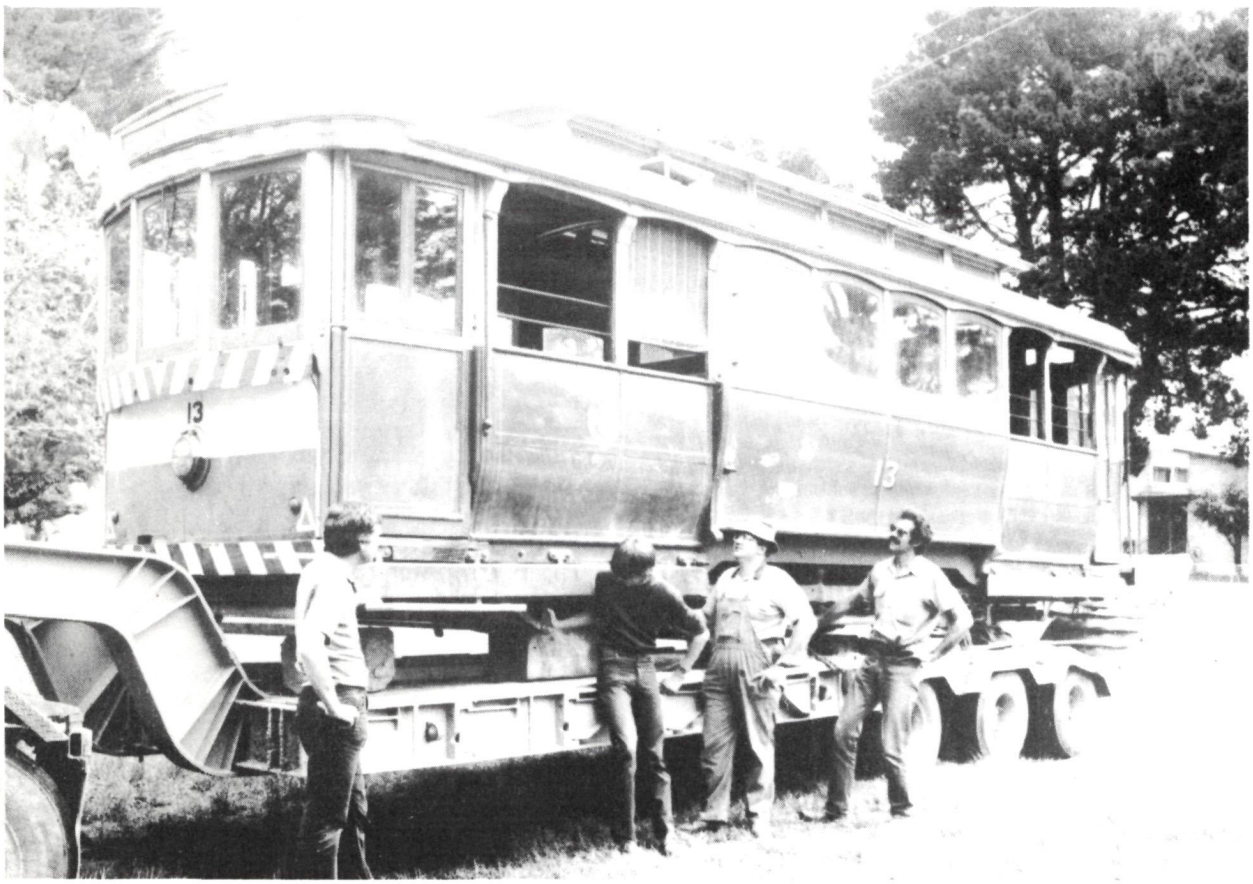
$1.80*

TROLLEY WIRE

JOURNAL OF . . .
AUSTRALIAN TRAMWAY MUSEUMS

February 1984
ISSUE 210



INSIDE — **THE SYDNEY STEAM BUS EXPERIMENT**

Registered by Australia Post — Publication No. NBH0804

TROLLEY WIRE

ISSN 0155-1264

FEBRUARY 1984
Vol 25 No 1
Issue No 210

* *Recomended Price*

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Published by the South Pacific Electric Railway Co-Operative Society Limited, Box 103 P.O. Sutherland, N.S.W. 2232.

Printed by Meulen Graphics Pty. Ltd., 179 Wattle St., Bankstown, N.S.W. 2200. Phone (02) 705 6503.

Subscription rates for six issues per year to expire in December:

Australia $9.00
Overseas $11.00

All correspondence in relation to *Trolley Wire* and other publishing and sales matters should be forwarded to: Box 103 P.O. Sutherland, N.S.W. 2232.

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The ILRMS track gang at work constructing the "back road" at Albion Park on 12 November, 1983. Ken McCarthy

FRONT COVER:

Ballarat tram No 13 at the BTPS depot after its journey from Lake Goldsmith on 5 December, 1983. Photo: "Ballarat Courier"

BACK COVER:

Adelaide F1 class 264 made its first unpowered test runs at St Kilda in December, 1983. Here John Hoffman pilots the tram out of the Museum yard propelled by sister car F1 282. John Radcliffe

STEAM BUSES IN SYDNEY 1905 AND 1906

By R. Willson

Although the establishment and expansion of the NSW Government Omnibus Services over the last 50 years has been treated in the recent book "From City to Suburb — A Fifty Year Journey" and in this magazine, (TW No 204 Feb 1983 p 2) the motor omnibus period of the NSW Goverment Tramways may have started 28 years earlier had the steam bus trials of 1905 and 1906 proved successful.

In this article Ross Willson presents aspects of this earlier omnibus operational period. Had the 1905-1906 trials been successful one suspects that the major expansion of the Sydney tramway system into the 1920's would have been greatly truncated.

A short-lived form of street transport during the Edwardian period was the steam omnibus. The products of one Thomas Clarkson of Chelmsford, Essex had made their appearance at London, Eastbourne and Torquay during 1903 and 1904 while others were operated by the Great Western Railway and the London and South Western Railway as feeders to their rail services.

These developments did not pass unobserved in Sydney where by 1905 the cable trams had given way to electric traction as had those services hauled by steam motors. Apart from certain special workings to reacecourses and during periods of heavy loading, steam operation was confined to outlying suburban lines, isolated from the main system.

Overseas Observations.

During 1904 one of the Railway Commissioners (Mr. David Kirkcaldie) made an extensive overseas visit which included the United Kingdom, Europe and America. In his report Mr. Kirkcaldie mentioned that he had been impressed by the steam omnibuses which he had seen in London.

The Commissioners, having considered the matter, placed the following report before Cabinet:

"The possible development of competition with the state tramway system by the introduction of motor omnibuses suggests to us the advisability of addressing the hon. the Premier and Minister for Railways on the subject.

While it is not anticipated that these buses will be able successfully to compete with the trams on the long distance routes they might do so on selected protions of existing routes, or along parallel streets. Should this prove to be the case it would, if competition had been established, be difficult to deal with the question; and for this reason, having due regard to the fact that £3,500,000 of public money have been expended on the tramway system it is deemed prudent to anticipate it. We recognise that the project may be looked upon as experimental, yet feel justified in suggesting that the experiment be made so that it may be publicly announced and demonstrated that these buses will be tried, and if found to be a financial success and a public convenience, will be run generally in connection with the state tramways. Should the Government concur in this view we would suggest that the selection of routes and the extent to which the system may be adopted should be left entirely in the hands of the Railway Commissioners, otherwise we fear successful results will not be possible. There being no authority under the Railway Act to run such vehicles it would have to be done by the Railway Commissioners under ordinary license obtained in the usual way. It will be sufficient for a beginning to run six buses, two of which would be required to be imported complete, chassis only for the remainder being imported, and the body built here. The expenditure involved is estimated at £8,500. We recognise that the present is not a financially opportune time to advocate expendi ture, but we feel that the circumstances warrant our asking for special authority in this case".

Cabinet did not take kindly to all their suggestions and its decision was recorded as follows:

"The Cabinet approves in a modified form of the Railway Commissioners' proposal to obtain a certain number of (motor omnibuses) to make an experiment.

The modifications are: First, that the experiment must be made chiefly to feed the railway or the tramway system, and to test traffic on routes where there is a demand for rail or tram extension.

2. That it is obviously an anomalous condition to place the commissioners under the system of municipal licensing and control, and that the commissioners should, as soon as possible, be entitled by an Act to run these omnibuses on approved routes.

3. The question of routes must be a matter for

Government consideration as well as for the commissioners' discretion."

The H. Deane Report

The question of motor omnibuses had been investigated by H. Deane, Engineer-in-Chief for railway and Tramway Construction of the Department of Public Works. Deane's report, dated 4 August, 1905, covers a very wide range of contemporary engineering issues.

Deane arrived in England during October, 1904. His report dealt at some length with current developments in relation to motor omnibuses and the relative merits of petrol- and steam-driven vehicles.

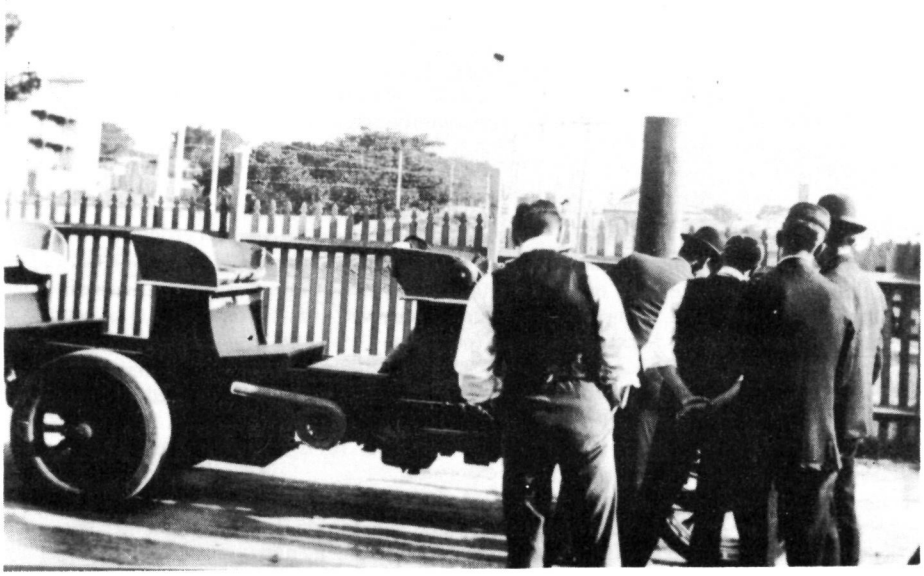
The Clarkson products were described as follows; the reference is to the Olympia Motor Exhibition held at London during February, 1905.

"Clarkson, Ltd. show a 32-h.p. double-deck omnibus to take thirty-two passengers, built for the London Road Car Company; an omnibus of the same power for the London and South-Western Railway Company, to take eighteen passengers and 15 cwt. luggage; also a 16-h.p. single-deck omnibus for twelve passengers and 10 cwt. luggage. These vehicles have a new type of boiler, with accumulator; they are fitted with the Clarkson burner and the special lubricator, in which it is generally conceded this firm exceeds all others."

Deane also discussed the general question of the potential development of the omnibus and the relative merits of the steam and petrol types as follows:

"The usefulness of the motor-omnibus is undoubted, and, whatever type becomes ultimately the favourite, it is bound to succeed. It is cleaner in the streets than horses, it takes up less room, and the speed is from 50 to 100 per cent. greater. For use in narrow and tortuous streets it is more suitable than tramways. And for such cities as London, the narrow streets of which can, on account of expense and want of room, never be greatly widened, and cannot on that account carry tramways, it affords a means of locomotion enormously superior to the horse-omnibus. Its capacity for carrying heavy traffic has not yet been tested, and it may prove equal to tramways, although the latter must be more economical to work when the density of the traffic to be carried reaches a certain figure. It is specially suitable in cases 'when there are not sufficient reasons for building a railway or tramway, and consequently in the numerous cases of lines forming extensions or branches of existing railways or tramways.' Then there is the great elasticity of the service. A motor-car can, on emergency, be called upon to do twice its ordinary run, which is not possible with horses.

"The question of the selection of the right type of chassis for the motor-omnibus demands a few



The chassis of the first steam bus being inspected by tramway staff at Randwick Workshops. The temporary seating fitted for trials and crew training is clearly visible.

S.R.A. of N.S.W. Archives

Tramway drivers under instruction on the first steam bus. The vehicle appears to be fitted with a temporary body and is seen outside the Centennial Park gates at Paddington. The driver-instructor is Inspector W Hinson and two of the trainees are J Aikman (clean shaven, standing behind Inspector Hinson) and Sy. Chantler (rear seat, leaning on knee). K. Magor Collection

observations. Comparing the Milnes-Daimler with the Chelmsford, there are many points in favour of the latter, but it has been urged that the cost of wear and tear of the Chelmsford has not been so fully tested as the Milnes-Daimler. Tyres cost more for the petrol vehicle, chiefly on account of the racking that they experience in starting and when changing speed. The maintenance and renewals of tyres of the petrol omnibus may be put down, according to the latest experience of the Great Western Railway Company, at 2d. per mile, and those of the other at 1½d. The fuel is more expensive in the case of the petrol engine, the cost of lubrication is higher, and the wear and tear of tyres and gearing is excessive. The comparative figures may, perhaps, be taken at 10d. for petrol and 8½d. for the steam omnibus; but then, as regards types, if an efficient and easy change-gear can be used, as is certainly the case with the Brush omnibus using the King gear, the cost per mile would drop to 9½d. There are several very nice change-gears invented, and there appear to be no reasons why one of the other should not be applied to any type of petrol-omnibus. The advantages, however, are still, in my opinion, in favour of the Chelmsford type: the way of starting and increasing speed, without jumps; the absolute certainty of the lubrication which minimises the chances of breakdowns; the safety of using paraffin as against petrol, and the absence of the objectionable smell, all speak in favour of the Chelmsford type.

"At the time of my visit to Chelmsford, in Mr. Darley's company, the type of boiler used by Mr. Clarkson was one with vertical tubes; the cover bing easily removed, the tubes could readily be cleaned. At the Olympia Motor Exhibition, however, Mr. Clarkson's motor had a boiler of the semi-flash automatic type, which he considered superior.

"In consequence of the great demand for motor-omnibuses, it might not be possible to get vehicles delivered by one particular firm within a resonable time. It is desirable, therefore, to see that certain defects are avoided if one has to fall back on other types. Although one may prefer the Chelmsford steam omnibus to any other type, it must be admitted that the Milnes-Daimler type has been eminently successful, and has gained its way to favour."

Clarkson Chassis Ordered

Following an affirmative report on the proposal from Mr. C.W. Darley, the Government's engineering representative in London, on 19 April, 1905 an order was placed with Clarkson Limited for the construction at its Moulsham Works, Chelmsford of four steam omnibus chassis. Two of the single-deck type reached Sydney in the latter part of 1905 followed by two of the double-deck type early in 1906. A trial using a rudimentary type of temporary seating was carried out at Moore Park on 28 September, 1905.

Without calling tenders, orders were placed with a local bodybuilding firm, Messrs. Angus & Son, King Street, Newtown for the construction of the four bodies. That for the single-deck vehicles was placed on 19 July followed by the two double-deck type on 5 August, 1905. The firm involved had considerable experience in building street vehicles while they also had on hand a good stock of seasoned timber. Construction work was put in hand prior to the arrival of the imported chassis. The cost of the four vehicles, including spares, was some £5,700.

Amendment Legislation for Bus Operation

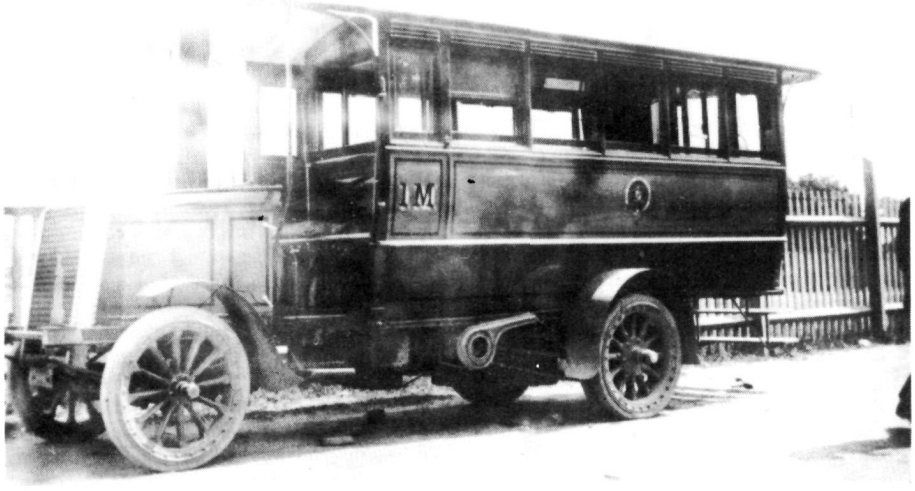
As mentioned previously, an amendment of the Government Railways Act, 1901 was needed to confer power upon the Railway Commissioners to operate the new form of transport. On 6 July, 1905 the Premier and Colonial Treasurer, Hon. J.H. Carruthers, introduced the Government Motor Omnibus Bill, 1905. Its long title read "A Bill to enable the Railway Commissioners of the New South Wales to construct, purchase or lease motor omnibuses, and to run the same on certain roads; and for other purposes connected therewith or incidental thereto".

Clause 2 extended the above powers and enabled the running of such omnibuses on those roads in the State which may be approved by the Governor. Clause 3 provided that the omnibuses so operated need not be licensed.

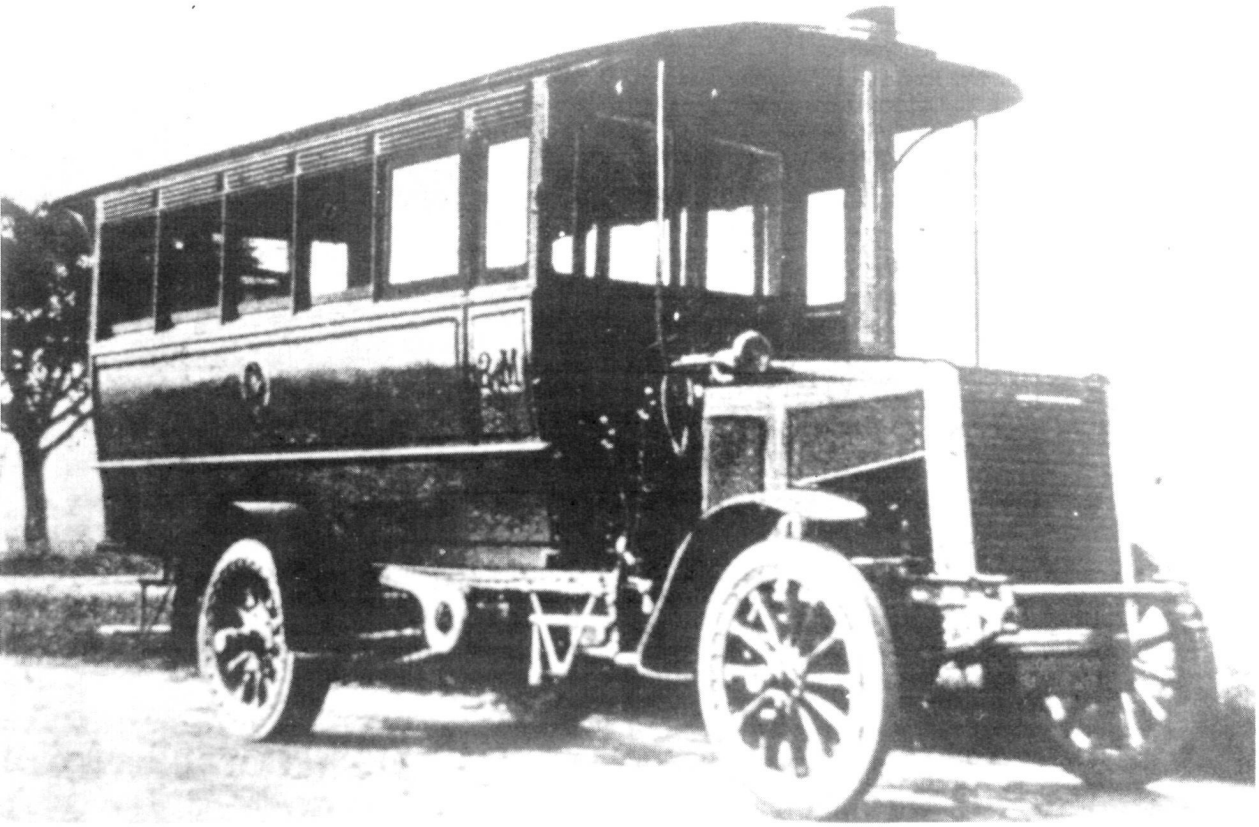
When moving the second reading of the measure on 13 July. Mr Carruthers referred to the need for the Government to look to its own interests. He told the Legislative Assembly that he had taken exception to the wide terms of the Bill as drafted and referred to objections from the Inspector-General of Police that any vehicle should be allowed to run on public roads ignoring the traffic regulations.

This piece of "socialistic legislation" was welcomed by the Labour Party member for Redfern (Mr. McGowen) who was destined to become Premier in the first Labour administration which was in office from 1910 to 1913.

The ensuing debate was a wide-ranging one with many members referring to contemporary developments in the urban transport field in



Steam bus No 1M at Randwick Tramway Workshops before going into service in December, 1905. S.R.A. of N.S.W. Archives



Sydney steam bus No 2M during a trial run made through Paddington, Waverley and Centennial Park on 8 November, 1905.

"Sydney Mail" of 22.11.1905

England. It was apparent from the beginning that many members of Mr. Carruthers' own (anti-Labour) party were opposed to the concept of giving the Railway Commissioners unfettered powers. For this reason when enacted as the Government Motor Omnibus Act, 1905 (No. 13) on 6 September, section 3 read "The provisions of any Act for the regulation of traffic, except so far as they relate to the regulation and licensing of public vehicles, shall apply to such motor omnibuses".

Among the issues raised during the debate were whether it was intended to replace the trams with the motor-buses and the perennial objection that the scheme might lead to evasion of the Public Works Act were its cost to exceed £20,000 when it would require investigation by the Parliamentary Standing Committee on Public Works. Mr Carruthers patiently explained that the leasing powers related to the leasing of buses by the Commissioners as distinct from any proposal to set themselves up as lessors in this field. Some members even asked whether this move presaged the operation of departmental horse buses!

Many speakers felt that the proposal was socialistic in that the State was contemplating entering a field hitherto reserved to private owners, representatives of whom were said to have made application to run buses in the inner city area where the trams occupied a pre-eminent position. Others were hopful that the Bill would eventually result in the establishment of a new industry. Another member advocated the postponement of the Scheme for at least five years. A motion moved by the member for Randwick that the outlay should be limited to £10,000 was lost by 47 votes to 2. The Bill was agreed to on 19 July.

The Bill received its second reading on 26 July in the Legislative Council where it was said that

Mr. Henry Deane (who had been Engineer-in Chief for railway and tramway construction in the State) favoured the "Chelmsford" type of steam bus rather than the petrol type.

On 16 August Dr. Rush, M.L.C., referred to information which he had recently received from the Commissioners to the effect that no routes had yet been selected and no reliable estimate could be made of the running expenses. He quoted the costs of the single and double-deck buses as approximately £1,000 and £1,250 each.

Potts Point Route

On 23 November, 1905 Mr. Carruthers informed the member for Darlinghurst that the Potts Point route had been one of those recommended and that he had heard that "the owner of the horse omnibus that has for years plied to Potts Point discontinued to ply there in consequence of the published intention of the commissioners to run motor buses" leaving the residents without transport. The necessary Executive authority was being obtained and the buses would be running shortly.

The route selected for the original motor omnibus service was from Potts Point to Darlinghurst Junction, a distance of 1 mile 11 chains. The "Government Gazette" of 1 December, 1905 contained a notification by the three Railway Commissioners, Messrs. Charles Oliver, David Kirkcaldie and W.M. Fehon, that the service would (as it did) commence on 4 December, 1905.

The steam buses ran from Wylde Street, Potts Point Via Macleay Street, Darlinghurst Road, Oxford and Bourke Streets; returning along Forbes and Burton Streets to Darlinghurst Road and Macleay Street at St. Neot's Avenue. The buses would stop as required for passengers. The vehicles and staff were attached to Rushcutters Bay tram depot situated on the Down (harbour) side of Bayswater Road, between Waratah Street and Rushcutters Bay Park.

The time-table provided was a straight forward one:

The terminus at Darlinghurst Junction was designated as the intersection of Oxford and Flinders Streets. The break in service on Sunday evenings represented the Church hour interval then in force on the tramways.

The fares charged (1d. per section) were the same as those applicable to the trams, but the shortness of the two fare sections (divided at William Street) made travel on the buses comparatively more expensive as one could travel from King Street terminus to Victoria Street, King's Cross, for 1d. on the newly-electrified tram line.

The first fare section was from Wylde Street to William Street and the second from William Street to Oxford Street. Only two tickets were in use, a Grey 1d. applicable for travel over the first or second section and a Pale blue 2d. for a two-section journey. Conductors were to punch out the section on which the passenger was entitled to travel, punching close to the section figure on the ticket for "Inwards" and below for "Outwards" journeys.

Conductors' journals were checked by the meal relief foreman or, in his absence, the signalman at Darlinghurst Junction. Policemen and employees below the grade of ticket examiners were not to be allowed free travel.

Other special instructions laid down that smoking would be permitted on the outside seat only on which lady passengers were not permitted to travel while there were to be no standing passengers. Conductors were directed to travel on the rear step when not collecting fares and had to keep a look-out when the bus was being reversed. Drivers were held responsible for the care of omnibuses while in their charge and for taking every precaution to prevent damage to it or the boiler, machinery or tyres.

The service continued for a little over five months; it was withdrawn on 7 April, 1906.

Responsibility for the operation of the infant service was transferred on 10 February, 1906 from the Chief Electrical Engineer (Mr. O.W. Brain) to

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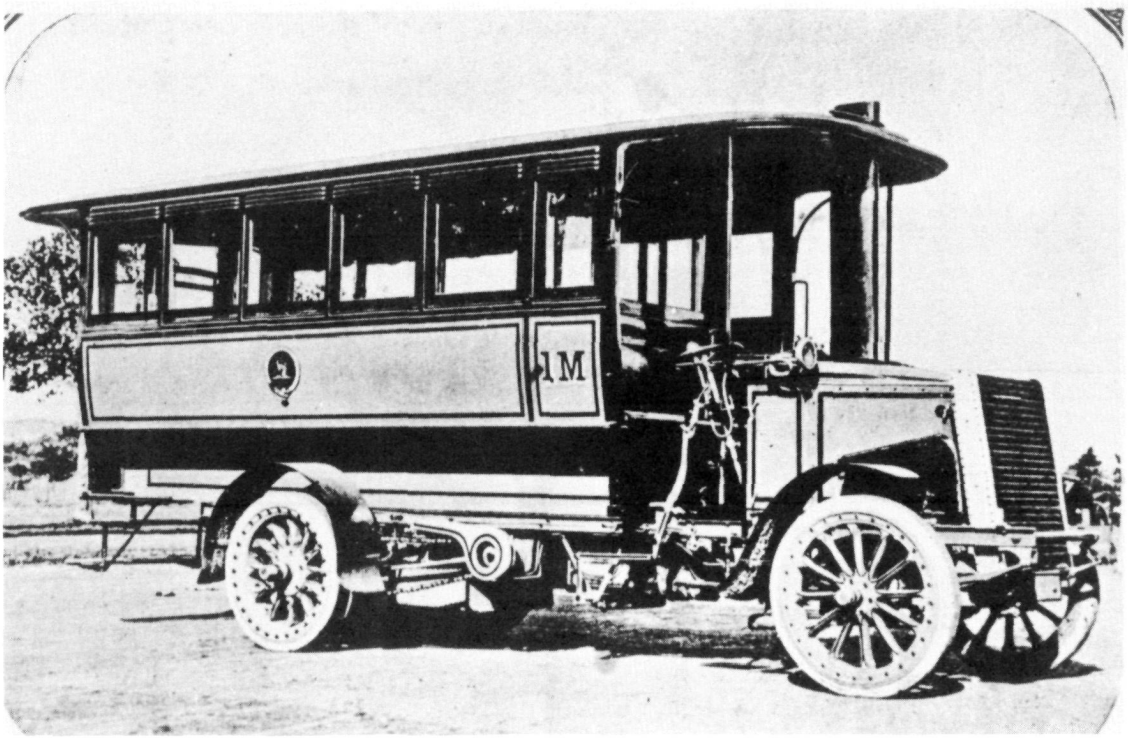
WEEKDAYS

From Potts Point	7.51, every 20 minutes to 10.51, 11.21 a.m., every 20 minutes to 2.1, 2.31, every 20 minutes to 4.51, 5.21, every 20 minutes to 8.1, 8.31, every 20 minutes to 9.51 p.m.
From Darlinghurst	8.1, every 20 minutes to 10.41, 11.11 a.m., every 20 minutes to 1.51, 2.21, every 20 minutes to 4.41, 5.11, every 20 minutes to 7.51, 8.21, every 20 minutes to 10.01 p.m.

SUNDAYS

From Potts Point	12.11, every 20 minutes to 2.51, 3.21, every 20 minutes to 6.21, 6.51, 7.11, 8.11, every 20 minutes to 10.1 p.m.
From Darlinghurst	12.21, every 20 minutes to 2.41, 3.11, every 20 minutes to 6.11, 6.41, 7.1, 7.21, 8.21, every 20 minutes to 10.1 p.m.



Single decker steam bus 1M when delivered for the Potts Point service in December, 1905. D. O'Brien Collection

the Tramway Traffic Superintendent (Mr. J. Kneeshaw).

Enmore — Addison Road — Dulwich Hill Route.

Following the failure of its first venture in the non-rail field, the Tramway Department decided on a further trial, this time in the vicinity of the then proposed Addison Road electric tramway (subsequently opened in 1909) from Enmore Road via Addison, Livingstone and New Canterbury Roads to the Dulwich Hill tram terminus at Marrickville Road.

The "Government Gazette" of 11 April, 1906 contained a notification (bearing the date 5 March) that the Wardell, Road service would commence on 23 April.

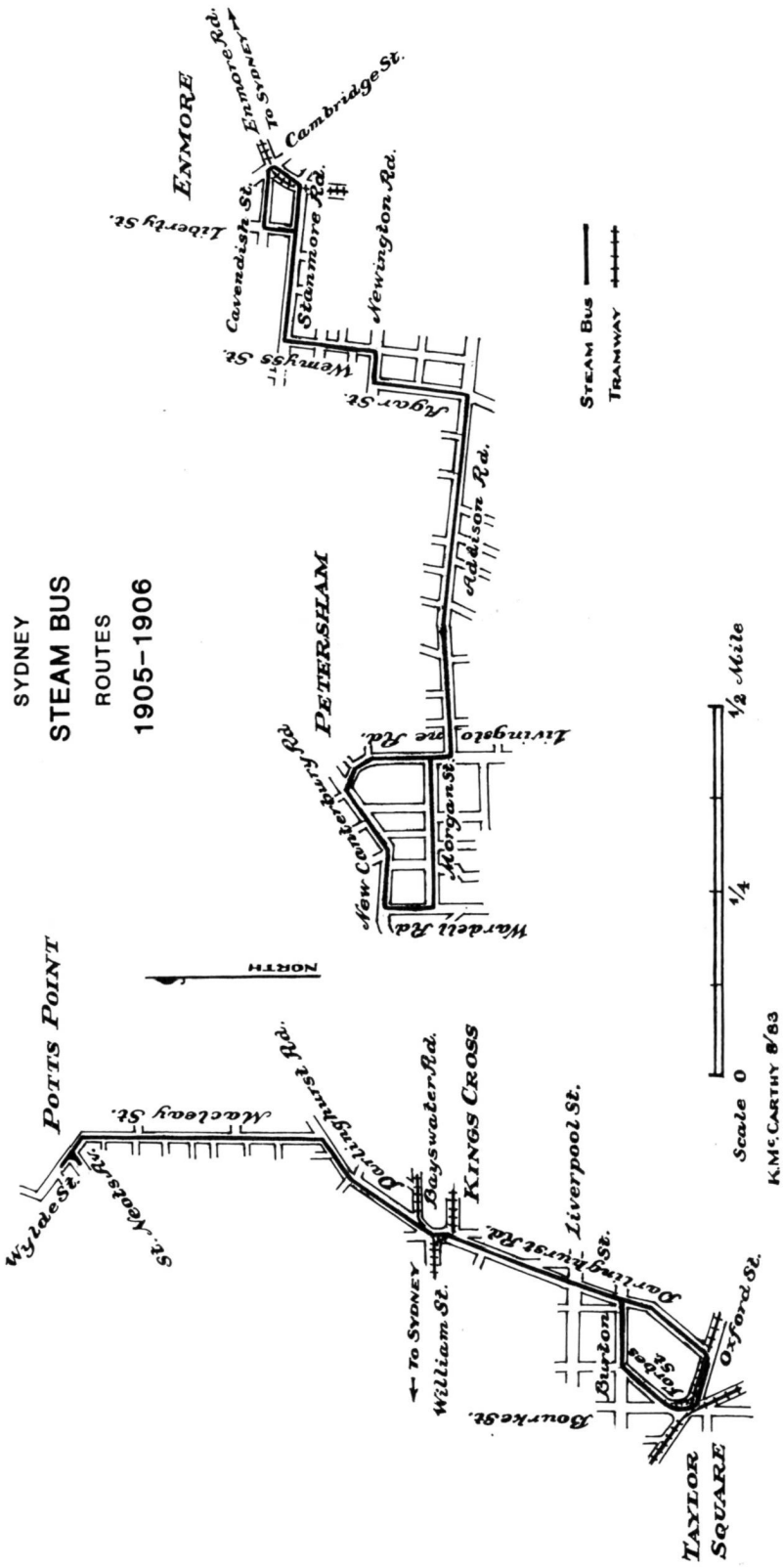
The new service, which commenced on the intended date, was from Enmore tram terminus to Wardell Road, a distance of 1 mile 12 chains. It followed Enmore and Stanmore Roads, Wemyss and Agar Streets, Addison and Livingstone Roads, Morgan Street, Wardell and New Canterbury Roads, returning via Livingstone and Addison Roads, Agar and Wemyss Streets, Stanmore Road, Liberty, Cavendish and Cambridge Streets.

The two double-deck vehicles Nos 3M and 4M maintained the service, Nos 1M and 2M were held in reserve. A local newspaper noted that a large number of passengers had been carried during the afternoon of the opening day although most people were not aware of the running as there had been no antecedent publicity. It was also mentioned that the single-deck buses would be put into traffic should the results justify this course.

A columnist remarked that the local populace was far from enamoured with the new form of transport as the conditions of the roads traversed was such that clouds of dust were raised and carried along by the draught created by the suction. This resulted in conditions such that after one ride few would wish to repeat the experience.

Vehicle Specifications

The single-deck vehicles measured 21′0″ × 5′10″; the double-deck type were 20′0″ × 7′4″. The former type seated 18 persons on two longtitudinal seats. The same arrangement, with 16 seats, was adopted on the the lower deck of Nos.


SYDNEY
STEAM BUS
ROUTES
1905–1906
NORTH
POTTS POINT
Macleay St.
Victoria St.
Wylde St.
Darlinghurst Rd.
Bayswater Rd.
KINGS CROSS
To SYDNEY
William St.
Liverpool St.
Darlinghurst Rd.
Bourke St.
Burton St.
Stephen St.
Oxford St.
TAYLOR SQUARE
Scale 0 1/4 1/2 Mile
K.McCARTHY 8/83
PETERSHAM
New Canterbury Rd.
Wardell Rd.
Morgan St.
Livingstone Rd.
Addison Rd.
Tyler St.
Newington Rd.
Stanmore Rd.
Wemyss St.
Cavendish St.
ENMORE
Liberty St.
Enmore Rd.
To SYDNEY
Cambridge St.
STEAM BUS
TRAMWAY

3M and 4M with open transverse seating for 18 on the upper deck which was reached by a curved rear staircase from the end platform. The car bodies were painted in the tramcar colours of the time, chocolate lined with buff. They were numbered in a separate series and did not receive a class designation. The "M" suffix presumably indicated "motor", just as steam motor numbers and trail cars carried "A" and "B" suffixes. They should be distinguished from the "M" class tram, a 70-seat open tourist car introduced in 1906.

The power unit on Nos. 1M and 2M consisted of a two-cylinder 25 horse-power engine which raised steam at a pressure of 250 lb. per square inch from a semi-flash type boiler. The boiler was mounted above the forward axle. The single-deck vehicles were provided with gauge glasses. The fuel used was kerosene and the maximum speed was quoted as 18 m.p.h. over average roads.

There were two "powerful brakes, one of which is worked by an outside contracting band and the other by an internal grip on the back drum axle". Solid Turner tyres were fitted to the single and double wheels at the front and rear respectively. Transmission was effected through a chain drive to the rear axle.

The following contemporary description (taken from the "New South Wales Railway Budget", 1st May 1906) describes the equipment of Nos. 3M and 4M in adequate detail:

"They were fitted with two double action 40 horse-power engines and are two-cylindered. The burner is of the semi-flash type construction, and the fuel is ordinary kerosene heated by means of Bunsen type burners. The wheels are of artillery type, the front one being 34 in. and the back one 40 in. in diameter. They are fitted with Turner solid rubber tyres, the single tyre 5 in. wide on the front and the twin tyres each 4 in. wide on the back wheel. The brakes are two in number, one hand brake worked on the hub of back wheel and the other, the foot brake, worked on the drum of the sprocket shaft. The action between the engine and the wheels is made by two heavy 2½ in. block roller chains running on sprocket gearing.

Double deck steam bus 4M on the trial trip along the Enmore route in April, 1906. Inspector W Hinson is in the driver's seat and the full-bearded man at the front of the vehicle is the Tramways Superintendent John Kneeshaw.

K. Magor Collection

"To assist in steering the back axle is provided with differential gearing which enables the back wheels to run in opposite directions. No gauge glasses are used on these 'buses; instead there is a pressure gauge indicating pressure of steam and a pyro meter showing temperature of steam, the burners being regulated automatically, according to the pressure of steam. The buses are geared for 12 miles per hour; the speed depends upon the condition of the road, grades, &c.".

Failure of the Second Trial

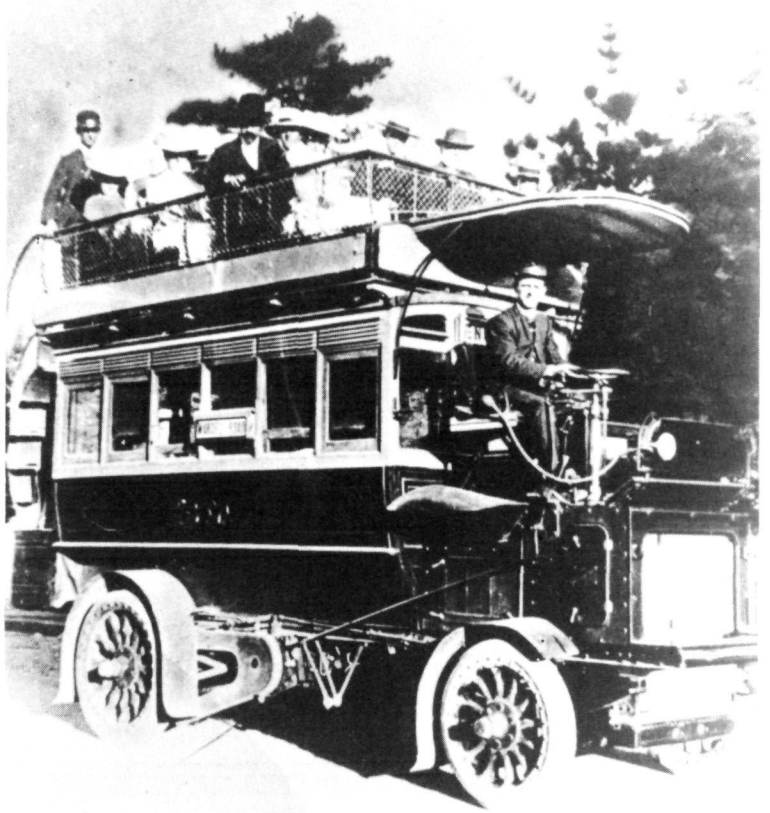
In common with the City services, the time-table was basically a 20-minute one:

The vehicles and staff were attached to Newtown tram depot adjacent to Newtown railway station at Newtown Bridge. All stopping places were conditional.

The fare payable for travel between Enmore and Wardell Road was 1½d. if paid by ticket or 2d. by cash. This may be compared with the tram fare of 1d. The fare for children between 5 and 12 years or (if occupying a seat) under 5 years was 1d. The 1½d. tickets were sold by Conductors in strips of eight for 1s. and were coloured green. The Conductor was required to issue a 1½d. orange cash fare ticket in exchange or a green 2d. when the

	WEEKDAYS
From Enmore	†7.21 a.m., every 20 minutes to 10.1 p.m.
From Wardell Road	7.44 a.m., every 20 minutes to *10.24 p.m.
	SUNDAYS
From Enmore	‡1.32, every 20 minutes to 7.12, 8.36, every 20 minutes to 9.56 p.m.
From Wardell Road	1.55, every 20 minutes to 6.35, 6.53, 7.58, 8.18, 8.59, every 20 minutes to 9.59, §10.19 p.m.

† Shed dep. 7.16 a.m.; ‡ Shed dep. 1.27 p.m.; * Shed arr. 10.42 p.m.; § Shed arr. 10.37 p.m.



Double decker steam bus 3M in public service on the Enmore–Wardell Road route during April-May, 1906.
K. Magor Collection

Colour, Green. Value 1½d.

Full size illustration of the adult ticket from the Supplement to Weekly Notice No 22 of 1906 in the SRA of NSW Archives.

passenger tendered cash. The colour of the Children's ticket was white. The tramway Starter at Enmore checked the Conductor's journal on each trip.

The new service did not prove to be a success and was discontinued on 29 May 1906.

In their Annual Report addressed to the Minister for Railways for the year ended 30 June 1906 the Commissioners made a candid admission of the failure of the project. The Parliament was informed that:

"In view of the extended use of motor omnibuses in England, and the possibility of their utilisation as adjuncts to the tramway system, or on routes where it was desired to ascertain the probable revenue before laying down lines of tramways, the Commissioners obtained reports from the Inspecting Engineer, through the Agent-General, in London, on the subject. These reports were of a favourable character, and the steam-propelled type of omnibus was recommended. Two chassis of the single-decked and two of the double-decked type, or four in all, were ordered from the firm of Messrs. Clarkson, Limited, Chelmsford, England, the bodies being constructed locally. The single-decked vehicles were put into service between Potts Point and Darlinghurst Junction on the 4th December, 1905, and were continued on this run until 7th April, 1906 when they were withdrawn owing to the unfavourable financial results.

One of the six Chelmsford steam buses imported by the Victorian Railways. The imported chassis were fitted with this style of body at the Newport Workshops. The bus shown here is on a trial run at the Exhibition Building in Melbourne during September, 1905. The buses operated on a public service in Prahran from 1 December, 1905 until June 1906. They again provided an emergency service on the St. Kilda to Brighton tramway from 8 March, 1906 following the Elwood Depot fire. These vehicles were sold in 1911. "Sydney Mail" of 11.10.1905

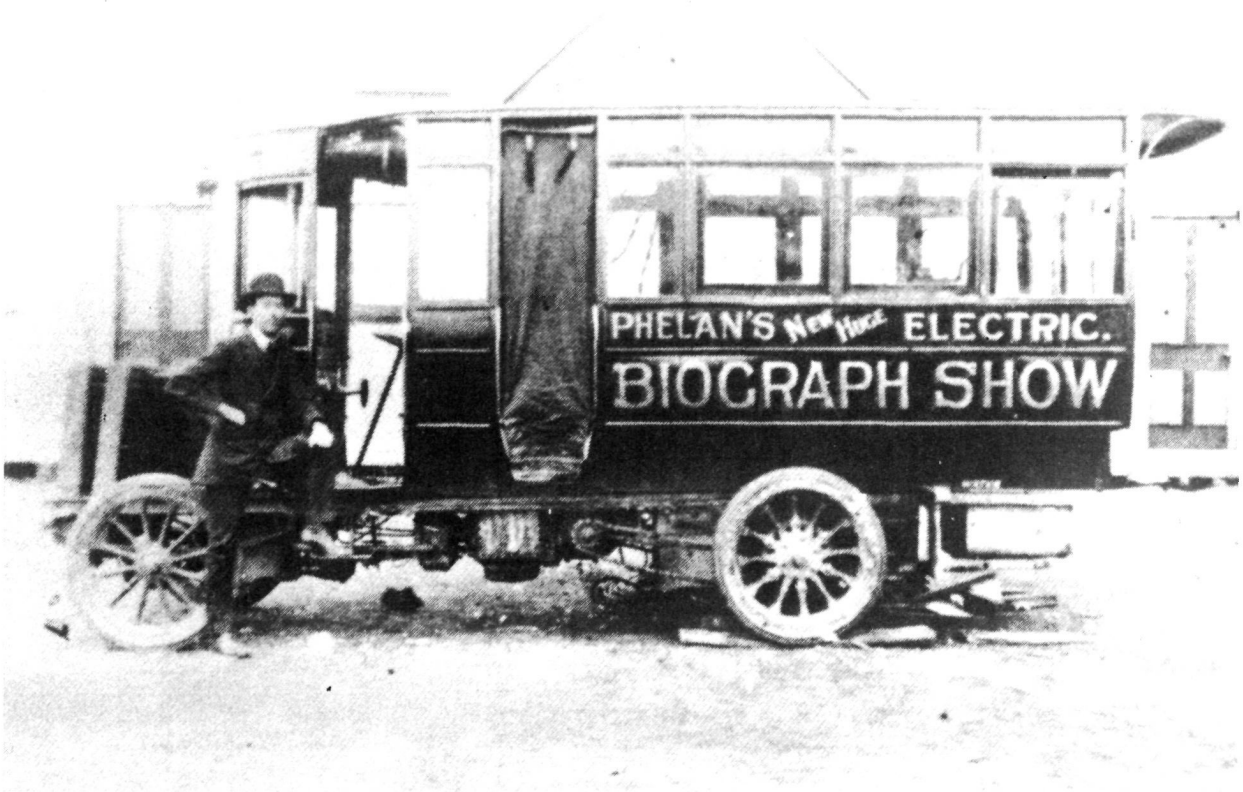
One of the steam buses after its sale by the N.S.W. Tramways at Auburn, N.S.W. works of Henry Vale & Sons. It is 3M, one of the double deck buses with the top deck removed and fitted with railway wheels. It is thought to have been converted for use on the Wolgan Valley Railway from Newnes Junction to the shale oil works at Newnes.

S.R.A. of N.S.W. Archives

"The route from Enmore to Wardell Road was next opened for traffic on the 23rd April, 1906, the four vehicles being used in this service. The running was discontinued on the 29th May, 1906, owing to the vehicles being in disrepair, and after full consideration it was decided not to recommence running as the service had been unremunerative, and the vehicles were found to be unsuitable in construction for traffic and the roads upon which they were required to run."

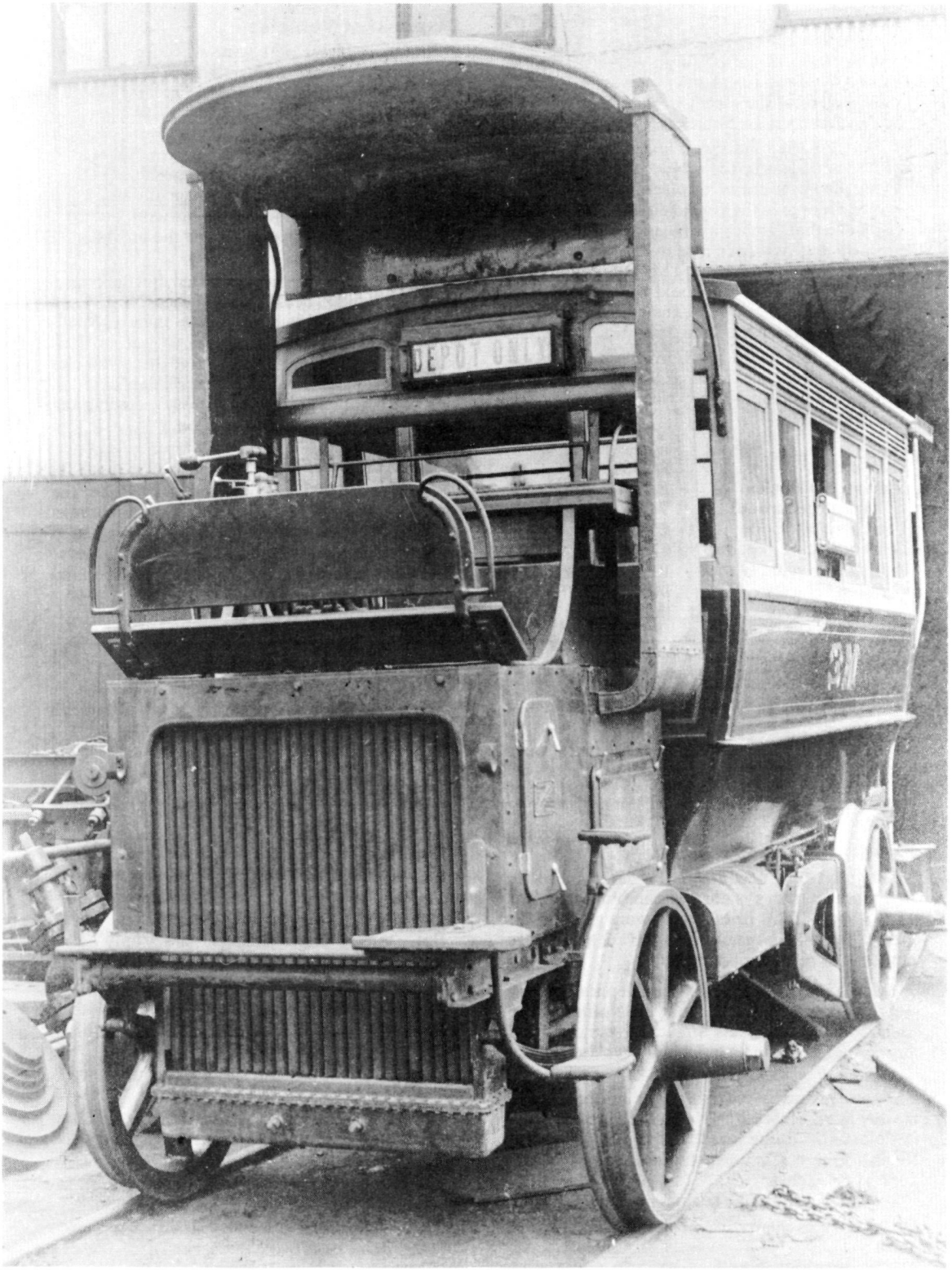
Review of the Trials

Not surprisingly, questions about the ill-fated venture continued to be asked in Parliament. On 10 July 1906 Mr Arthur Griffith enquired of the Premier whether it would be possible to transfer the steam omnibuses to Manly, where, so it was claimed, the roads were flat. This, he suggested, would afford a means of replacing the "miserable" one-horse tram. At weekends and holidays they could be run to Narrabeen and Newport.



A steam bus used as a mobile cinema van by Phelan's circa 1910. The origin of this vehicle is a mystery. The body is longer than the Victorian Railways vehicles although the windscreen details are similar. The saloon body resembles the N.S.W. Tramways single deck buses but the window details are not identical.

V. Solomons Collection


DEPOT ONLY
43

By way of explanation, the horse-tram referred to was operated between Manly Pier and Curl Curl (North Manly) from 20 July 1903 to 30 September 1907 (when steam traction was restored), in substitution for the steam-worked line which had been opened on 14 February 1903.

Mr Carruthers informed his questioner that he had several ideas on the subject and had thought of trying the buses out in his electorate as well. This was St George in the Rockdale district of Sydney. He added that "If they are not too abject a failure, I promise to give them a trial in one or two of these places". Another member (Mr O'Sullivan) intervened to suggest that it would be better to devote any surplus funds to the extension of the Manly tram to Pittwater and The Spit.

On 25 July 1906 Mr Carruthers replied to a question on notice from a Mr Henley seeking further information about this subject as summarised below:

Total cost	£5,331
Number of vehicles "now stored away"	Four (at Randwick Workshops)
Total receipts	£557
Total operating expenses	£2,010
Present day value of the stored vehicles	It is difficult to say owing to the very limited local demand.

Disposal of Vehicles

All four vehicles were written off the Tramway Department's books during 1906/07. Much doubt surrounds their final disposal. The two double-deck buses were sold to a Mr J R Bainton and delivered at Balmain on 23 August 1907. No 3M was rebuilt by Henry Vale & Sons of Auburn for use as a rail motor on the Commonwealth Oil Corporation Limited's standard-gauge railway from Newnes Junction to Newnes. This work involved the removal of the upper deck and the provision of railway-type wheels.

Earlier sketchy reports suggested that the engine units of the single-decker steam buses, No 1M and 2M were sold to Phelan's picture theatre, Wallsend, to power generators for the projectors. This may have been the ultimate fate of these vehicles but firm evidence now exists that Phelan's used at least one bus for a period as a travelling cinema van without much structural alteration.

Repeal of 1905 Act

The Act of 1905 was repealed in 1912, but the sections empowering the Railway Commissioners to operate motor omnibuses were incorporated within the new consolidating statute (the Government Railways Act, 1912) as sections 55 and 56.

HERE AND THERE

NEWS ITEMS OF INTEREST FROM ALL OVER

Priority for Trams

The start of a new era in the development of Melbourne's tram system came into operation on 17 October, 1983. Brief details were given in the December 1983 issue of *Trolley Wire* and we are now able to give more details.

Distinctive yellow line'marking, separation bars and signs were introduced along the North Balwyn tram route and in Collins Street to free trams from the traffic snarls which had always bedevilled them.

Now cars must avoid delaying trams throughout the day along most of the North Balwyn route.In a few places (at Burke Road and in parts of Bridge Road), other traffic must stay clear of the tracks during peak hours.

In Collins Street and Wellington Parade, trams finally have exclusive use of the track lane at all times.

The Tram Route Management Scheme, as it is called, is being widely promoted through extensive advertising and actively, visibly, supported by police using friendly warnings and advice.

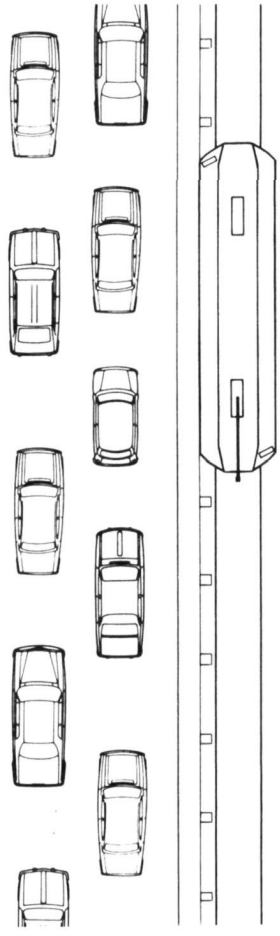
But these improvements are only the beginning.

Along the North Balwyn route there will be more separation bars, new safety zones, more part-time tram lanes in congested areas and, of course, improvements in the traffic signals.

Over the rest of the tram system, similar changes will appear in the next two years.

As an interim measure, conditions in the City will be improved by extensive traffic signal changes and the introduction of more hook turns.

Tram patrons are expected to benefit from greatly improved services in trams of all-up journey speed, regularity, frequency and expanded services.



A solid yellow line with separation bars.

It appears on wider roads where there is plenty of room for cars. It indicates that you must not enter or turn across the tram lane at any time.

Talking to crews operating in the priority areas confirms the important contribution of the scheme to greater job satisfaction.

Better punctuality, more even loadings and happier passengers are helping to improve operating climate for these crews.

Extensive surveys are being conducted to assess the impacts of the priority scheme.

Preliminary results from surveys conducted while the system was still settling down show that peak running times have improved by up to 6½ minutes, the services are far more regular and average speeds along the route have increased by 8%.

Conditions will continue to improve as additional priority measures are introduced along the route.

Once the new system settles down a fine of up to $150 will apply to drivers that delay trams, cross solid lines in peak periods, or solid lines with separation bars at any time.

New "A" Class Trams

Melbourne has operated classes of trams spanning every letter of the alphabet and is about to start at "A" again.

Twenty-eight "A" class trams are being built by Comeng Victoria at Dandenong. The truck and traction electrical equipment will be almost identical to the Z3 equipment, but the body will be new.

Good news for passengers and crew will be faster loading and unloading because of a return to a roving conductor and passenger entry and exit at all doors. There will be a single door at the front and two double doors between the bogies, similar in concept to a W tram.

Considerable attention has been given to improved ventilation for the driver and passengers. The half drop windows open more than in the Z's and the tram has a full length vent roof as in a W with acoustic treatment as well.

Ram air is introduced above each windscreen and fan assisted through the body from both ends.

The driver's cabin has two large air vents, and lower and upper fan ventilation and new blind arrangements as well as half door for the driver's compartment.

The well accepted control layout has been retained. Extra next stop signalling buttons for short passengers have been provided.

Sudden movements should be eliminated by a load weighing cell in the bogie which prevents excessive acceleration or braking when empty or lightly loaded.

The tram should be quieter. Power saving regenerative chopper control will again be used but the "chopper" buzz heard on some Z3's should be eliminated.

Preston Workshops will again assemble the trucks, and manufacture and install the interior furnishings. This 42 seater, high performance tram will be just what Melbourne has been looking for.

Glenelg Tram News

Trams resumed normal running on Sunday, 4 December, 1983 following completion of a one kilometre section of track relaying at Morphettville. Single track working had occurred while the Down track and then the Up track was relaid. The work included the provision of new crossovers for the racecourse sidings. It now appears that the ramp for transporting trams to and from the Glenelg line will be situated at the end opposite to its original location.

Many of the stops along the line are now receiving slightly raised brick platforms. New lighting which receives power from the Electricity Trust of S.A., instead of tramway power, is also being installed. New signs are being erected at some locations.

Car 364 has recently been returned to traffic following a major overhaul which included replacing the metal side panels and aprons with fibreglass. Car 364 was the first tram to be refurbished under the current programme in 1971, but retained its metal side panels. It was also painted silver-grey and carnation red until receiving the tuscan red and cream colour scheme in 1973. Car 363 (ex 361) which was similarly treated, is also receiving a major overhaul. All cars overhauled will progressively receive fibreglass aprons and panels.

The 50th Christmas Pageant organised by John Martin's, an Adelaide department store, resulted in trams terminating at the South Terrace crossover on 12 November. A total of 18 cars (including silver cars 361 and 378) were used in traffic on this day, which coincided with a race meeting at Morphettville. Tramway operations ran smoothly all day.

A long running dispute between the bus drivers' union and the STA over rosters at City Depot resulted in a number of stoppages recently which also affected tram services. The union even claimed that the STA eventually intended to close the City Depot and the Glenelg tram service.

Above: Gold liveried car 377 leaving the single track working near the western side of the Sturt River bridge at Morphettville.

Left: Tram 373 on the single line working at Stop 16, Morphettville, looking towards the City.

Both Paul Shillabeer

South Steyne Goes North

Visitors to Ballina on the NSW north coast, who wander along the banks of the Richmond River may be surprised to come across the former Manly ferry *South Steyne* tied up at the Ballina Slipway and Engineering Company's wharf. The former Sydney ferry is in Ballina for a $1 million restoration job and the project is likely to keep the vessel on the Richmond River for at least six months.

The *South Steyne* left Newcastle under tow on 4 November, 1983 and was brought across the Richmond bar on 7 November with assistance from the pilot tug from Yamba. Later the ferry will make a further trip on the Richmond to the dry dock at Riley's Hill, near Broadwater.

Some of the listed work for the restoration at Ballina is to place the engines into operating condition. pull down the boilers and replace the deck, for which local teak will be used.

Top: The "South Steyne" at Newcastle before the voyage north. The lower deck has been boarded up in preparation for the trip. R. I. Merchant

Above: The former ferry entering the Richmond River under tow on 7 November, 1983.

Left: Moving up the river towards Ballina (background) and her new berth at Ballina Slipway & Engineering. Both N. A. Merchant

Trolley Bus No. 1

On Friday, 20th January, 1984 three members of the SPER attended the outdoor ceremony at which Mr Col Carter of Pressed Metal Corporation handed over restored Trolley Bus No 1 to Mr Desmond Kennard, Acting Director of the Museum of Applied Arts and Sciences.

No 1 is a single deck vehicle with front and rear doors built by Park Royal, England in 1933 on an AEC three axle chassis. It has a 90hp BTH motor, weighs 7.1 tons and has seating for 34 passengers.

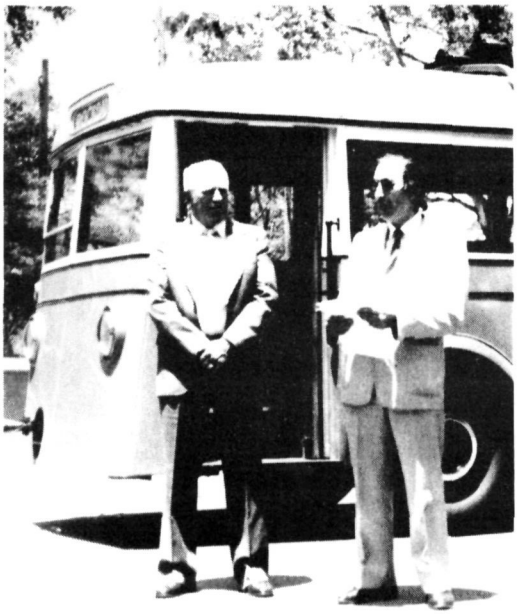
The bus was imported complete and arrived in Sydney on the *Jervis Bay* on 23 October, 1933. It operated the Wylde Street–Kings Cross–Town Hall trolleybus route until 1948 when temporary replacement by diesel buses due to road works along the route became a permanent replacement. No 1 was transferred to the Kogarah–Sans Souci system (together with other buses from the Wylde Street line) in March, 1949 and entered service on the short Kogarah to Ramsgate Road route in April of that year.

No 1 had its last 'A' overhaul in December, 1944. By 1956 it was in store at Randwick Workshops and up for sale. It was donated by the Department of Government Transport to the Museum of Applied Arts and Sciences for preservation in 1957. It was placed in store at the Museum's Shea's Creek repository until January, 1983 when it made an appearance at North Sydney Depot for the 50th Anniversary of Government Bus Services (see *TW* Feb. 83).

No 1 was subsequently taken to the Pressed Metal Corporation's bus division workshop at Revesby for restoration work to be carried out on the body. The restored vehicle was towed by the Urban Transit Authority to the Museum's workshop and store at Castle Hill where the handover ceremony took place.

Trolleybus No 1 will eventually go on display at the new Power House Museum at Ultimo.

Trolleybus No 1 at Castle Hill on 20 January, 1984. The vehicle will go on display in the new Power House Museum at Ultimo. D. O'Brien



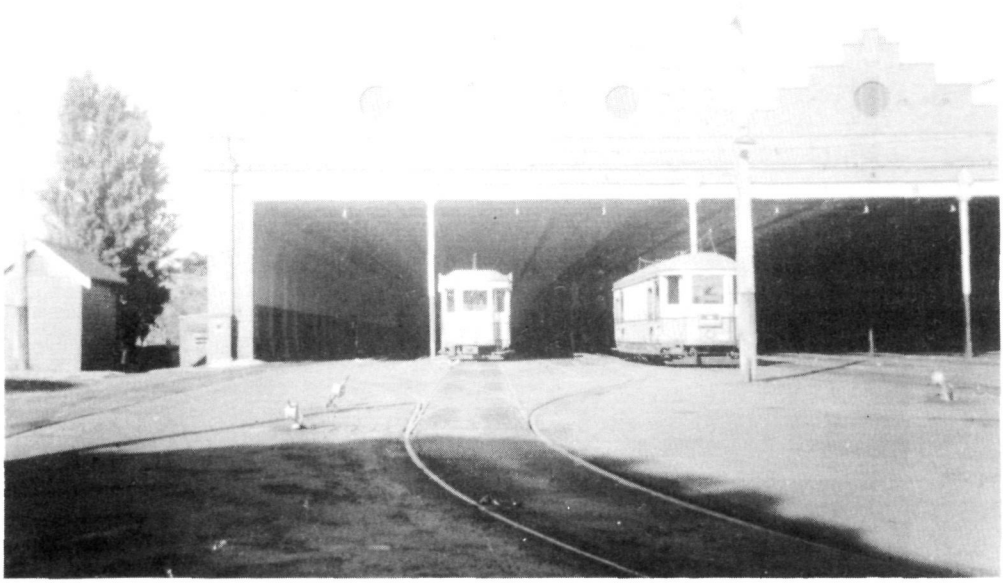
Mr Col Carter of Pressed Metal Corporation (left) and Mr Desmond Kennard, Acting Director of the Museum of Applied Arts and Sciences during the handover of the restored trolleybus on 20 January D. O'Brien

Two views of the interior of the restored Trolleybus No 1. The view above is looking towards the front of the vehicle while the one below is facing the rear of the bus. There are seats for 34 passengers. Both D. O'Brien

A view of Trolleybus No 1 from the rear, showing the UTA's bus recovery vehicle, Leyland Buffalo CT.035, which brought the restored trolleybus from Revesby to Castle Hill.

D. O'Brien

A view of Rozelle depot before its closure showing the three way points which were lifted by SPER members for relaying at Loftus. V. Solomons



Glenelg Trams in Melbourne?

AETM member Dr. H. D. Ellerton, who now lives in Wellington, New Zealand, recently discovered an advertisement for Victoria in the local press which included a sketch of a Glenelg tram! An amused Dr Ellerton forwarded a copy of the advertisement to the *Adelaide Advertiser* whose columnist wrote on 13 December under the heading "Are our trams better?".

I'M no expert, you understand, but expatriate South Australian **Dr. H. D. Ellerton**, now living in Wellington, NZ, assures me that the sketch below shows an Adelaide tram not a Melbourne tram.

The sketch appeared in a an advertisement for Victoria in the *Evening Post* newspaper in Wellington (I worked for it back in 1960).

Says Dr. Ellerton: "I'm sure your readers would like to speculate on the reasons for using the Adelaide tram. Could it be that Victorians find them more aesthetically appealing than their own, or is it a subtle way of advertising SA worked out by **Don Dunstan**?"

(Don Dunstan is the former South Australian Premier who is now departmental head of the Victorian Ministry of Tourism.)

BALLARAT . . .

Ballarat Tramway Preservation Society

Single Truck Car 13

On Monday, 5 December, 1983 several Society members went to the Lake Goldsmith Steam Museum to assist with the transfer of No 13 to Ballarat. The tram had been prepared for the move two months previously, but damp parklands around the BTPS depot had delayed the move. The tram was lifted onto a long loader and the move took place without incident. On arrival at the depot No 13 was placed on No 6 road along with No 39. The following weekend it was cleaned with a pressure hose.

Other Rolling Stock

W3 661 has been given its final coat of chocolate and some of the gold lining has been applied. The car should be ready to run during the forthcoming Begonia Festival.

The restoration of No 18 continues and the recent removal of the saloon seats revealed many years accumulation of SEC Tramway tickets.

Other News

Work has proceeded on the trackwork of the depot fan approach to No 6 road, and most of the sleepers and rail are now in place. Inside the depot the track on No 2 road near the front doors has been relaid.

The Society has been pleased to assist the Perth Electric Tramway Society with its restoration of former Ballarat single truck car No 31 by providing numbers and SEC monograms.

PARRAMATTA . . .

Steam Tram & Railway Preservation Society

Purcell (133A) Project

Work has continued on the sub-frame, engine and transmission at an almost feverish pace. This in part, has been bought about by concern at the deteriorating condition of the motor body (No.2) held in store at Kellyville. (Refer *TW* Dec. 1975). The body has unfortunately, been exposed to the elements for the most part of its stored life since 1975. Tarpaulin coverage protected the body for a time, but regretably, rotted away.

The Purcell frame had to be fitted with support struts and mountings to enable it to support the body. With this work behind them, Frank Moag, Frank Miller, Bob and Bruce Sanson went to Kellyville on Tuesday, 18 October, 1983 to retrieve the body. With a hired truck equipped with a lifting device, the body was transported to Parramatta Park where it was place onto the Purcell frame. Thus was born (albeit diesel powered) tram motor 133A. The significance of the number of course, is that the sequencial numbering of tram motors in NSW attained 132A. It has been said, though perhaps "tongue in cheek", that the logical development of the tram motor to diesel power has now been made. Unfortunately, it has come about 50 years too late to be of any serious competition to the motor bus industry.

Further work on the engine and transmission on Sunday, 23 October, enabled 133A to operate under it's own "steam" for the first time when it went to the extremity of the yard and returned for stable. The rudimentary exhaust which terminated in the cab, made any further excursion prohibitive.

Further work will entail detailing in the mechanical department, proper fixing of the body to the frame and a complete paint job.

Annual General Meeting

The 11th A.G.M. was held on Saturday, 22 October, 1983. The retiring two members of the Board, Governing-Director Bruce Irwin and Deputy Chairman, Frank Moag were re-elected unopposed.

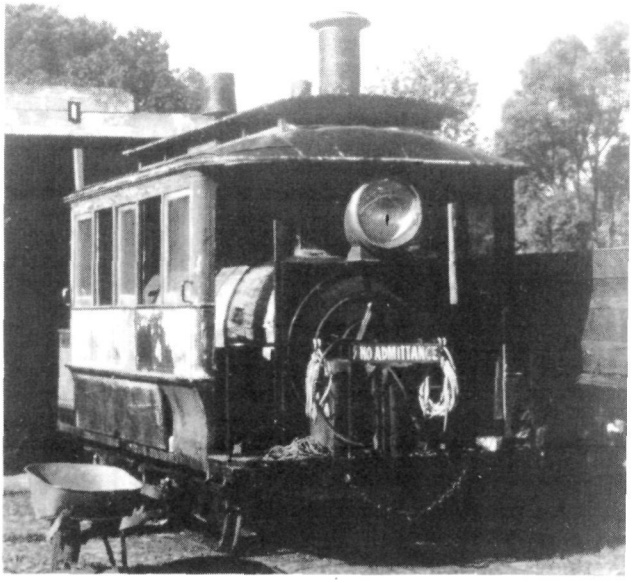
Further business included discussion of acquisition of further coaching stock and four wheeled goods vehicles, to fill out the notion of the eventual "Camden Tram". It was decided after discussion, to form a committee of members to investigate the situation and report accordingly to the Board.

At the conclusion of the meeting, a most pleasant buffet dinner was served, the hostess being Mrs. Stock, wife of our Secretary. Slides on Parramatta Park and trams of yesteryear were shown after dinner.

Parramatta Park Re-development

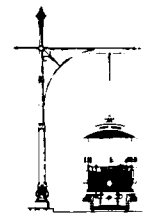
The long awaited "Plan of Management" for Parramatta Park was released by the Crown Lands Department during September. This plan makes substantial recommendations (approved by the Minister), for the re-development of the Park over the next five years. Most importantly, $2.4 million will be allocated for proposed works within the Park.

Naturally, the society is quite excited about the proposals and sees in them the fulfillment of the society's potential as a visitor attraction.



Purcell (133A) ready to roll on its initial trip to the end of the yard.

LOFTUS . . .



South Pacific Electric Railway

Cable Trailer No. 3

During 1976 the Museum obtained a cable trailer from the Steam Tram and Railway Preservation Society. The car, no. 3 of the King Street to Ocean Street cable tramway, was built by Hudson Bros. in 1894. It saw service as a breakdown trailer on the Sutherland to Cronulla steam tramway from whence it was purchased sometime before the line closed in 1932 and was taken to Lilli Pilli for use as a shed. It was rescued from there in 1968 and stored at a bus depot in Jannali. On 3 July, 1976 it was transferred to Loftus where it became the oldest and smallest car in the museum's collection. The body was in very poor condition and had to be braced before being moved. Later the body was dismantled to prevent further damage.

On 31 December, 1983 No. 3 was transferred to Warrawong High School where rebuilding will be carried out by students in years 11 and 12. The rebuilding is being done as a Transitional Education Project and to this end a grant of $1,000 has been received for the first stage of the restoration work.

ST. KILDA . . .

Australian Electric Transport Museum

Dropcentre 264

The STA delivered the modified W2 bogies for car 264 from Regency Park Workshops on 9 November, 1983. At the same time the other set of W2 trucks purchased from Melbourne by the STA were also delivered to St. Kilda for storage. On 14 December the STA arranged for a crane to lift 264 onto the modified bogies. The tram was then coupled to our other dropcentre, F1 282, and towed to Mangrove Loop for a brief evaluation — its first journey on rails for 25 years! The ride on the "new" trucks proved to be very successful.

After completing its first run, 264 was transferred to the rear of road 3 in the main depot. This position will greatly facilitate restoration of the tram as it is now adjacent to the workshop. F1 282 can also be parked next door on road 4 for comparison purposes.

John Pennack is now spending a great deal of time on the interior of this tram. The ashbury green paint applied in the mid 1950's is now being removed. The interior is regaining its original varnished appearance. In fact the east end saloon is almost complete except for a lack of longitudinal seats.

Glenelg Tram 362

H car 362 has now returned to the operating fleet, its place in the new depot being taken by H1 381. The transfer was carried out on 26 November, 1983 using the wandering lead. With car 381 temporarily out of service, the opportunity has been taken to have the two small end bulkhead seats and the two motorman's seats recovered.

Depot Rearrangements

The transfer of trams 362 and 264 from the new depot has resulted in a number of movements. Car 264 has displaced Ballarat 21 and the tower wagon from road 3, and stands behind works car W2 354. Car 21, which has seen little service lately, returns to road 2 and the operating fleet in place of Birney 303. The Birney and the tower wagon have been transferred to the new shed. Car 303 will remain out of service until the overhead has been erected in the new shed. Trams currently stored in the new shed are: Road 7 — 118, 186, 303, tower wagon; Road 8 — 360, 381.

New Depot Improvements

Work continues on the new shed with the eventual aim of opening it to the public. Angle iron supports are being made for the erection of overhead troughting on road 8. A special working bee was organised on 10 December, 1983 to clear grass to the north of the shed and to tidy up the shed itself. It is disappointing to report that the work party was poorly attended, the job once again being left to the few regulars.

Publicity

Leyland Canton trolleybus No. 488 was towed out of the trolleybus depot on 11 December, 1983 to be photographed alongside a Scania bus. The photograph is to be used in advertisements by the Scania distributors as part of a national promotional tour for their new bus. Advertisements suggest the new vehicle to be "the quietest bus since the trolleybus!".

Other News

After some 25 years, mains water has finally come to St. Kilda. Provision of water mains to the area by the Engineering and Water Supply Department has enabled AETM members to lay the final connection to the Museum. Until now the Museum has relied upon the large depot roof as a catchment area for water. Even after the first tank was installed in 1964, following erection of the depot roof, water still had to be carted to the site in dry years.

Our tramstop at the playground has been moved one pole length closer to the Museum, a positioned considered safer than the previous location. Rubble has been placed around the stop to rail level to aid passengers boarding and alighting from trams.

Train Trip

Members of the AETM are not normally known to participate in excursions, but thanks to Ron White, a group of members and their families journeyed to Victor Harbour by train on Saturday, 26 November, 1983. Train travel to Victor Harbour is now confined to the tourist as the journey takes three hours compared with one hour by car. The trip does, however, provide historic and picturesque scenery for the tourist. Part of the line includes the seven mile length of horse tramway which connected Goolwa and Port Elliot to become Australia's first railway, opened on 18 May, 1854.

Bluebird class country railcars were used for the trip, being power car 255 *Curlew* and trailer 100 *Mopoke.* The Bluebird railcars carry the names of native birds. The train departed Adelaide station at 9.13 am and arrived at Victor Harbour at 12.06 pm. The return trip departed at 4.00 pm and arrived in Adelaide at 6.53 pm. Members were surprised to discover that the driver on the return trip was Malcolm Butler, a long time AETM member. An enjoyable day was had by all.

In the week after the mains water connection was provided, Malcolm Butler and Mark Skinner (rear) were busy with a trench digger, while John Hoffman and John Pennack cleared out the trench. John Radcliffe

The 21 Bluebird diesel railcars of the former South Australian Railways (now Australian National) were built at the SAR's Islington Workshops from 1954, and despite being nearly thirty years old, still provide a high standard of comfortable travel. It is believed that 10 of the class will be converted to standard gauge for use on the Adelaide to Port Pirie passenger service on completion of the new country passenger terminal at Keswick in mid 1984.

A group of AETM members assemble alongside 'Bluebird' railcar 255 at Victor Harbour on 30 November, 1983. Museum member Malcolm Butler (in cabin doorway) was the driver on the return trip. John Radcliffe

ALBION PARK . . .

Illawarra Light Railway Museum Society

Special Steaming Day

On Saturday, 19 November the Museum was host to a large party of Australian Railway Historical Society members and their families who travelled from Sydney in a hired train for their annual Christmas tour.

The traffic arrangements at the Museum for that day were designed so that every vehicle which was roadworthy operated on the Museum main line. Passengers were accommodated in a three car train consisting of Queensland Railways railmotor trailerP119, semi open passenger car No.1, and Melbourne cable tram trailer No.430. Both the Hudswell Clarke loco *Cairns* and the Davenport engine *Kiama* took turns in hauling this train. This was the first occasion on which car 430 was used in public traffic since 1935. This vehicle has been externally restored but the major task of rejuvenation of the interior has yet to be carried out.

The Mancha battery electric locomotive hauled the Dry Creek (South Australia) explosives vans while the Ruston diesel, Fordson kerosene and Leyland-Krauss petrol locomotives triple headed long freight trains consisting of such trucks as the Balls Head coal loader bogie hoppers, various Jubilee type tipping trucks, flat wagons and the Victoria Sugar Mill insulated meat van.

The Gemco electric locomotive hauled colliery "man cars" drawing power from the trolley wire while the Leyland-Krauss engine made several trips on the original roadside track along Croome Road hauling saloon car no.2 (the former c.1916 International bus body).

Passenger Facilities

During 1983 the Society operated 17 full steaming days and carried almost 12,000 passengers. With the completion of the main line circuit in November 1982, the regular operation of two car passenger trains since December 1982 and the introduction of family group and all day tickets in the winter of 1983, the railway has been able to cater for and handle crowds of over 1,000 on some running days.

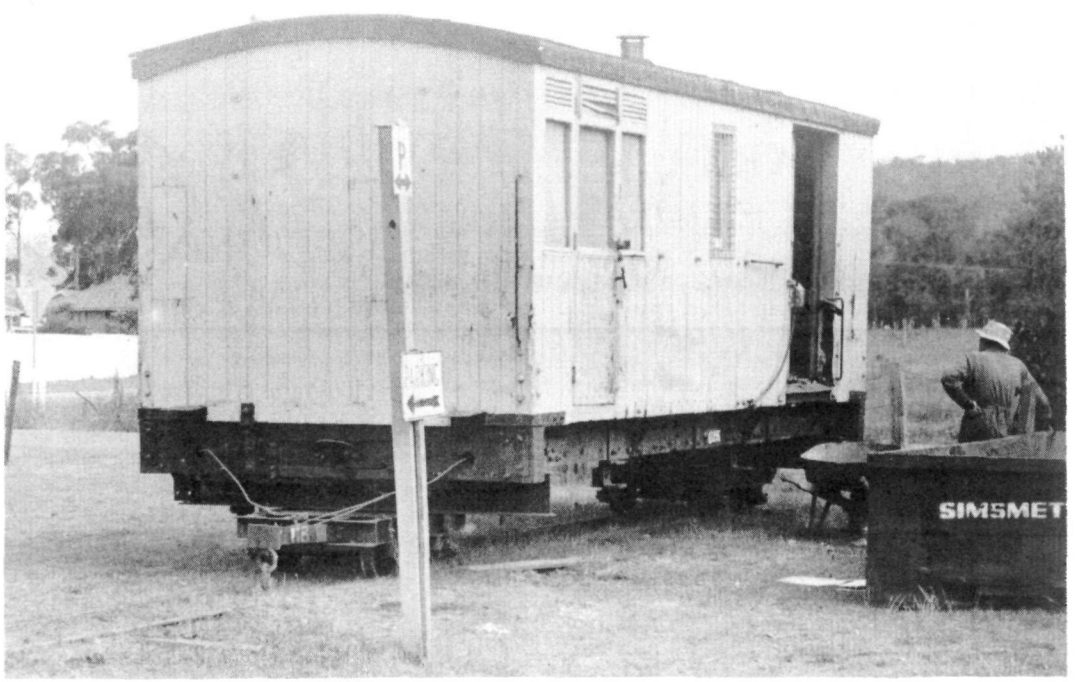
The picnic areas have been doubled in size, more barbecues and a ready supply of cut timber provided and recently a number of "summer house" style table-bench settings have been erected in the less shaded areas of the grounds. These summer houses were obtained from the former animal park at Dunmore and have assisted in making the Museum a popular local location for family picnics.

Rolling Stock

On 18 October a railway workman's van L1293 (a former NSWGR "HG" type guard's van) was delivered complete to Albion Park. Over the next two weekends the standard gauge running gear was removed and the vehicle lowered onto two 2ft gauge bogies. During Thursday 10 November this van was hauled along the 2ft gauge tracks to the main museum station area where it was lifted from the bogies and placed on prepared foundation blocks. Since then work has continued on repainting the exterior of the van and fitting out the interior for use as a souvenir shop.

As a result of the generous donation made by the Tramway Museum Society of Victoria, two end platform aprons arrived in Wollongong on 19 September for restoration and fitting to car 430. The lined out aprons were fitted to the cable trailer by early November and the lining out of the side body panels completed in time for the ARHS visit. During early December the main saloon roof edge was retimbered and strengthened with unobtrusive aliminium strip above the letter boards.

Prior to the 1920's the Melbourne cable tram trailers carried vivid primary colours on the side



Former NSWGR HG type guards van L 1295 on temporary 2ft gauge trucks at Albion Park on 12 November, 1983. Ken McCarthy

The track gang at work constructing the "back road" on 12 November, 1983.
Ken McCarthy

letter boards and end aprons to indicate individual routes. The red route colour scheme has been adopted at Albion Park for car 430.

Motive Power

During August and September Davenport locomotive *Kiama* was repainted black with red stripe and yellow linework in place of the former maroon livery.

Between running days major maintenance has been performed on the Hudswell Clarke locomotove *Cairns*. By early September a new top plate segment had been fitted to the smoke box barrel and during October the valve gear and motion on both sides of this engine were overhauled, reseated and adjusted. The battery electric Mancha locomotive has proved excellent for inching the steam engines along the track when the valve gear is being set.

The 2ft gauge Mancha electric locomotive was restored to running condition during April 1977 but this unit has only operated since then on special occasions powered by borrowed batteries. Permanent batteries and charging facilities were fitted to this vehicle on 17 September, 1983 and since then the Mancha has proved to be a very useful "work horse" at the museum. These batteries were made available by the Sydney Tramway Museum from their overhead maintenance vehicle "Gentle Annie". This former Sydney tramway ballast motor 42U had been used on the Sydney underground railway as a maintenance vehicle No.L707 since 1926. Since arriving at the Loftus museum in July, 1981 the batteries have not been used. As it is the intention of the Tramway Museum to power 42U from the 600 volt overhead wires in future, the accumulators were removed from the tramcar.

On 5 October the ILRMS was grateful to receive a pair of 2ft gauge Shay locomotive bogies from the Queensland ANGRMS group. In 1974 the ILRMS retrieved the parts of two 2ft-6in gauge Shay locomotives from the Munro timber tramway at Palmtree, north of Toowoomba. One unit has been partially restored to exhibition condition mounted on two temporary shop bogies. The generous donation of these 2ft gauge trucks means that the complicated task of regauging the original units can be avoided.

Around the Museum

During late October a 500 gallon water tank, donated by Garnock Engineering, was lifted onto an elevated platform at the western end of the museum station platform and fitted with a water crane. This enables the steam locomotives to be watered on running days while taking on passengers thus avoiding the need to uncouple and shunt to the servicing compound.

During November and December work progressed on the construction of the back platform road at "Yallah" station. It is hoped that passenger cars can be housed on this track away from the locomotive service area. It is also planned to have exhibition tracks branching from the new road on which specialised small vehicles can be displayed and special track components exhibited such as the traverser (transfer) table obtained in January 1983 from the Kaiser Refractory plant.

Kiama Council is thanked for the donation of a large antique radial drilling machine. Although still in working order some adjustments and bearing replacements will be required before the machine is available for use at the museum.

WARABROOK . . .

Newcastle Tramway Museum

The activities of the museum have been something of an anti-climax since the period of public operation during the holiday weekend of October 1983; never the less the last three months of 1983 was a period of intense activity in preparation for the future establishment of a permanent working tramway in the Warabrook Estate.

Track Lifting

During November 1983 bolts and fishplates were removed from the railway tracks which formed the abattoir branch and about 1.4km of track, much of it still in track-sleeper panels, is now stacked in the area on which the tram depot and perway yard will eventually be erected.

W3 668 Obtained

The last tramcar in the small collection gathered by the Newcastle Historic Vehicle Association (see *TW* p 16 October 1978) during the mid 1970's, Melbourne W3 car 668, was purchased by the Newcastle Tramway Museum during November and this vehicle arrived at Warabrook on 4 December, 1983. Although in poor condition due to its exposure to the weather over the last six years, the NTM is confident that eventual restoration is possible.

Rollingstock at Warabrook

Melbourne cars 244, 245 and 668 and the bodies of Sydney trams 1744, 1804 and 1892 are now stored at Warabrook in the area set aside for the new museum depot. The Melbourne trams stand on tracks while the Sydeny cars are supported on blocks pending restoration.

Other Rollingstock Progress

Sydney R1 1995 arrived at its restoration site in Forestville near Sydney on 12 May and the completed vehicle was due to be transferred onto bogies at the end of January. This vehicle has been completely restored, the roof fibreglassed, a complete ceiling fitted, new advertisement racks and panels under the windows provided, and cabin equipment, including controllers and brake gear replaced. In addition, all seats have been professionally reupholstered.

When the depot building is available at Newcastle, this tram will be transferred to Warabrook where brake rigging and electric wiring will be refitted and new motors fixed on the bogies.

It is intended that Brisbane Phoenix car 550 will possibly return to Sydney for complete restoration at Forestville. This tramcar has been externally restored at a store site in Newcastle, but the detailed interior work can be more rapidly completed by Sydney members, leaving Newcastle members to concentrate on the Warabrook development. The NTM was pleased to receive the original controllers recently for 550. These were legally removed from the tram many years ago and the museum is pleased to record the gesture by their owner.

Good progress is being made in the restoration of LP284 at Wallsend goods shed. Five side body units have now been completely restored and refitted and all panels from the No.1 end drivers cab have been removed for restoration. Work continues in the same location on the repainting of W2 247.

Petrol Electric Crane Transferred

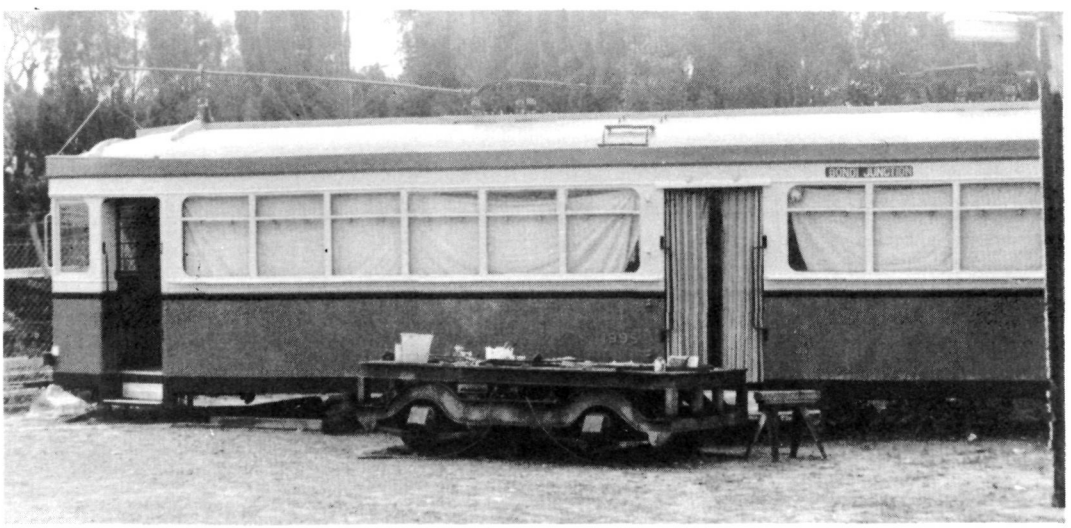
On Sunday, 23 October, 1983 a former "Yellow Express" petrol electric road crane arrived at Wallsend goods shed. This vehicle has stood for many years at the old Loftus depot of the Sydney Tramway Museum and the NTM appreciates this vehicle being made available by the SPER for preservation. The solid rubber tyres of the crane

W3 668 passing through Cessnock on its way to Warabrook on 4 December, 1983.
K. Dunn

became bogged outside the Wallsend shed on delivery and it was only after the vehicle was jacked up and sleepers placed under the wheels that W2 247 was able to tow the crane into a secure position under cover.

Newcastle Store Site

LP 327, R 1884 and the remains of LP 337, which is being dismantled to provide spare parts for the restoration pf LP cars 284 and 327, will soon have to be removed from the store site. Although final decisions have not yet been reached, R 1884, which has stood in exposed positions over the last seven years, may have to be used as a source of parts for the other three R cars.



Sydney R1 1995 as it appeared on 10 January, 1984. Unfortunately the position occupied by the car prevented a full view being taken.
Ken McCarthy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