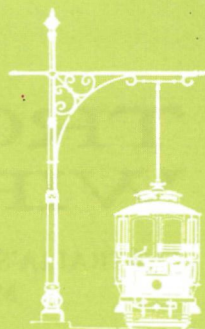
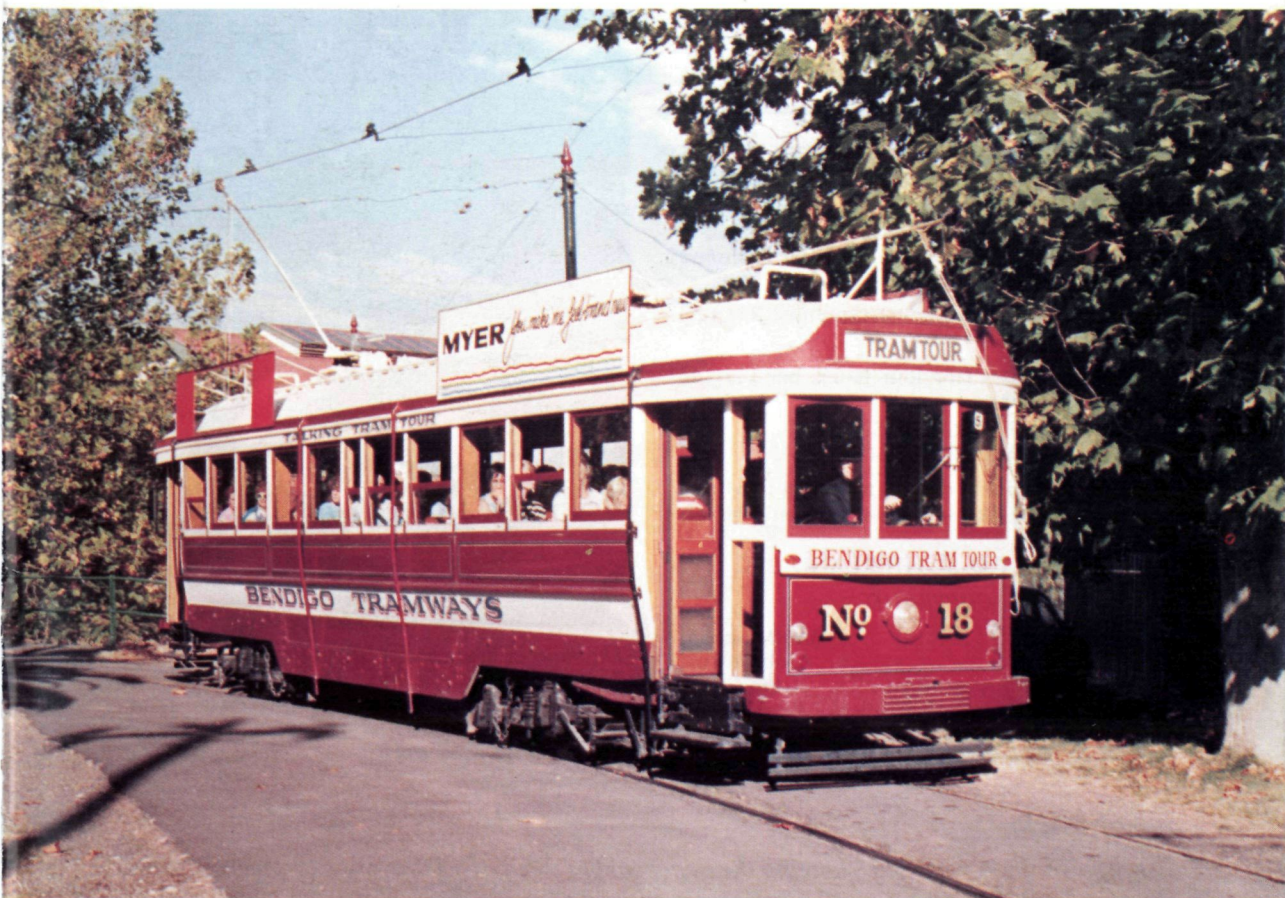


# TROLLEY WIRE



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**S.A.R. COUNTRY HORSE TRAMWAYS — PAGE 3**

# TROLLEY WIRE

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MAGAZINE

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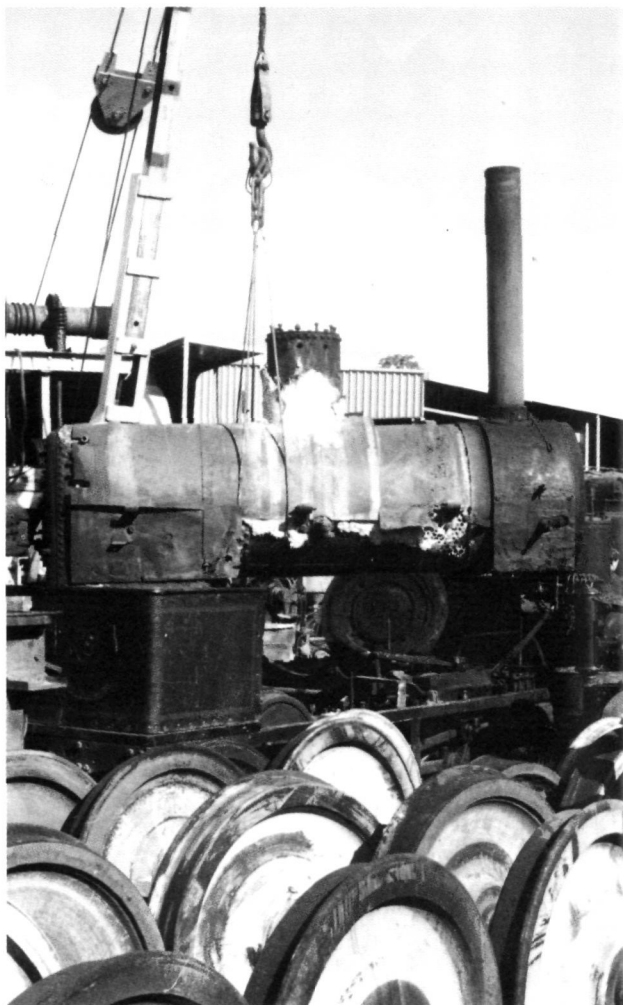
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*The boiler of steam motor 103A being lifted from the  
frame during the restoration work being carried out  
for the NSW Steam Tram & Railway Preservation  
Society by the NSW Rail Transport Museum at  
Thirlmere, 11 May 1987.* FRANK MILLIER

## FRONT COVER:

*Bendigo's saloon car No. 18 leaving the depot earlier this year. The car was converted from  
the standard dropcentre configuration for special tour group working.* MAL McAULAY

## BACK PAGE:

*Top: San Francisco PCC 1014 operating on the L line in its home city on 27 March 1974.* TOM ACHESON

*Bottom: Melbourne works car 6W being unloaded from a low-loader at Whiteman Park  
in October 1986.* LINDSAY RICHARDSON

# COUNTRY HORSE TRAMWAYS IN SOUTH AUSTRALIA

by K. A. McCarthy

Two articles have appeared in this magazine in recent years concerning the horse tramway operations of the South Australian Railways. The Kadina-Wallaroo-Moonta tramways were treated in the October 1980 issue. Further details of the Moonta undertaking, as well as the data on the Gawler, Port Broughton, Largs Bay and Victor Harbor tramways were featured in the December 1982 issue.

The fact was emphasised in those issues of *Trolley Wire* that, although research up to that time had revealed many new aspects of the

horse tramway operation in the country districts of South Australia, the overall historical picture was far from complete.

Since then many of the South Australian Railways Annual Reports (but not all) in the 1890-1908 period have been discovered in the Mitchell Collection in Sydney while Doug Colquhoun, Chris Steele, Richard Horne, Ross Willson (and the research of David Parsons) have passed on much interesting material on the subject. Now more pieces of the mosaic can be presented here.

## The Tramways Worked by Horses in South Australia

The horse haulage in South Australia occurred on the following tramways:

### GOOLWA — 5ft 3in gauge

- |                                  |          |   |
|----------------------------------|----------|---|
| a. Goolwa to Port Elliott        | 6½ miles | Portion used for traffic December 1853. Official opening of entire line 18 May 1854.  |
| b. Port Elliott to Victor Harbor | 4½ miles | Opened for goods 1 April 1864. Official opening 4 August 1864.  |
| c. Middleton to Strathalbyn      | 21 miles | Portion Middleton towards Finnis opened circa December 1868. Through line opened February 1869. Official opening 23 April 1869. |
| d. Strathalbyn extension         | ¼ mile   | Along street in the town, 11 September 1874.  |
| e. Victor Harbor to Granite Is.  | 1½ miles | Carried out under Act 28 of 1867. Believed open circa 1875.   |
| f. Strathalbyn to Goolwa         |          | Steam replaced horse haulage 17th December 1884.  |
| g. Goolwa to Victor Harbor       |          | Steam replaced horse haulage 1 April 1885.  |
| h. Victor Harbor to Granite Is.  | 1¾ miles | Horse trams introduced in summer season to carry tourists along the steam worked line in 1894.                                  |
| i. Victor Harbor to Granite Is.  |          | Horse trams withdrawn at end of summer operation in May 1955.   |
| j. Granite Island                |          | Single horse car operated by kiosk proprietor on Granite Island tracks, then isolated from mainland, withdrawn May 1956.        |

### GAWLER — 5ft 3in gauge

- |                                  |          |  |
|----------------------------------|----------|--|
| a. Gawler Station to Gawler Town | 1½ miles | Street tramway opened 17 February 1879.  |
| b. Gawler Station to Gawler Town |          | Two closure dates given in SAR Annual Reports — 16 May 1931 and 20 July 1931. Tramway available for railway rolling stock to James Martin factory until late 1932. |

### LARGS BAY — 5ft 3in gauge

- |                                     |          |   |
|-------------------------------------|----------|---|
| a. Glanville Station to Largs Jetty | 1½ miles | Opened as steam railway by Largs Bay Railway & Investment Coy in 1882. SAR horse cars used during periods of light traffic from July 1885 to 16 February 1891 when SAR took over the railway. |
|-------------------------------------|----------|---|

*PORT BROUGHTON — 3ft 6in gauge*

- a. Port Broughton to Mundoorra 10 miles Opened 11 March 1876 to link the wheat lands with Port Broughton Jetty. Passenger service replaced by SAR bus route in 1924. Closed to freight traffic 3 August 1942. Traffic hauled by Fordson rail tractor in later years. Portion on Jetty still exists.

*PORT WAKEFIELD — 3ft 6in gauge*

- a. Port Wakefield to Hoyleton 28 miles Opened 11 January 1870.  
 b. Hoyleton to Blythe Plains 13½ miles Opened 1 March 1876. Originally planned for horse working but steam locomotives used.  
 c. Port Wakefield to Hoyleton Steam used on Hoyleton to Balaclava section by 14 March 1876 and steam along entire section by August 1876.

*MOONTA-KADINA-WALLAROO — 5ft 3in gauge*

- a. Wallaroo Mines to Port Wallaroo 5 miles Opened April 1862 by the Kadina & Wallaroo Railway & Pier Coy.  
 b. Wallaroo Mines to Kadina 1 mile Two dates given for the opening of this extension: 12 June and 11 August 1863.  
 c. Port Wallaroo to Moonta Mines (Yelta) 10 miles Opened 11 July 1866 by the Pier Company.  
 d. Moonta Mines to Moonta Town 1 mile Opened 7 February 1868.  
 e. Moonta Town to Moonta Bay Landing Place 2 miles Opened during 1870. Official sources give the opening dates as May and August 1877, but a local story suggests that the extension was opened earlier without the benefit of the necessary Act.  
 f. Moonta Bay Landing Place to Jetty and Beach ½ mile Opened 1871, see alternative dates above.  
 g. Moonta Jetty extension ¼ mile Opened 26 December 1879.  
 h. Moonta Mines (Yelta) to East Moonta 1 mile Opened 1 March 1878. On this date the South Australian Railways took over the 21 mile system of the Pier Company at a cost of £118,225.  
 i. Hamley Bridge-Port Wakefield-Kadina The 3ft 6in gauge steam railway reached Kadina on 9 October 1878.  
 j. Kadina to Port Wallaroo A 3ft 6in gauge steam railway laid parallel with the 5ft 3in gauge tramway.  
 k. Port Wallaroo to Moonta Converted to 3ft 6in gauge and worked by steam locomotives. Horse traffic ceased. New entry into Port Wallaroo along sea front, 2 November 1891.  
 l. Kadina-Wallaroo Mines-Port Wallaroo The 5ft 3in gauge horse tramway parallel with the 3ft 6in steam railway closed 5 January, 1892. Dual gauge working retained on Wallaroo jetty as 5ft 3in gauge retained at Wallaroo Smelters.  
 m. George Street Moonta to East Moonta 4 miles Remaining 5ft 3in gauge tramway from Moonta Town to Moonta Bay extended through Moonta Town along George Street and on to East Moonta as a street tramway, opened 24 December 1895.  
 n. Moonta Town to Hamley Flat 1¼ miles Branch from Moonta street tramway opened 15 February 1897. This brought the length of the horse tramway to 5 miles 12 chains with an additional 1 mile 29 chains of sidings.  
 o. Port Wallaroo Jetty to Wallaroo Smelters Closed in 1904 as a 5ft 3in gauge tramway and converted to steam locomotive working on 3ft 6in gauge to coincide with reconstruction of jetty.  
 p. East Moonta and Hamley Flat to Moonta Bay Closed 30 April 1931.  
 q. Hamley Bridge to Moonta 5ft 3in gauge passenger train arrived at Moonta from Adelaide on 1 August 1927, completing the conversion of the western 3ft 6in gauge railway to broad gauge with direct access to Adelaide.



**KINGSTON (SE)-NARACOOORTE — 3ft 6in gauge**

a. Kingston to Naracoorte

52 miles

Opened for the conveyance of freight in July 1876 and for general passenger traffic from 16 January 1877. Although steam haulage was introduced from December 1876 to replace horse haulage, horse drawn vehicles were still used at Kingston as late as 1890.



*Single ended double deck Stephenson built car 21 with a full upper deck load outside the Terminus Hotel at Strathalbyn, circa 1882. SA ARCHIVES. R. HORNE COLLECTION*

**Other Tramways**

Many jetty tramways existed in South Australia linking the long piers with warehouses in the adjacent towns. A major steam worked tramway existed at Port Germain while horse hauled lines are known to have operated at Tumby Bay, Streaky Bay, Port Victoria, Androssan, Edithburgh, Cowell, Old Wool Bay, Port Julia and Port Neill. Brief details of these undertakings together with information on the truncated operations still existing were presented in *Light Railways* for April 1979. The South Australian Railways Marine Board has been responsible for these small port tramways.

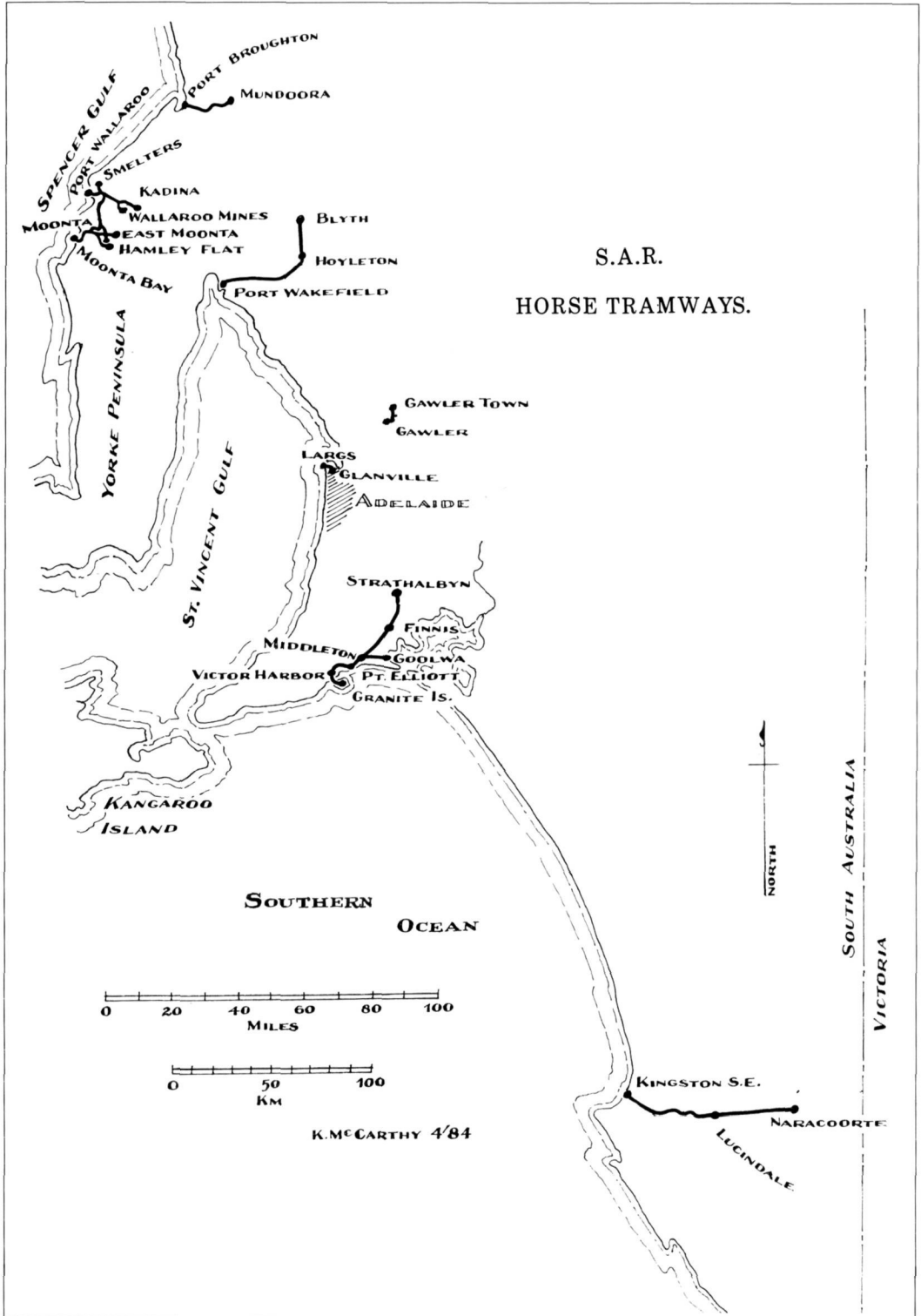
**Kadina-Wallaroo-Moonta**

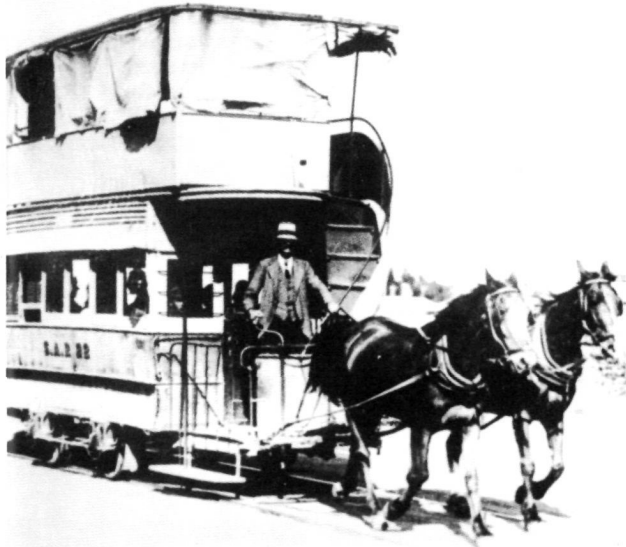
The 15 December 1982 edition of the *Yorke Peninsula Country Times* revealed some interesting data on the former horse tramways

which connected Kadina and Wallaroo Mines with Port Wallaroo and Moonta. This revival of interest in the topic was brought about by the discovery of the road bed of the parallel 5ft 3in gauge horse tramway between Kadina and Wallaroo while work was being completed on the construction in 1982 of a third rail in the district to give both 5ft 3in and 4ft 8½in gauge access to Wallaroo.

Since the inauguration of the private Kadina to Wallaroo tramway, built to the 5ft 3in gauge in 1862, the railways in the district have been changed from 5ft 3in to 3ft 6in then back to 5ft 3in and now this is shared by the 4ft 8½in standard gauge tracks!

The discovery of the old horse tramway road bed caused Kadina Railway Road Master Bert Hass to investigate the matter further. Mr Harold Hanson, the Adelaide District Engineer was able to assist Bert Hass





*Double ended horse car 22 operating on the Gawler tramway during the 1920s.*

LATE C. B. THOMAS COLLECTION

with further information and the result of the research appeared in the Kadina press.

The conversion of the Kadina to Port Wallaroo and Moonta 5ft 3in gauge horse hauled tramways to 3ft 6in gauge steam operation around the turn of the century was a protracted project the details of which have recently been uncovered in the SAR Annual Reports for the 1889 to 1908 period.

The broad gauge horse tramways, which amounted to just over 20 miles in length, were taken over by the South Australian Railways from the Kadina and Wallaroo Railway and Pier Company on 1 March 1878. A parallel 3ft 6in gauge steam railway opened along the 5 miles and 66 chains of route between Kadina and Port Wallaroo on 15 January 1880 giving Wallaroo direct railway connection with Hamley Bridge, the interchange point of the "Western System" of the SAR with the 5ft 3in gauge railway to Adelaide.

By 1889 the way and works of the Kadina-Wallaroo-Moonta horse tramway amounted to £85,860 4s 5d while the rolling stock was valued at a further £8,560. During the 1889-1890 financial year the traffic worked by horse reached 62,933 tons in the district which was quite remarkable when one keeps in mind the

fact that a considerable amount of freight traffic would have also been carried by the 3ft 6in gauge steam railway through Kadina.

In 1890 surveys were conducted to enable the Port Wallaroo to Moonta tramway to be converted to steam locomotive operation on the narrow 3ft 6in gauge. Included in the scheme was the construction of an "end on" extension from Port Wallaroo yard which would enable the Moonta steam railway to proceed along the bayside, instead of following the route of the horse tramway which left Wallaroo yard by reversing in the direction of Kadina before turning southwards.

This conversion project was authorised in Acts 490 and 491 of 1890 at a cost of £43,665 and approval was also given for the closure of the Kadina to Port Wallaroo tramway which had been retained since the arrival of the steam railway in 1880.

South Australian Railway departmental preparation for the project commenced on 6 May 1891 and ground was broken by a gang of 170 men on 25 May. The earthworks of the new route south of Wallaroo Pier extended for 2 miles and 20 chains and the existing 5ft 3in gauge tramway roadbed beyond to Moonta was rebuilt and strengthened to provide for 11 miles and 24 chains of 3ft 6in gauge steam road to Moonta.

This Wallaroo to Moonta conversion was completed on 21 December 1891 but locomotives had reached Moonta on the narrow gauge tracks on 2 November. Due to a protracted strike of four months in the local copper mines and the depressed state of the copper markets, railway receipts for that period had been much less than anticipated. The Wallaroo to Moonta portion of the conversion cost £38,416 13s 6d.

The horses which had been used on the Kadina-Wallaroo-Moonta tramway were transferred to Adelaide and Port Adelaide for shunting after the closure of the Kadina and Wallaroo Mines to Port Wallaroo horse working on 5 January 1892. This in turn enabled horses hired under contract in the Adelaide district to be released from work. The Moonta Bay to Moonta railway which covered 3 miles 13 chains of route, was retained as an isolated horse worked tramway on the 5ft 3in gauge.

The converted railway was handed to the Railway Maintenance Branch on 21 March 1892 but signals, gradient- and mile-posts still had to be erected between Wallaroo and Moonta. During the project work the tramway

had been resleepered and relaid with 50lb steel rails although 40lb to the yard rail was used on the new 3ft 6in gauge sidings at Wallaroo (30 chains), Yelta Junction (20½ chains), Moonta (40 chains) and Wallaroo Mines Junction (20½ chains).

The old 5ft 3in gauge track was retained for traffic from the Wallaroo Smelters to Wallaroo Jetty. This required 43 chains of mixed gauge track and 12 chains of 5ft 3in gauge sidings. Some of the old broad gauge tramway trucks were retained for this service.

The general railway conversion in the district isolated the 5ft 3in gauge mine sidings at Kadina and Moonta which were shunted by private broad gauge locomotives. By June 1892 all materials for the conversion of the sidings at Wallaroo, Kurilla, Moonta and Hamley Mines had been stacked at strategic locations awaiting the completion of negotiations between the Railway Commissioner and the mining companies.

A new passenger station was erected at Moonta by T. Heath for £690 5s 0d while W. Pett and Sons constructed a new goods shed at Moonta for £231 in 1892. The two-road

Kadina locomotive shed was re-erected at Moonta.

During 1892 the old Kadina goods shed used as a tram depot and the halfway stables between Wallaroo and Moonta were removed. Temporary stables were built at Moonta for the short Moonta Bay tramway for £33 3s 3d. 6,263 horse miles were worked between Moonta and Moonta Bay in 1893 and 6,189 miles in 1894.

Signalling of the Wallaroo and Moonta railway was completed in 1892 but the work of converting the 5ft 3in mine sidings to 3ft 6in gauge continued as late as 1895.

By 30 June 1895 the costs of the 20 miles and 41 chains of main line railway in the Kadina-Wallaroo-Moonta district had reached:—

Kadina-Wallaroo-Moonta. 3ft 6in gauge steam £89,033 12s 0d (5ft 3in horse lines value plus conversion costs).

Kadina-Wallaroo 3ft 6in gauge new work £26,635 8s 10d.

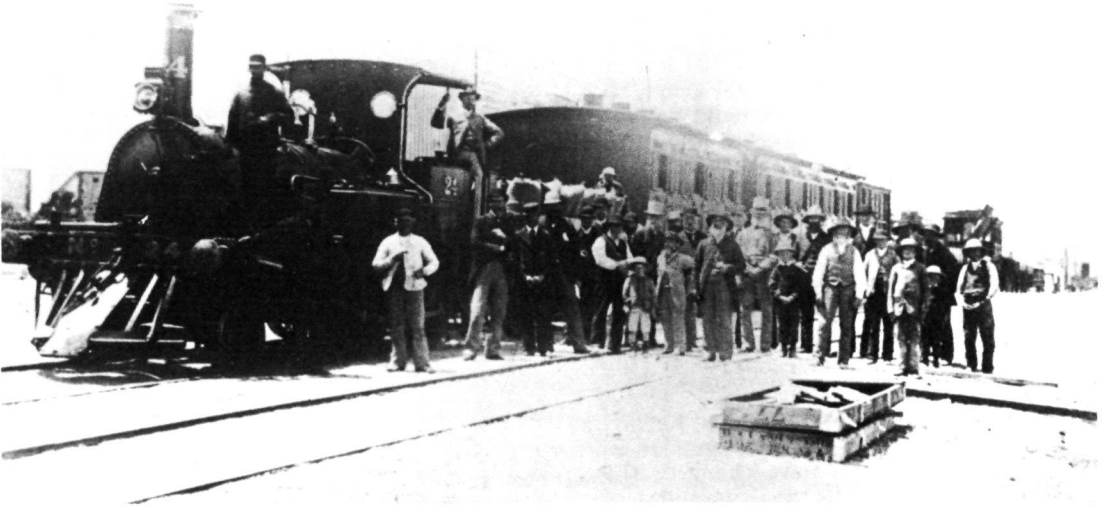
Wallaroo-Moonta 3ft 6in gauge new work £43,089 8s 4d.



*Victor Harbor station circa 1880. A saloon tramcar is about to leave for Goolwa. The stone goods shed, which still stands at Victor Harbor and houses the present tramcar fleet, appears beyond the horse tram. Note how the space between the rail is built up to provide a footing for the horses.*

LATE C. B. THOMAS COLLECTION





*SAR G class loco No. 24 at Goolwa Station, circa 1885. The double decker horse car at the rear of the train is a Brown Marshall unit (either 23 or 24) being transferred to Adelaide. The detail photo below shows the tram is on a goods wagon and the upper deck handrails and decency boards have been unbolted to bring the tram within the limits of the railway loading gauge.*

LATE C. B. THOMAS COLLECTION



Moonta Town-Moonta Bay 5ft 3in horse line £8,416 12s 5d.

The rerouting of the 5ft 3in gauge Moonta to Moonta Bay tramway along George Street Moonta as a street tramway and the extension towards East Moonta opened on 24 December

1895. This new route totalled 4 miles 2 chains. The 1 mile 10 chains extension branch tramway east of Moonta Town to Hamley Flat opened to traffic on 15 February 1897 at a cost of £1,185 6s 4d. The Moonta Town horse tramways were valued at £11,405 13s 4d at this stage.

For the year ended June 1895 the horse tram miles on the 3 miles 31 chains tramway from Moonta Bay reached 6,144 miles; this figure had grown to 27,754 horse car miles for the year ended June 1897 along the extended route of 5 miles 12 chains with 1 mile and 29 chains of sidings.

The new Moonta tramcar sheds at the eastern end of the town were constructed during 1897 at a cost of £251 8s 8d while the adjacent horse paddock was prepared and fenced for £21 9s 4d. During 1897 the Moonta Tramways purchased a horse buggy for £17 to enable deliveries to be made of "express" parcels.

In 1900 a survey costing £28 12s 6d was conducted to enable estimates to be prepared for the conversion of the Moonta and Gawler horse tramways to electric operation.

Fencing along the Port Wallaroo to Moonta steam railway was completed during 1899-1900 while the light 40lb rails in the sidings were

replaced with 50lb plant during the same period. The large waiting shed at the Moonta Bay tram terminus was erected in 1901 for £29 17s 11d.

Parliamentary Act 753 of 1900 approved the lengthening of Wallaroo Jetty by 500 feet as well as the conversion of the dual gauge 5ft 3in/3ft 6in tracks to the single narrow gauge at a cost of £11,122. This work was completed in 1905. The district was served by 3ft 6in gauge tracks until 1927 when railways in that area were unified to the broad 5ft 3in gauge. As mentioned earlier, dual gauge working returned again to Wallaroo towards the end of 1982 when the 4ft 8½in gauge metals spread into the region!

### Horse Tramway Statistics — South Australian Railways

From time to time the SAR Annual Reports have altered their methods of presentation as accounting requirements have changed. The following tables, however, give some idea of the horse worked traffic during the periods 1899 to 1907.



*A Moonta horse car entering George Street at Blanche Terrace. The tram is moving westwards and has originated from either the East Moonta or Hamley Flat Terminus, circa 1930.*

LATE C. B. THOMAS COLLECTION

### Horse Power Miles and Costs

Year Ended 30 June	Total Horse Miles	Port Broughton Miles	Route Miles	Moonta District Miles	Route Miles	Gawler Miles	Route Miles	Total Horse Working Costs
1889	77,825	8,127	10m 00ch	61,809	20m 00ch	7,889	1m16ch+	£3,352 19s 8d
1890	80,276	9,475	do	62,933	do	7,868	do	£3,829 8s 4d
1891	78,447	7,789	do	62,935	do	7,723	do	£3,440 10s 6d
1892	40,333	5,576	do	25,980	3m 31ch	8,777	do	£3,016 2s 0d
1893	21,296	6,290	do	6,263	do	8,743	do	£1,041 7s 4d
1894	23,135	8,576	do	6,289	do	8,370	do	£ 760 19s 3d
1895	22,495	7,864	do	6,144	do	8,487	do	£1,036 3s 9d
1896	na	na	do	na	do	na	do	£1,362 9s 2d
1897	45,753	9,235	do	27,754	5m 12ch*	8,764	do <sup>c</sup>	£1,568 13s 8d
1898	48,925	9,658	do	30,522	do	8,745	do	£1,689 13s 2d
1899	50,185	11,105	do	30,365	do	8,715	do	£1,554 11s 1d
1900	49,753	10,540	do	30,575	do#	8,638	do	£1,598 14s 6d
1091	48,966	10,326	do	30,455	do	8,155	do	£1,642 7s 5d
1902	47,997	11,053	do	29,325	do	7,619	do	na
1903	na	na	—	na	—	na	—	na
1904	na	na	—	na	—	na	—	na
1905	44,145	10,696	do	25,006	do	8,443	do	na
1906	46,213	10,912	do	26,954	do	8,347	do	na
1907	46,474	10,405	do	27,677	do	8,392	do	na

Notes: na Not Available

\* Plus 1m 29ch of sidings

# Plus 1m 33ch of sidings

+ Plus 4 chains of sidings

<sup>c</sup> Plus 7 chains of sidings

**Horses in Use on the South Australian Railways**

1881	107	1886	78	1891	79	1896	57	1901	64	1906	62
1882	113	1887	77	1892	62	1897	62	1902	60	1907	61
1883	110	1888	75	1893	61	1898	62	1903	60		
1884	115	1889	76	1894	61	1899	63	1904	61		
1885	72	1890	80	1895	57	1900	62	1905	60		

**Comparative Costs of Steam Loco and Horse Haulage**

Year	Horse Haulage per Mile	Loco Haulage per Mile	Year	Horse Haulage per Mile	Loco Haulage per Mile
1893	11.7d	16.77d	1898	8.29d	15.22d
1894	7.89d	15.67d	1899	7.44d	14.66d
1897	8.23d	16.05d			

**Passengers Carried on the Main SAR Horse Tramways**

Year	Gawler	Moonta	Port Broughton	Total
1902	6272	29231	6123	41626
1905	7069	25006	6165	38240
1906	7060	26928	6326	40314
1907	7037	27637	6260	40936



*A post card entitled "A Lively Day at Victor Harbor". . . . Former Adelaide & Suburban Tramway Coy. single ended horse car No. 25 is shown near the outer terminus at Granite Island, circa 1914.*

V. PADMAN PHOTO

## Freight Carried on the Main SAR Horse Tramways (shown in tons)

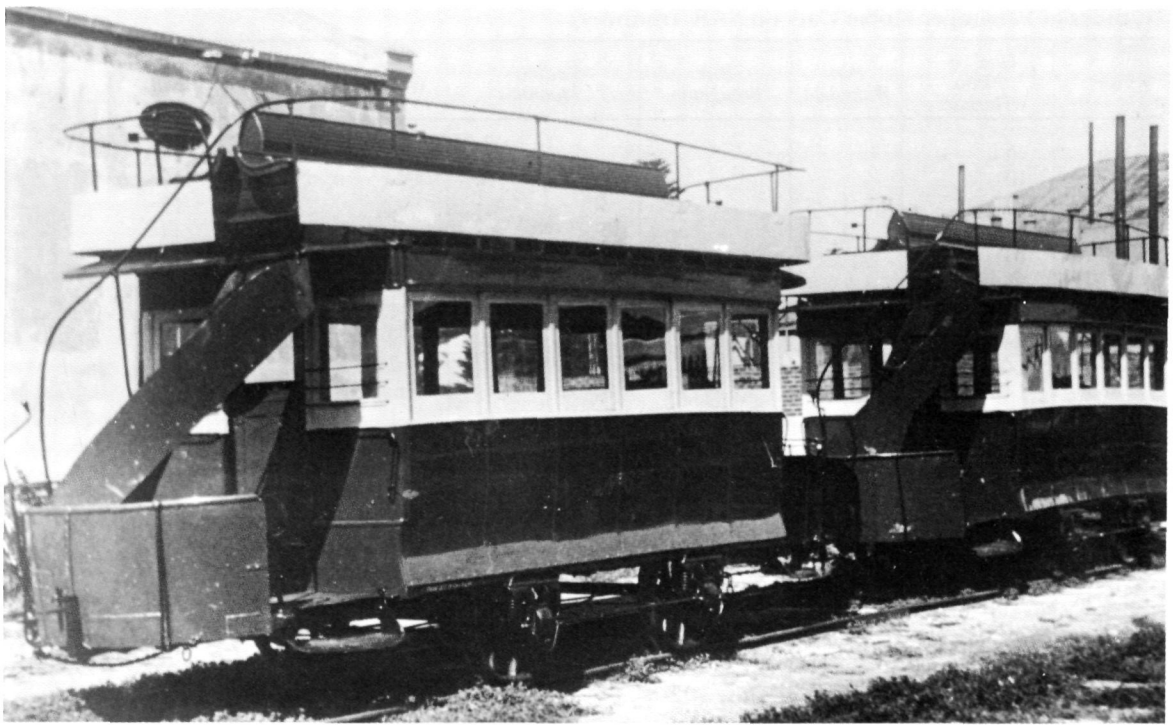
Year	Moonta		Moonta Bay		Mundoora (Pt. Broughton)		Gawler
	IN	OUT	IN	OUT	IN	OUT	
1890	7101	23037	267	1226	659	7962	
1891	8354	23671	927	1046	525	6394	
1892	—	—	—	—	—	—	
1893	—	—	—	—	—	3077	
1894	—	—	—	—	—	5433	
1895	—	—	257	13	494	4337	
1896	Moonta/Moonta Bay				—	—	
1897	183	8			2153	2661	
1898	168	102			256	1621	
1899	131	34			—	—	
1900	19	12			682	3672	
1901	9	1			559	3922	
1902	169	83			601	4834	1347
1903	—	—			—	—	—
1904	—	—			—	—	—
1905	—	Nil			—	4531	1374
1906	—	26			—	4586	1287
1907	529	30			513	4623	2355



Duncan &amp; Fraser car No. 5 at Victor Harbor during the late 1930s.

LATE C. B. THOMAS COLLECTION

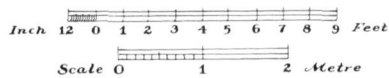
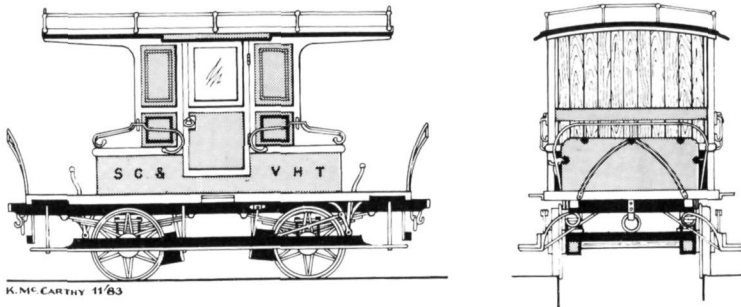




Horse cars 5 and 6 in the siding opposite Victor Harbor station on their return from Islington Railway Workshops in 1948. During this maintenance visit the wooden side panels on the cars were replaced with 'Masonite' hardboard.

LATE C. B. THOMAS COLLECTION

GOOLWA HORSE CAR c. 1860's



Number of Passenger Horse Cars on SAR Tramways

Year*	Goolwa-Victor Harbor	Port Wakefield	Port Broughton	Kadina-Moonta			Gawler	Largs Bay	Total
1867	6							6	
1871	10							10	
1872-1873	10	3						13	
1874	10	4						14	
1876	10		1					11	
1879	13		1	8			2	24	
1880	13		2	8			1	24	
1881	12		2	8			2	24	
1882	12		2	10			2	26	
1883	12		2	8			na	na	
1885	13		2	7			1	23	
1886	2		2	7			2	13+1	
			Old type	Eng	US	Old			
1887-1891			2	1	5	3	2	13+1	
1892-1893			2		3		2	7	
			Old	US					
1894-1895			2	1		4	2	9	
	Eng type								
1896	1		2	1	1	4	2	11	
1897-1900	1		2	1	1	7	2	14	
1901	1		2	1	1	6	2	13	
1902-1903	1		2	1	1	8	2	15	
1904-1906	1		2	1	1	7	2	14	
1907-1910	1		1	1	1	7	2	13	
1911-1925	2		1	1	2	7	2	15	
1926	2				2	7	2	13	
1927-1930	2				2	7	2	13	
	Eng	US							
1931-1934	1	2						3	
1935-1955		2						2	
1956		1						1	
1957		0						0	

Notes: \* Reports from 1867 to 1876 are for the year January to December. Reports from 1879 are for the year July to June.  
 # The Largs Bay Railway & Investment Coy. hired cars from the SAR.  
 Na Details not available.  
 Eng (English) and US (United States) type is used to describe the body style of the cars. This does not mean that the cars were constructed in those countries.

Horse Drawn Goods Vehicles

From the Islington Records it appears that 94 goods vehicles were attached to the Strathalbyn-Goolwa-Victor Harbor tramway, 224 on the Kadina-Wallaroo-Moonta tramway and 52 on the Port Broughton to Mundoorra line.

The vehicles on the Goolwa and Moonta tramways were constructed for the broad 5ft

3in gauge tracks and were described in the following styles:—

- Flat wagons of approximately 1.6 tons tare, 4 wheels, some fitted with lever brakes, others with screw brakes.
- “Box” wagons, 16in high sides, 9ft long, 4 wheels, some fitted with lever brakes, others with screw brakes.
- Same design as “b” but with 12in sides.

- d. Same design as "b" but with 12in sides and 12ft length.
- e. Coal tip wagons, 18in high sides, 9ft long, 4 wheels, possibly only fitted with lever brakes.
- f. Travelling tank wagons. 9ft long, 4 wheel trucks fitted with water tank. Possibly fitted with lever brakes.
- g. Connecting wagons. A coupling dummy truck used to enable horse drawn rolling stock to be coupled with steam stock. Possibly of same specifications to wagons under type "a" above.
- h. Normal flat wagon fitted with a crane. Luggage wagons.

Those wagons on the 3ft 6in gauge Port Broughton Tramway were all the flat truck style with a carrying capacity of 6 tons. Their

tare weight averaged 1.8 tons, but wagons 1 to 5 averaged 2.1 tons. All were carried on 4 wheels attached to a wooden frame. Some were received from the Kingston to Naracoorte tramway in 1890 and it is possible that others were transferred to Port Broughton from the Port Wakefield tramway in 1880 at the time when one passenger car was exchanged northwards. These 3ft 6in gauge wagons were either fitted with a lever or screw brake.

These broad gauge wagons were known as the "O" type in the Annual Reports but the entries in the Wagon Registers seem to indicate that the "O" (zero) was added in front of the vehicle numbers at Goolwa circa 1885 so that the horse drawn vehicle numbers would not be confused with steam hauled rolling stock.



*The caption accompanying this photo suggests that it shows the horse tram on the Strathalbyn town extension which linked the station with the Terminus Hotel during the period 1874 to 1884. The tram appears to be a Stephenson single ended double deck vehicle. Three of these cars entered service on the SAR in 1879-80 and carried numbers 20, 21 and 22. They were withdrawn from traffic in 1901, 1892 and 1904 respectively.*

LATE C. B. THOMAS COLLECTION

**Individual Wagon Details for the 1885 to 1907 Period**

*Wagons at Goolwa* — Numbered 1 to 94.

Flat Trucks: 1 to 29, 31 to 64, 66 to 71, 73 to 81, 83 to 91, 93 and 94 = 89 wagons.

Travelling Tank Trucks: 30 and 82 = 2 wagons.

Connecting Trucks: 65 and 72 = 2 wagons.

Crane Truck: 92 = 1 wagon.

Goolwa wagons transferred to Wallaroo circa 1885: Nos. 1, 3, 4, 7 to 12, 18, 19, 21 to 23, 25, 27, 31 to 35, 37 to 39, 49 to 52, 54, 55, 58, 61, 62, 67, 69, 71, 75, 77, 81 to 84, 86, 87, 89, 93 and 94 = 47 wagons.

The definite date of January 1889 appears against the transfer of the following wagons from Goolwa to Wallaroo: Nos. 1, 7, 9, 19, 23, 31, 33, 35, 37, 69, 71, 77, 81, 84 and 87 = 16 wagons.

The register indicates that the numbers of these wagons were altered at Wallaroo.

A separate entry in the Wallaroo register indicates that wagons carrying numbers 209 to 224 had been transferred from Goolwa in January 1889. It would therefore be reasonable to assume that the above listed 16 Goolwa wagons were the ones which were renumbered into the high Wallaroo series.

The following wagons are shown as being sold to Cave & Coy. for 5/- each on 24 April 1893:

Sold from Goolwa tramway: 13, 15, 17, 24, 26, 36, 41, 46, 57, 60, 63, 64, 70, 74, 88, 90 and 91 = 17 wagons.

Former Goolwa wagons sold from Wallaroo: (Goolwa numbers) 3, 4, 8, 10 to 12, 21, 22, 25, 27, 34, 38, 39, 49 to 52, 54, 55, 58, 61, 62, 67, 75, 83, 86 and 89 = 27 wagons.

Location of Goolwa wagons circa 1894:

At Victor Harbor: 2, 5, 6, 14, 16, 20, 28, 29, 43, 44, 45, 47, 48, 53, 56, 59, 66, 68, 73, 76, 79, 80 and 92 = 23 wagons.

At Goolwa for wharf work, April 1893: 40 = 1 wagon.

At Strathalbyn for shed work, April 1893: 42 = 1 wagon.

Sent from Victor Harbor to Islington for locomotive purposes, April 1893: 85 = 1 wagon.

At Goolwa as connecting car, April 1893: 72 = 1 wagon.

Connecting car sold to Naval Department, March 1894, ex Victor Harbor: 65 = 1 wagon.

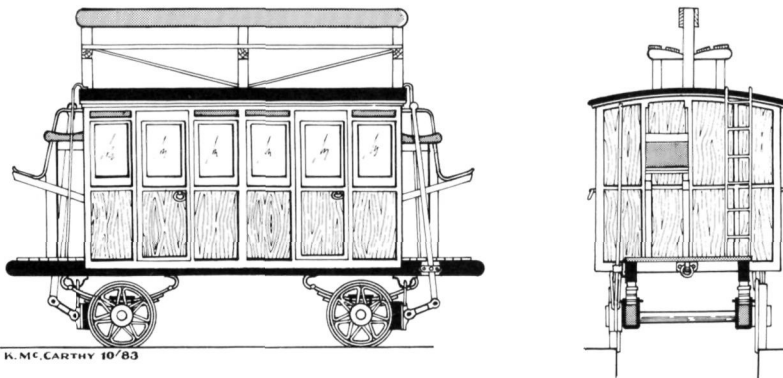
Broken up as useless circa 1894: 93 and 94 = 2 wagons.

No record of wagon on Goolwa Tramway, yet possibly not sent to Wallaroo: 18 = 1 wagon.

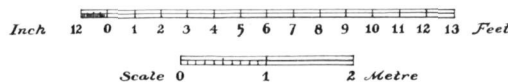
Reference to sale of travelling tank car to Cave & Coy for 5/- ex Goolwa in 1892, then further entry showing sale as £7 5s 2d on 24 April 1893: 30 = 1 wagon.

Only reference to building date of June 1878: 1 to 8, 11 and 18 = 10 wagons.

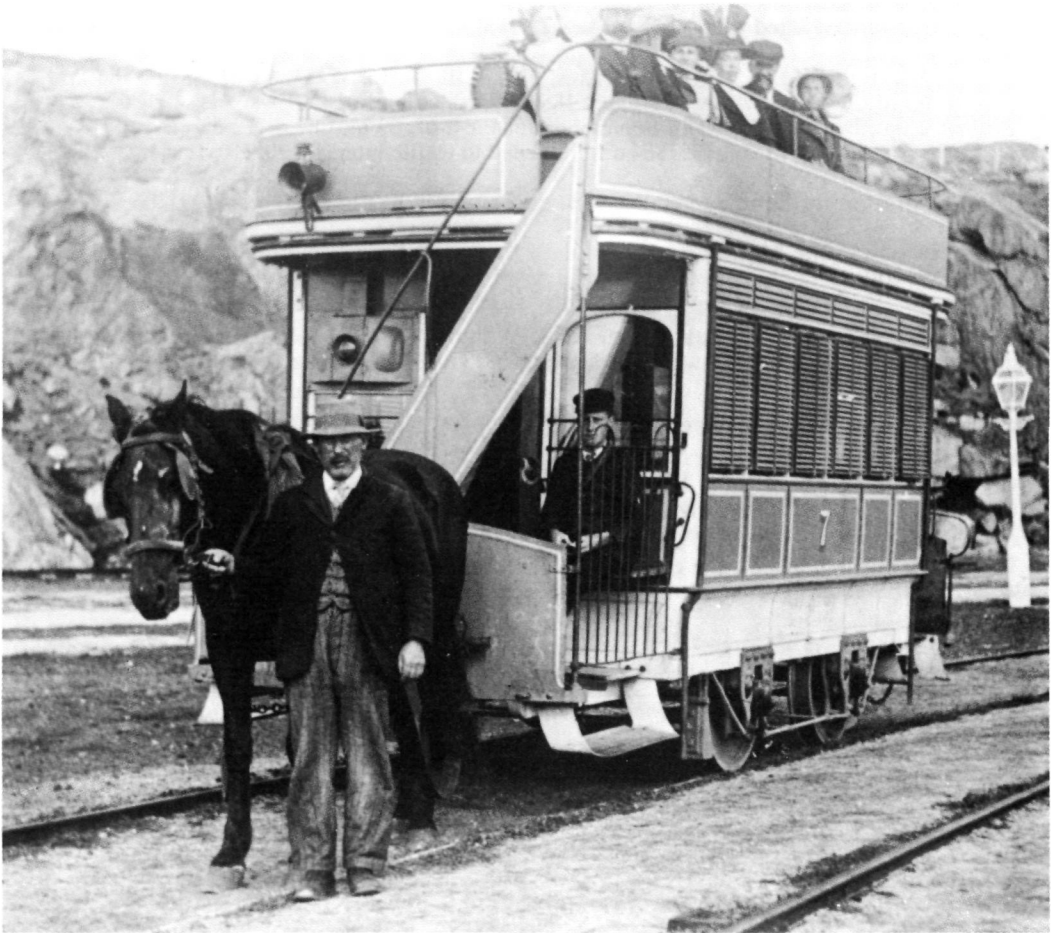
WALLAROO PIER COY.  
HORSE CAR c.1870's



K. MC. CARTHY 10/83







*Brown Marshall horse car 24 (later 2nd 5 then 2nd 7) on Granite Island when it carried the No. 7, circa 1900.*

THE REV. C. B. THOMAS COLLECTION

The Reports of 1895 and 1897 indicate that 26 "O" type cars were still attached to the Goolwa-Victor Harbor railway. These would be the 23 wagons listed above as well as numbers 40, 42 and 72. During 1898 wagons numbered 05 and 092 were condemned reducing the Goolwa-Victor Harbor wagons to a total of 24. This total again appeared in 1899 to 1907. In the Reports from 1898 to 1906 an additional connecting wagon was noted in the Annual Reports as being at Goolwa-Victor Harbor. This would be No. 72 but the Victor Harbor flat car at Islington, No. 85, would have to be included in the totals between those dates to balance the goods stock at 25 units.

*Wagons at Kadina-Wallaroo-Moonta* — Numbered 1 to 224.

Box wagons with 16in sides 9ft long, average tare 1.6 tons: 1 to 124, 126, 158 to 160 = 128 wagons.

Box wagons with 12in sides 12ft long: 127 = 1 wagon.

Box wagons with 12in sides 9ft long: 125, 128 to 157 and 161 = 32 wagons.

Coal Tip wagons with 18in sides: 161 to 185 = 24 wagons.

Luggage wagons: 186 and 187 = 2 wagons.

Travelling Tank Trucks: 188 and 189 = 2 wagons.

Open Wagons with 16in sides: Built at Loco Works in September 1884: 190 to 196 = 7 wagons.

Coal Tip Wagons with 18in sides: Built at Loco Works in September 1884: 197 to 208 = 12 wagons.

Flat Wagons transferred from Goolwa in January 1889: 209 to 224 = 16 wagons.

Wagons mentioned fitted with screw brakes: 1, 7, 13, 36, 37, 38, 45, 48, 52, 54, 55, 63, 71, 74, 91, 94, 103, 114, 117 and 192.

Wagons mentioned fitted with lever brakes: 2, 4, 8, 10, 14, 16, 35, 53, 66, 81, 89, 95, 186 and 187.

Broken up at the Loco Works in August 1884: 39, 50, 60 and 61 = 4 wagons.

Broken up at the Loco Works in September 1884: 64, 67, 69 and 87 = 4 wagons.

Withdrawn from traffic in August 1884 and returned to traffic later: 13, 30, 110, 126, 158 and 159 = 6 wagons.

Withdrawn from traffic in September 1884 and returned to traffic later: 94, 99, 106 and 160 = 4 wagons.

Trucks belong to the Marine Board but used by the Railway Department and included in the Moonta Bay rolling stock list for July 1892: 1 to 10 = 10 wagons.

Sold to the Wallaroo Smelting Works in July 1892 for £2 each: 188 and 189 = 2 wagons.

On 8 July 1892 the rolling stock register revealed that 16 trucks were running on the Moonta Bay tramway while the rest of the wagons were located on the Wallaroo Jetty and Smelting Works line.

*Wagons at Port Broughton* — Numbered 1 to 52.

Wagons fitted with screw brakes: 1 to 6 = 6 wagons. The rest had lever brakes.

Wagons converted from lever to screw brakes in October 1893: 49, 51 and 52 = 3 wagons.

Wagon converted from screw to lever brakes in October 1893: 6 = 1 wagon.

Wagons transferred from Kingston (SE) to Port Broughton during 1890: 41 to 52 = 12 wagons.

From 1890 through to 1907 the goods rolling stock at Port Broughton remained at 52 vehicles. As late as 1930 this total had only diminished to 51 units.

### Number of Goods Wagons on the SAR Horse Tramways

Year Ended June	Kadina—Wallaroo-Moonta 5ft 3in gauge					Port Broughton 3ft 6in gauge		Sub-Total	Victor Harbor 5ft 3in gauge		Total
	Luggage	Open	Tip	Flat	Tank	Flat Ordinary	Flat with Screw Brake		Flat	Coupling Truck	
1889	2	168	36	16	2	36	4	264	na*	na	264
1890	2	168	36	16	2	44	8	276	na	na	276
1891	2	168	36	16	2	44	8	276	na	na	276
1892	2	168	36	16	2	44	8	276	na	na	276
1893	—	168	36	—	—	44	8	256	na	na	256
1894	—	168	36	—	—	46	6	256	26	1+1?	284
1895	—	168	36	—	—	46	6	256	26	1?	283
1896	—	168	36	—	—	46	6	256	26	1?	283
1897	—	168	36	—	—	46	6	256	26	1	283
1898	—	168	36	—	—	46	6	256	24	1	281
1899	—	168	36	—	—	46	6	256	24	1	281
1900	—	168	36	—	—	46	6	256	24	1	281
1901	—	168	36	—	—	46	6	256	24	1	281
1902	—	168	36	—	—	46	6	256	24	1	281
1903	—	28	1	—	—	46	6	81	24	1	106
1904	—	28	1	—	—	46	6	81	24	1	106
1905	—	28	1	—	—	46	6	81	24	1	106
1906	—	28	1	—	—	46	6	81	24	1	106
1907	—	28	1	—	—	46	6	81	24	—	105
1930	—	—	—	—	—	45	6	51	—	—	51

Note: \* Details for the Victor Harbor area are not available for the years 1889 to 1893.



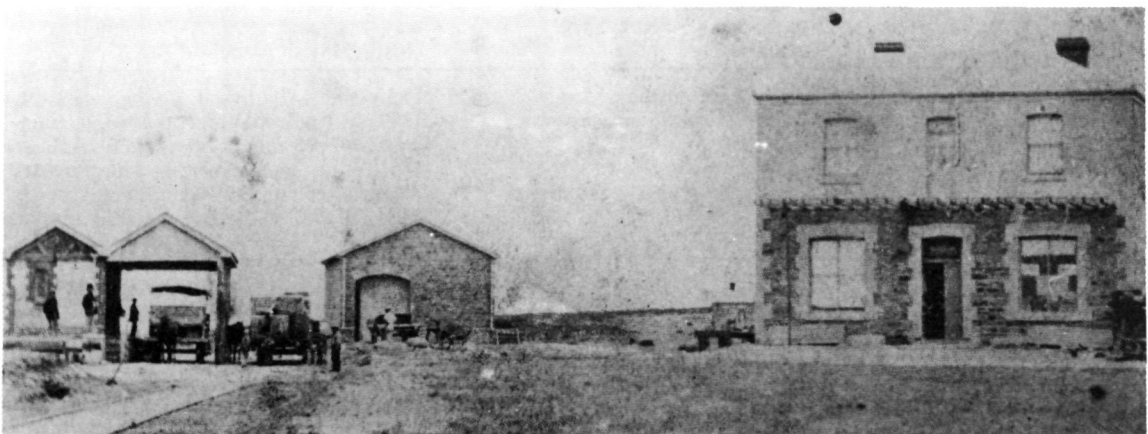
*A horse car proceeding eastwards along George Street, Moonta, approaching the Blanche Terrace intersection, circa 1910.*

LATE C. B. THOMAS COLLECTION

#### South Australian Railways — Horse Drawn Passenger Tramcars

SAR No.	Gauge	Type	Builder	Date	Notes
1.	5ft 3in	Old			Strathalbyn-Goolwa-Victor Harbor line until 1885. Sold 1886.
1.(2nd)	5ft 3in	Double deck American type 2t-2cwt-2q Capacity 40	Duncan & Fraser Adelaide	1897	Delivered new to Moonta street tramway May 1897. At Moonta 1931 at closure.
2.	5ft 3in	Double deck American type 2t-0cwt-3q Capacity 40	John Stephenson, New York USA	c1879	Delivered on ship <i>J.A. Borland</i> , possibly 1879. At Kadina-Wallaroo-Moonta tramway 1887 and 1892. At Moonta 1931 at closure. Possibly second No. 2.
3.	5ft 3in	Double deck American type 2t-0cwt-2q Capacity 40	John Stephenson, New York USA Cost £208 1s 0d	c1879	Delivered on ship <i>J.A. Borland</i> , possibly 1879. At Kadina-Wallaroo-Moonta tramway 1887. Stored at Islington Workshops 1892. returned to traffic at Moonta after August 1892, in 1893-4 financial year. At Moonta 1931 at closure. Possibly second No. 3.
4.	5ft 3in then 3ft 6in	Possibly double deck English type 1t-8cwt-3q in 1887 2t-0cwt-2q in 1892. Capacity 17	John Stephenson, New York USA Cost £208 1s 0d		At Strathalbyn-Goolwa—Victor Harbor line until October 1885, then transferred to Kadina-Wallaroo-Moonta tramway. Withdrawn from Moonta 1891-2. Rebuilt at Islington Workshops as single deck car, regauged from 5ft 3in to 3ft 6in. To Port Broughton line 24 March 1894. Withdrawn at closure of Port Broughton passenger service 1924. Possibly second No. 4.

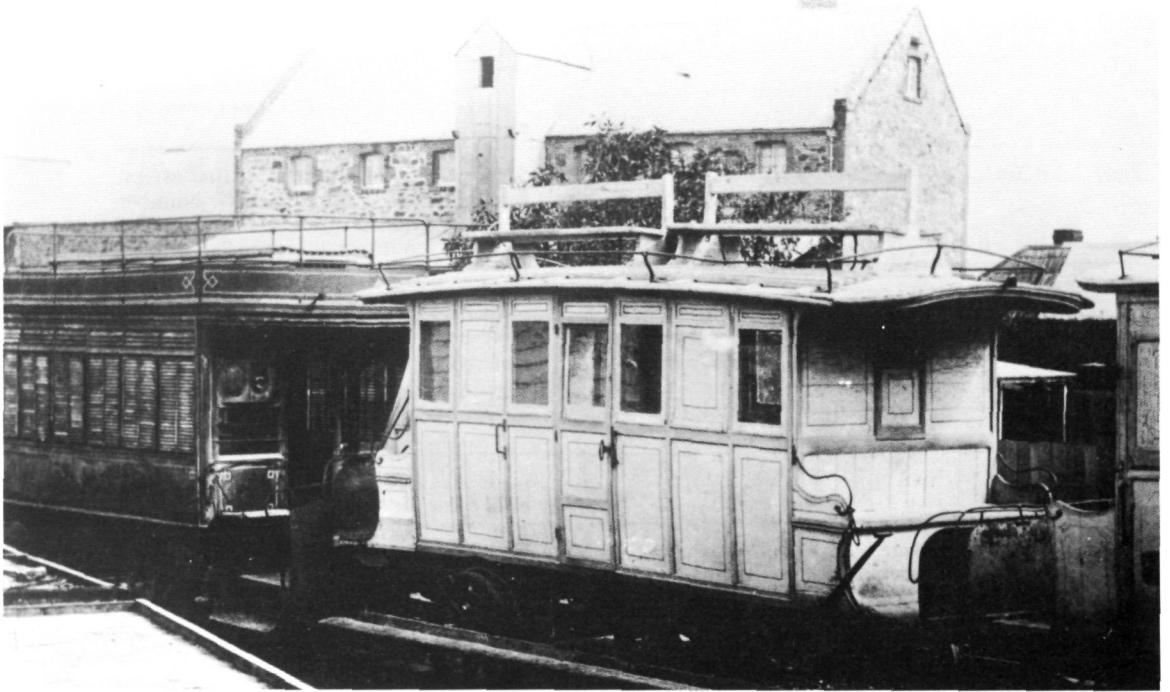
SAR No.	Gauge	Type	Builder	Date	Notes
5.	5ft 3in	Old			At Strathalbyn-Goolwa-Victor Harbor line until October 1885. Sold.
5.(2nd)	5ft 3in				Brown Marshall car (possibly first 24) q.v. renumbered second 5 in 1887. Number taken by 1888 Duncan & Fraser car. so second 5 renumbered second 7.
5.(3rd)	5ft 3in	Double deck American type 2t-2cwt-2q Capacity 40	Duncan & Fraser, Adelaide	1888	Entered on register 8 August 1888; entered service at Kadina-Wallaroo-Moonta tramway 10 August 1888, at Moonta 1892 and 1900. At Gawler tramway 1901, returned to Moonta 1902. At Moonta at closure in 1931, transferred to Victor Harbor. In summer tourist service at Victor Harbor until May 1955. Used by kiosk proprietor summer 1955-56 to work short tourist service on Granite Island. Causeway track lifted by this time. On static display from 1956; remains now in water at Granite Island.
6.	5ft 3in	Old type			At Kadina-Wallaroo-Moonta tramway until 1885. Sold.
6.(2nd)	5ft 3in	Double deck American type 2t-2cwt-2q Capacity 40	Duncan & Fraser, Adelaide	1888	Entered on register 8 August 1888; entered service at Kadina-Wallaroo-Moonta tramway 10 August 1888, at Moonta 1892. At Moonta at closure in 1931, transferred to Victor Harbor. In summer tourist service at Victor Harbor until May 1955. On display at Auburn, South Australia until 1970. Purchased for restoration in USA. Rebuilt as a single deck horse car at 'Johnsonville' Industrial Museum, East Hadam, Connecticut.



Port Elliott Station looking towards Victor Harbor circa 1870 The passenger tram horse car stands in the carriage shed while goods wagons stand on the main line and in the siding at the goods shed.

LATE C. B. THOMAS COLLECTION

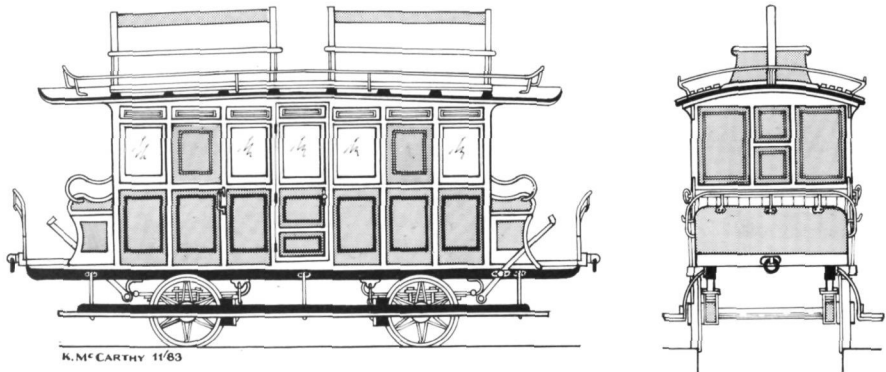




Tramcars stored at Middleton after the conversion of the Strathalbyn-Goolwa-Victor Harbor horse tramway to steam train operation. The closer car is an "old style" vehicle confined to horse railway operation. The car at the left is Brown Marshall tram 24 (later 2nd 5 and then 2nd 7) which could be used both on railway and street tramway workings. This latter vehicle remained in service until the late 1930s.

LATE C. B. THOMAS COLLECTION

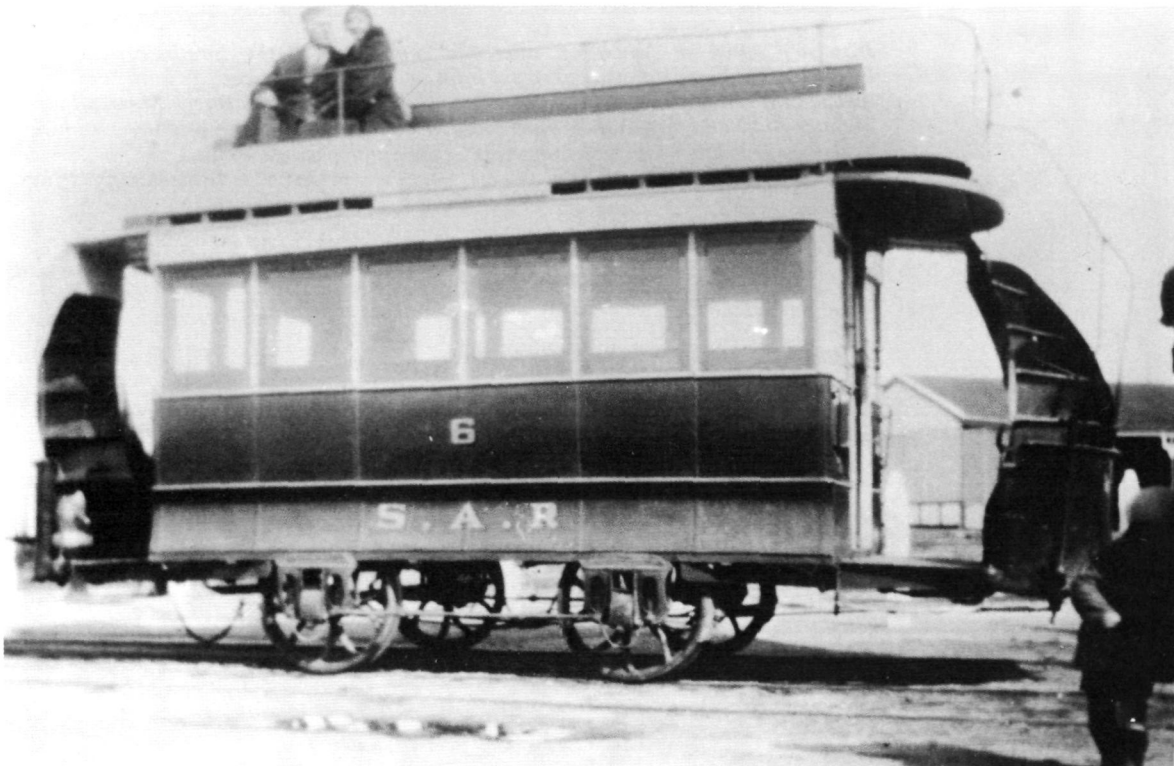
GOOLWA HORSE CAR c.1870's



K. MC CARTHY 11/63

Inch 12 0 1 2 3 4 5 6 7 8 9 Feet  
 Scale 0 1 2 Metre

SAR No.	Gauge	Type	Builder	Date	Notes
7.	5ft 3in	Old type			At Kadina-Wallaroo-Moonta tramway until 1885. Sold.
7.(2nd)	5ft 3in				Brown Marshall car (possibly first 24) q.v. renumbered second 5 in 1887. Number taken by 1888 Duncan & Fraser car, so second 5 renumbered second 7.
8.	5ft 3in	Old type			At Kadina-Wallaroo-Moonta tramway until 1885. Sold.
8.(2nd)	5ft 3in	Double deck American type 2t-2cwt-2q Capacity 40	Duncan & Fraser, Adelaide	1897	Entered service at Gawler tramway May 1897. At Moonta by 1901. At Moonta 1931 at closure.
9.	5ft 3in	Old type			At Kadina-Wallaroo-Moonta tramway until 1885. Sold.
9.(2nd)	5ft 3in	Double deck American type 2t-2cwt-2q Capacity 40	Duncan & Fraser, Adelaide	1897	Entered service at Moonta tramway June 1897. At Moonta 1931 at closure.

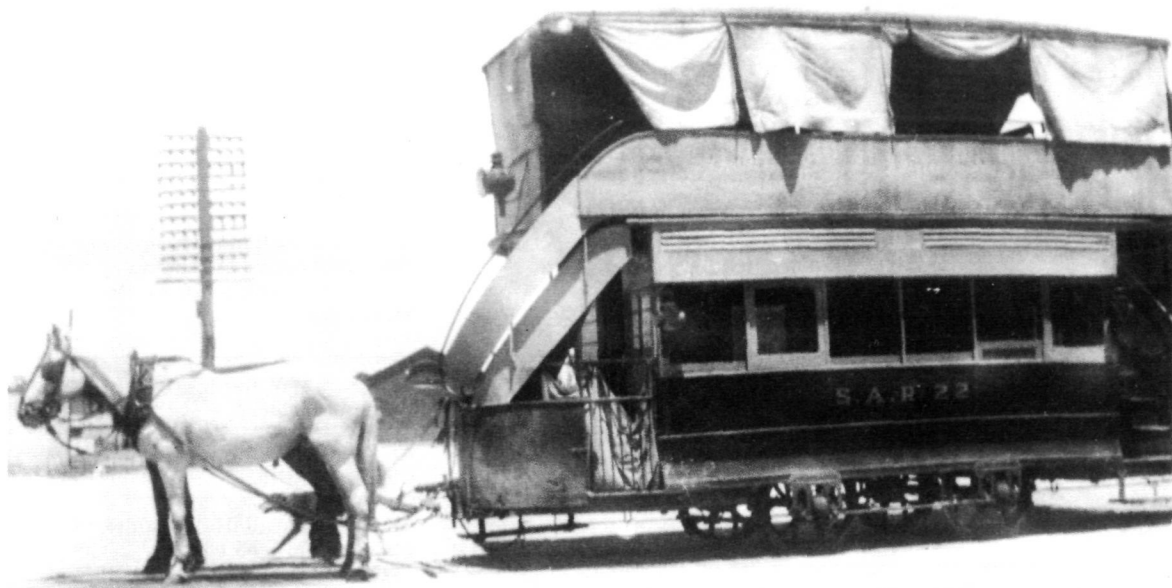


*Duncan & Fraser car No. 6 at Victor Harbor during the late 1930s.*

LATE C. B. THOMAS COLLECTION

<i>SAR No.</i>	<i>Gauge</i>	<i>Type</i>	<i>Builder</i>	<i>Date</i>	<i>Notes</i>
10.	3ft 6in	Old type Capacity 30 1t-19-cwt-0q in 1887. 1t-18cwt-0q in 1892.		c1875	Entered service at Port Wakefield. Transferred to Port Broughton tramway in 1879. Withdrawn at Port Broughton 1924.
11.	3ft 6in	Old type Capacity 16 1t-11cwt-0q in 1887. 1t-15cwt-0q in 1892.	Cost £250.	1876	Entered service at Port Broughton tramway. Remained at Port Broughton until withdrawn in 1907.
12.	5ft 3in	Old type Capacity 28 2t-5cwt-2q	Warhurst		At Kadina-Wallaroo-Moonta tramway in 1887. Withdrawn at Moonta in 1892 and sold to F. Clare 1 April 1892 for £2 10s 0d.
13.	5ft 3in	Old type converted from bus. Capacity 24 2t-2cwt-0q			At Kadina-Wallaroo-Moonta tramway in 1887. Withdrawn at Moonta in 1892 and sold to S. Kemp 28 March 1892 for £2 10s 0d.
14.	5ft 3in	Old type converted from bus. Capacity 24 2t-1cwt-3q			At Kadina-Wallaroo-Moonta tramway in 1887. Withdrawn at Moonta and sold in 1889.
15.	5ft 3in	Old type converted from bus. Capacity 10 first class 22 second class.			At Kadina-Wallaroo-Moonta tramway in 1887. Withdrawn at Moonta and sold in 1889.
16.	5ft 3in	Old type converted from bus. Capacity 16 1t-13cwt-0q			At Kadina-Wallaroo-Moonta tramway in 1887. Withdrawn at Moonta in 1892 and sold to Mr. Whittle for £1 10s 0d on 29 March 1892.
17.	5ft 3in	Old type			At Kadina-Wallaroo-Moonta tramway when sold in 1885.
18.	5ft 3in	Old type			At Kadina-Wallaroo-Moonta tramway when sold in 1885.
19.	5ft 3in	Old type			At Kadina-Wallaroo-Moonta tramway when sold in 1885.
20.	5ft 3in	Double deck American type Capacity 46 2t-11cwt-0q	John Stephenson, New York USA	c1879	At Gawler tramway in 1887, 1892 and 1897, when transferred to Moonta tramway. Withdrawn from traffic in 1901 at Gawler.

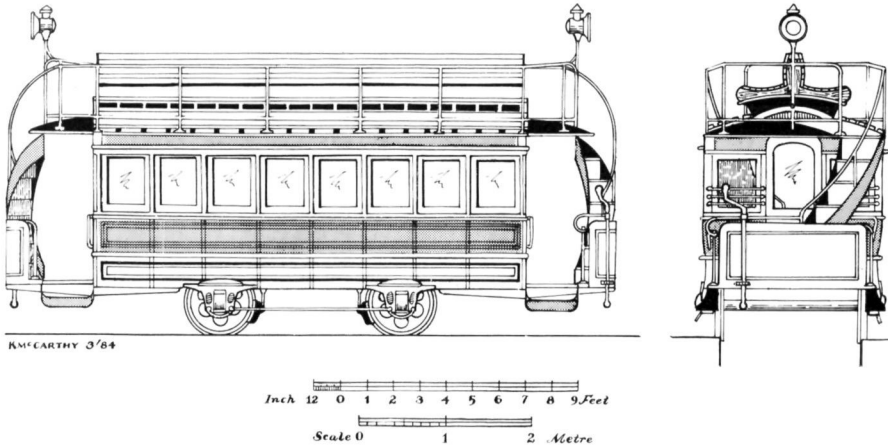
SAR No.	Gauge	Type	Builder	Date	Notes
20.(2nd)	5ft 3in	Double deck American type Capacity 42 2t-16cwt-0q	Duncan & Fraser, Adelaide	1901	Entered service at Gawler during December 1901. Withdrawn from traffic at Gawler when tramway closed in 1931.
21.	5ft 3in	Double deck American type Capacity 46 2t-11cwt-0q	John Stephenson, New York USA	c1879	Goolwa-Victor Harbor tramway to Kadina-Wallaroo-Moonta lines c1886, at Victor Harbor where written off c1892.
22.	5ft 3in	Double deck American type Capacity 34 1t-18cwt-0q in 1887. 1t-15cwt-0q in 1892.	John Stephenson, New York USA	c1879	At Goolwa-Victor Harbor line until 15 September 1885 when transferred to Gawler. At Gawler 1892, transferred from Gawler to Moonta in 1901. Withdrawn at Moonta in 1904. Two trams numbered 22 operated between 1901 and 1904. q.v.
22.(2nd)	5ft 3in	Double deck American type Capacity 42 2t-16cwt-0q	Duncan & Fraser, Adelaide	1901	Entered service at Gawler during November 1901. Withdrawn from traffic at Gawler when tramway closed in 1931.



*Horse car 22 at Gawler Station in the heat of mid-noon, circa 1920s.*

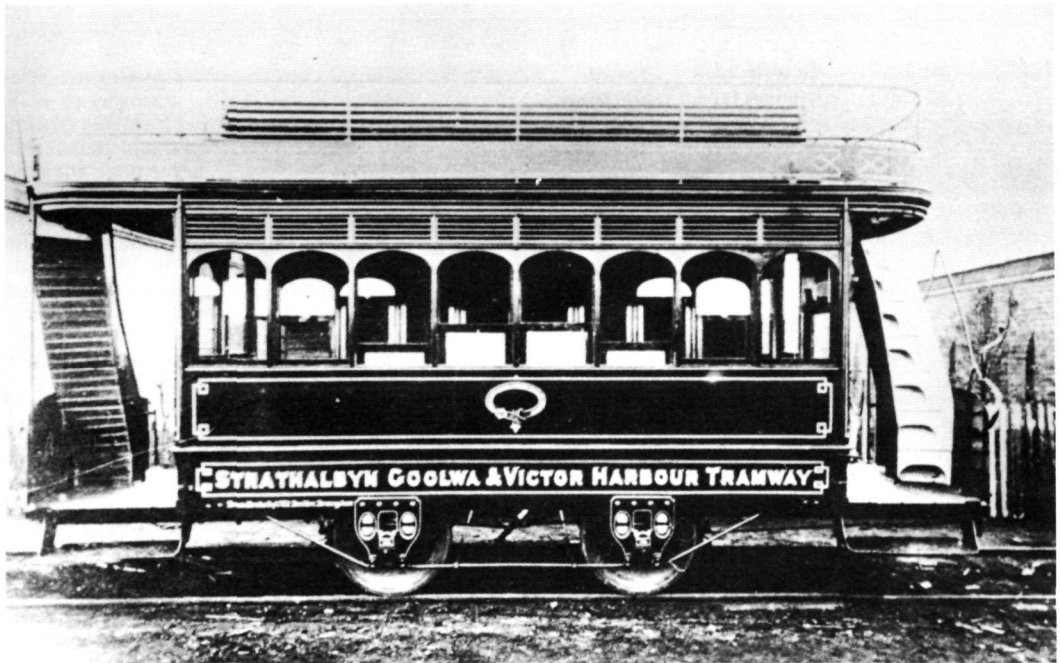
LATE C. B. THOMAS COLLECTION

GAWLER TRAMWAY  
Stephenson Car c.1879



SAR No.	Gauge	Type	Builder	Date	Notes
23.	5ft 3in	Double deck English type Capacity 46 in 1st/2nd accommodation 3t-5cwt-1q	Brown Marshall, England	c1879	Believed entered service at Goolwa-Strathalbyn-Victor Harbor tramway in 1879. Transferred to Gawler tramway March 1885. Wheel base altered and transferred to Largs railway 12 September 1885. At Largs in June 1887. Withdrawn at Islington then reissued to traffic at Moonta in 1896. Withdrawn from traffic at Moonta on closure of tramway in 1931. Sold as showman's road caravan. Used as living quarters at Laurieton NSW c1940. Removed 1978 to museum at Forster NSW. Sold at auction to Newcastle buyer in 1986 and resold to Queensland buyer in 1987.
24. 2nd 5 2nd 7	5ft 3in	Double deck English type Capacity 36 3t-2cwt-0q Staircase at one end removed c1920s	Brown Marshall, England	c1879	Believed entered traffic at Goolwa-Strathalbyn-Victor Harbor tramway in 1879. At Kadina-Wallaroo-Moonta tramway in 1887 as number 5, then renumbered 7 when third No. 5 delivered from Duncan & Fraser in 1888. Withdrawn at Islington Workshops at June 1892. Reissued to traffic on Victor Harbor-Granite Island tramway in 1896. At Victor Harbor until 1935 when written off.
25.	5ft 3in	Double deck American type	John Stephenson, New York USA Cost £508 17s 8d	1881	Received December 1881. Entered service at Kadina-Wallaroo-Moonta tramway 1882. At Moonta 1886. Withdrawn from traffic 1892.

SAR No.	Gauge	Type	Builder	Date	Notes
24.(2nd)	5ft 3in	Double deck English type Single end, single staircase.	Adelaide Suburban Tramway Coy.	1900	Purchased from Adelaide Municipal Tramways Trust, November 1910. Converted from 4ft 8½in to 5ft 3in gauge and placed in service on Moonta Tramways. Withdrawn from traffic in 1931 when Moonta lines closed.
25.(2nd)	5ft 3in	Double deck English type Single end, single staircase.	Adelaide Suburban Tramway Coy.	1900	Purchased from Adelaide Municipal Tramways Trust, November 1910. Converted from 4ft 8½in to 5ft 3in gauge and placed in service on Victor Harbor to Granite Island tramway. Withdrawn at Victor Harbor in 1931.
26.	5ft 3in	Double deck American type	John Stephenson, New York USA Cost £508 17s 8d	1881	Received December 1881. Entered service at Kadina-Wallaroo-Moonta tramway 1882. At Moonta 1886. Withdrawn from traffic in 1892.



*Brown Marshall horse car No. 23. This is possibly a builder's photo taken in Birmingham prior to delivery in 1878.*

R. HORNE COLLECTION

Don't feel like a lost sock in the laundromat of life; take part in one of your museum's work programmes this weekend.



# HERE AND THERE

## NEWS ITEMS OF INTEREST FROM ALL OVER

### Light Rail for St Kilda

Melbourne's broad gauge Spencer Street to St Kilda railway closed on 31 July 1987 for conversion to standard gauge light rail vehicle (LRV) operation. The new service is expected to commence in November 1987.

Low level platforms are replacing the high level railway platforms at South Melbourne, Albert Park and Middle Park. Additional stopping places are being constructed near Frazer Street (between St Kilda and Middle Park), Wright Street (between Middle Park and Albert Park), and on the embankment north of the bridge over City Road (between South Melbourne and Spencer Street).

Except where construction work at each end of the former railway required its removal, the

railway catenary overhead wiring is still in place. Additional stanchions have been erected about halfway between many of the railway stanchions to enable the wiring to be located more centrally over the track as the LRV pantographs are not as wide as those used on Melbourne's electric trains.

South Melbourne depot is to be home to the first batch of LRVs and is being modified to accommodate the new cars.

Comeng has signed a contract to construct 130 light rail vehicles for the St Kilda and Port Melbourne lines, and other unspecified routes. The delivery rate is expected to be twenty vehicles per year.



*The LRV line runs through the former goods yard at St Kilda Station to join Fitzroy Street at Grey Street. The 5ft 3in gauge station is on the right and the former 5ft 3in gauge Victorian Railways electric tramway from Brighton terminated to the right of the station building.*



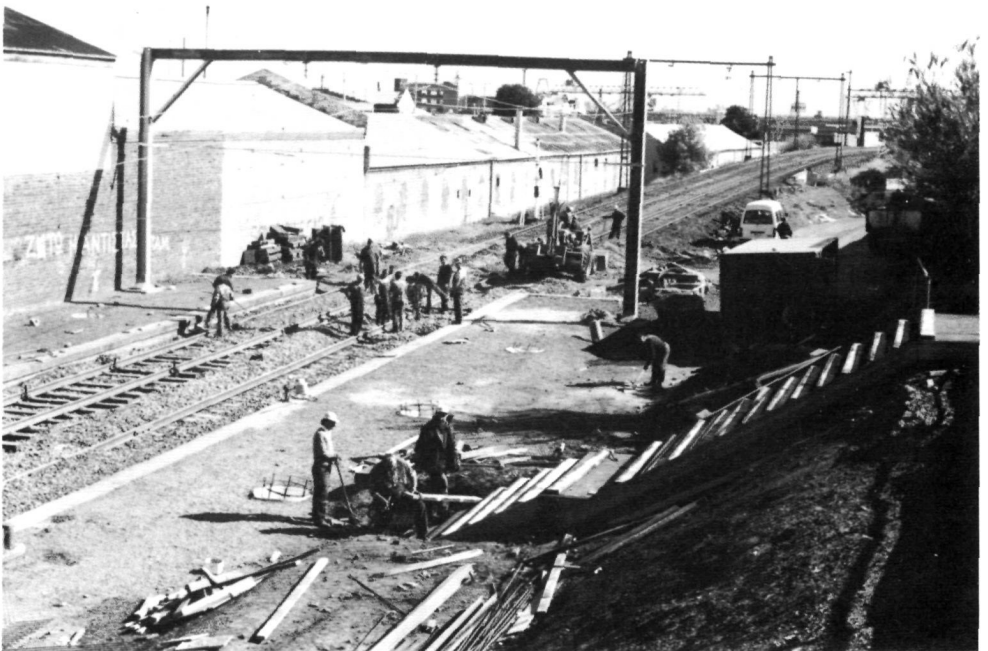
24-sheet posters at various locations advertise the benefits of the new light rail service which will run from Acland Street, St Kilda to East Brunswick via Bourke Street.



This additional stopping place is being constructed between St Kilda and Middle Park. The staggered platforms still require lighting and fencing (and some form of shelter). The added overhead stanchions can also be seen in this view.



*This bridge over Albert Road will carry the LRVs over the St Kilda Beach routes (Routes 10 and 12) tramway and the opportunity is being taken to carry out needed repairs to the structure.*



*The high level railway platforms have been shortened and low level platforms built for the LRVs. Here access to the new LRV platform at South Melbourne is being constructed while perway work is carried out in the background.*



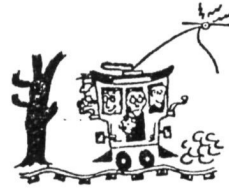
*The LRV line leaves the railway formation at the northern end to join the street tramway at Clarendon Street. The Port Melbourne railway line is in the background. The junction for the Port Melbourne LRV line will be about where the trees are in the centre of the photograph.*



*The corner of Clarendon Road and Whiteman Street on 20 September 1987 during the installation of the junction for the LRV line. This view was taken from the now disused St Kilda Railway over-bridge.*

PETER DUCKETT





*New junctions were also installed at the corner of Bourke and William Streets on 5/6 September 1987. This view of the work is looking north along William Street.*

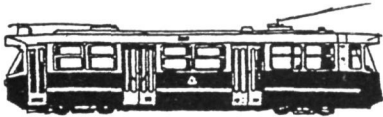
PETER DUCKETT

*Pantographs on Bourke Street. A2 class 273 crosses Elizabeth Street enroute to East Brunswick on 17 September 1987. Route 76 has been converted to pantograph operation for the through LRV service from St Kilda and Port Melbourne.*



*The three part wye junction nearing completion at the corner of Bourke and Spencer Streets, seen looking southwards in Spencer Street.*

PETER DUCKETT



*W2 388 being unloaded at the Windsor Hotel, South Perth, on 27 August 1987. The roof of the building in which the tram now resides is visible immediately below the tram body.*

MICHAEL STUKELY



### W2 Arrives in South Perth

A new arrival in Perth during August 1987 was ex-Melbourne W2 388. The car body was seen standing in Mill Point Road on the back of a semi-trailer by a surprised Perth Electric Tramway Society member, on the afternoon of August 27.

The car had been purchased by the publican of the Windsor Hotel in South Perth, and is to be a feature of a new restaurant/bar which is being constructed in the former lounge/bar building facing Mill Point Road. The tram is complete with trucks (which were steam-cleaned and painted black after it arrived in Perth), but its controllers, trolley-poles and route number boxes have been removed. It stands on "rail" (actually lengths of angle-iron set on the side of appropriately-spaced grooves in the concrete floor), with most of the body inside the building; one end (the cab and the first saloon window) protrudes through the wall into what apparently will be a covered patio-style area.

It is interesting to note that this tram now stands less than 100 metres from the former Western Australian Government Tramways

(Perth) line which passed the hotel in Mends Street on its way to the Mends Street Jetty terminus (Route No 29). This line closed in 1950.

### South Steyne

As at late August the former Manly ferry *South Steyne* was again in drydock at Riley's Hill, on the Richmond River near Broadwater, upstream from Ballina. It was docked there in 1984, but restoration was then suspended for about two years while a decision was made on the vessel's future. During this time it was tied up at Ballina.

Work is now again in full swing. The engines have been overhauled. Both ends of the upper deck are now enclosed (one end was enclosed in 1963), and the upper deck will be air conditioned with windows sealed. The varnished woodwork of the wheelhouse has been restored, and the vessel will be painted in its traditional colours of green and white. Steam trials are due in October. On its way south the vessel will call into Sydney, sometime in November, and is due in Melbourne before Christmas.

## BALLARAT . . .

### Ballarat Tramway Preservation Society



#### Horse Tram No 1

The horse tram is still in several pieces. The roof is upside down while the roof ribs have been rubbed down and re-varnished. Several new ribs have been built to replace those removed during its years as a sleepout, and these are ready to be placed in position. Both upper side panels have been rubbed back and are ready to be re-used, but new rocker panels have to be constructed as the originals are in poor condition. Four new end frames have been built.

Originally it was hoped that new corner pillars would be made by the woodworker at Sovereign Hill Historical Park (Ballarat), but it now appears that our workers will have to carry out this work. When the corner pillars are ready, the other parts can be assembled on top of the underframe.

Society members Dave Macartney, Gary Wood and Jackie Edwards are working part-time during the week on the horse car project. Jackie Edwards, who was first employed on our Community Employment Programme in 1985, will be leaving the project shortly to commence full-time employment.

#### Car No 13

Many minor but important tasks have been completed, such as the fitting of bell cords, bells and strap hangers. Still required are painting the floors and a touch-up of the rest of the paintwork. No 13 should be running again during the summer months.

#### Car No 26

Bodywork on this car is virtually complete and it is on jacks awaiting completion of work on its trucks. Installation of motor suspension

bearings will see this work complete and the car should be running again during summer.

#### Car No 39

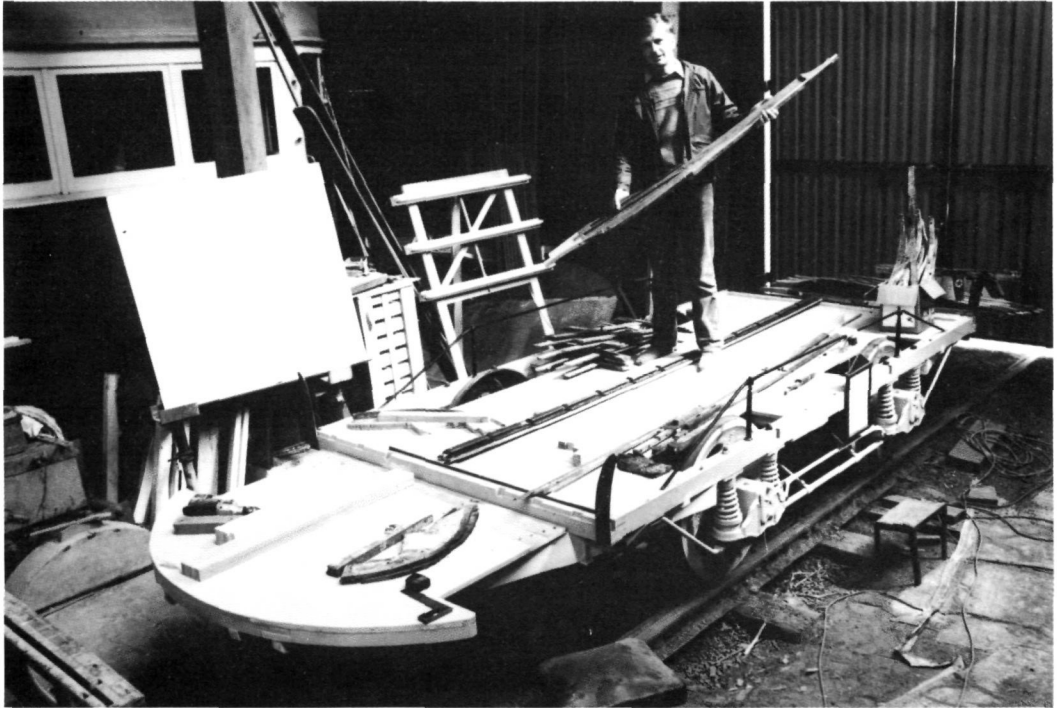
Work continues on the conversion of this car to house the museum display, which is currently stored in car No 11. One end platform is being repaired, while the rest of the bodywork is being stripped and prepared for painting. Much of the body is in poor condition as a result of being stored in the open at Lismore (Victoria) in the early 1970s.

Parts of birds nests can still be seen in the ceiling.

#### Other Work

The new crew room is now complete and in use. It is located at the rear of what was once No 1 Road, next to the substation.

An important part of the Society's traffic operations is the network of trackside phones. Several of these phones have been out of order, but recent repair work has placed all phones on line again.



*Traffic Manager Peter Winspur is pictured standing on the underframe of horse tram No. 1.*

COURTESY BALLARAT COURIER

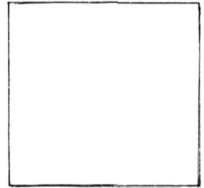
#### British Tram and Trolleybus video

Richard Youl has produced an excellent videotape featuring a variety of British trams and trolleybuses from Blackpool, Leeds, Grimsby and Inningham, Sheffield and at least 33 minutes of Glasgow when that system was virtually intact. Also featured is a segment on the last days of the London trolleybus system, once the largest in the world with some 2000 buses.

The quality is perhaps the best of any tapes yet produced for the SPER and the entire 80 minutes (approximately) is narrated by photographer, Mr Roy Hubble, who originally filmed it all on 8mm movie film.

Cost of the tape is \$40.00 plus \$2.00 postage/packing, from Richard Youl, 8 Godolphin Street, Bulli 2516. Please specify VHS or BETA format. All profits assist the SPERs depot extension appeal.

# HADDON . . .



## Melbourne Tramcar Preservation Association

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### Substation

The installation of the 480 volt single phase sub main will be completed within the next few months, permitting the final terminations to be made. Arthur Ireland has completed the formers for the rewinding of the first 25kVA transformer. With suitable material on hand, the new coils when tested will be fitted and the transformer re-assembled for installation.

The large choke coil and lightning arrestor for the substation is nearing completion and will be installed soon.

Due to the urgency of completing a heavy track work schedule before winter, further work on pole installation will be deferred until spring. In the meantime troughing in the running shed will be manufactured and installed. Arthur Ireland is in the process of overhauling additional line fittings for the network.

### Communications

Craig Tooke and John Lambert have connected two additional phone circuits to our PABX exchange.

### Permanent Way

Concrete work is now complete to the mainline/workshop lead points. Tony Smith is in the process of filling the completed track-work to rail level with appropriate material and at the same time completing the PVC switchbox drainage system.

The concrete gang, A. Ireland and J. Withers under Tony's direction are to be commended on the high standards attained, especially in the installation of the switchbox mechanisms and the new prefabricated formwork. With the average pour of 4 to 5 metres considerable progress has been made.

We are also indebted to the BTPS for a quantity of ex-Ballarat 80lb rail with bolt-on flange. This, with existing rail will enable us to complete the East terminus and connect the 1 and 2 workshop roads.

It has been decided not to proceed with the proposed bogie road, as sufficient space will be available for storage on the No 2 road lead.

The proposed car and bus wash will be located east of the main line workshop lead points.

### Site Cleanup

During May, whilst a crane was on the site, opportunity was taken to sort and stack the Museum's collection of point components and rail. Previously these were located in three separate areas and it was decided to create one central stack for this material near the store van. In addition, the scrap tram chassis located along the front fence were oxy cut and then stacked in one area. This re-arrangement of materials has given the museum site a much neater appearance.

Over the years we have acquired vast quantities of steel rail, point castings and other usable metals, which is common practice for most museums, but it is most important that it be arranged in such a way that we do not give the public, or for that matter our own members, the impression as they enter the site that they are visiting a scrap yard.

### Restoration of W4 670

Work has continued on W4 class 670 with the re-installation of the side destination facias, along with cover straps. An original side destination mechanism has been obtained on loan from the Tramway Museum Society of Victoria, and was used as a pattern to cast new components. These have since been machined by Arthur Ireland who also made new rollers by cutting down ones from scrap destination boxes. When assembled they were tried for correct fit and operation in 670 and work beautifully. The opportunity was taken to manufacture additional side mechanisms for future use in W3 663 and W2 357 whilst this project was in hand.

The two self-lapping brake valves have been removed and fully overhauled, with the installation of new gaskets and seals, and valve lapping taking place. When tested they will be refitted to the car.

The wooden "McGill" seats from the dropcentre have been removed for overhaul.

This has involved the stripping of all old varnish and bleaching of dark water stains, using the acid process then sanding and polishing. Already two of the four seats have been attended to in the above manner, with the finished result most pleasing. Once the remaining two seats are prepared they will all be varnished and stored, pending refitting.

Stripping of old varnish continues in the dropcentre, with the quarterpanel timbers completed. The plywood internal lining on

these panels was found to have deteriorated beyond restoration so they were removed and new ones cut.

The saloon bulkhead panel 'D' moulding has been stripped of paint and new filler applied over the countersunk screws.

We would like to thank the TMSV for the generous loan of the side destination mechanisms, as it has saved many man hours in the manufacture of these units.



*View of the newly constructed side destination mechanism during trial fitting.*

COLIN WITHINGTON

## WHITEMAN PARK . . .

## Perth Electric Tramway Society



Two major activities have taken the lion's share of members' time at the Museum during 1987: the construction of an extension to the Car barn and the regular weekend running of trams for the public. With essential maintenance of track and overhead wiring continuing as well, there has been little manpower available for tram restoration and other desirable pursuits.

### Car barn Extension

In March 1987, a contract was let to Osborne Fastspan Buildings for the extension

of the Car barn westward, towards the workshop, by 12 metres. The aim of this extension is to provide covered storage for a total of 11 bogie cars (3 each on roads 1-3 and 2 on road 4), instead of the 7 bogie cars and 1 single-truck car in the original structure. In addition, the extension provides for an enlarged members' room, a small separate office, and a large, much improved area for the storage of parts.

In preparation for the extension, a large-scale cleanup of the "backyard" was under-

taken in mid-March. This involved the removal of sundry stored material, the burnt-out tower wagon, track points and lengths of rail and, by no means least, a large tree stump. Fortunately, a record number of members attended for this job.

In addition, the body of Perth single-truck car B 81 had to be moved from the side fence to a new position alongside I class 63, to make room for the realigned road access to the workshops. Both of these bodies, incidentally, have now been fully covered with tarpaulins to prevent further deterioration.

Construction of the extension — steel framing with "colourbond" cladding to match the existing buildings was carried out by the contractors during June-July. An all-out effort by members at the "weekender" of 18-19 July completed the extensions of the track on 2 and 3 roads, and roadbase was filled to the railhead during the following week. (No. 1 road was already in service as the connection to the workshop.) After the laying of the concrete slab in August, the members' room extension and new storage area were quickly added, enabling the spare parts to be transferred to the new area. This, in turn, has cleared the way for the track extension of road 4 to proceed. The installation of overhead

troughing and wiring in the extension remains to be done.

The carbarn extension was partially funded by a grant from the Western Australian Department of Sport and Recreation.

### Operations

Service cars normally operate over a triangle route, Park Entrance — Mussel Pool — Central Station — Park Entrance, which is a total distance of some 6.4km. Each car completes a trip every 30 minutes, which makes a 15 minute headway possible when a second car is used. At this stage, there is no passenger service between Mussel Pool and the Carbarn (0.8km).

Following the grand opening of Whiteman Park on 21 September 1986, two-car operation was necessary on Sundays and Public Holidays, with one car being sufficient for the lighter Saturday loadings. This continued until the onset of the hotter weather in January, which brought much lower attendances in the Park. One-car operation on Saturdays and Sundays then proved adequate until the end of winter; however, a second car was often required on Public Holidays. Regular two-car running on Sundays was



*The framework for the carbarn extension was nearing completion on 21 June 1987. The body of Perth B81 is at right, covered by a tarpaulin.*

MICHAEL STUKELY



*Tracklaying in the carbarn extension was well in hand on 19 July 1987, with Martin Grant (far left), Reg Francis, John Shaw and Ron Hood hard at work. Former Fremantle trams 14 (left) and 29 are behind them.*

MICHAEL STUKELY

reinstated from 1 September 1987 for the spring "peak" period.

In spite of a few early problems with track and overhead on the new sections, operations have been very satisfactory overall. An unseasonal sequence of fine weekends in winter boosted the loadings considerably.

#### **Power Supply Upgraded**

Noel Blackmore has progressively improved the power system so that it is now possible to have four trams on line at any time. Any further upgrading will depend on the SEC upgrading the transformer.

#### **Acquisitions — Trucks from Japan**

Perth's sister city, Kagoshima, has generously donated two pairs of Brill 77E trucks to the Society. These trucks are very similar to those used under Perth's K class cars. Now, the main hurdle to be overcome will be the cost of transporting the trucks from Japan to Western Australia.

#### **Grooved Rail from North Perth**

Several members visited the Royal Perth Bowling Club in April/May for a rather

unusual purpose — the removal of 24 lengths for grooved tram rail which had been in use until recently as light poles around the bowling greens. The rails had to be cut just below ground level, as their ends were embedded in concrete which was encased in steel drums. Each of the 96.4 lb/yd rail lengths recovered measures about 7 metres, and we hope eventually to use them in re-railing the tramline in the street through the Trade Village.

It is believed that this rail came from the WAGT's North Perth line when the tracks were lifted in 1958-59.

A recent survey of Perth bowling clubs has located a large quantity of grooved rail still in use as light poles.

#### **Trolleybus No 889**

Former MTT Sunbeam trolleybus No 889 (ex-WAGT No 89) has been offered to PETS on permanent loan by local television station TVW 7. It is currently on display at their Tuart Hill studios. PETS already has Sunbeam No 84 in its possession.





*Whiteman Park grand opening day, 21 September 1986. W4674 and W2393, 368 and 329 stand on the carbarn fan ready to enter service.*

MICHAEL STUKELY



*Royal Park Bowling Club, 13 April 1987. Reg Francis and Duncan McVicar move clear as the crane takes the weight of a tram rail pole. Four poles were 'felled' at each end of the three bowling greens.*

MICHAEL STUKELY

### Restoration — Fremantle 29

Restoration of FMT tram No 29 has been moving forward slowly. Fremantle City Council has donated \$480 towards the cost of signwriting and logos for this car.

A supply of amber-coloured upper-quadrant windows has been obtained from the bodies of sister cars 31 and 33, which were discovered recently near Mount Barker by Ron Hood. They will be used in place of the clear glass (Perth type) windows which had been fitted to No 29 earlier. All the surviving original windows of No 29 were broken by vandals while the body was stored at Castledare.

### A "Tram Seat"

Out of the blue recently came a donation of a "tram seat". Investigation by Reg Francis revealed that the seat is of the type used in Perth's sole 1 class car, Hedley-Doyle type stepless car No 63, so it will be valuable for patterns for the future restoration of this car.

### Track and Overheads

The filling of roadbase on 3 and 4 roads of the carbarn fan was finally completed early

in 1987 and the fan now looks very neat and tidy.

Early problems experienced with the railway-type points at the eastern end of the "Triangle", which caused several minor derailments, have now been solved.

Lindsay Richardson's track gang has been busy re-sleeping, re-gauging and re-packing approximately 300 metres of track, from opposite the new WA Light Railway Preservation Association run-around loop to the end of "Swamp Straight", and running over this section is now much improved.

During summer, a good deal of time was spent on the overhead in the Car barn area — poles were stayed, trolley wire was re-tensioned, and frogs were re-adjusted.

Contractors for the State Planning Commission, O'Donnell Griffin, have made further adjustments to the overhead between the Park Entrance and Central Station, and lightning arrestors have been installed at these termini.

### Annual General Meeting

The Annual General Meeting was held on Saturday, 29 August 1987 at the Maylands Hotel. The following officers were elected: *President*, Lindsay Richardson; *Vice-President*, John Shaw; *Secretary*, Robert Pearce; *Treasurer*, Frank Damen; *Councillors*, Martin Grant, Michael Stukely.

After the meeting and a buffet dinner, Lindsay Richardson showed a selection of slides tracing the development of tramway preservation in Western Australia.

### Life Memberships

Honorary Life Membership of PETS has been conferred on two of the Society's foundation members — the two men who have the longest continuous involvement in the tramway preservation movement in this State — President, Lindsay Richardson, and retiring Vice-President, Reg Francis. Framed certificates commemorating these awards were presented by the Secretary, Robert Pearce, at the Annual General Meeting.



W2 329 and W4 674 wait in the Trade Village while the official party takes morning tea. W2 393 and 368 have arrived with more passengers. 21 September 1986.

MICHAEL STUKELY

## Errata and Corrigenda

February 1987 issue:

Page 29 — 'Sunday, 21 November 1986' should read 'Sunday, 21 September 1986'.

Page 30 — On the map, the tramway between the eastern terminus (Reception) and the

triangle is shown as 'proposed'. This section was in fact opened with the Mussel Pool — Triangle — Central Station sections on 21 September 1986. Only the two passing loops should be shown as proposed. Youle-Dean Road, where it forms the eastern boundary of Whiteman Park, is now known as Lord Street.

## BYLANDS . . .

### Tramway Museum Society of Victoria



#### Annual General Meeting

The Annual General Meeting of the Society was held on 15 August at the Hall, Stanhope Street, Malvern. The Board members for the forthcoming year are: Jim Dowel, Anthony Sell, Andy Hall, Len Millar, Rod Atkins, Craig Coop, Graham Jordan, Geoffrey Dean, Dr Stuart Turnbull.

As John Fitzsimonds did not seek re-election, Geoff Dean was elected to the Board unopposed. The Society thanks John Fitzsimonds for his stint as secretary of the Society.

Mr Norm Maddock, ATMOETA Federal Secretary and MTA Board member, was elected to Honorary Life Membership of the Society in grateful thanks for the commitment he has shown to the operation and advancement of the Society.

Also at the meeting, the Society's General Manager Andy Hall was elected to Life Membership, for his determination to see the Society advance in top gear to its ultimate goal.

Benefactors Certificates were presented to Norm Maddock, Keith Kings and Craig Coop in recognition of their generous support of the Society.

After supper, Peter Duckett screened some of his magnificent films — thank you Peter, they were enjoyed by all present.

#### Hurren Shed Extension

Work parties have been stepped up at Bylands in the last two months, with track-work the order of the day. The centre road of the Hurren Shed extension has been laid,

except for the last forty feet. The two outer roads have yet to be done. PCC 980 was the first car to enter the extension, doing so on Sunday 16 August.

Sunday 23 August saw the first electric tram enter the depot under its own power: W2 643 entered the Hurren Shed at approximately 4pm with the aid of a wandering lead.

On Friday 28 August a quantity of sleepers was delivered to Bylands for the Hurren Shed and replacement down the line. Grading and levelling inside and outside the Hurren Shed took place on Sunday 30 August. Member Andrew Roy was able to obtain the loan of his brother's backhoe for this work to be carried out without cost.

#### Electrical Work

Our electrical contractor Doug McKnight from Ballarat has been authorised to commence the first stage of the power connection to the Hurren Shed. This entails digging the trench for the power cable and installation of an industrial switchboard in the shed.

#### Car News

Len Millar is doing an excellent job in overhauling well-known works and training tram, 16W. The car is now almost complete and will be based on No 1 Road when finished.

#### Bourke Street Cable Tram Track

The construction of the St Kilda and Port Melbourne light rail lines' connection with Bourke Street at Spencer Street necessitated the removal of the last few metres of cable track still in situ. This unique piece of historical iron and steel, which survived so

long as a reminder of bygone days, has finally succumbed to progress.

When the roadway was opened, the maze of tunnels which still survived under the Bourke Street tram terminus saw the light of day for the first time since construction nearly a hundred years ago. The MTA has kindly donated the cable track to the Society for display purposes. The *Herald* and *Age* newspapers ran several articles on the cable tram tracks and the Society. The Society gratefully acknowledges the assistance given by the MTAs Civil Branch at South Melbourne in obtaining and restoring the last known piece of cable track in Melbourne.

#### New Mailing Address

All kindred organisations are asked to note that our new postal address is PO Box 27, Malvern 3144. All correspondence should now be directed to this box.

#### Outing with 427 and 164

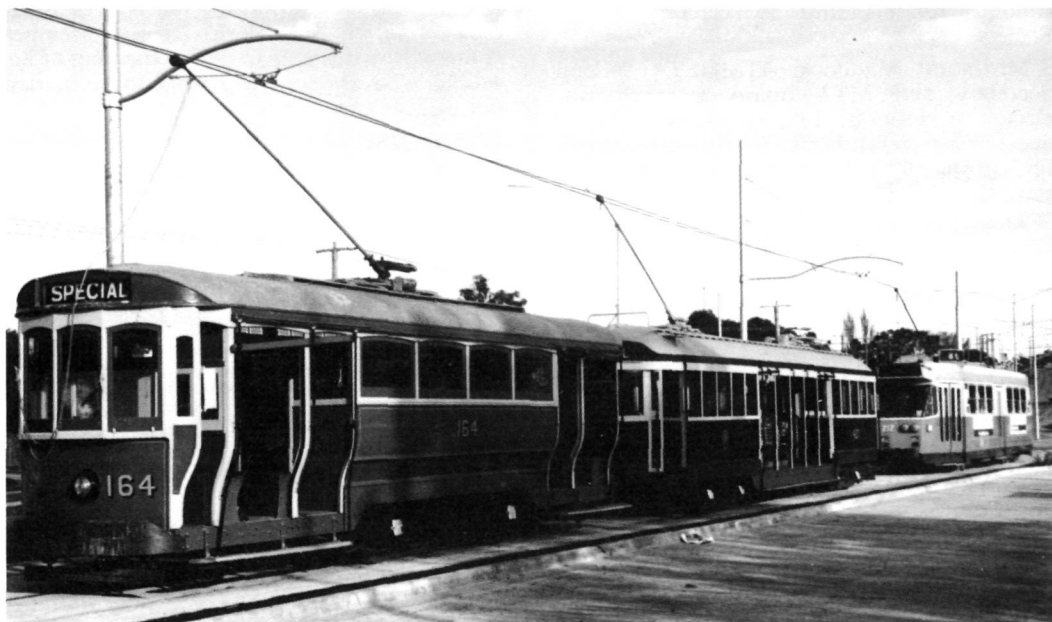
What a tour — restored W1 427 and S class 164 — a marvellous day!

On Sunday 12 July 1987, Malvern Depot saw a large number of passengers gathered for the departure at 1pm. As 164 will not be returned to Malvern, it was felt that Peter Duckett should be given the opportunity to

drive 164 from the carbarn for the last time. Peter was involved in the acquisition and early maintenance work on 164, so with due ceremony he drove the tram from the shed.

Our route to Bundoora, Melbourne's newest tramline, was via Glenferrie Road, Victoria Parade, with a left turn into the Bourke Street routes. Because of MTA works further down Bourke Street, the cars were shunted at Queen Street cross-over. The run to Bundoora was excellent, both trams operating well. After a refreshment stop the cars returned to the city and along Latrobe Street to Elizabeth Street. The movement surprised a lot of people as the cars ran "bang road" from Latrobe Street to Elizabeth Street, where they used the cross-over to the normal road. After a stop at the Elizabeth Street terminus, the route of the trams was to North Coburg, shunt, and return to Malvern Depot via Sydney Road and Route 8. The two trams then ran to Preston Workshops where 164 will be overhauled.

By September work on 164 at the Tramway Workshops was progressing well. The castings stolen some years ago have been replaced, broken tip-over seats repaired and relevant electrical and mechanical repairs are in hand. The Society wishes to thank Workshops Manager Les Jean and his staff for their assistance.



*Bundoora terminus with tour cars S164, W1427 and service car Z3212 on Sunday 12 July 1987.*

STAN VINE

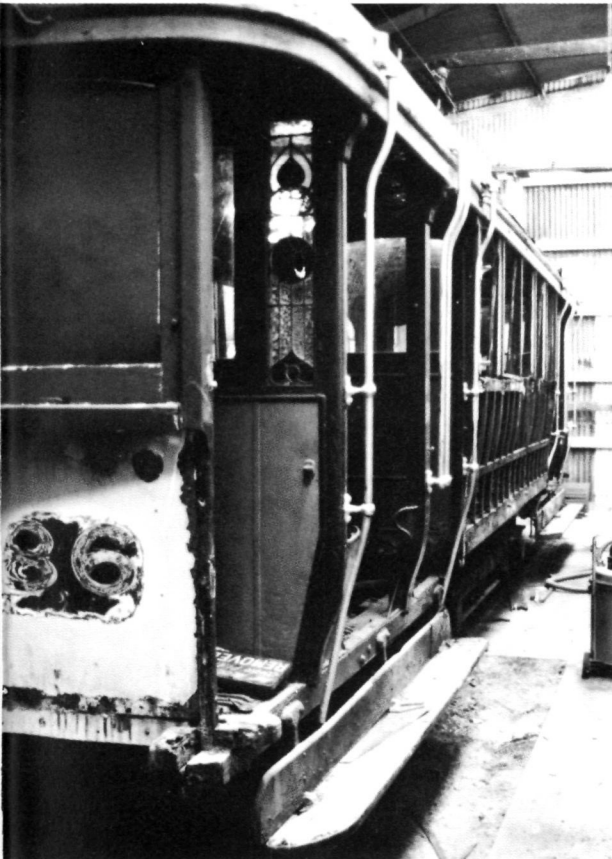
## ST. KILDA . . .

## Australian Electric Transport Museum



## Car 186

Good progress is being made with the major reconstruction of C type tram 186. Jim Burke has spent a considerable amount of time with our contract carpenter, Lindsay Baldwin; rebuilding the timber frame. The side members at the base of the saloon frame have been replaced, as have other side members,



*The dismantled hulk of car 186 prior to reconstruction commencing. Rubbing down has been carried out on the front apron to reveal the various lettering styles used on the car.*

PAUL SHILLABEER

including the window sill beams. The rotten sections have been cut out of the roof fascias and replaced with new timber. Jim has replaced the underfloor beams which support the cabins and drop ends. He has also fitted chassis towing gear and a bumper bar to the eastern end.

Ian Seymour is installing the air brake piping, and the feeder pipes to the motorman's valves have been connected. Peter Keynes is building resistance boxes and installing timber supports for the traction wiring. Jack Pennack is tackling the drop ends and has begun scraping the end bulkheads. Max Fenner has scraped, bleached, cleaned, sanded and given a preliminary coat of varnish to the saloon doors, beading and minor woodwork. Some window sashes have also been similarly treated.

A further visit to sister tram 171 at Spalding in the mid-north of South Australia has provided more useful parts. These include side panels, the remaining downpipes and step brackets. Car 171 has yielded a great deal of useful metalwork for car 186.

## CSO Scheme

Following an approach from the Department of Correction Services at Elizabeth, the AETM has agreed to assist with their Community Service Order Scheme. The CSO Scheme enables minor offenders to be sentenced to a term of community service. The AETM has entered into a three month trial arrangement whereby eight workers and a supervisor are made available to the Museum each Saturday.

Mark Fenner has taken on the role of our CSO Co-ordinator. He has arranged for a variety of tasks to be carried out around the museum with assistance from Christopher Steele (pole painting), Ron White (cleaning) and Ken Coleborne (trackwork). The scheme commenced on Saturday 6 September 1987 and tasks performed so far include:

- \* cleaning the trolleybus shed
- \* cleaning the wooden framework which supports the floorboards in car 186



*Jack Pennack surveys his work in dismantling car 186 prior to restoration.*

PAUL SHILLABEER

- \* cleaning a number of trolleybuses and trams
- \* painting overhead poles
- \* replacing sleepers in our trackwork.

Another task involved cleaning a saloon of car 362 for use as a CSO lunch room.

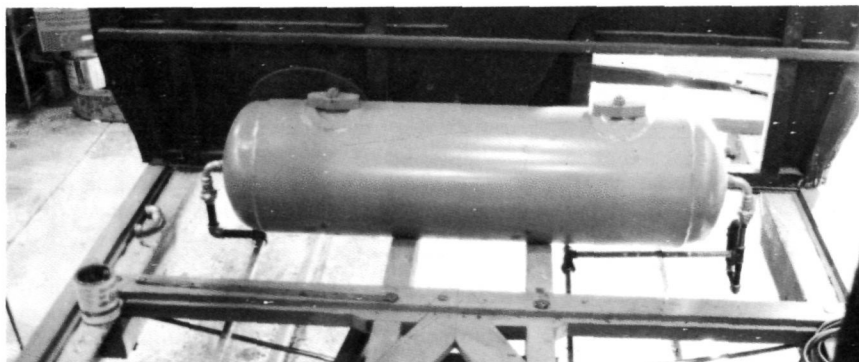
The scheme appears to be working well and is certain to be continued in the future.

#### Other News

Ian Seymour has completely overhauled the air compressor on Birney car 303 and repaired and readjusted the brake rigging.

Jim Burke has salvaged some parts from the body of Melbourne W2 608 which was recently obtained by Hungry Jack's hamburger restaurant at Fulham. The body had resided in the yard of a machinery firm at Dry Creek for the last twelve months. Parts obtained include brake rigging, brake vales and sanding gear.

Dropcentre 282 has returned to service for a brief stint for the first time since being replaced by the 'newer' dropcentre 264 last February. Car 111 has also replaced Ballarat 34 which has been used in regular use for some time now.



*A new tank has been manufactured for car 186. The new piping installed by Ian Seymour can also be seen. Note the new timber body bracing fitted by Jim Burke.*

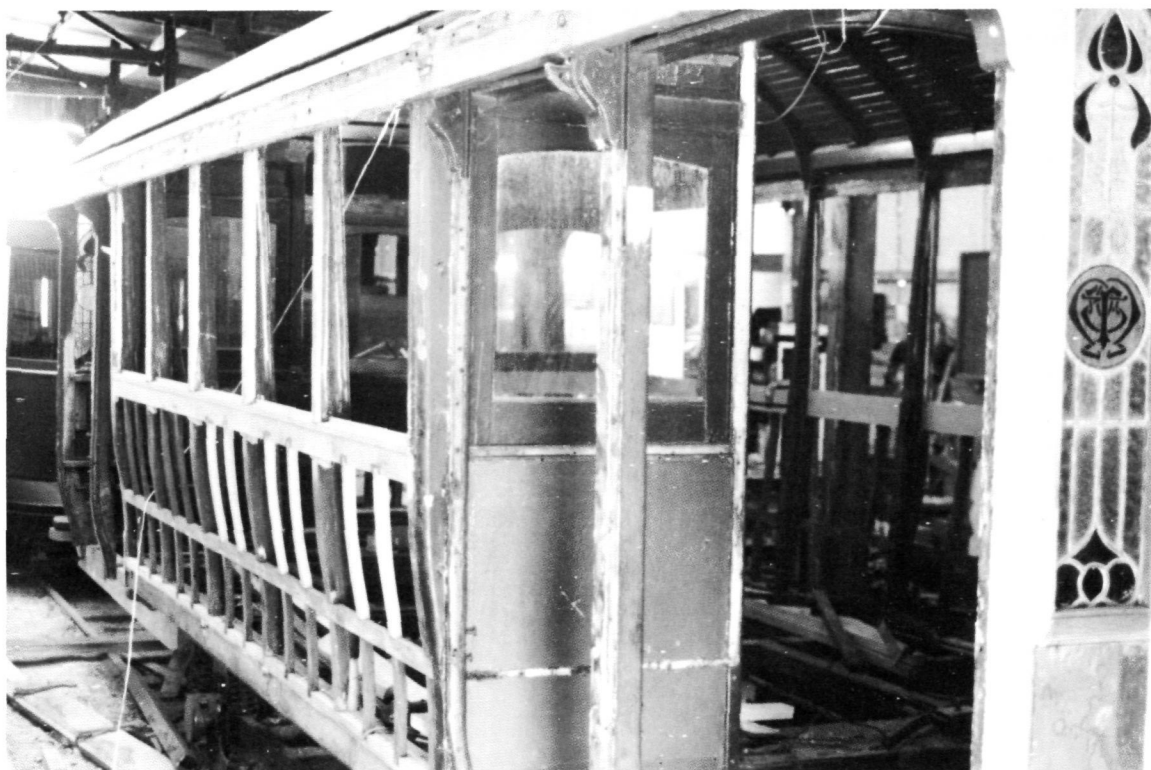
PAUL SHILLABEER





*The body of former C type tram 171 on Graham Ashby's "Ashrose" Merino Stud at Spalding has provided many useful parts for car 186.*

JOHN RADCLIFFE



*The new timber summers and crossribs are clearly evident in this view of car 186 under construction.*

PAUL SHILLABEER

## LOFTUS . . .



## South Pacific Electric Railway

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### New Site

The bricklayers have moved in to carry out the external brickwork of the Workshop/Restoration Building and this work commenced early in October.

We were fortunate in being able to obtain a number of the original round top, cast metal windows from the recently demolished boiler shop at the former Randwick Tramway Workshops. These are being cleaned and prepared by Vic Solomons, Doug Greenwald and Laurie Gordon for installation in our Workshop Building.

A further 26 wooden span poles were delivered to the site on Saturday 12 September and 16 of them were erected that day along the main line. All poles are now in position along

the main line as far as the site of the terminal points at the north terminus, which leaves only the poles at the north terminus and within the site area to be erected.

There are 20 ornamental steel poles to be cleaned and painted for erection along Tramway Avenue before the erection of the overhead wiring can commence. Tramway Avenue? Yes, the Sutherland Shire Council has the Society's registered address listed as the corner of Pitt Street and Tramway Avenue, Loftus.

A fork lift truck was recently purchased for handling many of the heavy lifting jobs around the site and it has been put to good use on many occasions since.



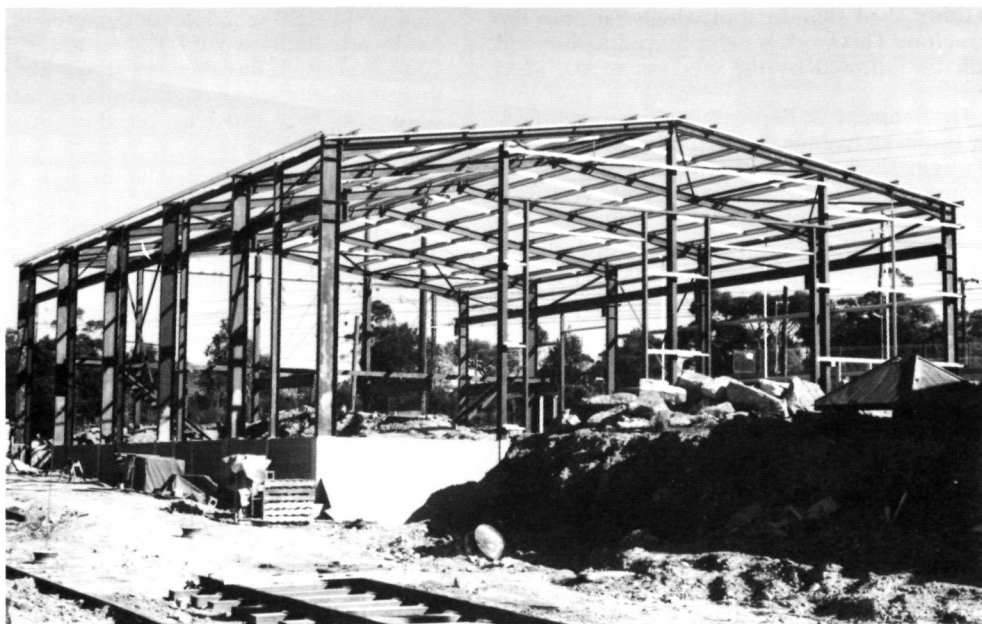
*Trackwork from Pitt Street to the scissors crossover was completed during August/September 1987.*

BOB MERCHANT



*Derek Butler at work on the re-roofing of the signal box from the Railway Square Waiting Shed on 15 August 1987.*

BOB MERCHANT



*The Workshop/Restoration Building as seen from Tramway Avenue on 12 September 1987.*

BOB MERCHANT



*Erecting poles along the main line. Sixteen poles were set on Saturday, 12 September 1987.*

BOB MERCHANT

Derek Butler is progressing well on his latest project, the restoration of the Railway Square waiting shed signal cabin which sat atop the structure. This work is nearing completion and will be followed by the erection of the shed itself.

On Saturday 26 September the second track in Tramway Avenue was laid past the site of the waiting shed, using the remainder of the grooved rail. The scissors crossover now remains the only obstacle to be overcome.

After careful examination of the faulty section of the scissors crossover by Mike Giddey

and Wayne Armitage, the decision was made to scrap this portion and build a new section. In view of the tight schedule for completion of the trackwork, Richard Youl, Robert Aspinall and Chris Wyrzynski have been lending a hand after their maintenance work at the old site and they have also been working on this project on Sundays.

The earthworks along the western side of Tramway Avenue at the Pitt Street end are now well advanced and the opportunity was taken during September to utilise one of the machines to level the site of the future Lakewood Park, our

### **Lakewood Park**

Lakewood Park is named after Lakewood, Colorado, which is the sister city of Sutherland. Lakewood is a suburb of Denver and is located in Jefferson County, a few miles south-west of the city centre.

The Denver & Intermountain Railroad, which passed through Lakewood was owned and operated by the Denver Tramway Corporation. The DTC ran an electric interurban service to Golden, 13 miles from Denver, from 1909 to 1950.

Lakewood Park is to be scened and turfed for the Sydney Tramway Museum by courtesy of the Lakewood Sister City Committee as an Bicentennial gesture.



*Putting down drainage pipes and constructing sumps is an important part of the construction work. Here a sump is being bricked in the future Lakewood Park area on 12 September 1987.*

BOB MERCHANT



*Ballast motor 99U became the first tram on Tramway Avenue at 3.50 pm on 19 September 1987.*

ROGER ROBERTS





*The State Rail Authority of NSW opened its Chullora Workshops complex for public inspection on Thursday, 8 October 1987 as part of its Railway Week celebrations. Trolleybus 19 was on show at the Apprentice Training College within the Chullora area as graphic proof of the standard of workmanship the young trainees are capable of attaining. The display boards illustrate the various stages of the restoration process.*

BOB MERCHANT

picnic area in the centre of the triangle formed by the Depot main line and the tracks in Tramway Avenue and Cross Street.

The spare set of wheels supplied with PCC car 1014 have been reprofiled by BHPs Slab and Plate Division at Port Kembla. The reprofiled wheels will be fitted to the car to enable the vehicle to negotiate the finer trackwork used at Loftus. The tramcar's wheel profile is somewhere between railway and Australian tramway standards and is much too coarse for our trackwork.

Bill Parkinson is busy cutting out some of the rust in 1014 to bring it to a presentable state for our opening day next March. Bill has installed new gang switches for both ends of the car and full controls for all doors, gong, lights, windscreen washers and track brakes are now provided and are operable from both driving positions.

## Late News

*Melbourne, Friday, 2 October 1987* — The tourist tram service commenced operation with cars W1427 and S164. It is a seven days per week operation running from Franklin Street, City to St. Kilda.

*Melbourne, Thursday, 29 October 1987* — The last of the ubiquitous W2 class trams were withdrawn from passenger service and transferred to Preston Workshops.

*Thirlmere, Tuesday, 3 November 1987* — The NSW Rail Transport Museum completed successful steaming trials of steam tram motor No. 1. The Museum carried out the restoration for the Museum of Applied Arts and Sciences. No. 1 is to be transferred to the new Power House Museum on Friday, 6 November 1987.



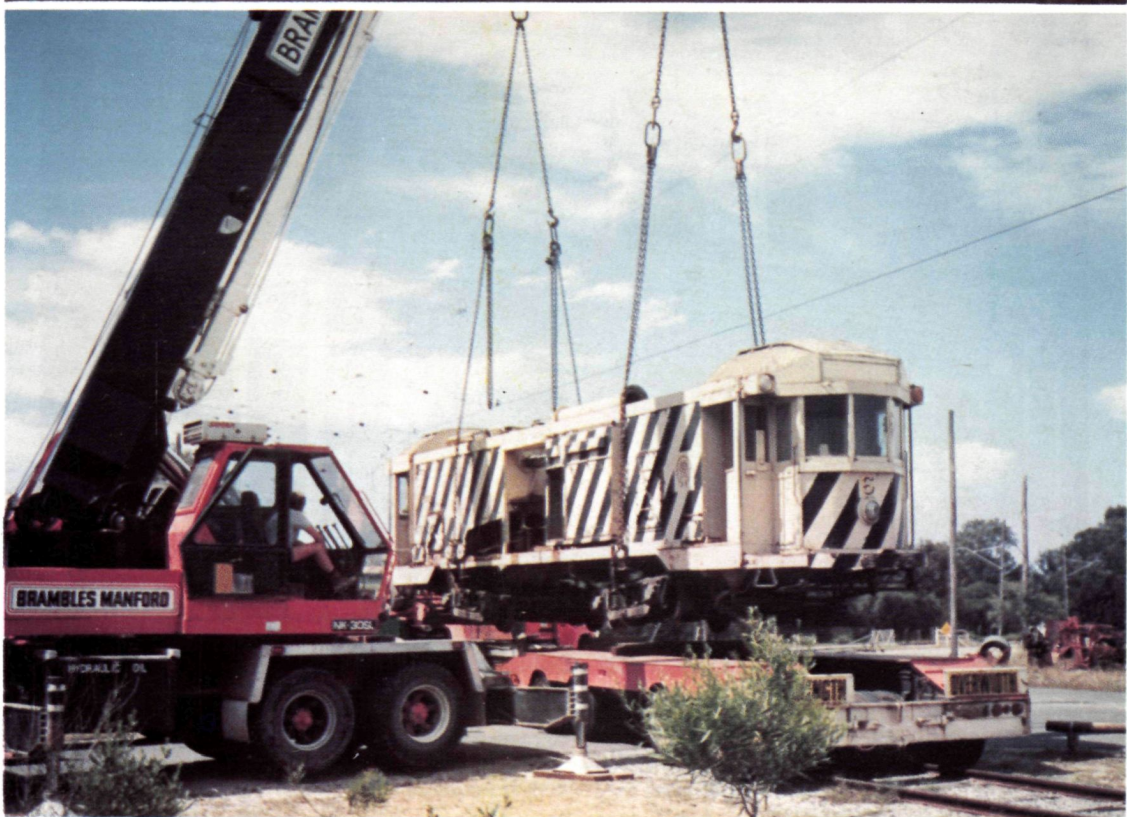
## MUSEUM DIRECTORY

<b>BALLARAT</b>	Ballarat Tramway Preservation Society Ltd. P.O. Box 632, Ballarat, Victoria 3350
<b>BENDIGO</b>	The Bendigo Trust P.O. Box 333, Bendigo, Victoria 3550
<b>BYLANDS</b>	The Tramway Museum Society of Victoria Inc. P.O. Box 27, Malvern, Victoria 3144
<b>FERNY GROVE</b>	Brisbane Tramway Museum Society 20 Tramway Street, Ferny Grove, Queensland 4055
<b>GLENORCHY</b>	Tasmanian Transport Museum Society Inc. G.P.O. Box 867J, Hobart, Tasmania 7001
<b>HADDON</b>	Melbourne Tramcar Preservation Association Inc. P.O. Box 324, Prahran, Victoria 3181
<b>LOFTUS</b>	South Pacific Electric Railway Co-operative Society Ltd. G.P.O. Box 103, Sydney, New South Wales 2001
<b>NEWCASTLE</b>	Newcastle Tramway Museum Ltd. P.O. Box 82, Jesmond, New South Wales 2299
<b>PARRAMATTA PARK</b>	Steam Tram & Railway Preservation (Co-op) Society Ltd. P.O. Box 108, Kogarah, New South Wales 2217
<b>ST. KILDA</b>	Australian Electric Transport Museum Inc. G.P.O. Box 2012, Adelaide, South Australia 5001
<b>WHITEMAN PARK</b>	Perth Electric Tramway Society Inc. P.O. Box 257, Mt. Lawley, Western Australia 6050



*Hobart standard bogie car 120 turns from Murray Street into Macquarie Street about 1952. Car 120 was built in 1936 as (3rd) No. 2 and renumbered to 120 in 1947. It was scrapped in October 1959. The shell of 120 has been rescued by the Canberra Tradesman's Union Club for future restoration.*

THE MERCURY PHOTO  
J. DAVENPORT COLLECTION



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