as a works car in connection with upgrading the overhead, installing the new telephone system and continuing maintenance of poles and trackwork.

The installation of a new air brake piping system in car 192 is now well advanced under the direction of Robert Magnussen. Exterior refinishing of car 381 has commenced with a comprehensive programme of minor dent repairs being carried out by Ron Jenkins.

Visitors hurry from inspecting the outside exhibits in order to board E-1 type car 111 before it departs on another run to St. Kilda.

John Radcliffe.

Extra !

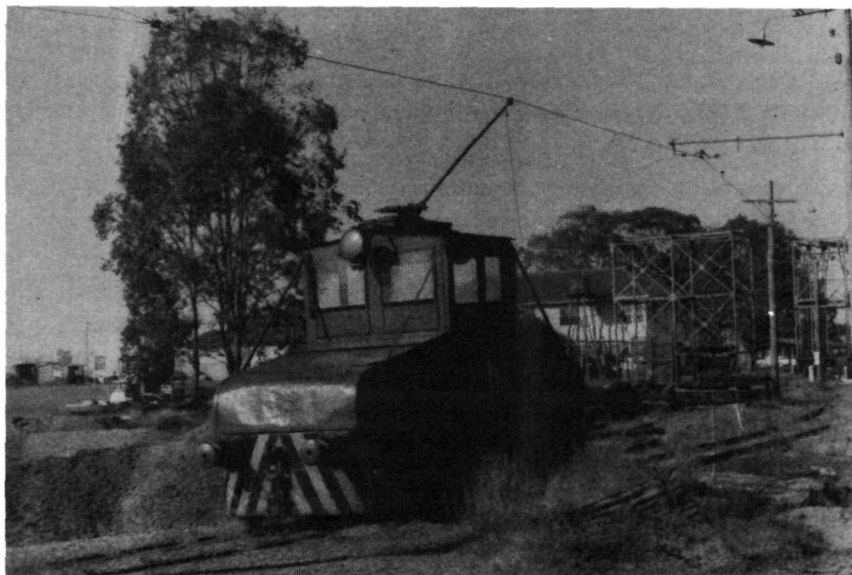
TWENTY-FIVE YEARS AGO IN TROLLEY WIRE WE REPORTED THAT

- Four "P" class tramcars were in Randwick Workshops having "R1" type braking equipment fitted.
- Post War "R1" car 2004 was delivered to Randwick Workshops on January 18th ex Commonwealth Engineering Company, Clyde.
- The first corridor car, "R" 1777, to undergo an "A" overhaul was returned to traffic at Newtown Depot during March, 1952.
- "O" class car 1420 was noted in Dowling Street Depot during March, fitted with off side loading prevention bars to the two rear open compartments. Although intended as an experiment, it was noted by our reporter that the staff had them wired up to prevent their use!
- As from the commencement of service on May 25th 1952, the direct Wynyard - Balmoral Beach and Taronga Zoo Park services will be discontinued. Leaving only the cross country services to serve these terminals.

FERNY GROVE . . .



Brisbane Tramway Museum Society



Since the last report from Brisbane there has been much progress to be seen within the museum.

The No.1 Depot is in the process of being taken to the lock-up stage, with one door having been completed and hung and the framework for the others being well in hand. All three roads are now connected through the depot fan, with the points to the No.2 Depot also being complete as far as the foot of the fan for that depot.

The No.2 Depot has some 80% of the concrete retaining wall on the high side complete and most of the Z girts installed in preparation for the wall cladding to be attached. Much of the roofing iron has been painted prior to fitting.

Repairs to the stores shed have now made this structure sound and the extensions to the workshop building, to enable it to accommodate FM cars, have reached the lock-up stage.

On the electrical side, the museum domestic supply now comes from our own transformer fed off the 11kv line to the sub-station, which

The Baldwin Electric Locomotive at Bulimba Powerstation.
Bill Parkinson.

is progressing steadily.

Car 231 has once again made the journey up the hill to the No.1 depot, closely followed by Dreadnought 140. These moves were made to make way for the SEAQ Baldwin loco, which arrived on site on 8th March. The 3'6" gauge loco, weighing 16 tons, was used on coal haulage at Bulimba Power Station in company with a Goodman loco "The Flying Boot", which went to the Australian Narrow Gauge Railway Museum.

In preparation for the arrival of a Sydney car currently at Inglewood, a pair of FM trucks have been pulled out of storage and placed on the rail. Until such time as the roofing on the No.2 depot is sufficiently advanced to enable the car to be stored under cover, its arrival has been deferred.

Other recent acquisitions include a fully overhauled booster pump for our fire fighting system, donated by Southern Cross Machinery, and office furniture and fittings from the Milton

Tramway Offices, donated by the Brisbane City Council.

Bus 80 took part in a vintage vehicle rally at Windsor Park in April, (winning its first badge), and June saw a visit to the museum of the Vintage and Veteran car clubs.

Bill Daniells, our president since foundation, has resigned from that position due to a transfer to Sydney for a while. John Hudson has been appointed President and General Manager to replace Bill. Other changes on the BTMS Council as a consequence have been the elevation of Dennis Parry to Vice-President to replace John and the addition of a new Councillor in Mrs. Ford, who is Secretary Garry Ford's mother. Tim Atherton has resigned his position of Vice-President due to pressure of work.

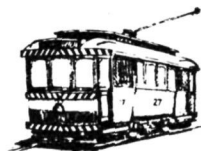
The venture of the publications branch into the production of tie-bars and brooches has proved most successful, with the first order being sold within a few weeks. They feature an FM Phoenix Car and sell for \$2.50. A further style with Combination class car will be on sale soon.

Quotes have been called for the Trolley Bus Shed which will complete the first phase of major building construction prior to opening.

The Brisbane City Council has confirmed the granting of an extension to the area of our lease which gives us now almost double our original area and a second street frontage onto Samford Road. This extra land is granted under the same conditions as the original lease and at no extra cost.

BALLARAT . . .

Ballarat Tramway Preservation Society



Depot Extensions.

A reply has not yet been received from the Ballarat City Council concerning the submission to extend the tram depot. The extensions incorporate much needed workshop facilities and extra room to store the recent additions to the fleet. As soon as a reply is received all members will be acquainted with the decision. To match the two for one grant made recently by the Victorian Government the Society has raised the authorised capital of its Co-operative Society from \$8,000 to \$38,000 and is calling on persons who wish to purchase shares. The Co-operative issues \$1.00 shares paid up to 10 cents and so should someone purchase \$100 worth of shares by investing only \$10.00 he will in fact be gaining the Society \$300. The amount invested in the shares will be refunded to the subscriber after 10 years, without interest. Any person wishing to purchase shares is asked to contact the B.T.P.S. Secretary at the Society address.

Fares:

To help cover anticipated extra costs in the forthcoming year the Board has decided to increase the Adult 'Round Trip' fares as from Saturday 6th August 1977. Fares charged from that date will be: Round trip: Adult 40¢, Child 20¢, Single: Adult 20¢, Child 10¢. All day

tickets remain unaltered at \$1.00 and Charter rates are also unaltered.

Tramcar Maintenance:

The new canvas roof is being applied to No.28 which will virtually bring all restoration work on this tram to completion. No.38 has finally received its new axle brasses and now only requires the rewound traction motor to be placed in position to make the tram operable once more.

The 'Junior' section has been painting the floors of No.'s 26 and 40 greatly enhancing their appearance.

National Trust Report:

The September 1976 report of the National Trust recorded Lake Wendourie but refused to record the Gardens. After discussion between the Ballarat City Council and the Trust a report was prepared which stated the Gardens had over the years lost direction and had become a collection of glass houses, wishing wells, statuary and modern lighting. The report concluded saying that a full Victorian style should be adopted with masses of annuals and complicated geometric patterns in the flower beds. The tramway, although not quite of the Victorian era, would certainly complement any such scheme should it come to pass.



Ballarat crews undergo training in Melbourne. Seen at Preston on one such occasion are BTPS members Richard Gilvert, Peter Hill, Paul Nicholson and Jack Chadwick, together with Instructor Bruce Davey (Fourth from left.)

Recent Society acquisition, No.33 being loaded at Hamilton, Vic. for transport to Ballarat on Sunday 24th April, 1977. See June issue for story



ALBION PARK ...



Illawarra Light Railway Museum Society

FIRST STEAM UP:-

Steam was raised for the first time on July 2nd in the vertical boiler and the Tongarra Milk Factory horizontal single cylinder stationary engine was set in motion. The boiler received its hydraulic test on June 18th and received a certificate to operate at 60 lbs/sq.in. pressure.

The construction of additional concrete machine beds is progressing around the boiler and these stationary units will be piped to the boiler as they are restored. July 2nd also "heard" the testing of the museum's whistle collection and the sounds around the museum area resembled "knock off time" at a heavy industrial area!

STEAM LOCOS:-

Throughout June and July work continued on the cleaning of the main frame and cylinder castings of the dismantled Perry steam loco. The main effort has concentrated on the removal of damaged studs and the cleaning and rethreading of holes in which rusted bolts had broken off. Drain holes are also being drilled into casting pockets in which rain water normally collects.

The restoration of the saddle tank for the Davenport loco was completed during the last week in June at the main plant of Garnock Engineering near Port Kembla and this returned to Albion Park on July 11th. Work is progressing on the machining of the new main axle bearings. A new buffer beam is being milled for this former Kiama loco and the work of scraping and steam cleaning was almost completed during early July preparatory to repainting the entire unit.

The engineering plant of B & W Steel of Fairy Meadow has also been of considerable assistance to the Society. This firm completed the construction of a new ash pan for the Davenport locomotive during early July.

An original 'Davenport' injector was donated to the Society for use on "Kiama" by Bruce MacDonald in July, this item had come from Bruce's private collection of railway artifacts.

On June 18th the frame of Shay No.2 was chained to the track and a hydraulic jack used

to straighten the right hand RSJ frame member. The web near the front bogie cross members had rusted through allowing the head and foot to bend when the loco was positioned on work bogies at Albion Park. Two lengths of heavy angle were tack welded over the damaged portion and then bolted through the sound area. The truss rods on the right hand side were assembled and tensioned at the end of June. The next step will entail the retrussing of the left hand side of the frame, then the boiler, bunker and frame can be spray painted black.

PASSENGER CAR:-

On Sunday May 29th, 1977 a party of ILRMS members visited the Goulburn Steam Museum to collect the c.1918 International saloon bus body. This was obtained by Mr. Bruce MacDonald, the Manager-Curator of the Marsden Museum in 1972 prior to which it had been used as a shed at Douglas Park, N.S.W.

Member Keith Mayhew transported the bus body to Albion Park with his four wheel drive vehicle hauling a large bogie trailer. Two wheel, axle and bearing sets once used under a Kiama stone wagon were also obtained on this occasion from Goulburn.

At the June Museum Meeting the various possible carriage designs in which this bus body can be incorporated were discussed:-

1. Bogie California type, centre saloon and open end transverse benches. Similar to the Sydney "D" type trams.
2. Bogie California type, centre saloon and inward facing longitudinal seats on the open ends. Similar to the Ballarat trams and the 2ft gauge carriage used on the former Burrinjuck Dam railway in N.S.W.
3. Bogie car with saloon at one end and open transverse benches at the other open end. Similar to the Sydney "G" type tramcar and the Adelaide "E" type.

The meeting broadly approved the No. 1

design in principle. This style allows for maximum cross bracing, but safety chains may have to be used across the seat ends to enclose the passengers when the train is in motion.

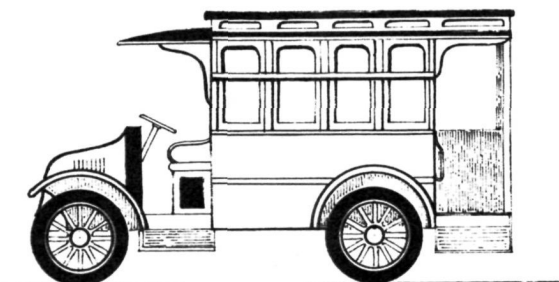
Plan preparations will now proceed along this design path, with a start soon to be made on fitting new side panels and window sashes to the saloon body. The completed car will be designed to seat 28 passengers. The ILRMS society would be grateful to receive open seat components and footboard parts from any Sydney "O" car bodies being cut up for disposal.

AROUND THE MUSEUM:-

The underframe of the 2ft gauge "Mancha"

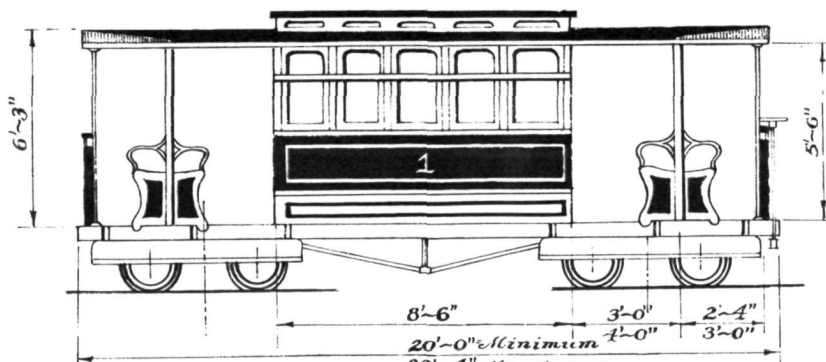
electric loco was painted on May 29th and by early July work was progressing on repainting the battery box.

Another ILRMS member obtained a further relic from Goulburn Museum for private preservation on June 1st. This is the underframe, cylinders, motion, wheels, tanks and cab parts of the 0-6-0T Maffei "Billy" (3677 of 1911) last used on the Plane Creek Mill railway in Queensland. The boiler was removed for overhaul and never refitted and was not available when the frame members were delivered to Goulburn in 1974. The spare Davenport boiler at Colo Vale has also been purchased and this may be used on "Billy" when it is eventually restored.

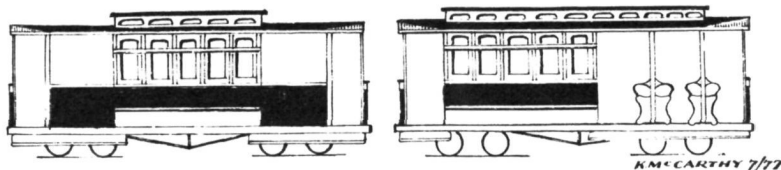


POSSIBLE APPEARANCE OF c1918 BUS

Scale 0 1 2 3 4 Feet.



2FT. GAUGE LIGHT RAILWAY COACH

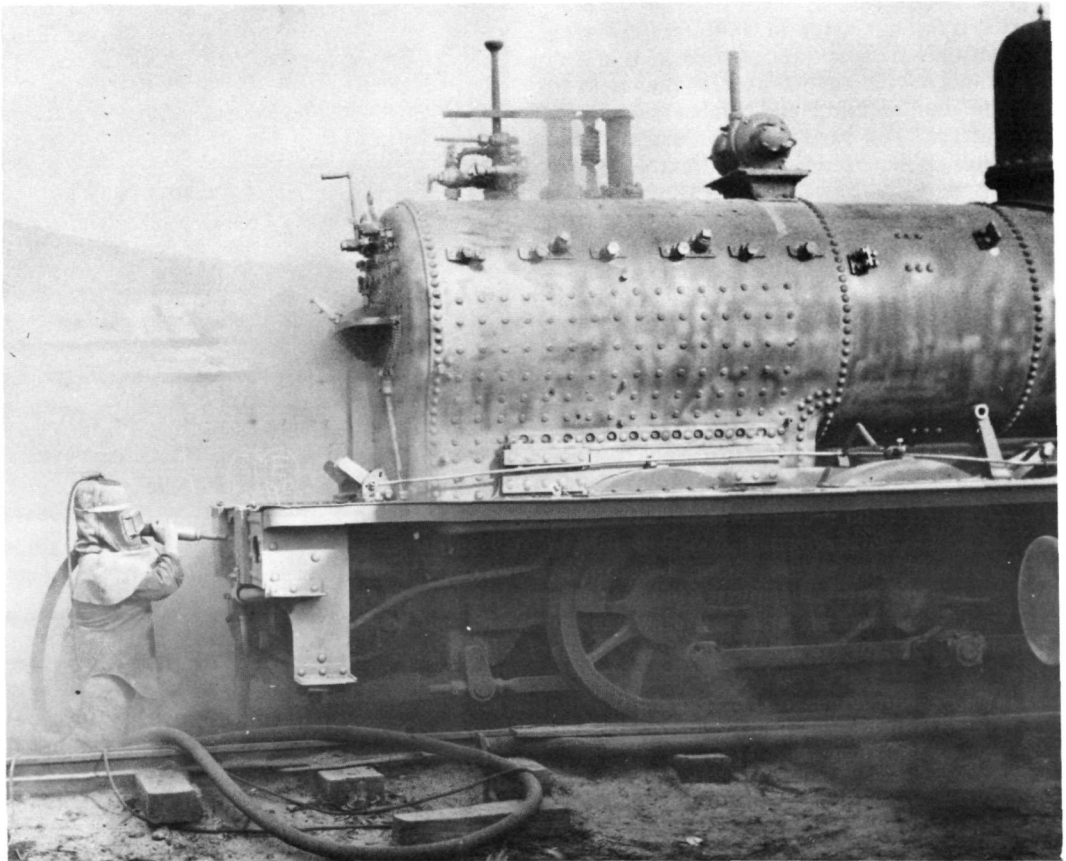
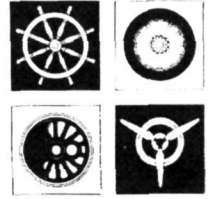


ALTERNATIVE DESIGNS

Scale 0 1 2 3 4 5 6 7 Feet

GLENORCHY . . .

Tasmanian Transport Museum Society



'C' CLASS LOCOMOTIVE.

Over the past few months a considerable amount of activity has surrounded the restoration of ex T.G.R. Locomotive, C22 a 2-6-0 built in 1902 by Beyer Peacock, Manchester. It belongs to the most numerous class of T.G.R. Locomotives but is one of only two which now remains in their original form. The Locomotive was acquired by the T.T.M.S. with the intention of making it once more operational, its small size and simplicity making it ideal for this purpose.

The opportunity did not exist until the Loco-

Sandblasting ex T.G.R. locomotive C.22

Photo - D. H. Jones

motive was moved to the Museum last October. Since that time it has been dismantled, the cab, fittings, boiler casing, lagging etc. being removed. The whole has been sandblasted and painted with metal primer. Recently a fire was once more lit in the firebox and the water boiler to remove deposits from within the boiler. This was done with the steamdome removed and the exercise was carried out as part of a programme to prepare the boiler for inspection and to eventually return the locomotive to operation.

LAUNCESTON TRAMCAR.

The Society recently took delivery of several wooden fittings to be used in the restoration of Car No.13. The parts were manufactured and donated by the trams original builders Messrs. J. & T. Gunn Pty. Ltd. of Launceston. Items include seats for both open compartments, a full set of window sashes for the closed centre compartment and two drivers compartment doors. The workmanship is excellent, being carried out in Tasmanian Oak and Blackwood as were the original fittings.

The tram was built in 1910 shortly after Launceston's tram system opened. It is still in remarkably sound condition which is a credit to the fine workmanship and timber used in its manufacture. The parts obtained replace those either lost or damaged since the tram was taken out of service in 1952 and will ensure that the body at least can be returned to its former condition.

Unfortunately several metal fittings are missing and will have to be replaced but the most formidable hurdle to overcome will be the replacement of electrical and mechanical parts including a Brill 21E truck.

CLIMAX LOCOMOTIVE.

Like C22 the Climax has now been stripped down to prepare it for restoration. Unfortunately it is not in as good order and a considerable amount of work will have to be done and many corroded plates and pipes replaced. The first major task will possibly be the removal of the boiler to enable the main frame, which was broken during unloading operations, to be properly repaired.



T.T.M.S. Members, David Beck and Ted Lidster examining new fittings for Launceston tram car No.13.

Photo - D. H. Jones.

BYLANDS ...**Tramway Museum Society of Victoria**

A rather wet winter is upon us at Bylands after a relatively mild couple of years. We have, accordingly, returned to the time-honoured task of clearing out drains! Despite the need to work indoors on some days, some outside jobs have been accomplished, including the spreading of more filling north along the main line towards "One Tree Hill" to provide a "walk-way" for Charles Horse. One half of the Store Shed door, which was sealed in the closed position when roof alterations were carried out some four years ago, was recently re-activated to

facilitate delivery of some surplus material which we purchased from the M. & M.T.B. a few weeks ago. The latter included an MV 102 motor (as a spare for X2 class car No.680), which transaction was arranged through C.O.T.M.A. Noel Gipps has fitted a 500w lamp for yard security lighting.

Robert Green has steadily re-arranged and improved the facilities of our Sales Department at Bylands. Two neat boards have been made and fitted to two walls of the sales room to display books, magazines and other items which

are on sale to the public. Len Miller has donated a refrigerator to replace our none too presentable one, and was also instrumental in acquiring a cash register to assist our staff and make our operation look better to the public. After more than five and a half years, our Sales Department has largely closed at 332 Flinders Street. Slides, post cards and badges only are still handled there by Ron Scholten T.M.S.V. members have been notified during the past year of the pending withdrawal of sales due to the threat of sale and demolition of "332". Also, Ron is now largely on his own in the shop, as Mr. Scholten, Snr., officially retired at the beginning of this year. McDonald's Shoeway has been a family business for ninety years, and has filled a unique place in the annals of tramway preservation in Australia for the last several years. Although we have paid tribute to Ron and his father on many occasions to date, we feel that we should now do so on an Australia-wide basis, for "332" is not only a TMSV spot, but an inter-Society location. Many interstate and overseas preservationists have directed their footsteps to McDonald's doorway and talked and made purchases there. To Ron and Mr. Scholten: a tremendous vote of thanks, not only from the TMSV, but from all concerned in all societies.

Restoration continues on cable trailer No.299 at Bylands with stopping-up of body-work and priming. A replacement wrought iron railing has been fitted to one dash panel while all metal-work and undergear has been scraped down and metal primed. Poor canvas on one canopy roof has been replaced and roof painting started, together with work on the saloon window sashes. At Malvern, varnishing of 180 is complete, and fitting-out has commenced of brackets, rods, lifts, cover strips, etc., inside the car.



Although the feminine touch is not unknown at Bylands, it is all too rare. New member Pat Hargraves is seen "Stopping-Up" cable tram trailer car No.299.

19/6/77.

John Wilson painting ex-Ballarat bracket arms as a pre-requisite to electrification at Bylands.

19/6/77.



PARRAMATTA . . .



Steam Tram & Railway Preservation Society



From the Work Front:

Anyone who has been to the park in recent times could not help but notice the numerous improvements being undertaken by Parramatta City Council. Rubbish bins are everywhere, car parking more controlled and the grass is cut more regularly. In general the entire park is taking on a more attractive appearance. With all this renewed activity taking place, the society has been trying to do its share of cleaning-up. During May, we were fortunate enough to have a large voluntary workforce clean and tidy the area adjacent to the new 'river-road' track. This area was very overgrown with weeds, lantana, etc. The large amount of rail, firewood and other sundry equipment that seemed to be gradually encroaching further along the track has now been moved to the cleared area, which will become our storage compound.

The spare bogies that have been stored at the front of the depot like so many monuments to a past age were craned on to the new siding in the compound on Sunday, 17th July, the frame of the old hopper truck making the first

The steam tram passes a small photo line of A.R.H.S. visitors on Sunday 12th June last. Note old power poles in foreground to control indiscriminate parking. Photo – Peter Stock.

journey.

Whilst all the above activity has been going on, the shed, far from being the most handsome building in the park, received some cosmetic treatment. A fresh coat of green paint is being progressively applied to the walls giving it some degree of respectability. The plans for the redevelopment and 'squaring-off' at the front of the shed are presently being prepared.

In early June associate member John Peck improved the depot lighting. At the same time modifications to all the powerpoints were undertaken, making work more convenient. The society thanks John for this work.

On the Subject of Boilers:

For some time the society has been concerned with the possible prospect of reboiling the steam tram motor. The society's sleuths Frank Moag and Jack Midgley have been investigating

all likely (and unlikely) leads as to the whereabouts of any old steam tram boilers, which could be suitable for a substitute and spare. The search involved numerous telephone calls (STD) and several excursions to places as diverse as Wagga Wagga, Wangaratta, Brisbane, Casino, Lake Cargelligo and Newcastle to name a few. However a suitable second-hand boiler, with a good history has been located and purchased. At the time of writing, delivery had not been executed.

Visitors and Double-decker buses:

On Sunday, 12th June the society welcomed members of the ARHS Victorian Division to Parramatta Park as part of their tour of NSW transport museums. The party arrived in two ex-government double-decker buses and spent an enjoyable afternoon riding and inspecting the rolling stock, before returning to their hotel via the Harbour Bridge and the Opera House.

CITY SECTION

News of the Melbourne and Metropolitan Tramways Board

Track renewal in Swanston Street, City, commenced on Friday, 3rd June, on the south-bound track, working north from Flinders Street. Various sections to Bourke Street have been treated to the end of June. It is unusual for the M. & M.T.B. staff to relay selected sections on a major job, as work normally starts at one end and progresses along the whole length to be done. Work will continue later, as required. A pre-requisite for this job was the installation of a temporary crossover between Little Collins Street and Bourke Street, to facilitate "wrong road" working at week-ends when concreting is in progress. Attention turned at the start of July to Malvern Road, Malvern, between Glenferrie Road and Tooronga Road (and subsequently to Burke Road, Gardiner). Temporary track was quickly brought into use while the "down" line was removed and replaced with new rail set in mass concrete. Starting at Tooronga Road, the completed new track was approaching Glenferrie Road in late July. The whole job is due to be completed by late October. June "T.W." reported that the double deck track junction at the Nicholson and Gertrude Streets corner, Fitzroy, had been renewed over the week-end of May 8-9; this should have read "the curves to the double track junction".

Two Z class trams arrived at Camberwell Depot on Saturday, 2nd July, to commence Driver and Conductor training for four weeks. On Monday, August 1st, five of these new trams will start running on Route 74, Spencer Street, City to Burwood. Nine of the class are to be allocated to Camberwell Depot to ensure that an adequate number of extra cars are available during the day for servicing, spares

and training. Five cars will be used in each peak period with four during the day. The complete evening service (of five trams) will be run on week-nights by the Z class trams. No.4 was present at Burwood terminus on Sunday morning, 17th July, to assist a track crew fix new positions for the shunting markers. As well as the standard discs set on the road surface, two large "W" and "Z" letters have been positioned at the single car shunt position. While the single track terminus is adequate for two standard trams, the extra length of the Z class creates problems, and these special measures have been taken to assist their operation until the route is extended to East Burwood. Work on the latter is expected to start before Christmas and be completed by next June. When opened, the City to East Burwood route will be operated solely by the new Z class trams. No.74 entered service on the Bourke Street routes at the beginning of July.

The first of the fifty new buses was commissioned on 30th May, and ran on various routes for public display. No.850 is based on a Volvo B59 chassis with local "Ansair" bodywork. Two further units had been delivered to late July, and it is expected that the rate will quicken during August and September. They are not appearing in road number order. A further fifty new buses are to be ordered to replace more of the veteran A.E.C. Mk III's dating from 1951-1954.



This lucky photograph shows brand new Volvo B59 bus No.850 with "Ansair" body alongside Veteran A.E.C. MKIII No.530, also with

"Ansair" body. No.530 had been the only "Ansair" body in used by the M & M.T.B. North Fitzroy Depot.

Photo - Clive Mottram, 2.6.77.

THE SYDNEY SCENE

Transport News from the Sydney Region

NEW BUSES

The first of 200 new Mercedes buses which the PTC is leasing was handed over at the Opera House on Friday 6 May, 1977.

Numbered 1766, it is a single decker with seating for 42 on mainly 2+2 transverse seating. Overall length is 35' and width 8'2½". In a departure from previous Sydney practice, the 11.1 litre, 6 cylinder horizontal engine, is mounted underfloor at the rear. Emphasis, in publicity, has been placed on the encapsulation of the engine and transmission to reduce noise emission. Whilst the interior noise level appears to be reduced no reduction is immed-

ately apparent outside.

Whilst the blue and white paint scheme has been retained its application has been varied with blue predominating with a wide white waist band and roof. The white also extends down around the 3 piece rear window.

The body style follows the general body lines of the Leopards, with front and centre doors. However the front end is neater as is the side destination and route number box although these have been greatly reduced in size. Ventilation has been supplemented by ducting with individual nozzles directed to each

seat and by two opening hatches in the roof.

The PTC bus fleet in Sydney and Newcastle presently also comprises:

11	31 Seaters
95	Pre Selector Underfloors
637	Semi Auto Underfloors
2	Prototype Underfloors
743	Leopards
221	Atlanteans
<hr/>	
1,707	

In addition three 31 seaters are used as towing vehicles and a further 2 plus 2 Atlanteans are in store.

Atlanteans now operate from 8 depots as Ryde is currently receiving an allocation.

Since the above list was compiled a number of semi auto underfloors have been stripped of components and the body and chassis cut up for scrap. Many others in various dismantled degrees are at the Chullora workshops and will probably suffer the same fate.

MANLY FERRIES

The Minister of Transport, Mr. Peter Cox, recently outlined proposals for new ferries for the Manly service.

Various combinations of vessel types are being considered with total costs ranging from \$11.5 to \$19 million. The basis of all combinations is one conventional ferry and one hydrofoil. To this would be added another conventional ferry, or an extravagant 500 passenger vessel called a jetfoil capable of 43 knots,

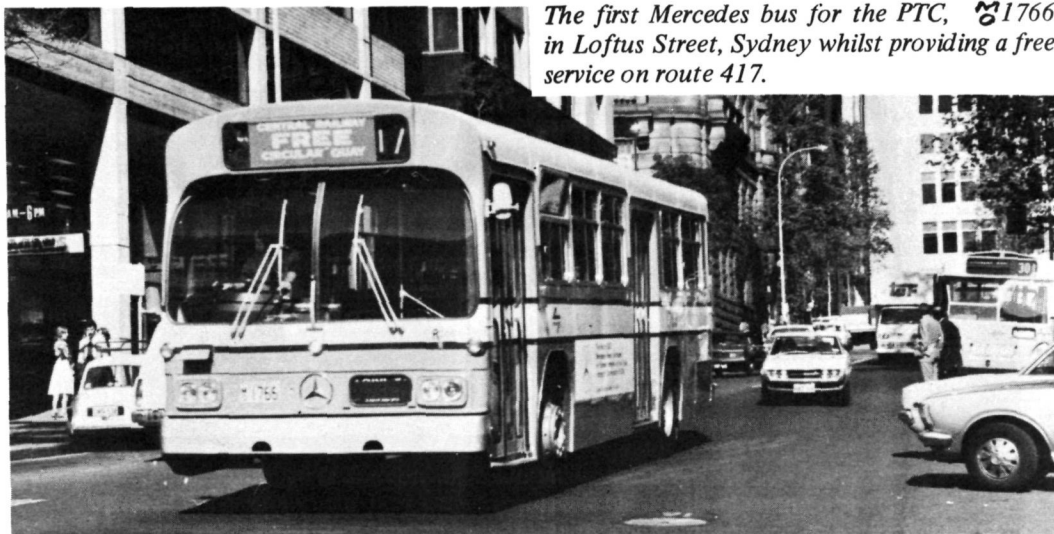
which is undoubtedly attractive from a point of view of reducing journey time but appears to be out of place in a world with dwindling energy supplies. The remaining alternative would be refitting of the South Steyne. This final combination has the lowest cost.

DIESEL HAULED ELECTRICS

Increasing use has been made in recent years of diesel locomotives to haul multiple unit electric trains when the power is removed from the overhead wires for maintenance purposes. Buses are used when occupancy of all tracks is required.

Two recent uses of locomotives have been unusual. Single line working with the power off on both tracks on the Lower Blue Mountains has resulted in single deck interurbans being loco hauled from Sydney to Mount Victoria or Lithgow, with pantographs being raised on the sections with the wires live. Five minutes extra have been allowed in the down direction, but extremely late running has been noted, with trains being up to 70 minutes late at Lawson, 59.5 miles from Sydney, on a normal running time of approximately 105 minutes.



On Sunday 10 July last, mainline diesel loco 4498 hauled 2 car set T18 during the day on the Carlingford Line. Although the ample power available enabled the running times to be generally adhered to, it proved difficult to keep to the timetable due to the time taken in running around at Clyde and Carlingford. It has been usual on this line to substitute buses or railmotors when the necessity arose; in fact railmotors have continued to make regular appearances since electrification.




The first Mercedes bus for the PTC, 1766 in Loftus Street, Sydney whilst providing a free service on route 417.




Bus Happenings in Wollongong.

On Saturday March 26th, 1977 a group of HCVA members visited Wollongong to tour the southern suburbs in bus  6136. This Leyland was the first underfloor single deck bus operated by the NSW Transport Department as  2520, mainly on the former Rockdale to Brighton-le-Sands tram route. This vehicle was outshopped by Commonwealth Engineering on June 29th 1951 but passed to Rutty's Wollongong fleet in 1957.

Prior to departing on the tour circuit,  6136 was posed with the Company's latest Hino TV490 and reconstructed "T" model Ford bus No.1. Although the pioneer underfloor vehicle is now 26 years old, Mr. Noel Rutty said, on the occasion of the tour, that it is still performing so well that the Company could possibly expect another quarter century of service from this bus.

The second bus activity occurred on the weekend of April 30th/May 1st when the Volvo articulated "Maxibus" gave free public rides around a city circuit in Wollongong to celebrate the 50th anniversary of the Swedish based Volvo motor vehicle firm. When in Wollongong the three side doors were in use and the bus carried Victorian registration ITP 159. On Friday April 29th the bus was used to give demonstrations to the local private bus proprietors and their employees and on the following two days gave regular public rides on the North Wollongong-Wollongong circuit. The bus departed from the Volvo sales centre at the south side of the North Wollongong railway bridge and traversed Flinders, Bourke Sts., Cliff Road, Brighton Beach, Marine Drive, South Beach, Crown Street, Keira and Flinders Streets.

The last run took place at 4 pm on May 1st, when the bus departed for further demonstration work in Brisbane.

Underfloor bus  6136, Hino TV 490 and reconstructed "T" model Ford bus No.1 at Rutty's Depot, Figtree, N.S.W. March 26th 1977.
K. McCarthy photo.



MUSEUM DIRECTORY

AUSTRALIAN ELECTRIC TRANSPORT MUSEUM (SA) INC. St. Kilda, South Australia.

Trams - Trolley Buses - Electric Locomotive

Trams operate Sundays & Public Holidays 2-5 pm. No public transport available. Interstate visitors please contact the AETM if transport required.

In emergency phone (08) 297 4447.

Correspondence: The Secretary, AETM (SA) INC.,
Box 2012 G.P.O., Adelaide,
S.A. 5001.

BALLARAT TOURIST TRAMWAY

Ballarat Botanic Gardens, Wendouree Parade, Ballarat, Victoria (Ballarat Tramway Preservation Society Limited).

Tram Rides, Static display of trams, photos;
Sales Department etc.

Operates Saturdays, Sundays and Public Holidays (Christmas Day excepted) and most days during Victorian School holidays and the Ballarat Begonia Festival 11am - 5pm.

Telephone: Tram depot (053) 34 1580,
Bungaree House (053) 34 0296

Correspondence: The Secretary, B.T.P.S.
Box 632, P.O., Ballarat.
Victoria. 3350.

BRISBANE TRAMWAY MUSEUM SOCIETY McGinn Road, Ferny Grove, Queensland

Static Display of trams and trolleybuses

Correspondence: The Secretary, B.T.M.S.,
McGinn Road, Ferny Grove,
Queensland. 4055.

ILLAWARRA LIGHT RAILWAY MUSEUM SOCIETY Albion Park N.S.W.

Inspection of exhibits by arrangement, phone (042) 71 3707

Correspondence: The Honorary Secretary,
Box 1036, P.O. Wollongong
N.S.W. 2500

STEAM TRAM & RAILWAY PRESERVATION (CO-OP) SOCIETY LIMITED Parramatta Park Steam Tramway, Parramatta N.S.W.

Steam Trams are operated on the 3rd Sunday of every month, from 1.30 to 4.30 pm.

The Society possesses 1 steam tram motor, 2 steam locomotives and 5 various trailer cars. The surrounding parklands are suitable for picnics, barbeques, etc. and contain historical buildings. Public transport is available. Rail to Westmead station then walk across parklands to the depot.

Correspondence: (SAE would be Appreciated)
The Secretary, S.T. & R.P.S.
Box 108 P.O., Kogarah.
N.S.W. 2217

SYDNEY TRAMWAY MUSEUM Princes Highway, Loftus N.S.W. (South Pacific Electric Railway Co-op. Society Limited).

Electric trams from N.S.W., Queensland and Victoria.

Tram rides Sundays and Public Holidays (Except Christmas Day and Good Friday) 10.30 am - 5.00 pm
5 minutes walk south from Loftus Railway Station.

Correspondence: The Secretary, SPER,
Box 103 G.P.O., Sydney.
N.S.W. 2001.

TASMANIAN TRANSPORT MUSEUM SOCIETY, Glenorchy, Tasmania.

Comprehensive transport museum under construction

Correspondence: The Secretary, T.T.M.S.,
Box 867J, G.P.O.,
Hobart. Tas. 7001.

VICTORIA'S TRAMWAY MUSEUM Union Lane, Bylands, Victoria. (Tramway Museum Society of Victoria Limited.)

Horse tram rides, museum site, trams, photos and other items on display, Sunday 11.00 am to 5.00 pm

Correspondence: The Secretary, TMSV,
Box 4916 Mail Exchange,
Melbourne, Victoria. 3001.

WESTERN AUSTRALIAN TRANSPORT MUSEUM (INC).

Tramway Museum and Bus Operation, Castledare Boys Home, Watts Road, Wilson. W.A.

London RTL Double deck bus rides 1st Sunday in month 1.00 pm to 5.00 pm.

Correspondence: The Secretary,
Box 33, P.O. Maylands,
W.A. 6060.

SUPPORT YOUR MUSEUM ATTEND WORK PARTIES AND PARTICIPATE !

LP173 at Waratah terminus, Newcastle, February, 1950.

B. Parle photo.

