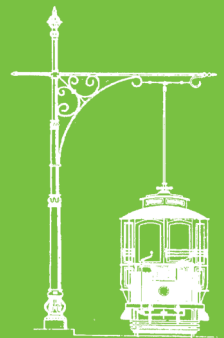


# TROLLEY WIRE

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# TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM  
MAGAZINE

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*A K car descending Wycombe Road, on Shell Cove Loop at the intersection with Shellcove Road, bound for Neutral Bay Wharf.*

K.A. McCarthy

### Correction

Our congratulations to Colin Seymour in the February issue said that he had been the AETM's Trolley Wire correspondent for 50 years. Colin has informed us that this should be 30 years. It is still a record which will not be broken!

### Front Cover:

*K 1296 poses for photographs at Malabar during a tour held on 20 October 1956. Car 1296 was the last four-wheel tram to operate in public service in Sydney when the Neutral Bay line closed on 26 May 1956. 1296 was transferred to Dowling Street Depot in July 1956 and subsequently operated two enthusiast tours, on 11 August and 20 October of that year. It was donated to the Sydney Tramway Museum on 22 December 1956.*

N.F. Reed



# SYDNEY K CAR 1296 TURNS 100

By Vic Solomons

In 2012 Sydney Tramway Museum celebrated the centenary of O class toastrack car 1111. This year sees the 100th anniversary of another of the trams in the museum, K class car 1296.

K 1296 was built by the Meadowbank Manufacturing Company, Sydney, and was one of the second batch of 50 K class cars ordered in 1912. These additional cars, numbered 1280 to 1329, were obtained to meet the increasing patronage on the Watsons Bay and Bondi via Bellevue Hill lines. Both these lines had sharp curves and gradients requiring the use of four-wheel rolling stock. This was in compliance with a prohibition determined by Chief Electrical Engineer Orlando Brain which prevented vehicles other than four-wheelers fitted with track brakes from operating in areas with continuous gradients steeper than 1 in 12. Cars 1280 to 1283 were placed in service in April 1913 with the rest of the batch entering service progressively until the last car 1329 entered service on 3 October 1913. The cars were the last four-wheel rolling stock built for Sydney.

The cars were of the half open, half enclosed crossbench design, as were the first 47 cars of the type that were placed in service during 1908. The cars differed from this first batch, numbered 746 to 802, in several respects. The 1913 cars were fitted with GE203 motors and K35G controllers at both ends, and were built with enclosed drivers protection windshields at both ends. The older cars were delivered with open

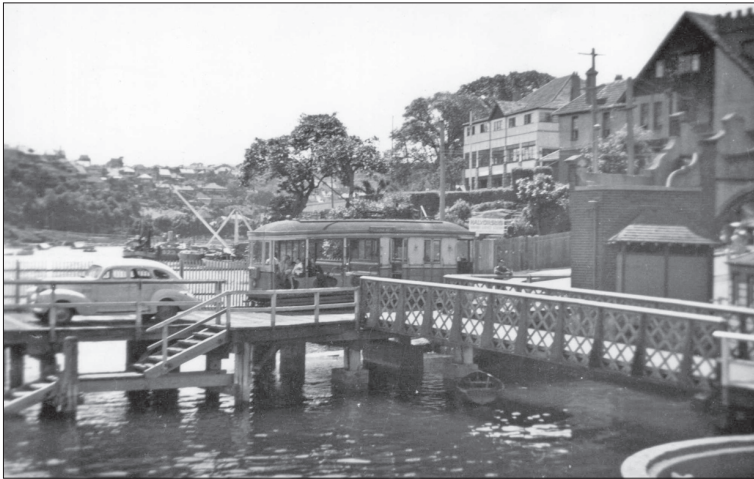
aprons, which were mostly later enclosed at the non-coupling ends only. These cars were fitted with GE67 motors, with K10 controllers at the number 2 end and K6 controllers at the number 1 end. The trucks under the cars differed as well, with the first batch fitted with Sydney No. 1 (21E) type and the second batch with an improved Sydney 21E-1, based on the 21E design. All the trucks were of 7ft 6in wheelbase. Due to these variations, cars of each group could not be operated in multiple unit with a car from the other batch. In both batches the positioning of jumper sockets dictated that only odd numbered cars could be coupled to even numbered cars.

Car 1296 was placed in service on 27 June 1913 (and car 1295 on 20 June 1913) and possibly operated from Waverley or Rushcutters Bay depots. It was fitted with improved track brakes and transferred to North Sydney depot in May 1917 in company with car 1295 for operation on the steeply graded Neutral Bay Junction to Neutral Bay Wharf line, which had grades as steep as 1 in 8.75. This line, which opened on 25 June 1900, initially used C and D class cars or C and D combinations all fitted with track brakes, and from 1910 the two H cars 739 and 740, which were returned to the main system upon arrival of 1295 and 1296. Several sets of E cars, also fitted with track brakes, were available to assist in times of heavy loading. (These E cars also ran on the Athol to Balmoral service.)

*K 1296 on the terminal jetty at Neutral Bay Wharf. Trams ceased to run onto the jetty from 25 February 1952.*

K.A. McCarthy collection





*A K class car stands on the terminal jetty viewed from an arriving ferry circa 1951.*

J.C. Richardson collection



*K 1295 stands on the grade at the Neutral Bay Wharf terminus after the terminal wharf had been closed.*

N.F. Reed



*K 1295 is ready to depart Neutral Bay Wharf with an evening peak load. Note the rotted-out bow rail above the downpipe on the right.*

N.F. Reed



*K 1296 climbs Wycombe Road on its way from Neutral Bay Wharf to Neutral Bay Junction.*  
N.F. Reed



The two K cars, 1295 and 1296, along with E cars 499-500 and 529-530, were available for use on the line well after all others of these classes were scrapped. However on at least two occasions they left their usual sphere of operations. Car 1295 was used on a special tour of the North Sydney lines on 23 August 1952 and 1296 was used on a similar tour on 2 May 1953.

No. 1296 had a mishap on 1 November 1947 when it ran through the catch points at the lower terminus at Neutral Bay, just before the level wharf/jetty terminal area. C class breakdown car 125s was despatched to retrieve 1296. It had partly succeeded in commencing the tow when the weight of 1296 proved too much, resulting in the rear drivers' cabin of 125s being torn off, leaving 1296 in a worse position than before.

Finally another elderly breakdown car, 57s, came to the rescue and removed 1296 back to North Sydney depot.

By the early 1950s these elderly cross bench cars were, to use present day terminology, well past their 'use by' date. In January 1952 new R1 class car 1999 had been used for trials on the line, temporarily fitted with dynamic braking. On 4 November 1952 R1 2029, permanently fitted with dynamic braking, commenced service on the line. As a result the two K cars were thereafter only used during peak hours and when 2029 was receiving maintenance.

By 1954 traffic on the line had reached the stage where the service could be operated by 2029 and one K class car. Accordingly K car 1295 was transferred to

*K 1296 at Mosman Wharf terminus on an enthusiast tour. The track on which it is standing was part of the original balloon loop.*

B.J. Parle





Following the closure of the Neutral Bay line on 26 May 1956, K 1296 returned to the main system and was used on two enthusiast tours later that year. Here it climbs from Maroubra Beach on 20 October 1956. N.F. Reed



K 1295 in the backyard of Norman Boxall's home at 46 Henson Street, Marrickville in 1959. R.I. Merchant



K 1296 negotiates the loop at Coogee Beach during the tour on 20 October 1956. N.F. Reed



*K 1295 on its way from Marrickville to take part in a Waratah parade in the 1960s.*

D.M. Campbell collection



the main system, to Dowling Street depot, on 27 August 1954; the two pairs of E cars remained at North Sydney as standby cars until 1955. No. 1295 was the subject of a request for a special tour planned to mark the 75th anniversary of continuous tramway operation in Sydney. However as its condition could not be guaranteed for such a tour it was replaced by O 1254, and it was sent to Randwick workshops on 20 September 1954.

No. 1296 operated only on Thursdays during the last months of the Neutral Bay service, as a relief car to R1 2029 whilst it was undergoing maintenance. The line was closed on 26 May 1956, finally bringing to an end the last regular operation of a four-wheel tram in passenger service in Sydney. 1296 was transferred to Dowling Street depot in July 1956. It was subsequently

used on two enthusiast tours, on 11 August 1956 and 20 October 1956.

Car 1295 was purchased by the late Norman Boxall on 11 January 1955. Mounted on a float, it took part in a couple of October Waratah processions, along with C car 12, during the 1960s, whilst at other times it remained stored in the open in his Marrickville backyard. Together with C 12 it was subsequently acquired by the Sydney Tramway Museum in derelict condition in 1997 and it is stored off site.

Car 1296 was donated to Sydney Tramway Museum on 22 December 1956 and arrived at the National Park site on 19 March 1957. After electrical trials on 6 December 1964, 1296 was repainted in the olive, fawn and grey (pre-1933) colour scheme. At the opening

*Taking part in the October 1966 Waratah parade, K 1295 is in St James Road with Hyde Park in the background.*

M. Pinches





*K 1296 inaugurates electric operation at Loftus as it leaves the Sydney Tramway Museum's old site at 11:00am on the morning of 14 March 1965.*

W.S. Parkinson



*K 1296 and road vehicles on the former tramway right-of-way on the northern approach to the bridge on 21 March 1982.*

STM Archives



*K 1296 on display at North Sydney for the Sydney Harbour Bridge 50th anniversary celebrations on 21 March 1982.*

A.H.D. Budd



*K 1296 about to make a demonstration run at the Sydney Tramway Museum's new site on 22 February 1986. It carried a number of invited guests including the former Minister for Transport, the Hon Milton Morris.*  
A.H.D. Budd



day of operations at National Park on Saturday 13 March 1965, it followed L/P 154 in the opening parade and entered service the next day, when it operated the first regular electrically-operated trip on the museum tramway.

Later that year 1296 featured in a television show filmed at the museum by Channel 10 on 1 December. A troupe of performers arrived at the platform on 1296, and as it stopped they quickly alighted and proceeded to dance beside a large banner proclaiming 'East, West, Trams are Best'.

K 1296 left the old site at Loftus on Friday 19 March 1982 for display at North Sydney for the Harbour Bridge 50th anniversary celebrations. It did not on this occasion cross the bridge; it went via the Gladsville

bridge in both directions, staying overnight at Dowling Street depot on the Friday. K 1296 returned to Loftus, to the new depot on Monday 22 March. It is interesting to note that the car had arrived at the National Park site at Loftus on 19 March 1957; it thus stayed at the old depot for exactly 25 years. For most of its life this car has had only two homes, as it stayed at North Sydney for 39 years.

No. 1296 was one of the first cars at the new museum site and was, on 8 February 1986, the first car to operate under power there. On 22 February it took VIPs for a short demonstration ride at the new site.

Radio station 2UE wanted to sponsor a suitable tram to take part in the Victory Commemoration Parade through the city on Tuesday 15 August 1995. A visit to

*K 1296 formed the backdrop on 3 February 1987 when the State Member for Woronora, Mr Maurice Keane presented a cheque for \$67,000 to museum treasurer Howard Clark. The cheque was for the second and final instalment of a Bicentennial grant for the restoration workshop building. The event was covered by a photographer from the Sutherland Shire Leader.*

H.R. Clark collection





*Flags are waved, and streamers and shredded paper drift down over K 1296 as it moves up George Street past Martin Place as part of the parade to mark the 50th anniversary of the declaration of Peace and the end of World War II on 15 August 1995.*  
R.I. Merchant



*K 1296 moves down George Street past Bathurst Street towards the end of the parade on 15 August 1995.* H.R. Clark

the museum was arranged and K class 1296 was chosen. It appealed to the radio station representatives and was small enough to be loaded without cranes by using a tilt-tray truck. K 1296 arrived at the spot reserved for it outside the northern end of the Overseas Terminal at Circular Quay West early on the Tuesday morning, having been loaded the previous afternoon at the museum and stored there overnight. No. 1296 basked in the attention it received from other participants and passers-by. As well as staff from 2UE, on board were three museum members dressed in suitable tramway uniforms. The parade moved generally smoothly up George Street and passed the Town Hall around 1:00pm. The size of the crowd and their enthusiasm was very impressive and the tram attracted much interested comment from spectators. From George Street the parade route led down Liverpool Street and terminated near Darling Harbour. K 1296 appeared in the Channel 7 live telecast of the parade. After the parade, 1296 immediately returned

to Loftus where it was unloaded and returned to the depot.

At present 1296 is unfortunately not available for operation pending repair and is on static display at the museum. K 1295 remains unrestored off site.

In addition to 1295 and 1296, two other K cars exist in operating condition, being first batch cars 763 and 797. They were significantly rebuilt at Randwick Workshops as scrubber cars 138s and 139s, entering service in February 1952 and July 1953 respectively. The two cars were sold to the Melbourne & Metropolitan Tramways Board in June 1959, becoming 10W and 11W respectively, and soldiered on as scrubber cars for more than 40 years. 10W is now in the care of the Tramway Museum Society of Victoria at Bylands, whilst VicTrack made 11W available to the Sydney Tramway Museum. It is presently stored off site.



# SYDNEY TRAM RECOVERY TRUCKS

By Greg Travers and Ian Saxon

The New South Wales Government Tramways used retired C class single truck saloon tramcars as breakdown trams (and converted O class cars from 1955). One was attached to each depot and it would be called out to attend accidents and other tramcar failures, and tow disabled trams back to their depot or to Randwick Workshops for repair. Due to traffic conditions it was not always easy for the breakdown car to reach a disabled tram.

Limited information is available on the early use of road vehicles for tram recovery work. One early vehicle to receive some publicity was the first breakdown wagon, which was the subject of an article published in *The Staff* magazine dated 22 March 1928. It is reproduced in full below.

## Emergency Vehicle for Tramway Breakdowns

An important addition to the emergency equipment of the Tramway Department has been added in the form of a breakdown wagon, specially designed for that purpose in the Chief Electrical Engineer's Branch, and built in the Departmental workshops at Randwick.

The new apparatus was introduced because it has been recognised for a long time past that the method of re-railing derailed vehicles, or, as is sometimes necessary, releasing persons pinned underneath the cars, was unsatisfactory. The practice was to have a breakdown repair car at each tram depot throughout the system, these cars being fitted with all accessories in the way of lifting jacks, ropes, blocks, skids, &c, and to despatch these to the point required as quickly as possible upon receipt of information as to the breakdown. Frequently, however, great difficulty was

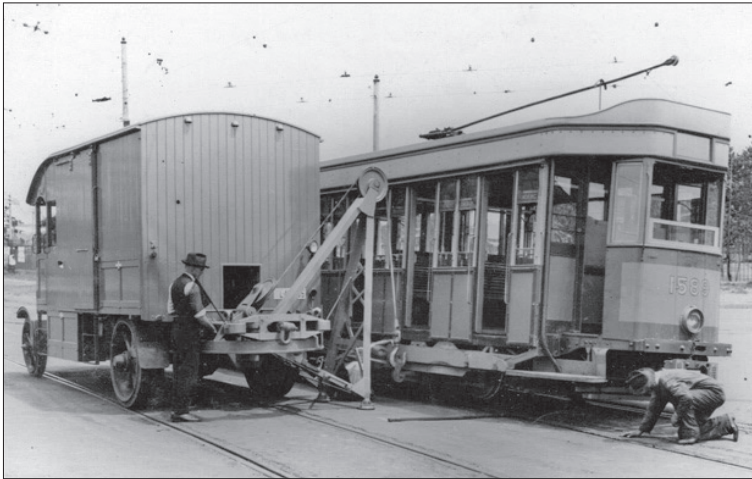
experienced in getting this vehicle (an electric box car of special design) along the tram rails to the scene of the breakdown. When the breakdown vehicles and crew arrived at the scene, the fitting in places of the lifting jacks, wedges, &c, was sometimes a lengthy process owing to the irregular configuration of the ground, the conditions of the accident, and so forth. Moreover, in the case of a casualty, operations were sometimes impeded by the surrounding crowd of onlookers, in a mistaken endeavour to assist in freeing the person affected. In some cases, the lifting jacks could not be advantageously placed on account of the position of the casualty.

The new device is designed on quite different lines. It consists of a petrol engine-driven lorry, independent of rails, with a special lifting crane fitted at the rear, and containing on the body of the lorry all the necessary auxiliary appliances required for various classes of casualty or breakdown. The vehicle has a special shackle at the rear for attaching a steel wire rope for re-railing purposes. In addition, arrangements have been made to provide for the inclusion of two hydraulic jacks (power operated), connected with flexible hosing to the hydraulic pump system used for operating the lifting crane. This arrangement of hydraulic jacks, and the method of constructing and operating the crane, constitute what are believed to be two quite novel features in the way of lifting appliances for heavy vehicles.

Photograph No. 1 shows a three-quarter rear view of the vehicle and crane; and No. 2 shows the apparatus in action with the car lifted at one end. It will be noted that the load upon the breakdown vehicle during lifting operations is comparatively small, as the



*The Karrier in its original tramway recovery configuration in 1928.*  
STM archives



*The Karrier demonstrated its ability to lift a tram on 29 March 1928. P car 1589 has been lifted from the track in Darley Road, outside the tramway workshops.*

STM archives

reaction due to the lift is taken through the upright legs of the crane direct on to the ground alongside the vehicle, special easily detachable metallic slippers being fitted to the steel balls at the foot of the crane supports in order to secure a firm hold on the ground and to spread the weight as required. These slippers are of various types for various classes of ground, and are held in place by clips; the whole operation of attaching the clips to the crane feet takes a matter of seconds only. Various types of specially designed lifting hooks, also, have been made for attaching to the bogies or underframes of the different types of car used in the service, according to whether these are four-wheel or double bogie cars, &c. The slippers and lifting hooks, and all other special appliances are, of course, normally carried in the body of the vehicle, specially labelled and marked for the various conditions encountered.

The third photograph shows how the vehicle is used for re-railing motors by means of the steel hawser, using the special drawbar shackle already mentioned.

Electric lighting facilities are provided at the rear of the vehicle for use at night, and two warning flags are fitted at the rear whilst traversing the streets.

The crane is designed for a working load of 5 tons, with a 6 feet clear lift of hook, but is only required to lift 9 inches maximum on a tramcar. Vibrac steel was chosen for the lifting hook material, on account of its high tensile strength and high impact resistance, in order to economise weight and facilitate handling. On tests made with the appliance in service, it has been found that the vehicle can be manoeuvred into position, a car lifted to the full extent and replaced ready for traffic, in less than two minutes. With the use of ordinary lifting jacks on irregular ground, as long as ten to twelve minutes may easily be taken in fitting the

jacks in position, and more serious delays were occasioned by the length of time taken in getting the breakdown vehicle to the scene of accident. With the present equipment a speed of 12 to 13 miles per hour can be attained from the depot, which, for the present vehicle, is situated in the vicinity of Sydney Station. Provided that the experiment meets all requirements, it is intended to have a number of vehicles of similar character situated at convenient centres throughout the tramway system.

The lorry used for this equipment is the normal K S 6-ton "Karrier" standard chassis, the only alteration required being the rear chassis cross tie, which was removed and double channel cross towing bars substituted. The hydraulic ram has a maximum stroke of piston of 1 foot  $6\frac{3}{4}$  inches in the cylinder, the internal length of which is 2 feet by 9 inch bore, the cylinder walls being  $1\frac{1}{4}$  inches thick. The weight of the hydraulic ram complete is approximately 1,100 lb., and the cylinder operates at 750 lb. working pressure, with 1,500 lb. test pressure. The fixed sheaves for the lifting rope, which is  $2\frac{3}{4}$  inch circumference extra special flexible S.W.R., are supported on the back head of the cylinder, and the piston, which is connected to the travelling sheaves, pushes apart the two sets of sheaves, in order to raise the load. The lifting rope, which is passed over two fixed travelling sheaves with the end anchored to the ram seating gives a four to one purchase. It will be noted that the shear-leg frame revolves, with its centre on a universal ball joint, round a special slewing track which is provided with a detachable trigger to enable the shear-legs to be lowered to the ground. The 6-inch ball joint provides freedom for vertical motion of the shear-legs from 9 inches below to 12 inches above normal ground level, together with a rocking motion 8 per cent on either side of the vertical. Trunnions provide for 180 per cent slewing motion in the horizontal plane. The ball foot



*On completion of its tram lifting demonstration, the Karrier tows P 1587 back to the workshops.*

STM archives



pads or slippers provide 30 per cent, adjustable bearing surfaces in any direction between both feet. The controlling handles for the lifting operations are on both sides of the rear of the vehicle. The hydraulic pump for operating the ram is of the submerged plunger type, consisting of two plungers operating in an oil bath. The pump has a direct drive from the power take-off on the gear box, by a shaft connected through a small dog clutch to a spur gear on the hydraulic pump tank. The plungers are driven by eccentric sheaves, and the clutch is operated from the driver's seat. The hydraulic piping throughout is of copper of ½ inch internal diameter, No. 10 gauge, with soft copper joint rings. The 1¼-inch shackle provided at the rear of the vehicle is suitable for a 10-ton drawbar pull, and also can take a standard tramway towing gear, with a 3-ton pull. This tackle, or if need be the lifting crane, can also be used for clearing the tracks of disabled vehicles of any type. Heavy medium oil is used as the hydraulic fluid.

The overall length of the chassis with the shearlegs in the stowed position is 25 feet 3 inches, the height of the van above road level, loaded, is approximately 10 feet 10 inches, the width of the lorry is 7 feet 3 inches. The tare is 7 tons 3 cwt. It is believed that the principles adopted in this vehicle will be utilised in other directions than for lifting tramcars, particularly as there is no appreciable unbalanced lifting movement on the vehicle, as the reaction of the crane is taken on the ground itself.

\* \* \*

The vehicle was based at Ultimo tram depot and carried the number 112 with registration number L42.296. To improve efficiency the timber body was removed in 1936. It had been reregistered CT.090 by March 1938 and had become No. 24 in the Mains Section fleet by 10 May 1944.



*The Karrier Tram Lifting Wagon shows its rebuilt body style in 1936.*

STM archives



A rear view of the Karrier (carrying departmental number 112) in its final form showing its lifting gear. STM archives

A demonstration of the operation of the vehicle, in its original configuration with timber body, was filmed by the Tramway Department and may be seen on the Sydney Tramway Museum's video *Shooting Through*.

#### The Dyson tram-carrying trailer (The Lizard)

The Sydney tramway system included several lines which were isolated from the main routes and the heavy engineering tramway workshops at Randwick. Initially trams were operated over the tracks of the metropolitan railway system late at night when train services were at a minimum. Different sized wheel flanges were only one of the problems with this

arrangement and a tramcar carrying trailer was commissioned on 19 February 1937. The 'trailer' actually comprised two units. One was capable of carrying a bogie tramcar and the other was a ramp from the tram tracks onto the first trailer. The November 2002 issue of *Trolley Wire* included a diagram and description of these trailers, which were built in Liverpool, England.

The vehicles were first registered L74.888 and L74.889. In March 1938 the ramp was reregistered CT.097 and the carrier as CT.098, being respectively reregistered again by 10 July 1957 as TX.4524 and TX.4523.



The Karrier Tram Lifting 'Waggon' at Randwick Workshops. J.W. Burgess



*The Karrier with the Lizard tram-carrying trailer is seen on the 1 in 12 grade of Alison Road, Randwick with a test load on 9 April 1937.*

V.C. Solomons collection



*The Karrier (now carrying departmental No. 24) was assisted by a Thornycroft flat bed truck (departmental No. 25).*

Railway P 4464, R.I.  
Merchant collection

*The test load consisted of ballast trailer 75v which was loaded to weigh 18 tons, approximately the weight of an R class tram.*

R.I. Merchant collection



The trailer weighed nine tons, was 51 ft 9 ins in length including drawbar, 9 ft wide, had eight wheels with twin solid rubber tyres on each, the leading four wheels being steered by the drawbar. The ramp weighed 19 cwt, was 25 ft in length and 7 ft 7 ins wide. Full particulars of the equipment and operation were published in Tramway Weekly Notices Nos. 12 and 14 of 1937. Air connections were needed to operate the

trailer's brakes, and the Dyson trailers (which became known as 'The Lizard') tended to work with the same prime movers as a result.

Trials were carried out in 1937 with No. 24, the Ultimo based Karrier tram lifting wagon previously mentioned. A test load of 18 tons on ballast trailer 75v was conducted on a grade of approximately 1 in 12 in



*The Karrier with R1 car 1983 on the Lizard. STM archives*



*R1 car 1983 on the Lizard tram-carrying trailer behind the Karrier tram lifting wagon. STM archives*



*The Karrier was assisted by the Thornycroft on this test in 1937. STM archives*

Alison Road Randwick on 9 April 1937. Another test of the Karrier with the Lizard on the same day was conducted with R1 car 1983. The Karrier was unable to adequately pull the trailer with a bogie tram on board and required the assistance of a support vehicle.

Support vehicles based at Randwick Workshops were a Thornycroft table top truck, No. 25 (L11.375 later CT.100), and AEC table top No. 23 (L74.414, later CT.099) which towed the ramp once a tram had been successfully loaded. The Dyson trailers were usually stabled at Randwick Workshops.

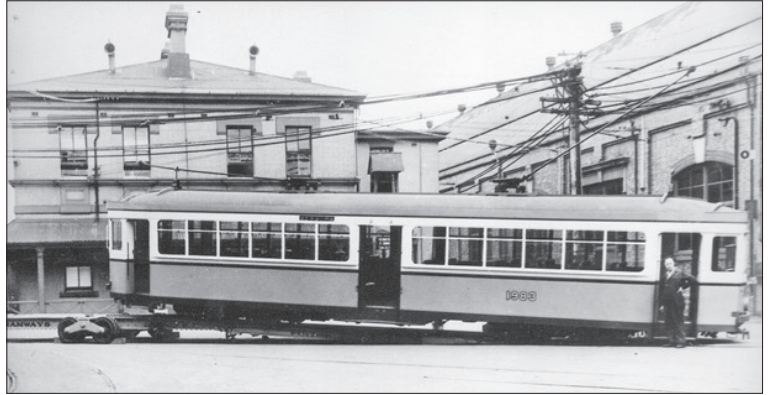
### **The Kenworth Tram Lifting and Towing Wagon**

It is uncertain how long the Karrier used by the Tramways survived as the heavy recovery vehicle. By 11 October 1946 at least, another vehicle, CT.195 was in use on these duties. The truck was a Kenworth model 573 10 ton former 'War Department Heavy Duty Wrecking Truck model M1A1', of Ward La Franc manufacture. It was a left hand drive vehicle used for towing and lifting. It was equipped with a jib crane, towing winches and front and rear tow hooks.



*R1 1983 being driven onto the Lizard tram-carrying trailer in the yard at Randwick Workshops.*

R.I. Merchant collection



A memo in the official documentation shows that the truck was transferred from the Army Vehicle Park at Ryde to Randwick Workshops on Monday 2 September 1946 for demonstration purposes. The demonstration was witnessed by staff from various tram and bus sections. The Chief Engineer also wanted “a suitable officer from Leichhardt Workshops staff to travel to Ryde to accompany the vehicle to Randwick Workshops”. This was for the officer to observe the truck’s performance in traffic. The memo also stated that the two Army personnel travelling with the truck “were to be provided with morning tea and a substantial lunch (without charge)”.

Also the test area selected at the Randwick Workshops for the demonstration was to be cleared and tramcars of different types (O, P and R) were to be made readily available as required for the tests. The demonstration appears to have been successful as the vehicle was acquired in 1946 after the successful

testing of the truck at the Randwick Workshops. It was registered as CT.195.

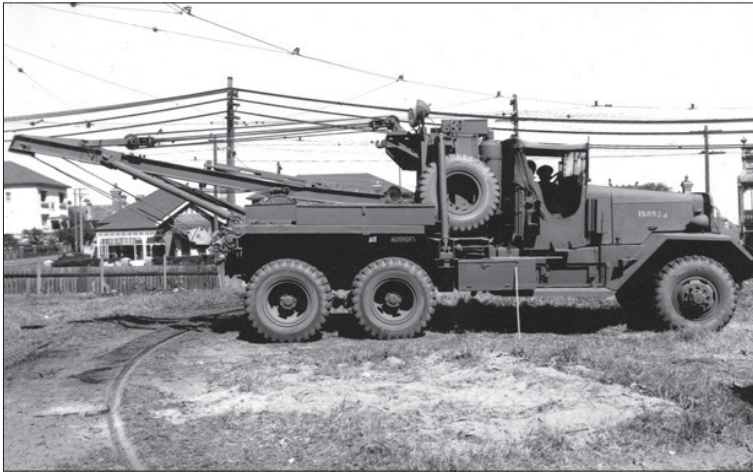
The vehicle was to be known as the Kenworth Tram Lifting and Towing Wagon and it was stationed at Randwick Tramway Workshops, operating on the 24 hour call-out basis.

Unfortunately this vehicle turned out to be not very successful and on 5 November 1952 the Chief Engineer recommended that the Kenworth be put up for sale. However the department found it very difficult to sell. In correspondence it was stated that “it was advertised in the newspapers on several occasions and offered to haulage contractors”. Also enquiries were made to a number of firms and authorities who may have been interested in purchasing the vehicle. If sold all of the breakdown gear except the crane and winches was to be removed.



*The Karrier on the Sydney Harbour Bridge in 1938, transferring O class car 847 on the Lizard trailer.*

STM archives



*The Kenworth army truck at Randwick Workshops in 1946. It is still in its army colours.  
V.C. Solomons collection*



*The Kenworth at Randwick Workshops. A measuring stick is propped against the side of the vehicle.*

Railway TR50, VCS collection



*The Kenworth's lifting ability was tested at Randwick Workshops in 1946 using P car 1636.*

V.C. Solomons collection



*Kenworth CT.195 outside its home at Randwick Workshops.  
J.W. Burgess*



On 3 July 1953, when the engine was started, as was the case on numerous occasions for demonstrations to potential buyers, and whilst idling, one of the pistons became jammed in the cylinder and caused extensive damage to the motor.

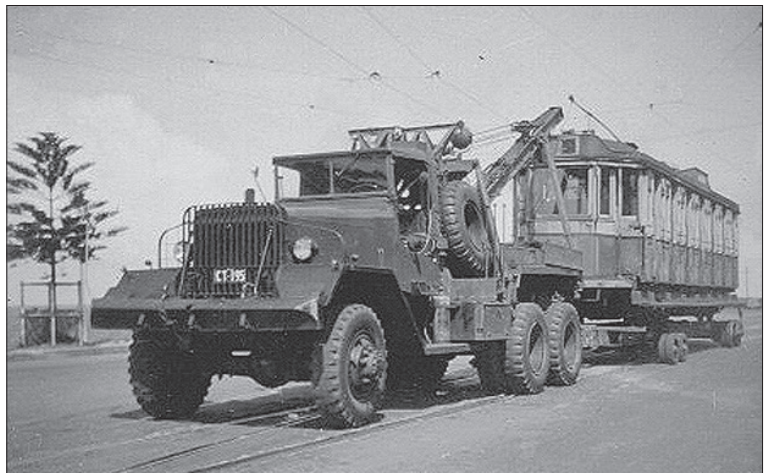
In February 1954 an internal memo stated that “the engine is damaged beyond repair and spares are not available to recondition it. The vehicle is very cumbersome and it is not suitable for the average hauling or breakdown contractor. Negotiations with J.

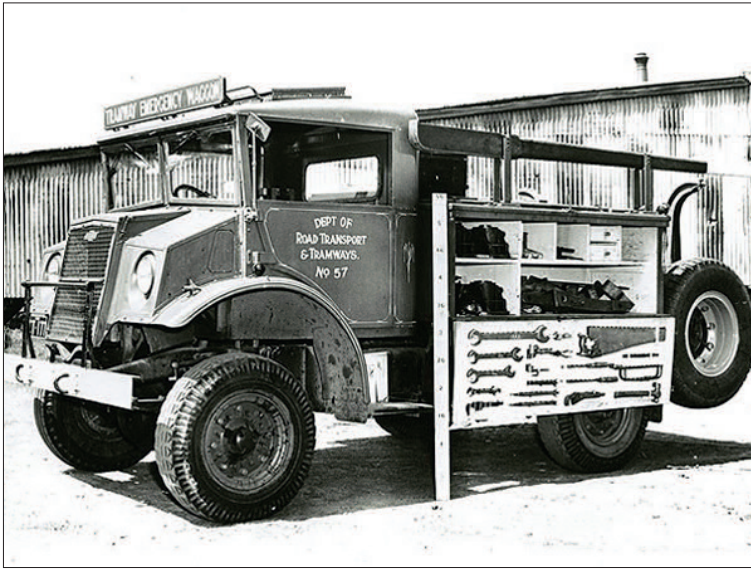


*The Kenworth was used to return trams from the Rockdale to Brighton-le-Sands line to Randwick Workshops after the line's closure in 1949. The Lizard trailer is being prepared to load L/P class car 220 in the background. J.W. Burgess*

*The Kenworth with an L/P class tram on the Lizard trailer at Brighton-le-Sands in 1949.*

V.C. Solomons collection





*Chevrolet tramway emergency 'waggon' No. 57 displays its wares. A measuring stick is propped against the open equipment cabinet.*

STM archives

Hill of Wollongong was (sic) not satisfactory with their bid for £300 but a bid from Gosden and Gosden of Riverstone of £475 was accepted". The original cost of the vehicle to the department in 1946 was £3,038.15.0. This last bid was approved and it was sold on 13 May 1954.

### **Chevrolet Tramway Emergency Wagon**

CT. 177, a Chevrolet 4x4 Blitz (former Army 68.060, chassis No. 38440044489, new 15 April 1943) was initially registered TF.738 for the Tramway Mains Engineer after acquisition from the Commonwealth Disposals Commission on 30 May 1946. It was later used by the Maintenance Engineer, Trams, as emergency breakdown unit No. 57. It was still used for tramway maintenance work in October 1957 but by March 1960 it had been transferred to Chullora Workshops as plant No. MV.33. This vehicle is now part of the Bus and Truck Museum's collection.

### **AEC Matadors**

A number of AEC Matador 10 ton artillery tractors became available. The chassis were originally designed for the British Army about 1935, their duties including heavy recovery work. Powered with the AEC model A187, 7.7 litre diesel engine, the engine was similar to the Mark V pre-war built AEC Regent double-decker buses in service with the DRTT. The main engine difference was a modified sump design to accommodate an additional differential on the front axle. In addition to the four wheel drive, they had 24 volt electrical systems, air pressure brakes and a power operated winch already fitted.

Correspondence in 1952 shows that the Chief Engineer was considering using the AEC Matador recovery wagons to replace the Kenworth recovery vehicle. He believed that two vehicles (there were five then in service for recovering buses) 'are just as well equipped to clear tram tracks of vehicle wreckage by towing and lifting operations, and can be fitted with the necessary brake control valves to haul the Dyson tram-carrying trailer when it is recommissioned'. This presumably referred to the recommissioning of the trailer after it was modified from solid rubber tyres to pneumatic rubber tyres.

It was recommended that the Randwick and North Sydney bus depot AEC Matador trucks be selected to be modified to tow the tram-carrying trailer and these were equipped with the necessary air couplings.

### **Last use of the tram-carrying trailer**

The last use of the Dyson unit – the Lizard – occurred with the transfer of trams from North Sydney after the closure of that system on 29 June 1958. The Lizard and Randwick Matador CT.073 were used to transfer tramcars across the Harbour Bridge to the main Sydney system. The Willoughby (ex-North Sydney) Matador CT.109 was used as a reserve vehicle.

The cars were driven under their own power from North Sydney Depot to Victoria Cross, North Sydney for loading, and were unloaded in College Street in the city. The transfers were made in the early hours of the morning and on most nights three trams were moved. A few trams were transferred before closure, and two



*AEC Matador CT.073 with R class 1896 at Victoria Cross outside the North Sydney post office. S. Cowell collection*



*AEC Matador CT.073 ready to take an R class car from North Sydney in July 1958.*

V.C. Solomons collection

*AEC Matador CT.073 with O class 1075 at Victoria Cross outside the MLC Centre on 2 August 1958. It is ready to take 1075 to College Street, from where it will be driven to Randwick Workshops.*

B.J. Tooker



## NORTH SYDNEY TRANSFERS JUNE-AUGUST 1958

### To North Sydney

Date	Tram Numbers	Date	Tram Numbers
20 June	91u	27 June	98u

### From North Sydney

#### R1 class – to Dowling Street Depot

Date	Tram Numbers	Date	Tram Numbers
20 June	2037, 2079, 2081 – see note 1	7 July	2083, 2077, 2003
30 June	2066, 2073, 2074	8 July	2053, 2054, 1999
1 July	2075, 2071, 2029	9 July	2033, 1934, 2084
2 July	2085, 2080, 2078	10 July	2076, 2072, 2055
3 July	2036, 2032, 2002	11 July	2069, 2068, 2067
4 July	2034, 2082, 2070	12 July	1933, 2056
5 July	2086, 2035, 2087		

#### R class – to Waverley Depot for storage; some cars saw service from Dowling Street Depot from mid-1959

Date	Tram Numbers	Date	Tram Numbers
27 June	1930, 1924	16 July	1858, 1922, 1911
11 July	1872	17 July	1902, 1843, 1926
13 July	1859, 1867, 1914	18 July	1896, 1854, 1847
14 July	1846, 1844, 1885, 1918	20 July	1925, 1895, 1849
15 July	1884, 1903, 1880	21 July	1891, 1920, 1919

#### O class – to Randwick Workshops for scrapping, except car 808 to Waverley Depot for storage

Date	Tram Numbers	Date	Tram Numbers
23 July	808, 818, 1100	31 July	1056, 1001, 815
24 July	1032, 950, 827	1 August	1204, 1212, 1033
25 July	1034, 1050, 1002	2 August	1041, 1075, 1445
26 July	1182, 1091, 1009	4 August	1042, 1230, 1174
28 July	1073, 1064, 1071	5 August	1279, 840
29 July	971, 1400, 1044	6 August	1063, 969, 1335
30 July	1278, 1347, 838		

#### Service stock

Date	Tram Numbers	Date	Tram Numbers
27 June	Essanee No. 1 - see note 2	7 August	91u, 98u, 143s – see note 3
6 August	133s, 93u, 99u		

#### Notes:

1. It is not certain if car 2081 was transferred on 20 or 23 June, to Randwick Workshops. It had been involved in a collision, and left the workshops after repairs on 17 November 1958.
2. It is possible that No. 1 had been replaced by another grinder by the time of this transfer.
3. Breakdown car 143s subsequently saw service from Rushcutters Bay Depot.



ballast cars were sent north late in June 1958 for use in dismantling the Harbour Bridge and Wynyard tunnel tracks. Details of these transfers are shown in the accompanying table.

Matador CT.082 was purchased privately and donated to the Sydney Tramway Museum. Its story was covered the November 2004 issue of *Trolley Wire*.

Thanks to Ross Willson for the provision of additional information and for the list of tram transfers associated with the closure of the North Sydney lines.



*The last tram to leave the North Sydney system, O breakdown car 143s passes through the Sydney Harbour Bridge toll booths on 7 August 1958 behind AEC Matador CT.073. This was the last time the Lizard was used.* R.I. Merchant collection

# HERE AND THERE

## AUSTRALIAN AND OVERSEAS NEWS

### Gold Coast's first tram

The first of 14 Bombardier Flexity 2 trams for the Gold Coast light rail line has left the factory in Bautzen, Germany. Custom features of the 45 metre long, seven-section vehicles include racks for surfboards.

Bombardier is part of the GoldlinQ consortium which the Queensland government selected in May

2011 to build and operate the Gold Coast light rail line. Bombardier's A\$248m share of the A\$1bn contract includes rolling stock, signalling, control and communication systems and electrification.

Bombardier will also provide vehicle maintenance for 15 years. KDR Gold Coast will be responsible for infrastructure maintenance. The other partners in the



*Bombardier's Flexity 2 tram for the Gold Coast's new light rail system.* Bombardier

consortium are McConnell Dowell Constructors (Aust) Pty Ltd and Plenary Group Pty Ltd.

The 13 km light rail line will link University Hospital and Broadbeach, with 16 stations. It is due to be completed next year.

- Railway Gazette

**Plans for George Street, Sydney**

The Council of the City of Sydney recently placed on display its plans for the revitalisation of George Street, one of the city’s main arteries.

The plans complement the project already announced by the state government for the return of trams to George Street. A key difference is that the council envisages that a longer section of the street will be

pedestrianised, from Liverpool Street to Bridge Street. In comparison, the government is planning that the pedestrian zone (with trams) will extend only from Bathurst Street to Bond Street.

The council also foresees a possible extension of light rail around Dawes Point and along Hickson Road to serve the new development at Barangaroo.

The display of the plans, at the Customs House at Circular Quay, was accompanied by videos of trams in George Street including footage, well known to viewers of the Sydney Tramway Museum’s DVD *Shooting Through*, taken from a double-deck tram heading south along George Street in 1907. A much faster ride along the length of the street was provided by a computer-generated video vision of the future.



*These images are taken from the video of the Sydney City Council’s plans. Above, the line to Circular Quay turns right while that to Barangaroo via George Street North and Hickson Road goes straight ahead, in a re-creation of the former Millers Point Junction. Below, the terminus at Circular Quay with a long siding on the southern side.*



**Letter to the Editor**

I refer to the coverage of the 1968 Paddington Depot fire in the February issue of this magazine. The following corrections should be made:

Page 5 – There were six Baby Dreadnought cars, Nos. 94 to 99, not five.

Page 10 – Of the 65 cars destroyed in the fire 6 were Dreadnoughts, 29 hand brake dropcentre cars, 18 air brake dropcentre cars (note that No. 291 was converted to air brakes on 11 April 1962) and 12 FM cars.

Page 13 – The captions for the two photos should read “Adelaide Street near Edward Street.”

Page 14 – Prior to the fire there were 366 passenger cars in the Brisbane fleet and 9 others (scrubbers 4, 15 and 16, grinder 17, advertising cars 71, 128 and 140, and historical cars 65 and 99). The first sentence in the fourth paragraph should read “... (out of a maximum fleet of 301 cars)”.

Robert Thomson  
Brisbane

# LOFTUS

## SOUTH PACIFIC ELECTRIC RAILWAY CO-OP SOCIETY

PO Box 103, Sutherland, NSW 1499

[www.sydneytramwaymuseum.com.au](http://www.sydneytramwaymuseum.com.au)

From SPER News

**National Rail Safety Regulator**

The Office of the National Rail Safety Regulator (ONRSR) came into existence on 20 January 2013. The ONRSR head office is in Adelaide with branches in all states.

In NSW the Independent Transport Safety Regulator (ITSR) will still exist as it covers rail, bus and ferries, whilst the ONRSR only covers rail. The ONRSR NSW branch will be operated by ITSR under a service level agreement for the rail operations in NSW.

The impact of the National Rail Safety Law on the Sydney Tramway Museum is being assessed by our rail safety management team, who will decide what changes will need to be made to our Safety Management System and to see what effort is required to comply with the new act. The Museum will have 24 months to achieve compliance with the new national law.

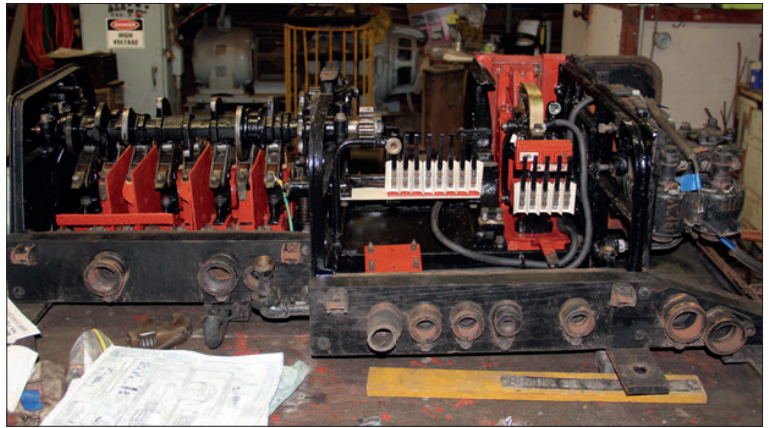
*One of the cable grip replicas manufactured by the museum's workshop staff.*

All photos by Martin Pinches





*Danny Adampoulos finishes off a load of donated concrete on 23 April, assisted by Scott Aston and a CSO worker (hidden).*



*Frank Cuddy continues to make good progress on re-assembling the PC5 automatic acceleration unit for P 1729.*

### **Emergency exercise**

On 16 February 2013 the Museum conducted a very successful desk-top emergency exercise to train some of our members in emergency management. Twenty members attended including the Chairman, the Operations, Traffic, Rail Safety and Workshop managers, and most of the Officers in Charge.

A representative from the Sutherland Police Command, experienced in emergencies, also attended the session to provide assistance on how the emergency services respond to such emergencies and to provide feedback on how the exercise went.

STM member William McCabe, who has some experience in running this type of session, facilitated

the exercise, which was conducted at the Loftus Girl Guides Hall and went for most of the day. The emergency incident selected was a tram being hit by a truck whilst crossing the Princes Highway on the way to the Royal National Park.

The exercise was to test the museum's emergency management procedure. It found some deficiencies, and suggested improvements in our processes and procedures.

### **Track and overhead work**

Rails recovered from the old eastern track near the first curve have been laid, with welded steel sleepers, from the new trailing crossover points back towards Pitt Street, and also in the other direction from Pitt



On Friday 12 April the interior of Nagasaki car 1054 was the venue for a photo shoot for a fashion magazine from 8:00am to 6:30 pm. Four museum members attended during the day to ensure that all went well. The running shed was filled with smoke from a smoke generator to create the effects the photographer required.



*Part of the display hall was used for make-up and hair styling for the fashion model.*

Street back towards the trailing crossover. A temporary gap of about four metres has been left between the two rail heads. The gap in the track will be filled after most of the new track is firmly anchored in concrete.

A Sydney-style track drain made from recycled rails has been placed near Pitt Street and the surrounding area paved with surplus concrete. The eastern crossover points are also now fully concreted.

As we are paying rent for off-site storage of several trams, the placement of track and a concrete floor in the new Loftus Junction shed is a priority. Recycled 24 foot lengths of ex-Potts Hill rail, recovered from the vicinity of the first curve on the Sutherland line, are being welded into 120 foot lengths between the Depot Junction points and the south gate. They will be towed to the new shed, gauged with tie bars and concreted as soon as possible. Spare bogies, steelwork and some rails have been cleared from the area in front of the new shed to allow permanent track and point work to be installed.

Turning to maintenance activity, three of the timber point covers on the scissors crossover have been renewed.

David Rawlings and Glen Kilham have been preparing fittings and span wires to modify the Cross Street overhead.

### **Tramcar news – restoration**

Rod Burland has refitted the trolley base, pole and hook to Sydney C car 37 and has sanded around all of the clerestory windows. He is now sanding the exterior bodywork in preparation for painting.

Andy Rowe will carry out further work on the wiring and plumbing of this car on his next visit from Christchurch. This is likely to happen once he finishes work on the two new Sydney No. 9 bogies being made for us as well as the refurbishment of the bogie from Seashore Trolley Museum. This will give us the necessary bogies for P car 1729 and PR1 1573.



*Vic Solomons and Michael Kerry sanding old paint off P 1729 on 2 March.*

*Below left: Geoff Spaulding working on the driver's cab of P 1729 on 2 March.*

*Below right: P 1729 is being gradually undercoated: at the far end Ian Hanson is applying pink primer to the timber on 17 April.*



Geoff Spaulding, and Howard Clark are repairing and priming the cab framing and windows of Sydney P 1729 while Vic Solomons, Michael Kerry and two CSO workers have made good progress on the removal of old paint and the sanding of the bodywork. Frank

Cuddy is making good progress on reassembling the PC5 auto acceleration unit for the car.

Warren Howlett, Terry Thomas, Rainer Nickel and Bob Cooper have completed the manufacture of three





*Peter Butler touches up the metalwork on the platform of C 29 on 13 April.*

*Ian Hanson re-installed the windows in C 29 on 13 April.*



*On 13 April Joseph Spinella completed the gold leaf numbers with painted black border, using masking tape to get a clean finish.*

replica cable grips. One is for our grip car 322, one is for the Powerhouse Museum's grip car and the third is for the Hawthorn Depot Museum.

#### **Tramcar news – maintenance**

The brake rigging on Ballarat bogie car 37 is finished, and it and the compressor have been painted. The line breaker and compressor governor have been fitted and a new lifeguard trigger built and installed. Both handbrake mechanisms have been stripped and lubricated. Mick Duncan, Michael Ward, Vic Solomons and Alan Watson carried out this work.

Adelaide H car 358 is now in the workshop to have old derailment damage repaired. One end truck transom, the brake radius bar and two mudguards have to be straightened. The car was lifted on 3 April and the offending truck put in the truck shop, where the radius bar and mudguards were removed.

Ian Hanson, Joseph Spinella and Peter Butler have completed the repainting of Sydney C car 29. Ian reinstalled all remaining windows and body parts; Joe applied authentic gold leaf lining and numbers in the traditional manner; and Peter will undertake the work of installing new emblems.

#### **Grounds**

There is a new grassed area between the barbeques and mainline tracks on the Princes Highway side. This

joins onto the 'temporary' grassed area on the highway side of Railway Square waiting shed. The rolled out grass is the same high quality Kakadu Buffalo that is appearing in various places around the museum.

This latest planting extends around behind the barbeque to the depot track. One or two of the railway seats in Lakewood Park will be moved to the new area. It was roped off for a few weeks to help the grass knit its roots into the soil, which happened quickly with the warm and sunny weather experienced during March. The new grass has certainly beautified the area.

The large quantity of sleepers, rails and other items stored behind the barbeques and extending southwards to Depot Junction will be moved away from there during the cooler months. Kakadu Buffalo will be laid out over the new area in Spring.

The platform installed for the 'Breakfast Torque' function organised by Sutherland Council, and the adjacent areas on both side of the TAFE level crossing, are now being regularly mowed by Ian MacCowan. This has improved the look of the area from the adjacent highway, and now provides a good area for taking photos of the museum's trams.

## BENDIGO

### BENDIGO TRAMWAYS

1 Tramways Avenue, Bendigo, Victoria 3550

[www.bendigotramways.com](http://www.bendigotramways.com)

From Len Millar and the management team

#### Easter

Our busiest time of the year, the Easter long weekend, is over for another twelve months. While passenger numbers were down on last year, there were crowds of people in town. The volunteer crew and staff all did a sterling job ensuring everything ran like clockwork. As usual, the Easter Parade and the Torchlight Procession were fantastic.

The focus for the weekend was based on a simple motto – the greater the vintage, the better the outcome.

All went well, except that maximum traction car 25 was withdrawn on the Saturday afternoon with pinion problems. It is odd that this car proved to be unreliable once again during the Easter weekend.

On Good Friday and Easter Saturday, we provided a 20 minute service. On Easter Sunday a shuttle service ran every 20 minutes from the Central Deborah Mine and North Bendigo termini to each end of the Parade route from 9:30am and again from 2:30pm. A 30



*Just on dusk, trams 19, 21, 84, 610, 44 and 369 are lined up ready to commence the Torchlight Parade, with a big crowd waiting.*

All photos by  
Bendigo Tramways



*The Tramways float in the Easter Gala Parade portrayed a dragon around miniature tram No. 10.*



minute service was provided on Easter Monday, and tours of the depot were held on the hour throughout the long weekend.

**In the workshop**

Restoration of City Circle car SW6 959 is proceeding, with the aim of having the tram completed by late June. A large quantity of electrical cable has been fitted throughout the car, and this will shortly be connected to various components. When this task is finished, carpenters will reinstall the varnished and painted timber work and ceiling panels. New drop centre wind breaks have been fitted to 959, and this required the building of new seat frames in that part of the tram.

The engineering team has been busy adjusting the tram’s new cab fronts and windows, installing the

pneumatic system, and attaching the under-floor components as they arrive in Bendigo.

The paint shop has also been closely involved in 959’s restoration, getting the timber work ready for installation and applying two coats of green paint to the exterior of the body. This alone has greatly improved the appearance of the tram.

With 959 progressing well, welding competency tests are about to be completed for work on sister car SW6 957. This will enable our in house welders to carry out the bulk of the welding on 957’s underframe and cab front frames.

SW6 No. 861, prepared for its new role by Bendigo Tramways, was delivered to Wattle Park in March. Attended by two Victorian Government ministers, the unveiling appeared to be a significant event in



*Former SW6 861 installed at Wattle Park.*





*Tram 959 after its first coats of exterior paint.*

Melbourne’s eastern suburbs. We were asked to prepare 861 after a previous tram placed in the park was burnt by vandals. Les Woodfield and his team did a splendid job cosmetically restoring the tram, which looks like new. Not bad for a barbecue shelter.

Bendigo Tramways recently became the owner of former Melbourne restaurant tram 937 and SW6 cars 895 and 941. These trams are currently being housed at the old gasworks site and were acquired specifically for their trucks and running gear.

The walkway beside Road 1 in the depot has been resurfaced. This section is used in our guided workshop tours and was left uneven after the storeroom under the substation was demolished. In less than a day we had new asphalt laid, thereby removing a

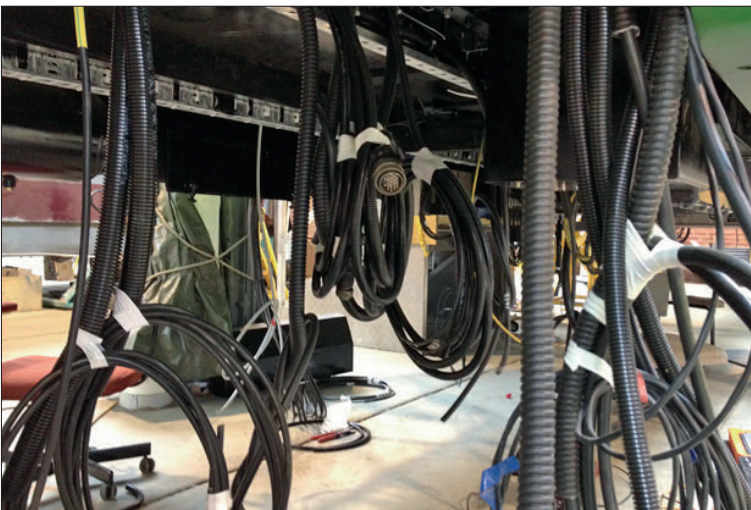
potential hazard to pedestrians using the path.

**Weeroona depot**

The engineering team recently made some essential improvements to the track work at the Weeroona depot. The work involved the regauging and laying in concrete of several portions of track.

**Australia Day honour**

Long-time volunteer Terry Boardman was awarded the Medal of the Order of Australia (OAM) on 26 January this year for services to surf lifesaving and the community. His community contributions include Bendigo Tramways, Sydney Tramway Museum and Zig Zag Railway. We congratulate Terry on his award.



*Some of the cabling under 959, awaiting completion.*



*The resurfaced walkway beside road one at the depot.*



*Bendigo Tramways volunteer Terry Boardman.*

## WHITEMAN PARK

**PERTH ELECTRIC TRAMWAY SOCIETY (INC)**

PO Box 257, Mount Lawley, Western Australia 6929

[www.pets.org.au](http://www.pets.org.au)

From Michael Stukely

### **Traffic operations and service cars**

As in previous years, trams ran seven days per week during the summer school holidays. However, with Perth experiencing its hottest summer on record, visitor numbers were generally down. High fire danger ratings led to the cancellation of services on four days in December and four in January, including the all-important weekends and public holidays as well as Car barn Tour days. Another three days were lost in February which, overall, was a poor month for patronage. Numbers have also been noticeably lower following the introduction in 2012 of Sunday retail trading generally across Perth.

Service cars in December-January were Melbourne SW2 426 and W7 1017, the latter having been out of service since 2009 for extensive roof repairs. No. 1017 experienced an air line failure early on, but this was repaired and the car returned to service. It then ran through February along with W2 441.

In contrast, happily, the Easter weekend produced excellent results with a good number of people visiting the park. W2 cars 441 and 329, W7 1017 and Fremantle 29 were in service. Three cars ran each day with two in convoy crossing the third at the loop on each trip. They were crewed by eastern states' members Hayden Holmes, Len Millar and Sam McGuinness, with two new members, Katie Strancar and Andrew McCabe. The team was helped by local members Shane Parsons and Allan Kelly. We thank those members for their generous contributions of time and effort, and for making the trans-continental journey especially to work on our trams in Whiteman Park. This had become a regular annual pilgrimage for our late member Bill Kingsley, and we are pleased to see the baton being taken up by other members from further afield.

*W2 441 in the Car barn at the end of the day's running on the Labour Day holiday, Monday 4 March.* Michael Stukely



### Tram restoration

Agreement has been reached by members on the Western Australian trams that should be next in line for in-house restoration by PETS:

- Perth B class 43 (single-truck car of 1905), built for the Perth Electric Tramways Ltd by Westralia Ironworks at North Fremantle. We already have a suitable Brill 21E truck modified to fit under this tram
- Perth A class 130, a bogie car built at the WAGR Midland Junction Workshops, which entered service in 1933. It was the last tram built for Perth.

Both of these tram bodies are in outstanding condition, having been kept fully under cover by their previous owners. No. 43 was in a backyard at

Mandurah, south of Perth, since it arrived there in 1951. No. 130 was at Bullaring in the central WA wheat belt since 1958-59.

B 43 will carry the Perth Electric Tramways Ltd livery of the time it entered service, namely, deep lake [red] and chrome yellow. A 130 will carry the livery of pale green and cream with a red diamond on each apron that was used by government tramways in the 1930s. This colour scheme will distinguish it from Perth E 66, which carries the final livery of Perth's trams. It was this later livery that was in use when the Perth system closed in July 1958.

Minor under-floor and electrical work remains to be done before WAGT E class No. 66 is commissioned for service. Approval will then be sought from the



*Fremantle 29 and WAGT (Perth) E class 66 in the Car barn on 12 January.*

Graham Lees



*Our eastern states traffic crew. From the left are Kate Strancar, Sam McGuinness, Andrew McCabe, Hayden Holmes and Len Millar.*

Shane Parsons for Sam



Rail Safety Regulator for No. 66 to be available for passenger traffic.

Considerable progress has been achieved by Bryan Adcock, David Carling and Michael Mason-Coe with the body restoration work on Perth B class single-truck car 15, for future static display by the South Perth Historical Society.

David has completed a further coat of paint on the exterior of the car body as well as final varnishing of the internal saloon timbers. Completion of this work has enabled Bryan to finish sanding the floor timbers, after which staining and sealing was undertaken by

David. Meanwhile, Michael and Jack Kendall completed assembling seat bases and backs including their throw-over mechanisms. John Davies completed painting the two platform ceilings, and with assistance from Ric Edwards, painted in satin black the headlamp rims, controller and handbrake covers prior to their installation. Malthoid is being applied to the cab floors. Bryan and Michael installed the brass fittings for the strap hangers and conductor's bell cords in the saloon ceiling. By March, the four saloon corner seats and most of the reversible seats had been installed.

Adelaide H cars 371 and 372 have had their missing couplers (removed prior to their transport from

*Kate Strancar is conductress on a nearly full W2 441.*

Sam McGuinness





*FMT 29 and W2 441 wait for W7 1017 to pass at the loop on Easter Monday, 1 April.*

Sam McGuinness

*On Easter Sunday W2 329 heads to Mussel Pool while W2 441 waits on Stockmans Triangle to take up service. In the distance FMT 29 heads north, bound for the Village after crossing 329 at the Loop.*

Sam McGuinness



Adelaide) refitted. An inverter has been returned following repairs carried out in Melbourne. Work on preparing these cars for service at Whiteman Park is progressing slowly, as time permits.

**General works**

Two steel traction poles installed just west of Stockmans Triangle some time ago were fitted with bracket arms by the overhead team, finally replacing the remaining old timber poles there.

Site works included the completion of fire-breaks on the lower hard-stand by Allan Kelly, while oil-saturated soil was removed from an area near the southern boundary by Paul Pickett and Lindsay Richardson, and replaced with fresh soil. To reduce the summer fire hazard Darren Ward cleared the dry leaves that had accumulated against the rails and check-rails on several sections of the main line.

In other work, the Motor Vehicles team led by Pat Ward are progressing with the restoration of the ex-WAGT Chevrolet pole truck to operational status.



*Fremantle 29 waits at the Mussel Pool stop during the members' barbecue held at a nearby shelter on Sunday 31 March.*

Sam McGuinness

# ST KILDA

**AUSTRALIAN ELECTRIC TRANSPORT MUSEUM (SA) INC**  
 PO Box 213, Salisbury, South Australia 5108 [www.trammuseumadelaide.com.au](http://www.trammuseumadelaide.com.au)

From Colin Seymour and Kym Smith

## New depot

Three concrete pours for Road 4 in the Mechanical Maintenance building (new depot) were required:

- The first section from western (depot fan) end on 21 December 2012
- The second (middle) section on 18 January 2013
- The third section (rear) workshop end on 1 February 2013.

Screeding of concrete for these pours was done by Museum members.

The concrete aisle between Road 4 and the northern wall of the new building was then poured and laid by contractor during last week of February 2013, creating an ideal storage area. Items such as spare controllers and other electrical items are being moved into the northern wall storage area. An electrical test bench has been built next to this storage area adjacent the rear workshop.

The completion of Road 4 (and the recent departure of H 361) has allowed silver Glenelg tram H 362 to be moved from temporary outside storage on Road 2 adjacent to the new the depot onto Road 4 inside the depot.

The new depot is being progressively fitted with fire systems following the recent receipt of a grant for fire and security systems. The next stage of work will be the erection of overhead troughing over Roads 4 and 5 to enable traffic cars to be stabled on these roads, minimising shunting requirements on operating days.

## Revised Safety Management System

A major revision of the Museum's Safety Management System is being completed and reviewed by the Executive Committee prior to being circulated to the membership for review. The key feature of the new SMS is that it will be electronically hosted on Google Drive and accessible by members through logging in from any computer that has internet access.



*The concrete aisle between Road 4 and the northern wall of the new Mechanical Maintenance building was poured and laid by a contractor during the last week of February.*

Allan Ziegler





The AETM gang at work on the second concrete pour on 18 January.  
Chris Summers



The third concrete pour under way on 1 February.  
Allan Ziegler



Silver H tram 362 has been returned to undercover storage. It is seen on Road 4 in the new Mechanical Maintenance building on 3 March.  
Allan Ziegler

# HADDON

**MELBOURNE TRAMCAR PRESERVATION ASSOCIATION**  
324 Sago Hill Road, Haddon, Victoria 3351 [www.mtpa.com.au](http://www.mtpa.com.au)

From Kym Smith

## Trackwork

Packing and final levelling of the south-west curve has now been completed and the track backfilled to rail head. Provision for a couple of driveways to the lower paddock and additional drainage were included in the earthworks on both the south-west and north-west curves and in works on the retaining wall adjacent to the mainline. Grinding of all of the welded joints has also been completed, together with reconnecting the earthing bonding. Once realignment and tightening of the overhead is complete, test running can occur and the track can be opened for regular use.

## Lower Terminus

Levelling and site preparation has been completed for the proposed new Lower Terminus. It is intended that a new shed will be erected at the new Lower Terminus to provide for additional undercover tram storage. A number of overhead poles will be relocated as part of these works, providing for better overhead alignment and replacing a couple of poles with more substantial replacements.

## SMS Revision 3.0

Revision 3.0 of the MTPA Safety Management System came into effect on 24 March 2013. The master copy of this version is electronic and is hosted on Google Drive, with access given to members so that they can electronically access the system documents rather than having to maintain hard copies.

## Tram restoration

Some minor finishing works have been carried out to W3 663 including fitting the internal signage to the tram, and preparing the storm curtains for fitting.

Replacement glass has been installed in the cab windscreens of SW5 849 to replace the originals that had graffiti scratches. All of the ceiling light fittings have been removed, cleaned and refitted. Revarnishing of internal timber beadings has almost been completed and most have been refitted back into the tram. A final coat of paint on the ceiling will complete the internal refurbishment prior to the refitting of seats. New door



*Arthur Ireland varnishing some of the saloon beading timbers from SW5 849.*

Anthony Smith





*John Withers marks out positions on one of the door jambs for SW5 849 where the hinges will be chiselled in.*

Anthony Smith



*Anthony Smith carries out the 'riveting' (pardon the pun) task of securing the storm curtain runners to the canvas curtains with copper rivets.*

Jacqui Smith

jambs have been manufactured to replace two of the originals that had significant wood rot, and a replacement window sill has also been installed on

one saloon. The next stage of work is to commence the repainting of the roof and roof hardware as part of changing the colour to suit the 1980s MET livery.

*Arthur Ireland varnishing some of the saloon beading timbers from SW5 849.*

Anthony Smith

*One of the polished stainless reflectors is re-installed back into SW5 849 by Anthony Smith before the frosted glass cover is reinstalled over the light.*

Jacqui Smith





*Daniel Edwards undertaking the initial backfilling of the south west curve to allow rubble to be packed around the sleepers and tie-rods.* Anthony Smith



*The bonding and earthing have been completed as Daniel Edwards carries out more backfilling.* Anthony Smith

*Once the initial backfilling was complete, our local bobcat contractor spread the remaining backfill and graded the shoulders.* Jacqui Smith





*Daniel Edwards and Anthony Smith assist our local bobcat contractor in levelling the site for the Lower Terminus and new shed.* Jacqui Smith

## BALLARAT

### BALLARAT TRAMWAY MUSEUM

PO Box 632, Ballarat, Victoria 3353

[www.btm.org.au](http://www.btm.org.au)

#### From Dave Macartney and Peter Winspur

Following the acquisition of surplus rail from Victoria's north-eastern line, a week was given over in February to laying new track from Wendouree Parade to the first set of points on the access road to our depot, a distance of about 50 metres. Three track panels were made up outside 6 and 7 roads at the depot. This used the 94 lb rail obtained from the north-eastern line and a quantity of serviceable sleepers that became available as a result of track work on the Glen Waverley line in Melbourne's east.

Dismantling began after the last car ran in on Sunday 17 February, and by sundown that day all the tramway rail dating from 1905 had been removed. On the Monday the track gang from the Victorian Goldfields Railway at Maldon arrived and work began in earnest. The old ballast was soon removed, and the track bed was deepened and widened prior to placing the three new track panels in position. Tuesday and Wednesday were given over to welding, ballasting and electrical bonding, while on Thursday the remaining sleepers were deployed where most needed, around the rest of the depot fan. Test runs with bogie and single truck cars were then conducted. On Friday further tamping was undertaken, with a clean-up of the surrounding parkland completing the job.

The Victorian Goldfields Railway team supplied their own backhoe, which was essential for a job of this scale, while we were able to debut our latest acquisition, an Isuzu crane truck that had been in service with Metro Trains. Our thanks go to John Shaw of the VGR and his team. Without their assistance the job could not have been attempted.

Passenger figures for the months of December and January came in at 2,653, about average for recent years. At 5,500, Begonia Festival numbers were down on the previous year. However 2012 was an extremely busy year for us and this year's festival coincided with a record-breaking spell of hot weather for March.

No. 671 was defective and not available during the Begonia Festival. Instead No. 661 saw service for the first time in several years. No. 38 ran on the Saturday and Sunday with No. 40 taking pride of place for the parade on the Monday. Although the high temperatures caused many visitors to Ballarat to desert the Gardens by the middle of the afternoon each day, the weekend was certainly an operational success from the Museum's point of view. Up to four trams operated during the busy times, and our crews provided the usual superb service in trying conditions. We thank the Begonia Festival for their continuing financial support which allows us to provide free rides during the weekend.

The main project under way at the depot has been the repainting of No. 13. The roof and cream paint work have been finished, with the final top coat of green being applied recently by Les Woodford who spent some six days on that part of the work. Lining and decals will be applied to the car during May. No. 13 will be closely followed by the return of No. 27, complete with a new set of bearings. Our next major restoration project will be No. 18, which will be 100 years old in November this year.



*The newly laid access track on 19 February.*

Dave Macartney



*Re-sleeping the easy way on 19 February.*

Peter Bruce

*Completing the ballasting on 20 February.*

Dave Macartney





# VALLEY HEIGHTS

**STEAM TRAM AND RAILWAY PRESERVATION SOCIETY**  
PO Box 571, Springwood, NSW 2777

From Bruce Irwin and Peter Stock

## Straight raiiling project completed

The long-awaited extension from the boundary gate to the signal box was made available for the steam tram on 22 April last year. This extension was opened by our local State member, Rosa Sage, who performed her role from the front apron of the motor, accompanied by STARPS chairman Craig Connelly and VHLDHM chairman Ted Mullet.

Two old and cranky turnouts outside the gate had not been straight-railed when the extension was being upgraded last year. This has finally happened. There is now in their place a fine piece of track, straight-railed with welded joints to 109lb rail sitting on heavy ballast. This may sound like track to “shoot through like a Bond...”. But no, the steam tram is still limited to 10 km/h. It is wonderful now to experience an oh-so-smooth ride.

## Roaring 20s event

For the second year the Valley Heights Locomotive Depot Heritage Museum was invited to join in this event, which was held over the weekend of 23-24 February throughout the Blue Mountains area.

Despite the best laid plans, there was one thing we could not control - the weather. The first day of the event was overcast with many very heavy showers that kept visitors away. The jazz band for the day had to be cancelled but the model T Ford club braved the elements. There was an unexpected and welcome visit by a happy group of folk called ‘Steampunk’, who arrived smartly dressed to the nines in 1920s clothing, which added to the ambiance of the occasion.

The weather improved on the Sunday as most of the previous day’s showers had moved on. Although visitors came, there were not as many as last year. Attractions included rides behind a model live steam traction engine hauling a wagon, and a garden railway at the rear of the roundhouse, which younger visitors could operate under supervision.

An eye-opener for those attending was the presence of a group who could send messages by Morse code. On both days they mesmerised the visitors by sending coded messages to each other and typing them up upon receipt on a hand typewriter complete with carbon copies.



*Motor 103A and car 93B venture onto the new track, laid where there were previously two disused turnouts. The train on the adjacent track at right was being used for spent ballast removal during a shut down.*

Peter Stock

*A black and white period-style photographic record of the delightful Steampunk Period Dressers: the gentleman second from the right is the Valley Heights Locomotive Depot Heritage Museum's publicity officer, Andrew Tester.*

VHLDHM collection



*The folk from 'Steampunk' thoroughly enjoyed a ride on the steam tram during the Roaring 20s weekend. At least they were out of the rain! Andrew Tester*



*One of the visiting Fords with the steam tram motor in the background. Andrew Tester*



*Craig Connelly (left) and Bruce Irwin (right) installing one of the lamps in tramcar 93B.*

Peter Stock



*The kerosene lamp in tramcar 74B at Parramatta Park before being removed for restoration.*

Bob Tebb



*One of the two kerosene lamps in position.*

Peter Stock

### Seeing the light ... again

Our trailer car 93B has been in service since at Valley Heights since September 2005, but was still considered incomplete. This 'old lady', despite being dressed in her finery including the mailbox, always lacked something: the two internal kerosene lamps. Back in the Parramatta Park days another trailer, 74B, was undergoing a comprehensive rebuild and was almost completed. This necessitated the temporary removal of the sole example of a genuine steam tram trailer kerosene lamp whilst the restoration work was being undertaken. With the passage of time the origin of the original lamp became lost. There is an impression on the base of this lamp stating it was

patented by H. T. Smith in 1889, which ironically is the same year that trailer car 93B at Valley Heights was built.

By good fortune the original lamp had been removed from the car prior to the disastrous depot fire in 1993. Around that time the lamp was entrusted to the care of a master lamp maker. Here the lamp languished for many years with occasional progress being made when time permitted. Eventually the restoration of the original lamp and creation of a duplicate lamp commenced. During this process many items of special tooling were created to reproduce particular parts.



We are pleased to report that the restored original lamp and the replica lamp have been received and installed in their rightful place in 93B. Even with close inspection it is very difficult to pick the replica from the original. Lamp maker Tony Edwards has done a magnificent job.



*A weather protection board in place on the top deck of the double-deck car.*

Peter Stock

### **In and around the workshop**

During our non-operating month of January, tram motor 103A received 29 new boiler tubes. The old tubes were extracted, and new ones were cut to size, annealed then installed. At the same time a less intense program to replace 20 boiler tubes on Stepho also commenced. It is most fortunate that the boiler tubes for motor 103A and Stepho are of the same diameter.

Whilst the re-tubing was being executed, the opportunity was taken to arrange for the annual boiler inspections on both locos. The boilers have been certified as satisfactory. At the same time a recalibrated steam pressure gauge was installed on 103A.

Restoration work is proceeding at a steady pace on our replica double-deck trailer car. One major project has been the preparation of a wooden pattern for the eventual casting of new car wheels. New roof arch bars and end-upper deck weather protection panels have been manufactured and installed, whilst handrails at each end have been fitted. A start has been made on the installation of floor slats.



*Craig Connelly proudly displays the wooden pattern for the casting of wheels for the eventual manufacture of bogies for the double-deck car.*

Peter Stock



*One compartment floor of the double-deck car has been completed, with floor slats and the access plate fitted over the opening to the bogie pin. Member David Lewis admires his efforts.*

Peter Stock





*On its way from The Royal National Park , Sydney R1 car 1979 passes Melbourne Z2 car 111 returning to the Sydney Tramway Museum's running shed after a routine maintenance check test run to Depot Junction on 14 April.*

Martin Pinches



*An unusual sight at the Ballarat Tramway Museum: trams 14, 38 and 33 at Gardens Loop during the Begonia Festival on 10 March.*

Peter Winspur