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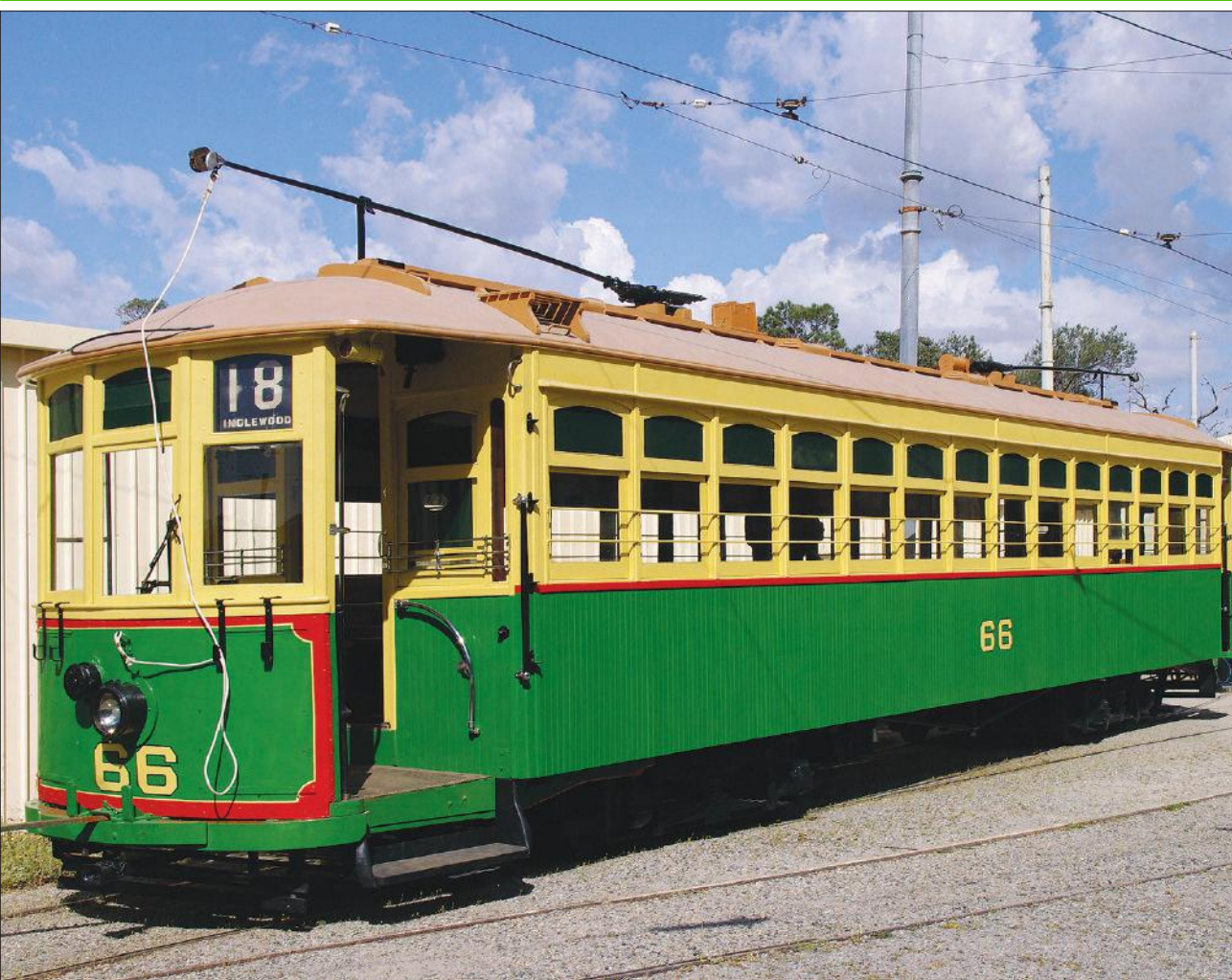
No. 327

NOVEMBER/DECEMBER 2011

Print Post Approved PP245358/00021



\$9.90*



ISSN 01551264

00327



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TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM
MAGAZINE

NOVEMBER/DECEMBER 2011
No. 327 Vol. 52 No. 4 - ISSN 0155-1264

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Published by the South Pacific Electric Railway
Co-operative Society Limited,
PO Box 103, Sutherland, NSW 1499
Phone: (02) 9542 3646 Fax: (02) 9545 3390

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*Cover price \$9.90 (incl. GST)
Subscription Rates (for four issues per year) to expire
in December.
Australia\$A36.00
New Zealand/Asia.....\$A42.00
Elsewhere.....\$A46.00

All correspondence in relation to *TROLLEY WIRE* and
other publishing and sales matters should be forwarded to
PO Box 103, Sutherland, NSW 1499.

The opinions expressed in this publication are those of the
authors and not necessarily those of the publishers or the
participating societies.

Typesetting and finished art by Alan Pritchard - Graphic Design
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Printed by Blue Star Print - Canberra
Tel: (02) 6280 7477 Fax: (02) 6280 7817



*Restored Melbourne X1 466 in Wendouree Parade,
Ballarat in 2005 with its owners, Darren Hutchesson
(left) and Len Millar with Darren's two children,
Andrew and Kathryn. Len Millar collection*

Front Cover
*Restored Western Australian Government Tramways (Perth) E class 66 on the Perth Electric Tramway Society's
carbarn fan at Whiteman Park on 9 October.*
Timothy Sandu



WYNYARD LOOP VIA FOOTSCRAY

By Len Millar and Darren Hutcheson

Former Melbourne and Metropolitan Tramways Board X1 class car 466 is in daily service again – on the new Wynyard Loop waterfront line in Auckland, New Zealand. The car spent most of its operating life on the isolated Footscray routes, and was disposed of just after they closed on 10 March 1962. No. 466 was recorded as being the last tram in from the Russell Street terminus on that sunny Saturday afternoon. Since then, it has moved around a bit!

No. 466's Melbourne history

Between 1926 and 1928, ten single-truck saloon cars were built at the MMTB's new workshops at Preston. They were an MMTB development of the two Birney four-wheelers imported by the Board from the United States in 1923. The X1s were a Melbourne improvement on the light-weight Birneys, several thousand of which were built in Philadelphia, by the J.G. Brill Company. The X1s had a more substantial all-steel frame and had folding doors in each corner of the car.

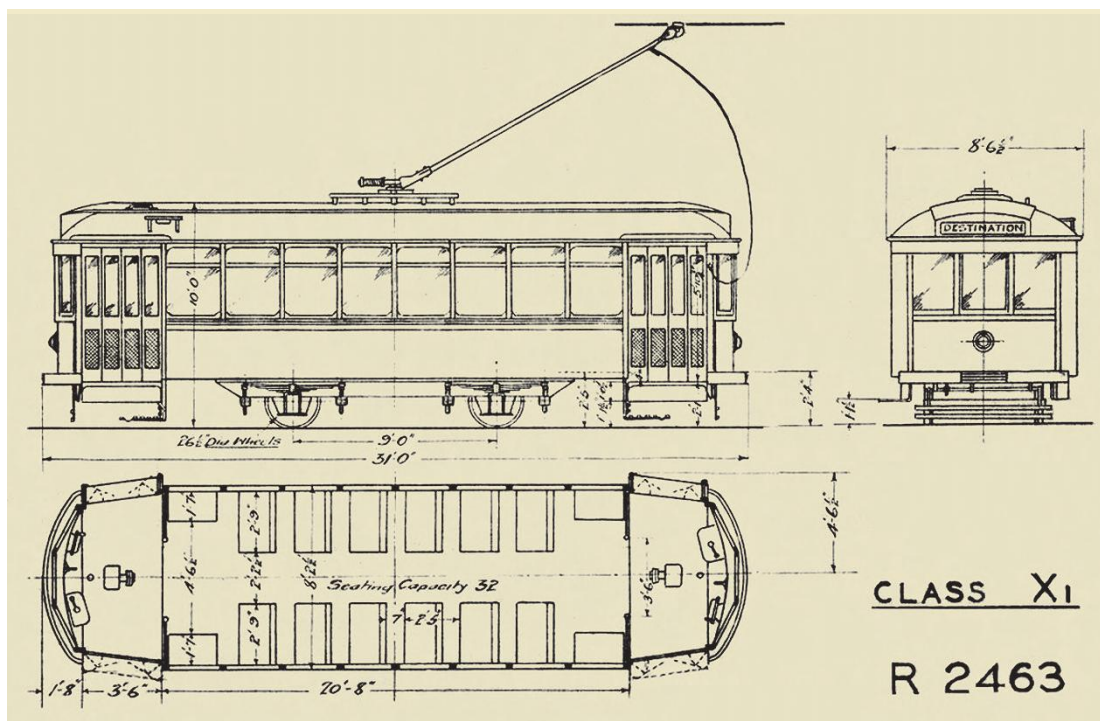
When originally placed in service, the ten X1 cars were equipped with Birney-style 'dead man' handle

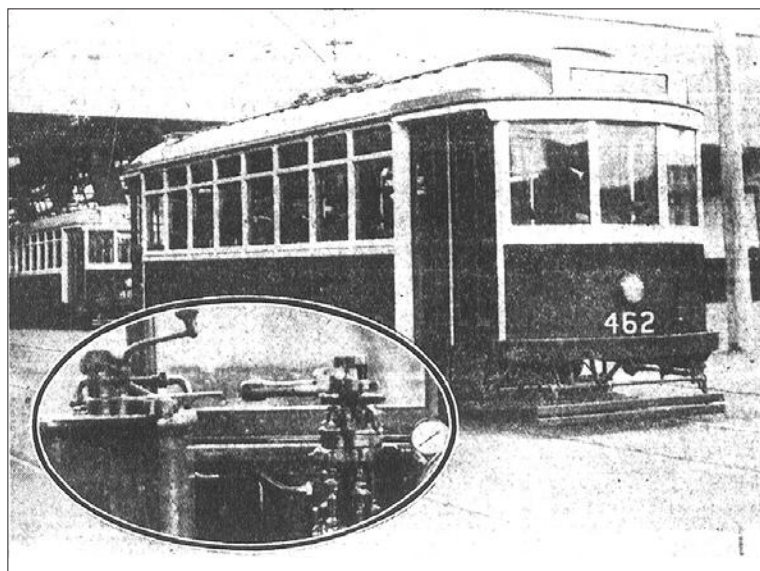
brake valve equipment, and were painted in the MMTB's new livery of green panels, cream window framing and a light stone roof. The interior woodwork and ply panelling were varnished, and the cars were equipped with rattan seating and brass window sashes.

The ten cars worked mainly on the Footscray routes, although they occasionally saw service at various depots on the main system as 'all-nighters', and even as a stand-by for tourist car Y class 469 in the late 1920s. They carried fare boxes between 1930 and 1936, to assist driver-only operation. All the X1s were withdrawn and stored in 1962 when the Footscray system closed.

The X1 cars were 9.45 metres long, 2.46m wide and 3.05m high. The wheelbase was 2.74 metres and wheel diameter 673mm. Cars 459 and 460 were equipped with modified Brill 21E trucks, and 461 to 468 had MMTB No. 2B trucks. They ran with two MV101 BR 37kW motors and weighed in at 10.4 tonnes.

No. 466, which was built in 1926, was at Hawthorn Depot in 1928, according to an MMTB Depot Allocation list dated 24 March of that year. It would





'One Man' Electric Tram. At the Hanna Street depot of the Melbourne and Metropolitan Tramways Board a new type of electric car, capable of being operated by one man, has been built. The car, as shown in the picture, has four doorways, the opening and shutting of which are controlled by the lever on the right of the picture inset.

MMTB

X1 466 at the terminus of the Ballarat Road route at Summerhill Road 5 March 1962.
Peter Winspur



X1 460, just in from Ballarat Road, rolls the last few metres to its terminus in Leeds Street, Footscray on 18 March 1959.

Doug Colquhoun



*No. 466 in Russell Street,
Footscray on 18 January 1954.*
Noel Reed



have been a back-up to tourist car 469, but also ran as a shuttle car between Bridge Road, Richmond and Power Street, Hawthorn. By 9 June 1934, 466 was at Footscray Depot, and was still there on 30 June 1938, 11 September 1948, 23 January 1954 and in January 1961, according to the allocation lists of those dates.

Following the closure of the Footscray lines, nine of the X1s were taken to Preston Workshops. The trucks were removed with most of the underfloor equipment, and the bodies were sold. No. 466 was transported to a property near Lancefield, some 60 kilometres north of its old stamping grounds, where it became part of a house. Most of the remaining equipment including the seats were removed and dumped in a corner of the property, and were retrieved nearly 40 years later to be re-united with the tram. The current owners of the property built a new home alongside the old one, and

once it was complete, demolished the original residence leaving 466 standing alone in the rear yard.

The body was sighted while Len Millar was valuing a nearby property in 2000. It was at that stage used as an office for the owner's computer systems consultancy, but fell from favour when rain water leaked through the neglected painted canvas roof. Computers and leaks do not mix. A week later the car was purchased for \$1,000 by Newstead Tramcars Pty Ltd, comprising Darren Hutchesson and Len Millar.

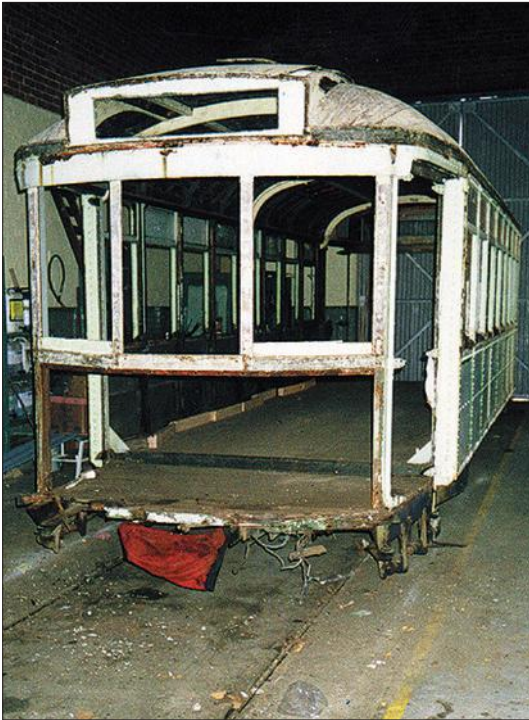
Restoration

With the ultimate goal of being offered for sale internationally as a fully rebuilt and operating tourist or transit car, 466 was trucked to the Bendigo

*The disused body of 466 at
Lancefield, Victoria.*

Len Millar





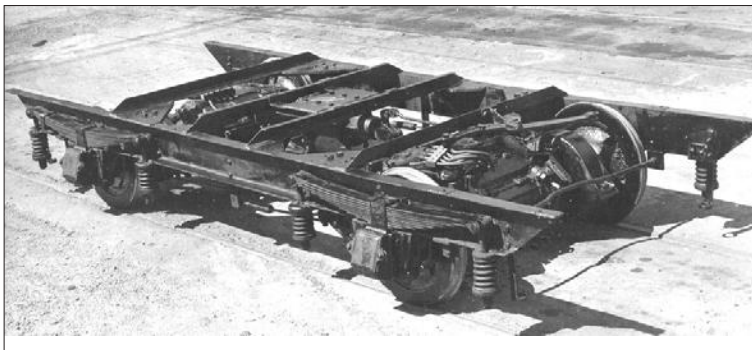
The restoration about to begin.
Len Millar

Tramways workshop a few weeks later. Work soon commenced on stripping the badly-weathered roof canvas and malthoid floor covering, and many layers of paint and varnish were removed. Some rusted sections of the side panels were cut out and in-fill sections of mild steel welded in place.

Deals were struck with the Melbourne Tramcar Preservation Association, the Australian Electric Transport Museum, the Tramway Museum Society of Victoria and the Bendigo Trust to acquire all the necessary running gear. Wheelsets, motors and springs were sourced from a pair of MMTB No. 1 trucks, a pair of GE K35JJ controllers from a Melbourne W2, and seats from an Adelaide H class car. Fortunately, Bendigo Tramways had in its archives a plan of the No. 2B truck, so it was 'simply' a matter of handing the plan to a local structural engineer for him to replicate the truck originally fitted under the car. The engineer enjoyed the project, involving precise laser cutting and welding, and he was heard to say when he delivered the new truck frame "That was a great job. Let me know when you want the next one done!" Following the overhaul of the motors, Wayne Taylor assembled the components on to the truck under the watchful eyes of Ray Ryan, Bendigo Tramways'



The shell of 466 being grit-blasted in the Gasworks Depot yard, Bendigo.
Bendigo Tramways



A Melbourne 2B four-wheel truck.
MMTB



The driver's cab with its new control panel. Len Millar



The interior of 466 taken whilst standing in the depot yard at Ballarat. Len Millar



project manager. New steel aprons were ordered and were bolted on to correctly-shaped right-angle steel section.

Geoff Middleton, Denis Rodda, Luke Jenkins, and the workshop team of carpenters and workers set to and replaced the headstock and the two cabin fronts. The two drop-end floors were replaced and received new 'wooden carpet' – car-wide strips of chamfered 25 x 20mm hardwood. The four sets of folding doors were replaced and the pneumatic door engines in their

timber cabinets above each doorway were overhauled. The timber saloon flooring received a new layer of malthoid. The old fabric-insulated wiring was stripped out of its enclosed timber troughing under the floor, and equivalents to modern standards were installed by Donovan Webb, Ash Johns and the late John Bullen. Two 12 volt batteries were installed in a purpose-built box accessed through the saloon floor. These batteries provided the power for a new system of marker, brake, turning and hazard lights. Rectangles were cut towards the outer ends of each bumper bar to accommodate the light assemblies, and 'tell-tale' LED turning indicators were fitted on the corner pillars of the saloon.

In line with Bendigo Tramways practice, 466 was equipped with a small control panel in front of the driver. It was key-activated and enabled the driver to pre-select which of the four folding doors were to be opened or closed, turning and hazard toggle switches and a headlight direction indicator. The original driver's door valves (with a curious brass key) were removed. Again, in line with the then-newly adopted practice at Bendigo, self-lapping brake valves were installed.

Sand-blasting of the stripped shell removed all the old dirt, grease, oil and loose paint. Painter Les Woodfield supervised the arduous scraping back of the old ceiling varnish, filling, priming, under-coating and top-coating of the tram. It was spray and brush-painted to its original MMTB green and cream livery, with black truck, axles and wheels.

The owners felt more than a little proud when the tram was switched back to life – lights, compressor and traction power! The tram was required to complete 50 round trips of the Bendigo route for testing and tweaking. The Tramways' engineer, Richard Clarke of Sydney examined the car, and accredited it to run and



No. 466 on a test run at North Bendigo.
Len Millar



Its restoration complete, 466 was launched at Bendigo Depot on 12 April 2003.

Ray Marsh

Sharing the Bendigo Depot yard with Birney 15.

Len Millar





Looking smarter than usual, the tram and its owners in Bendigo Depot.

Newstead Tramcars

resort in the South island of New Zealand enquired if the car could run without “all those poles and over-head wires” (i.e. by batteries), to which the answer was “of course”.

Towards the end of the George W. Bush presidency, we were advised that federal money was going to be pumped back into the major cities around the US, but a change of president and the global financial crisis brought that prospect to a halt. We also received two enquiries from shopping centre developers for using the car (and any other ‘re-builds’ we were contemplating) in a transit role, between the car park and the shopping mall. Again, nothing came of this.

In traffic at Ballarat

In 2005 tram 466 was transported to the Ballarat Tramway Museum’s Wendouree Depot for storage, display and casual use. The August 2010 edition of *Fares Please!* reported:

“A recent visitor to our Ballarat Tramway has been ex-MMTB X1 class car 466, which is owned by Newstead Tramcars Pty. Ltd. (which comprises members Darren Hutchesson and Len Millar). The fully restored, accredited and operating car was transported from Bendigo to Ballarat on November 4, 2005. Darren and Len needed to have the tram readily available for demonstration to prospective purchasers.

carry passengers in Victoria under the State’s rail safety regime.

Marketing a tram

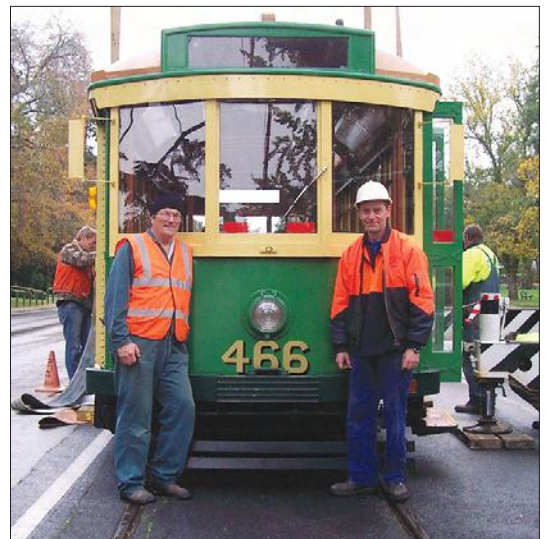
At the suggestion of the Bendigo Tramways then-manager, Tim Borchers, a folder of gloss-finished fact and option sheets was developed, with a red ‘For Sale’ sticker placed diagonally across the front of the cover below a cut-out panel. An excellent photo of the gleaming finished car showed it approaching the North Bendigo terminus complete with the destination indicator showing Newstead. It looked a treat!

A website (www.newsteadtramcars.com) was developed and a 14-minute video CD created by a local wedding photographer and film-maker, whose skills at coaching the two directors of Newstead Tramcars to ‘sell’ their tram on camera were much appreciated by them. The observation of American media guru Marshall McLuhan years ago about everyone having their ‘15 minutes of fame’ was not quite met – but only by a minute!

Enquiries trickled in from the United States, New Zealand, the UK, South Africa and even Dubai. A ski

Len Millar, left, and Darren Hutchesson pose with their charge as it is prepared for transport from Bendigo to Ballarat.

Neil Lardner



No. 466 arrives at Wendouree Parade from the depot on its first day in traffic at Ballarat.
Neil Lardner



But also, the tram was available for our use ‘in traffic’. Our records show that it operated in revenue service along the Parade on 20 days, running 207 trips – or 530.7 kilometres. The car even ran as one of the shuttle cars in 2008, 2009 and 2010 for the intensive service we provided for the Begonia Festival.

“Our drivers and conductors appreciated the folding doors, which kept out any stray cold Ballarat winds, and we feel sure that our passengers enjoyed the good all-round visibility and smooth ride!

“But space in our Depot is always at a premium, and with the return of (the body of Ballarat’s first) 22 and

the imminent return of the re-profiled wheels for car 38 (from our colleagues at St. Kilda, South Australia), it was necessary to evict the mobile tenant! On 13 May 2010 the car was driven out of our Depot to a designated spot on Wendouree Parade, where a 50 tonne swivelling crane had no trouble lifting the four-wheeler on to a waiting low-loader. Reports suggest that the tram travelled back to Bendigo at 100 kph. – a speed that it could never reach under its own power!

“At Bendigo, 466 was towed off the semi by tractor via their new ramp, and after being positioned under the trolley wire, was driven into the Weeroona Avenue



Operating in Wendouree Parade, Ballarat during the Begonia Festival, 8 March 2010.

Len Millar



With Melbourne sprinkler 8 in Wendouree Parade, Ballarat on 30 January 2010. Mal Rowe



depot (by the same proud co-owner who moved it out of our depot earlier in the day).

“466 earned its keep while it was in our care, and we wouldn’t mind seeing it again one day.

“Maybe in SECV green and cream? Well, after all, if the SECV had purchased the Footscray trams after that system closed in 1962, the life of the two central Victoria provincial city operations may have lived long past 1971/2. The ‘experts’ in our ranks hypothesize that had the four-door X1 cars come to Ballarat (with Ballarat’s need to load from both sides along the various routes) and the two-door X2 cars gone to Bendigo, the SECV might not have been in such a hurry to close up shop.

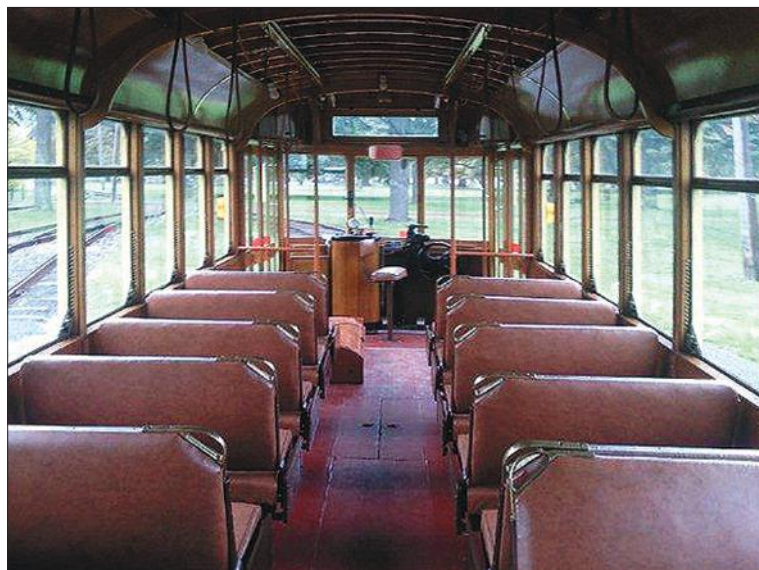
“Owners Darren and Len are very grateful for the generous assistance provided by our maintenance staff in cleaning and servicing 466 while it was in Ballarat.”

In late 2007, Newstead Tramcars embarked on a flying visit to several prospects in the United States, including Tucson, Dallas, Memphis and San Francisco. Alas, with no result.

Bendigo – and preparations for a long journey

Back on Bendigo Tramways rails again, 466 was shuffled between the two depots, keeping out of the way of other cars. But the sun rises from the east, and in December 2010 an approach was received for use of the tram on a planned waterfront tourist loop line in Auckland. The parent company of Christchurch Tramways had been commissioned by Waterfront Auckland to develop the project, equip it with vehicles and to operate it.

While negotiations for a 12 year lease got under way, the car was inspected by Andy Rowe of Christchurch. Several suggested changes, improvements and repairs



The interior of 466 photographed in the depot yard at Ballarat. Len Millar

Bendigo 31 and Melbourne 466 have been unloaded on wharf 2 in Auckland.

L. Hunt collection



were put in hand by the Bendigo Workshops staff, and 466 changed its livery to the old Auckland tram system's carnation red and cream.

The last act at Bendigo was to attach heavy brown paper to the front window sashes and apron, to avoid too many insects splattering themselves on to the front of the tram as it was taken to Port Melbourne (at speed) by road.

Pastures new

On 26 May 2011, 466 was pushed along the loading ramp at Bendigo Tramways Gasworks Depot on to a waiting low-loader. Bendigo's car 31 left the following day, also bound for Auckland. The cars were inspected by shipping consultants, who produced a handsome

report, with many photographs attached, attesting to the soundness of the loading and securing process at the Port Melbourne wharf.

The two cars were loaded on to a pair of 'muffies' – glorified two-wheel trailers - which were propelled into the hold of a roll-on roll-off ship. Having arrived in Auckland on 5 June, they were unloaded the next morning and conveyed to the new depot.

Steve Lea and Andy Rowe (Christchurch Tramways' maintenance engineers) prepared the cars for road testing and crew training, whilst last minute work on the track, overhead and depot went on around them. The overhead connection into the new two road depot was only completed at 5:00pm on the afternoon before the 6 August grand opening.



Numbered and lettered for its new role, 466 is now Auckland 257. It is on a driver training run on the Waterfront tramway.

Steve Lea



*Auckland 257 has been decorated with lights, 25 August 2011.
David Maciulaitis*

Opening day saw thousands of interested Kiwis descend on the Wynyard Quarter, as the waterfront area is now known. Cars 257 and 258 (formerly 466 and 31) lined up for speeches at around 7:30am, and then spent a laborious day carrying over 6,000 passengers on the loop. The free rides attracted very long queues at the four stops. The crews, operators, Waterfront Auckland, Bendigo Tramways and Newstead Tramcars were very happy that the day (and the trams) went well.

At the opening ceremony, undertakings were given that an extension to the main rail/bus hub, Britomart, had been approved. The feasibility of extending further up Queen Street, and beyond, is to be examined.

Trams are running in Auckland streets for the first time in 55 years – and 466 (in its guise as 257) is in daily revenue service once more.

Newstead Tramcars appreciates very much the help that the Australian and New Zealand tramways have provided in reaching our goal of preserving 466 as an operating tramcar.

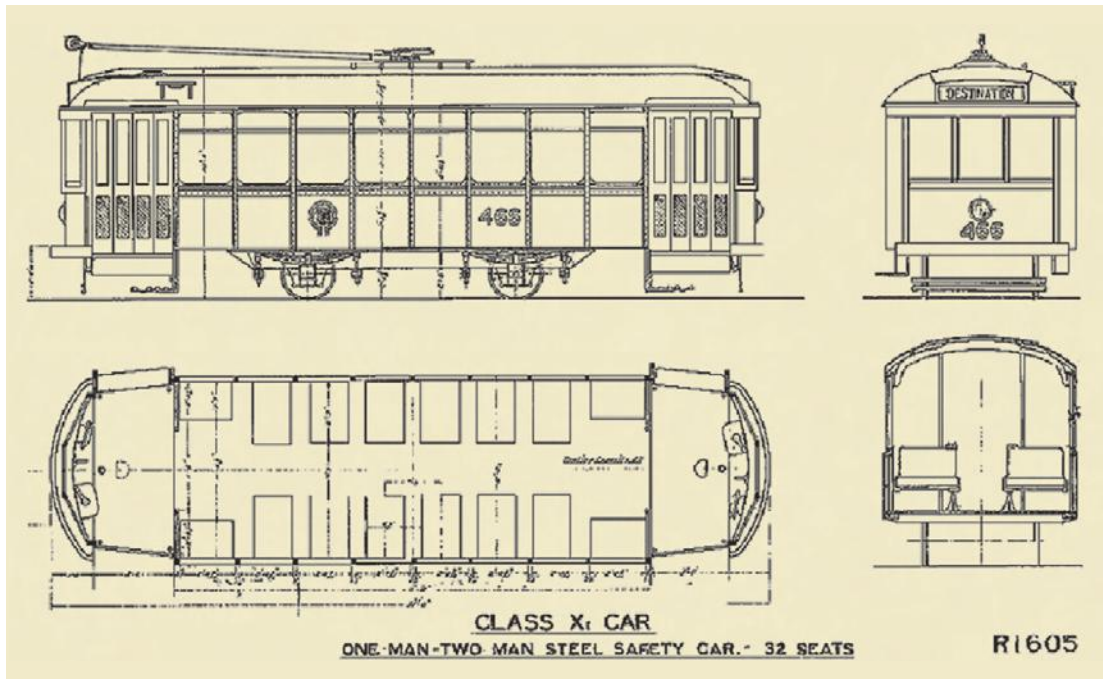
Information sources:

Destination City

Fares Please (Ballarat Tramway Museum)

Bendigo Tramways

Melbourne Electric Tramway Gunzel Notes (1993) by Don Storey



HERE AND THERE

AUSTRALIAN AND OVERSEAS NEWS

Melbourne's new E class trams

A mock-up of the new tram type on order for Melbourne was publicly revealed late in August. Transport Minister Terry Mulder visited the Bombardier factory at Dandenong on 24 August to unveil the mock-up to the media. It was subsequently displayed at the Royal Melbourne Show from 24 September to 4 October.

The mock-up portrays two modules (the centre and one end) of the three in the actual tram. It has been used for consultation with passenger representatives, and with drivers, about a range of design features. There are five passenger doors on each side of the car, the same number as the yellow C2 class Citadis cars. Earlier Citadis and Combino cars have either three or four passenger doors per side.

A significant change from the recent Citadis and Combino cars, and a reversion to earlier practice, is that the driver's cab will have a door enabling quick access to the road, for example to change points where they are not power-operated. On Citadis and Combino trams the only exit from the cab is via the passenger compartment.

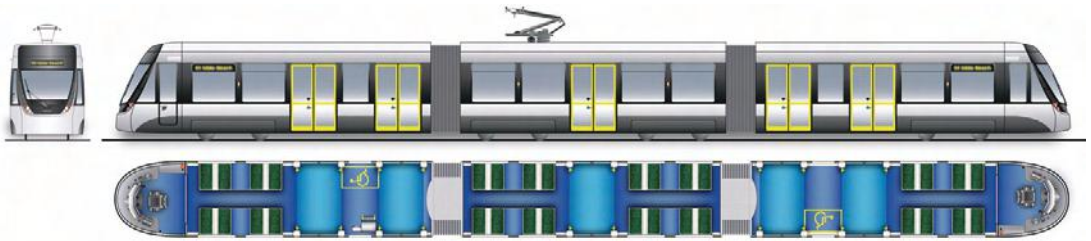
Another reversion to previous practice is that the trams will have conventional swivelling bogies. Bombardier has developed a bogie with small wheels enabling the tram to be 100% low floor, although there



An interior view of the mock-up, looking from the centre section towards an end module where space will be available for a wheelchair to be positioned close to the doors.



An elevated view of the mock-up. Each end module will have two doors, while the centre module will have one. The mock-up does not have the roof-mounted equipment of a real tram, but has two small air-conditioning units.



All photos by Dale Budd; diagram courtesy of Bombardier Transportation.

The mock-up of the E class tram seen from ground level. Note the electronic display beneath the driver's window, displaying 'tram stopping' for the benefit of following motorists.



The driver's cab of the new car with an impressive range of displays including multiple video screens. The main driving control will be at the front of the driver's right arm-rest; it had been temporarily removed when this photo was taken. Frequently-used secondary controls are at the front of the left arm-rest.

will be some slight variations in level requiring gentle ramps in the floor. The centre section of the tram will have a bogie at each end, and the two end modules will each have a bogie at their outer ends. Three of the four bogies will be powered.

The trams, which will be designated the E class, will be 33.45 metres long, with 64 seats and a total capacity of 210 people. They will be Melbourne's longest trams, almost a metre longer than the five-unit C2 cars. In Bombardier's terms they are members of the Flexity Swift family.

The first of the 50 trams on order is scheduled for completion late in 2012. The first five cars will be regarded as pre-production vehicles. For the remainder of the production run the delivery rate will be 10 cars per year. It is understood that present plans are for the cars to be allocated equally to Preston and Southbank depots.

As a comment, it should be remembered that there are still around 145 Z series trams in service, including about 30 of the Z1 and Z2 classes. And there are 25 W series trams in use on route 30 from St Vincent's

Plaza to Docklands, and routes 78 and 79 from North Richmond to Prahran and St Kilda. (These are in addition to the 11 City Circle cars currently available for service.) Patronage on the network is growing. It seems clear that some of the W and Z series cars will be required for service for years to come.

A Melbourne W7 goes to MOTAT

Melbourne W7 1032 has been sent to the Museum of Transport and Technology (MOTAT) in Auckland. Their SW6 906 needs a major body overhaul and they need three trams for their weekday service, with two being in use and one out for overhaul. The sliding door W cars are perfect for school parties and the large volumes of people carried on MOTAT's Western Springs Tramway. Patronage is rising between 6% and 20% annually and the tramway carried just under 200,000 passengers last year.

Car 1032 departed Appleton Dock berth B shortly after 2:00pm on 24 August on board the vessel Tasman Spirit. It was scheduled to call into at least three other Australian ports (Port Kembla, Newcastle and Brisbane) before setting course for New Zealand. It arrived in Auckland on 9 September and the tram was delivered to MOTAT on 14 September.

Why did MOTAT get Sydney R 1808 on loan? At weekends they need a replacement tram whilst cars 248 and 257 receive major overhauls. R 1808 is used very intensively with conductors at weekends. After modifications of the resistance grids the tram has proved to be very reliable and popular with visitors to the museum.

A royal tram journey

Her Majesty, Queen Elizabeth and Prince Phillip, in Australia to open the Commonwealth Heads of Government Meeting in Perth, had a short visit to Melbourne on 26 October which included a ride on a Z3 class tram.

In honour of the royal passengers, Z3 158 was decorated with a red, white and blue exterior and had the inside refurbished with a deep clean, new lower windows and new seating upholstered in green, yellow and black. The dot matrix destination sign displayed 'Royal Tram' and 'ER' appeared in the route number box.

The Queen and Prince Phillip joined the tram at stop 13 outside Melbourne's Federation Square. The royal

The royal tram crosses Princes Bridge on its way to St Kilda Road, welcomed by large crowds of well-wishers.

Getty Images



couple sat facing each other with the Premier of Victoria, Ted Baillieu and his wife Robyn sitting side by side close by.

Melbourne's *Herald Sun* reported that the monarch may be more used to travelling in a chauffeur-driven Bentley or Rolls Royce but she appeared at home on public transport. And like any other passenger the Queen had to pay her way. Her Australian equerry, Commander Andrew Willis had the job of buying her ticket. A Myki pre-paid ticket was used, but it is not known if the royal travellers chose the 2-hour zone one fare costing \$3.80 or chose the cheaper \$2.80 senior citizen option!

Four mounted officers from Victoria Police escorted the royal tram which travelled at walking pace, around 5 km/h during the eight minute journey down St Kilda Road to Government House.

Yarra Trams driver Joyleen Smith was given the honour of driving the royal tram after being nominated by colleagues from Brunswick Depot.

Regular services which use St Kilda Road were diverted via William Street while the royal journey was in progress. Z3 129 was prepared as a backup to 158, with the same colour scheme, but was not required. No. 158 is to remain in its special livery for a year.

Trams in Newcastle

After a chequered history and a long period of restoration, and 61 years after the last tram ran in Newcastle, the body of L/P 284 has gone on display in the newly-opened Newcastle Museum. It is the only

passenger tram from the former Newcastle system to be restored and displayed.

The new museum opened on 4 August 2011, and is housed in the buildings of the former Honeysuckle railway workshops. The Blacksmiths' Shop, dating from 1880, the Boiler Shop (1887) and the New Erecting Shop (1921) have been attractively renovated, and show their distinctive railway architecture to advantage. L/P 284 is displayed in the Blacksmiths' Shop.

The body of 284 was discovered in 1981 after it had spent 30 years in a hay shed at Aberdeen in the Hunter Valley. It was retrieved in the following year by the Newcastle Tramway Museum and moved initially to the old goods shed at the former Wallsend station, where restoration began. It was intended to make the car operable using W2 bogies and electrical equipment, but this never eventuated. With the demise of the Newcastle Tramway Museum in 1995, L/P 284 was acquired by the Newcastle Regional Museum. (The simpler name Newcastle Museum was adopted with the opening of the new facilities this year.)

The Newcastle Museum is open from 10.00 am to 5.00 pm on Tuesdays to Sundays. Also on display is steam locomotive J. and A. Brown No. 4. Nearby is the Maritime Centre, a maritime museum which is well worth a visit. Its opening hours are 10.00 am to 4.00 pm on Tuesdays to Sundays.

Meanwhile former Sydney R car 1892, in use near Newcastle station as the local version of Harry's Café de Wheels, has been sheathed in brushed stainless steel. The cladding work was done in February 2011. Previously the car was painted in a deep red/brown colour – see the November 1998 issue of *Trolley Wire*.

A Newcastle tram on display for the first time, 61 years after the final closure of the system. The body of L/P is housed in the Blacksmiths' Shop of the former Honeysuckle railway workshops.

Dale Budd





L/P 284 trails a sister car as they roll through the cutting at Jesmond, inbound from Wallsend to the city in 1948.

Norman Boxall



Car 284 at Parnell Place terminus in September 1948, about to leave on a run to Adamstown.

Norman Boxall



Pictured in June 2011, former Sydney R car 1892 shows off its new stainless steel sheathing. The tram is now numbered 892 rather than 1892, perhaps because the painter found it hard to fit four numerals on the centre panels of the car's end aprons.

Dale Budd

The tram's restoration by the Newcastle Tramway Museum was well advanced when it was placed on show near the waterfront, to the north-east of Newcastle station, on 19 July 1987. The occasion was the centenary of public transport in Newcastle: the first steam tram service, to Plattsburg, started exactly 100 years before, on 19 July 1887. Denis O'Brien



WHITEMAN PARK

PERTH ELECTRIC TRAMWAY SOCIETY (INC)

PO Box 257, Mount Lawley, Western Australia 6929

www.pets.org.au

From Michael Stukely

WAGT E class 66 launched

Following its full restoration and refurbishment over a period of nearly 20 years, WAGT (Perth) E Class tram 66 was launched at Whiteman Park on Sunday 9 October. A marquee had been set up on the Village Green opposite the Motor Museum of WA, where invited guests assembled for the launch, followed by morning tea. This was provided by Whiteman Park Management, as part of the Park's 25th Anniversary celebrations. These were being held over a period of 25 days, Whiteman Park having been officially opened on 21 September 1986. We thank Park Management for this assistance. The launch was organised by a committee led by Membership Secretary, Beth Kelly.

It had been planned to run 66 to the Village for the launch under its own power, and appropriate arrangements had been made with the Rail Safety Regulator. However, this was not to be. Although things were going according to plan until about 4pm the previous day, a problem with the air brake system developed which would require significant work. As 66 could not be operated safely under power, it was decided to adopt Plan B, whereby she would be towed to the Village for the launch. So, as is common with the launching of ships, time would be required after the official launch for the necessary work to be done, before she could make her 'maiden voyage' under power. This, however, did not dampen the spirits of members and visitors on the day, which was a great success, and 66 looked resplendent.

Tram 66 was the official Last Tram to run through Perth streets when the city's one remaining tram route was closed, over 53 years ago, on 19 July 1958. A final ceremonial run by 66 – from Barrack Street Jetty to the Inglewood Terminus at Grand Promenade – attracted huge crowds along the route, and the tram was escorted by marching girls and mounted police. On the saloon sides of tram 66 that day were full-length banners marking the occasion, '1899 – PERTH'S LAST TRAM SERVED THE CITY FAITHFULLY – 1958'. Reproductions of those banners were made and attached to the tram for the 2011 launch.

No. 66 arrived at the Village fashionably late at about 10:20am, being towed from the Car barn by Melbourne W2 393. Following in convoy were W2 329, W4 674 and Fremantle 29, which stopped in the Mall just after the road crossing. Nos. 393 and 66 moved forward to the designated position at the marquee, escorted by a jazz band and marching girls, including some ladies who had actually participated in the 1958 escort in the city streets! PETS Founding Members Lindsay Richardson and Ric Francis were dressed for the occasion in WAGT uniforms, as the crew of 66, and guests were requested to dress in 1950s style. When all was ready, Master of Ceremonies Bob Pearce called guests to be seated in the marquee, and the band took up their position beside the podium.



E 66 arrives in the Village Mall for the launch on 9 October, towed by W2 393 and escorted by marching girls. Some of the ladies were part of the 1958 escort for 66 in the streets of Perth.

David Brown

Speeches were given by Whiteman Park Manager, Steve Lowe; PETS President, Michael Stukely, and Mr Michael Sutherland MLA. Bob then called on the speakers and member, David Secker, to move to the tram, and they removed the replica 1958 banner from the saloon side, with assistance from Tony and Allan Kelly from inside the tram. This revealed a new banner attached beneath, produced by Graham Lees, which proclaimed: '1958 – 53 YEARS ON AND I AM REBORN – 2011', to loud applause and cheers. Mr Michael Sutherland then cut a ribbon stretched across the track in front of 66, assisted by Steve Lowe and Michael Stukely. With the formalities concluded, guests enjoyed morning tea in the marquee with music

provided by the band, and a celebratory cake was cut by Michael Stukely.

Guests took the opportunity to inspect No. 66 before it was towed by 393 to the Village Junction terminus where the Junction Function, celebrating transport heritage and arranged as part of the Park's anniversary celebrations, took place. Tram services then commenced, with Fremantle 29 returning to the Car barn and W2 329 and W4 674 running a fifteen minute headway service between the Village and Mussel Pool. No. 66 remained on static display with 393 at the terminus until 3:00pm, when it was returned to Road 3 in the Car barn.



Michael Sutherland MLA cuts the ribbon to launch WAGT (Perth) E class tram 66 on 9 October, assisted by PETS President, Michael Stukely (left) and Whiteman Park Manager, Steve Lowe (right), in the Village Mall.

Les Hunt

The banner attached to the side of E 66 for the launch on 9 October. It is a full replica of the banners carried by 66 for the official last run at the closure of the Perth tramways on 19 July 1958. Michael Stukely

Lindsay Richardson, Motorman (left) and Ric Francis, Conductor, display their WAGT crew uniforms at the launch of Perth E 66 in the Village Mall on 9 October.

Courtesy Ric Francis



Following is a précis of the acknowledgements made by Michael Stukely at the launch.

Tram 66 was transferred to the Perth Electric Tramway Society in 1986 on long-term loan from Rail Heritage WA (formerly the Australian Railway Historical Society, WA Division), to be restored to operational condition. The task of restoring E 66 proved to be a long, hard battle with many major unforeseen problems and obstacles being encountered, not least of which was the very poor condition of the tram's main wooden body structure. We were very fortunate to have also acquired the body of sister E Class tram 67, donated by Mr and Mrs Stevens of Bannister, and portions of this car body have been invaluable in completing the restoration. A permanent plaque acknowledging both of these contributions is to be installed in the tram.

The 77E type single-motor trucks (complete with motors) were generously donated by the city of Kagoshima, Perth's sister city in Japan. The plates attached to the side frames of the trucks acknowledge this gift, for which we are extremely grateful. The second pair of trucks donated is under Fremantle 29.

During the launch of E 66 on 9 October the replica 1958 banner is removed from the side of the saloon, revealing a new 2011 banner beneath, which proclaims the car's 'rebirth'. Steve Lowe (Manager, Whiteman Park) and Michael Sutherland MLA are removing the 1958 banner at left, while David Secker, assisted by his son Mark, and Michael Stukely are at the far end.

Graham Lees





The end of a long but very successful day on 1 October. E 66 has been mounted on its 77E type trucks and moved over the service pit for completion of the connections of its electrical and brake systems, and testing. Tony Kelly (left), Graham Bedells, Frank Edwards (Restoration Supervisor), Noel Blackmore (Electrical and Mechanical Engineering Supervisor), Trevor Dennhardt, John Azzaro and Ric Francis.

Michael Stukely

Many people have been involved over a period of nearly 20 years in this marathon task, in various different aspects of car 66's restoration:

- The members and supervisors of earlier restoration teams carried out a lot of major work on the body, after fully stripping it down. Much of the time, more problems were being found as soon as they thought that each one had been solved. It was very disheartening!
- Three teams over the past year or more have put in an outstanding effort – in the electrical and mechanical areas, as well as on the tram body itself:– Noel Blackmore, Electrical and Mechanical Engineering Supervisor, with Roy Kingsbury and the late Bill Blain (electrical), and John Azzaro and Bryan Hossack (mechanical), with assistance from other members on these teams; – and Tram Restoration Supervisor, Frank Edwards, with John Davies, Graham Bedells, and others assisting on the restoration team.
- Life Member Noel Blackmore was recognised in particular, for his guidance of the project from the start with his unique combination of skills, experience and knowledge. Noel had recently been working long hours, seven days a week, both at the Car barn and at home, to get everything finished in time. Flowers were presented at the launch to Win Blackmore, in gratitude for her untiring support of Noel.
- Members who recently put in a lot of extra days to help complete the work on 66, and also Gordon Blackmore and the apprentices from Mizco who



On Road 3 in the Car barn, Perth E Class 66 is about to be lifted off its shop dollies and placed on the 77E type trucks using the new electric lifting hoists, on 1 October. The hoist control unit is in the foreground. The truck just visible at right will be pushed under the car body after the dollies have been removed sideways on steel plates.

Michael Stukely

E 66 on display in the Village Mall. It is behind W2 393 and 393 is at right.

Mike Stukley



gave outstanding, valuable help in their own time to complete the electrical wiring.

General

Four electric-powered tram body lifting hoists were purchased and arrived early in September. These proved ideal for lifting E 66 off its shop dollies, and lowering it onto the 77E type trucks. This was completed on 1 October, and 66 was placed over the service pit for the final connections of electrical wiring and brake systems, and testing.

During July and August, the main service cars were Melbourne W2 329 and SW2 426, with occasional use of W4 674 as backup, and Fremantle 29. Valuable assistance was given by Sydney-based members, Hayden Holmes and Sam McGuinness, in running service trams in the school holiday weeks preceding and following the launch of E 66. Greasing of the track curves has again been done by Shane Parsons, who was assisted by Sam McGuinness prior to the E 66 launch.

The 8-metre extension of the Pit Road track alongside the WP Pennenburg Workshop to the western boundary was completed by Lindsay Richardson and Duncan McVicar. Ballasting is to be completed using material salvaged from an old track formation in the Stockmans Crossing area.

Significant progress has been made by Kim Freind and Jack Kendall in clearing and rearranging items in the engineering shed, and additional shelving will be required in the spare parts shed before the area can be fully cleared.

A 20 tonne scrap bin has been placed on the upper hardstand area, and scrap items are being sorted for disposal including the remains of a Sunbeam trolley bus body, acquired some years ago from Gingin, that has been stripped of all useful parts.

The last remaining large group of steel span poles from the Perth trolley bus system are being removed from Walcott Street, starting near Beaufort Street. The Society is purchasing the poles, and deliveries to our stockpile began in late August. Unfortunately, those from the first section were cut at ground level to avoid damage to underground services if they were pulled out.

A rather different type of operation took place on the tramway recently, when new hi-rail equipped vehicles were tested on the track by Trac-west Machinery. On 6 October, a LandCruiser was run between Mussel Pool East and the access crossing just west of Stockmans Crossing; then from the Village road crossing down the hill to the north points at Stockmans Loop. On 11 October a truck ran from the east end of the Village Mall down to the pedestrian crossing near the cattle grid. Point work and curves with checkrails had to be avoided due to the railway wheel profiles on the equipment. Trac-west provided a donation for each use of our track.

Annual General Meeting

The thirtieth Annual General Meeting of the Perth Electric Tramway Society was held in the 'Old School Room' in the Village, Whiteman Park, on Sunday afternoon, 31 July. The following Officers and Councillors were elected:

President	Michael Stukely
Vice-President	Ric Francis
Secretary	Robert Pearce
Treasurer	Tony Kelly
Membership Secretary	Beth Kelly
Councillors	Allan Kelly
	Garry Barker
	Darren Ward

Some highlights and key results from the Annual Report are given below.

During the 12 months to 31 March 2011, five trams travelled a total of 9,787km on 231 running days. This was a little lower than the 2009-2010 total (9,912km on 230 days).

Distances travelled by the trams were:

Fremantle 29	581 km
Melbourne W2 393	2,448
Melbourne SW2 426	4,205
Melbourne W2 441	158
Melbourne W4 674	2,395

A total of 19,754 ticketed passengers were carried, which was higher than the previous year.

The Society's membership had reached a record figure of 119 at the end of March 2011, up from 117 the previous year.



A hi-rail equipped Land Cruiser is tested on the tramway at the Horse Swamp cattle grid by Trac-west Machinery on 6 October.
Simon Mead

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PO Box 103, Sutherland, NSW 1499

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From SPER News

Cable trailer attends railway field days

A new chance to publicise the Museum arose this year when we were invited to take a stand at the annual Rail Track Association Australia/RailCorp Field Days.

The Field Days were held in Clyde railway yard adjacent to Parramatta Road over two days, 26 and 27 October. We exhibited our cable trailer and provided museum information and literature at our stand.

Tom Tramby and Greg Sutherland arranged and co-ordinated the transport of the trailer from Loftus to Clyde, and its loading and unloading on the forward and return journeys. Particular thanks are due to Peter Kahn and Paul Macdonald who manned the display over the Field Days period.

Apart from showcasing the Sydney Tramway Museum, this display provided us with a valuable presence in front of senior rail industry representatives.

Track relaying work

After several false starts due to wet weather and boggy conditions along the National Park line, John Holland Rail took possession of the line from 29 August to 2 September. A further 700 concrete sleepers were laid which brought the total to around 1100 along the full length of the line. Around half of the sleepers on the curves are now concrete and on straight sections of the line the proportion is now one in three or four.

We thank Austrak for the supply of sleepers, John Holland Rail for carrying out the relay work, and Pandrol Australia for the supply of rail fastenings.

On 8 October our earthmoving contractor, David Canini, excavated the Loftus Oval platform to enable replacement of a storm water pipe damaged by John Holland's equipment. David then excavated the bed for the future eastern track at our northern terminus where welded track panels will be laid.

The first step was to unspike the timber sleepers and remove the sleeper plates. Removal of the dog-spikes was undertaken by machines on 28 and 29 August.

Martin Pinches



John Holland Rail's timber sleeper remover at work on 28 August. The sleepers are removed and stacked on the attached trailer and are then taken to a stack point.

Martin Pinches

Ballast is moved to make way for the insertion of the new concrete sleepers on 30 August.

Martin Pinches



Spoil was transported in our yellow tip truck and was used to backfill a new short timber faced platform near the TAFE crossing which was to be used during 'Torquefest' on 30 October.

The previous issue of *Trolley Wire* incorrectly reported that the relay of the main line from the Railway Square Waiting Shed to the new Depot Junction points had been completed. Unfortunately this is not the case.

We had intended to install a prefabricated set of left hand points and a 12-metre track panel after the 'Trams after Dark' event in June. However it was decided to postpone this relay due to several key personnel being either away on holidays and preoccupied by work commitments. There was also a concern that an onset of wet weather midway through

the project could have resulted in the line not being re-opened in time for 'Torquefest'. For these reasons attention turned to the extension of the western track along the TAFE boundary to the curve north of Pitt Street. Weeds were cleared, formwork was placed and concreting re-commenced when surplus concrete was available.

A track drain was installed near pole 109, which will be the limit of the concreted track. Pole 109 is the fifth pole on the western side north of the Pitt Street crossing. Treated hardwood sleepers have been laid beyond that point and around the curve. The new sleepers have been inserted between the old sleepers on the existing main line as the tracks converge.

The main line will be connected to the new concreted western track allowing the eastern points of



Concrete sleeper insertion commenced from the National Park end of the line on 31 August. One machine lifts the sleeper and places it beside the line. A second machine inserts the sleeper under the rails.

Martin Pinches



Each sleeper was lifted and clipped to the rail on 1 September. Final ballast packing followed.

Martin Pinches

The finished job. There is now a minimum of 1 concrete sleeper in 3 on the straight sections of the line, and 1 in every 2 on curves.

Martin Pinches



the new trailing crossover to be installed and for the eastern track to be re-laid and concreted back to Pitt Street. Once again as much preparatory work as possible is being done to minimise downtime.

Alterations to the overhead are being planned to coincide with the track alterations.

Sydney C class 37

The enclosed cab at the No.1 end of C 37 has been completed and the apron for the No.2 end has been fitted by Geoff Spaulding and Rod Burland. Headlight castings, along with reflectors that were repaired and silvered by antique restoration specialists W.J. Sanders have been fitted to both car ends. New floor hatches have also been made. Geoff has fabricated two new sand boxes for the car and Rod has prepared replacement sander fittings from parts recovered from Melbourne W2 cars some years ago.

In the meantime, Andy Rowe from Christchurch Tramways has fabricated the motor mounting supports for shipment to Loftus. Andy will visit Loftus later in the year to assist in fitting these to the truck, so it can be placed under the car.

Sydney P class 1729

This car will shortly exchange places with 93u on road 7, where it will be more visible to Display Hall visitors. To comply with the terms of our grant funding from the Office of Environment and Heritage, special signage is required to be displayed in the vicinity. A sign has already been erected on one of the display boards, and another will be placed on the car.

It is very pleasing to advise of an equipment exchange with the Seashore Trolley Museum, negotiated by Richard Clarke and Howard Clark with



Tom Tramby, Greg Sutherland and Mike Giddey pack up at the end of the day's work on the track extension on 27 August.

Martin Pinches

Donald Curry and Danny Cohen of that Museum, which of course has P 1700 in its collection.

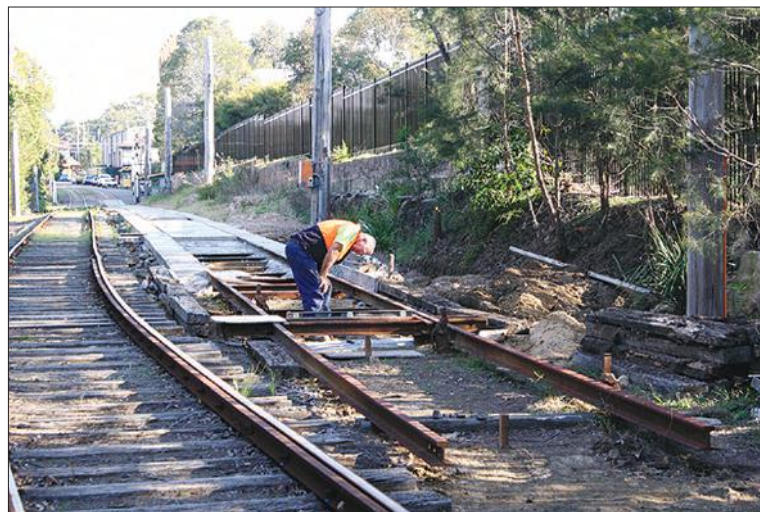
Previously Richard had supplied a copy disk recording authentic advertisements from within Sydney trams, which was made at the time of the 2009 'Shooting Through' exhibition. Prints of these are now in 1700.

The exchange involves Seashore receiving two sets of brake shoes which will be cast and supplied for 1700, plus a couple of other components. In return the Sydney Tramway Museum will receive the spare bogie, minus its wheel sets and motors, which Seashore obtained when it acquired car 1700 in 1961. This will enable the bogie frame to be replicated, so in due course we will have a correct pair of Sydney No. 9 trucks for both 1729 and PR1 1573. Motor and axle

sets have been made available by Victrack from Newport for this work, via COTMA.

When Howard and Greg Sutherland paid a visit to Seashore in September this exchange seemed impossible as the truck was in the open, high on a stack surrounded by other bogies and tram bodies, and beyond access by their ancient 1911 crane. This obstacle was overcome by their volunteers undertaking a major shunt over two days to gain access to the truck and remove it to their workshop. This is another example of great co-operation between museum groups for mutual advantage.

We are grateful to a number of members and friends who have undertaken to assist in funding this important exchange, and we will shortly be including this in our annual funding appeal.



Greg Sutherland examines work on the track drain adjacent to pole 109 on 27 August.

Martin Pinches

The firewall between the display hall and the YMCA building is being constructed by Community Service bricklayers.

Richard Jones



New Wollongong members Adam Hayhurst and Sunny Brailey have been busy overhauling the spare AEC engine for our Matador recovery vehicle.

Other tramcar news

The repainting of R1 1979 by our painting team was completed on 22 October, with the last car numbers being applied by Joseph Spinella. The tram will be in service for our Members Day on 3 December.

Sydney L/P 154 is due to replace 1979 in the paint shop in the near future. It ran for the last time in green and cream on 23 October, before it returns to the olive drab colour scheme it carried before it was 'temporarily' painted green and cream a number of years ago.

The damaged Melbourne type lifeguards on Sydney R1 2001 will soon be replaced with new Sydney type guards that have been made in-house to the original drawings.

Frank Cuddy has been very busy rebuilding both the controllers for Ballarat 37, which were found to be in very poor condition.

The new underframe for Melbourne cable grip car 322 is complete. The brakes operate, and work is in progress on installing the ornamental end apron ironwork.

Road vehicles and other equipment

Rod Burling replaced some rotten floor boards in bus 2619 allowing the new Malthoid floor covering to be laid upstairs. Interior re-fitting is continuing.

The traverser received a much needed repaint by Ian MacCowan, with assistance from Zac Miner. The traverser has had the name 'Commonwealth Engineering' sign written by Joseph Spinella on its eastern side to acknowledge its former owner.

A diesel alternator set has been purchased to allow the use of power tools and the three-phase welder at locations remote from reticulated power.

YMCA building

CSO brick layers have made good progress on the fire wall between the first floor of the YMCA building and the Display Hall and with the enclosure of the northern fire stairs.

The delivery of additional bricks as well as steel doorway frames and sand and cement will help to move this project along. With more than \$4,000 being spent in recent weeks available funds are now very tight.

Presentations to outside bodies

In recent months there has been increased interest from outside bodies such as Probus, Rotary and historical societies for presentations on Sydney's tram system. This has provided a good opportunity to present information on the aims and operations of our museum. Both Peter Kahn and Howard Clark have been separately active with these presentations.

The last passengers board Brisbane 548 as it prepares to depart for the northern terminus.
Richard Jones



When does an 80-seat O class car only seat 64 passengers? When it is in museum service with a visiting coach group. The crossbench cars rarely carry their maximum seated load unless the occasion is a special one.
Peter Neve

Sydney R class 1740 returning from the northern terminus. It is about to cross Pitt Street and enter the museum.
Richard Jones



ST KILDA

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From Kym Smith

Replacement running shed

Probably one of the biggest projects undertaken at St Kilda is now well under way with the replacement of the original running shed and workshop with a new steel framed building.

Prior to the old shed being dismantled, two events were held to mark its significance to the Museum. The first was on 9 July with the return of the original fleet to the positions that they occupied on their arrival at St Kilda, followed by a 'Shed Down' party on Sunday 31 July before dismantling commenced the following week. Christopher Steele, as designer and 'foreman' of the construction of the original shed was guest of honour, and gave a speech highlighting what the Museum has achieved since those early days.

Over a three day period from 22 July, nine trams were tightly positioned in formation on the depot fan and the overhead was then removed from the old running shed and workshop. A temporary domestic power feed was also strung across the fan to enable the Northern Shed, Display Gallery and Tearooms to be powered. The switching for the 600 volts power was also relocated from the old Members Lounge to the substation.

Our demolition contractors started on 1 August, taking just over two weeks with various equipment to remove what took about four years to build by hand with blood, sweat and tears. What became plainly obvious was that the frame of the old shed was in far

worse condition than we had predicted: some of the posts that were supposed to support the shed turned out to be supported themselves by the shed, and once the iron and some of the supporting trusses were removed, they simply fell over.

The footings for the new shed have been drilled and concreted, and hopefully by the time this article appears the new shed will be up and the trams securely stored within it.

Jack Pennack has been instrumental as the project manager for this project, with on-the-ground support from William Adams, Michael Crabb, Mark Jordan, Peter Letheby, Bruce Lock, Charlie Rodgers, Ian Seymour, Kym Smith, Chris Summers, Tom Wilson and Alan Ziegler.

Special mention also must be made of the work undertaken by Kevin Collins not only to assist physically with the project, but also in arranging for a large number of his motor home colleagues to muster at the Museum as caretakers while the shed is being replaced. Without this effort, the Museum would have needed to look at other, more costly options for protecting the outside fleet.

H1 381

Bruce Lock and Charlie Rodgers have continued with the work of refurbishing 381, completing the

Four of the five cars of the Museum's 'green fleet', consisting of W7 1013, W2 294, Ballarat 34 and works tram W2 354, were assembled on the main line as part of shunting manoeuvres to allow the 'first fleet' to be positioned in the old running shed.

Kym Smith





The roof removed from the original shed, letting in daylight for the first time in nearly 50 years. The 'AETM' paint markings on the poles relate to when the poles were sourced from a storage pile at Deviation Road, Mile End.

William Adams

H 361, Ballarat 21, H 362 and W7 1013 at the eastern end of the stored 'outside fleet', with the trolley wire from the shed lowered and coiled in front of each tram.

William Adams



Not being one of the 'first fleet', H 360 was positioned out of the way for the day on Road 8. This classic image shows why these trams were so highly regarded for their stylish lines and solid appearance.

Kym Smith

Brought out of the old running shed for the final time, the Museum's first fleet consisting of F1 282, E1 111, D 192 (behind 111), A 1 and B 42 (behind 1) stand in the yard before being moved for stabling in the Northern and Southern Depots.

Kym Smith



re-seating of the windows with new rubber and commencing the repainting of the interior. Some rust treatment has also been undertaken on a couple of the exterior panels. To date, the level of support for this project has been disappointing, especially given the previous interest that has been expressed in returning not only 381, but a silver tram to the operating fleet. For those that want to see it happen, the time is now to back Bruce and Charlie's work with your financial support.

A 14 & 15

Work on the 'Bib & Bub' set has slowed considerably, especially with the two trams surrounded in the Bodyshop with equipment from the old running shed and workshop. Two complete lifeguard assemblies have been made available by the Melbourne Tramcar Preservation Association for these trams, being transported from Haddon to St Kilda by Kym Smith. The AETM records its thanks to Tony Smith

and the MTPA for their support in making available this equipment.

Site clean up

The contractors that we engaged for the dismantling of the old shed have also assisted us in the clean up of the rear of the site. In recent times scrap thieves have stolen a large amount of stores and equipment from the rear of the site, so to mitigate this risk (and also raise funds for ourselves) our contractors have removed over 20 tonnes of scrap from the site, greatly reducing what is stored in the yard. Items we intend to keep have either already been moved inside, or will be consolidated into a much smaller area protected by security.

Mark Jordan has continued to assist in the pruning and cutting up of dead trees and fallen branches. This and other combustible rubbish was added to the annual burn off pile, being reduced to ash during late August.

The original workshop during demolition. Several upright timbers collapsed after the iron and trussing timbers were removed.

William Adams



A 1 on inside Road 5 (originally Road 2). It remained here from 1958 to the early 1970s when the depot yard pointwork was installed. This allowed the tram to be moved elsewhere in the depot.
Kym Smith



The start of the demolition saw the workshop dismantled, leaving the original running shed standing, reminiscent of when the shed was first constructed. William Adams

The old shed and workshop almost fully dismantled, with only the former Members Lounge remaining standing.
William Adams





An example of some of the hidden white ant damage that was found once demolition began; the damage being far worse than was initially believed.

William Adams



F1 282 at the rear of what is now Road 3 (originally Road 4) on the rails where it was unloaded in 1959.

Kym Smith

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www.btm.org.au

From Dave Macartney & Warren Doubleday

An anniversary

The 40th anniversary of the closure of the SEC system was celebrated in style on 18 September. The service operated from St. Aidans Drive to the Depot instead of Carlton Street to give the passengers a chance to inspect the Depot, particularly the new updated display area. As well, many other activities including face painting and balloons for the kiddies were on offer. The Ballarat Engine & Machinery Preservation Society attended with a fascinating collection of group engines. Alastair Reither supplied a small model tram layout. The Ballarat Lions Club ran a sausage sizzle. A souvenir sales tent did good business.

Excellent publicity in the local media saw a very good turnout. With travel being free, just on 600 people availed themselves of the opportunity of a tram ride. Most of the fleet were used during the course of the day, running just one or two trips each then handing over to another car. Even Horse Tram No.1 was moved outside for photographs throughout the day. Although the day was long and a bit exhausting, it was made worthwhile by the happy faces and the full trams. Special thanks to the organisers, particularly Richard, Neil, Paul and Al and also our workers on the day who all contributed to making it a great occasion.

At the moment the entire operable fleet is available for service, with nothing requiring major workshop time except for No. 33, which is in for a repaint. This was the only tram remaining in authentic SEC paint, although the interior of 38 still has quite a bit of SEC paint, including vintage graffiti! No. 33 will be returned to its 1971 colour scheme. In a break with tradition, the car was spray painted early in October instead of the time honoured brush, so it will be interesting to see the finished result once the cream has been finished and the logos and edge lining applied.

The storage shed at Bungaree moved a step closer to completion on 24 September with earthworks having been done and the rails laid out into position. The work here continues spasmodically as the demands of the operating fleet dictate.

The museum was visited during September by both our State and Federal representatives, Sharon Knight and Catherine King. It was the first visit by Sharon, the recently elected State member, though Catherine has been in office for a decade or more, and is familiar with our operation. Both ladies seemed well pleased with what they saw, which should stand us in good stead should any grant money become available.

Restoration of No. 38

No. 38 last ran in regular traffic on 20 September 1998 with Driver Millar and Conductor Hutchesson. At the time it was suffering from a series of minor faults, as well as having low flanges, so it was put into

storage pending a decision as to the work to be carried out. With No. 40 having just returned to service following some motor problems, the work on 38 was felt to be not urgent, particularly as it was obviously going to cost a fair bit of money. The Museum's single truck trams are always given priority as they are the mainstay of our fleet.

During January 2004 an effort was made to return the car to service for a further period, but in the event it was found to be altogether too much trouble, particularly as the problem of the low flanges was not able to be addressed. With the car back in storage, a few parts were removed to keep No. 40 operating, and the failure of the No. 2 end controller in August 2004 meant that No. 38 essentially became a static exhibit from that time. The tram had first operated on the first official running day, Boxing Day 1974, and on Boxing Day 1999 as part of celebrating 25 years of operation it was patched up and dusted off and ran a members' special at the end of the day.

By June 2008 the time had come to face up to the task, and 38 was moved to 4 road and jacked up. The trucks were removed and dismantled, and the frames were squeezed between 5 and 6 roads. We had earlier sent the wheels of No. 28 to the AETM in Adelaide for turning, so the wheels from No. 38 were dispatched there on 10 October 2008. It would be two years before they returned, as the wheel lathe suffered a major failure during the process, and it took a year or so to locate the parts needed to carry out the necessary repairs.



The Museum celebrated 40 years since closure with a Family Fun Day on 18 September.

Warren Doubleday

No. 38 returned to service on 21 August after major mechanical work.
Peter Winspur



Meanwhile the motors had been stripped down for inspection, with the No. 2 motor being sent to Bendigo for insulation repairs. The other motor had been overhauled in 1977, and was still in good condition. The No. 2 end controller was repaired during this period. To avoid having the car sit on the jacks for an extended period, our spare pair of 22E trucks were rolled in and the body lowered again.

Once the wheels had arrived back from Adelaide re-assembly could begin. The motors were tested on the bench during January this year and replaced in the trucks. A bearing which refused to co-operate caused some delay until it was trimmed to a precise fit, but on 3 August the trucks were complete and the body was lowered back onto its own wheels.

The rest was just routine, or should have been. The compressor governor was found to be playing up, and refused to cut in and out at the desired pressures. Considering that this was one of the items swapped over with 40 during the period out of service, this was hardly surprising. Eventually it was replaced with a more reliable unit. Various road tests and adjustments were carried out over the next couple of weeks, as well as some extensive cleaning to remove a decade or more of accumulated dust.

No. 38 returned to service on 21 August 2011 and now for the first time for as long as we can remember both our Ballarat maximum traction cars can meet each other at the loop.

Ballarat No. 40 crossing the railway on the last day of operation, Sunday 19 September 1971.

Bill Kingsley



PORTLAND

PORTLAND CABLE TRAMS INC.

2A Bentinck Street, Portland, Victoria 3305

www.portlandcabletrams.com.au

From Alan Rees

Grip car 002

Work is proceeding on the axle modifications for 002 which will enable it to return to service.

As the axle required major modifications, Transport Safety Victoria required an independent engineer's report which Greg Strada of PM Design has completed. The report and modification plans will be submitted to TSV shortly. Greg believes that the modifications will greatly enhance the performance and reliability of the grip car and minimize the chances of the tram breaking an axle again.

The parts required are in the process of being made by Racer Products and the axle and differential will be assembled by Kempe of Portland.

Volunteers

At our Annual General Meeting in September, Don Errey was inducted as a Life Member of Portland Cable Trams. This honour is richly deserved as Don has been a magnificent supporter and sponsor of our organisation over many years.

Conductresses Daphne Pascoe and Shirley Earl, and tram drivers Bill Gregory and Bob Gower received awards for the number of trips they have conducted and driven. Portland Cable Trams congratulates and thanks them for their outstanding efforts. The awards they received were very much deserved.

Rail safety accreditation

The annual safety audit by Transport Safety Victoria took place in August and went reasonably well. There was one Non-Compliance item and a number of Improvement Notices of a minor nature. A strong emphasis was placed on competency issues relating to our volunteers, and being able to produce evidence that they were suitably qualified.

Successful grant applications

We were recently successful in receiving a grant of \$2000 from the Department of Families, Housing, Community Services and Indigenous Affairs. The grant money will be used to purchase more wet weather gear and safety vests. Those who have visited

Portland in any season would be aware of how bad and unpredictable the weather can get, so the additional gear will come in very handy.

This is the third grant we have been successful with this year, the other two being \$3000 from Glenelg Shire Council and \$2200 from Portland Aluminium Smelter (Alcoa).

The \$3000 Glenelg Shire Grant is intended to purchase new sound equipment for our tram sets and to have a recorded commentary produced. We are hoping that the recorded commentary will entice more locals to volunteer as conductors, as at times the need to provide a commentary has been off-putting to some prospective volunteers.

Portland Aluminium Smelter provided \$2,200 via a grant towards the purchase of a new ride-on motor mower. The mower, which will be used to continue to maintain the grassed areas of the track and surrounds, was purchased from Thorpe's and we also thank them for their assistance throughout the purchase process.



Our new ride-on mower purchased with a grant from Portland Aluminium Smelters. Alan Rees

As a not-for-profit organisation, any grants we receive are gratefully accepted and we sincerely thank Alcoa for their ongoing support.

Depot turntable motorisation

The turntable motorisation is proceeding, although slowly. This is to be expected as Roger Middleton and his boys from Portland Aluminium Smelter are not only trying to finish our turntable, but also have their own work commitments with Alcoa. It is hoped to have the turntable motorised by Christmas.

There is no requirement to alter the structure of the turntable or track, but training will be required for the volunteers in the operation of the turntable using a remote control system, rather than manually pushing it into place as is the current practice.

Fairmont maintenance vehicle

After advertising in a number of heritage and rail publications, we are pleased to report that we have sold

our Fairmont maintenance vehicle to Queensland Pioneer Steam Railway.

Originally purchased for use on our system, the Fairmont became redundant following the donation from Alcoa of a four wheel drive Nissan Twin Cab in 2009.

Arrangements have been made by the Queensland Pioneer Steam Railway to have 'Mario the Train Mover' pick up the Fairmont in the near future.

Vale Jeff Constantine

It is with regret that we advise the passing of Jeff Constantine who was General Manager of Portland Cable Trams from 2001 to December 2007. Jeff was a major influence in setting up the tramway, and it is a credit to him that Portland Cable Trams is flourishing as a major tourism attraction for Portland.

Jeff will be sadly missed. He was a genuine good bloke.

HADDON

MELBOURNE TRAMCAR PRESERVATION ASSOCIATION
324 Sago Hill Road, Haddon, Victoria 3351 www.mpta.org.au

From Kym Smith

W3 663

Work over the past few months has seen the completion of the refurbishment of the saloon and drop-centre seats, and the installation of the remaining internal fittings. The overhaul and fitting of new timbers to the lifeguards has been completed and they are now ready for refitting. Two destination boxes have been selected, overhauled, painted and have period destination rolls installed ready for fitting into 663. A quote has been received for the signwriting, which will be completed prior to 663 returning to Haddon towards the end of the year.

SW5 849

Re-varnishing of interior beading timbers has commenced, and the ivory ceiling has been repainted to freshen it up. Work has begun on stripping the exterior saloon panels back to their original galvanised

finish as the original paint had not adhered to the panels resulting in numerous defects. Although 849 never carried the scheme while in traffic, it is intended to repaint it in the 1980s Metropolitan Transit livery as worn at one stage by most of its sister cars, to provide a contrast and another livery example to compare with other trams in the Haddon fleet.

Trackwork

To facilitate the rebuilding of the south west curve, it was decided to excavate the existing fill down to the formation level; this excavated fill being used to backfill the north west curve following its completion. New permapine sleepers have been purchased for the south west curve, together with screw spikes to fix the rails in position. The straight of the main line has been reinstated and completed, and work is now progressing



Anthony Smith prepares the destination boxes for W3 663.
Jacqui Smith

on welding the rails that will form the curve. Some assistance has been received from Alistair Reither from Ballarat Tramway Museum in cutting and trimming some of the rails prior to welding, and we thank him for this assistance.

Truck shop

The shelving in the Truck Shop has been completed, and the numerous truck components and spares have been sorted and stacked on the shelving. All of the truck parts are now located in this one area, where they will be easily accessible when overhauling trucks.



The varnished interior of W3 663 looks resplendent with the installation of seats and remaining fittings.
Anthony Smith



Another view of the interior of W3 663 showing the refitted hand strap rails.

Anthony Smith

Anthony Smith varnishing some of the interior beakings from SW5 849.
Jacqui Smith



Daniel Edwards and Jacqui Smith remove the paint from the saloon panels of SW5 849.
Anthony Smith

Our local Bobcat contractor excavates the south west curve. The level foundation allows the sleepers to be laid out with only minimal packing needed.
Anthony Smith



Always eager to be involved and learn new skills, Jacqui Smith shows her expertise at welding joints on the south west curve.
Kym Smith

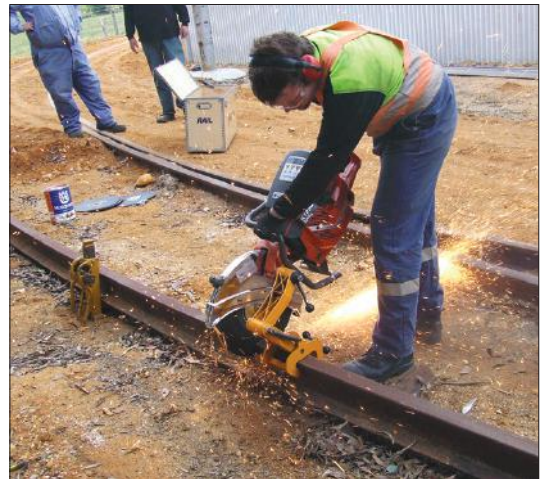


Many hands make light... I mean, track work! Alistair Reither supports the sleeper, Kym Smith drives home the screw spike, Arthur Ireland prepares to drill the next sleeper and Richard Gilbert provides the obligatory supervision.

Jacqui Smith

Kym Smith welds the transition joint between the 80lb curve rail and the 75lb straight rail where the north-west curve transitions into the short western straight.

Jacqui Smith



Alistair Reither cuts one of the rails at the end of the north west curve. What takes 20 minutes with the power hacksaw takes a couple of minutes with the power saw.

Jacqui Smith

The completed straight ready for packing.
Jacqui Smith



FERNY GROVE

BRISBANE TRAMWAY MUSEUM SOCIETY

PO Box 94, Ferny Hills, Queensland 4055

www.brisbanetramwaymuseum.org

From Peter Hyde

Several new members have recently joined the Museum's 'Trams Shed' as part of the Men's Shed initiative, and this has led to increased activity in several areas, notably in the restoration of FM 400 and improvements to the workshop facilities.

Compressed air usage has increased to the extent that it has been necessary to re-activate the old 600 volts DC system to keep up the supply. To save having to switch on the main substation traction supply whenever air is needed, a diode rectifier converting 415 volts 3-phase AC to DC has been installed to operate the compressor.

The new substation and electrical technology display building was completed by the contractors at the end of August, though some surrounding earthworks and landscaping remains to be done. The diode rectifier to be used to supply traction power while the mercury arc rectifier is being relocated from the old substation building (damaged by storms in 2008) is almost complete, and is expected to be delivered in December.

The full rated capacity of the rectifier is 420 kilowatts; it can provide 700 amps at 600 volts DC. The supply transformer is a 11,000 volts 500 kVA padmount TX. The diodes are rated at 700 amps, 1600 volts PIV. A forced air cooling system moves 150 cubic feet of air per minute through the cabinet. It weighs approximately 1 tonne.



The diode rectifier in January 2011.

Peter Hyde



Construction of the new substation with the frame complete.
Peter Hyde



The completed substation and electrical technology display building.
Peter Hyde

BENDIGO

BENDIGO TRAMWAYS

1 Tramways Avenue, Bendigo, Victoria 3550

www.bendigotramways.com

From Len Millar and Anita Bagley

Celebration time

Bendigo Tramways has always made a feature of significant anniversaries. For the past 38 years, trams from our fleet have been parked on 9 December each year in Pall Mall as a temporary open-air museum. In recent years we have provided services on the day using a variety of trams. After arriving at the depot by tram, visitors will be encouraged to have a good look around and then board another tram.

There is much to celebrate this December as we are aiming to re-open our extended and improved depot, including its offices, museum, amenities and accommodation block. Our huge construction project is currently drawing to an end, and we will be glad to

reintroduce passengers and visitors to our 1903 depot, complete with all its refurbishments.

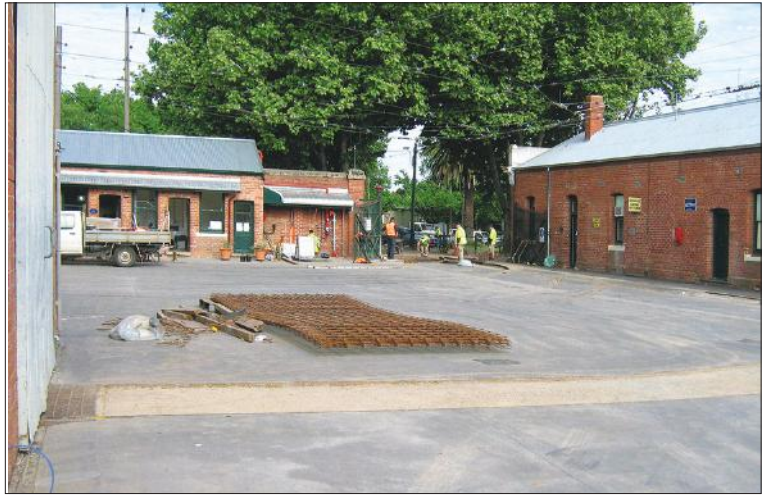
Make a note in your diary or check our website closer to the day. December 9 will be a special birthday for our tramway.

Five-year strategic plan

Recently the Board of the Bendigo Trust adopted a Strategic Plan for the Bendigo Tramways for the next five years. Over that period, we aim to build the reputation and awareness of Bendigo Tramways both in Australia and overseas. This will include promoting

The reconstructed depot fan is now complete.

Bendigo Tramways



the organisation as a good place to work either as an employee or as a talented volunteer.

A second direction under the plan for Bendigo Tramways involves improving existing tram services and creating new services over time, with an accent on encouraging greater use of public transport. We want to be an eager participant in discussion and development of Bendigo's public transport services.

A third direction relates to further developing today's tram line and making a case for expansion. We see a great opportunity to reinstate the tram line in Mitchell and View streets which would serve both the busy railway station and the historic arts precinct.

Depot refurbishment nears completion

Work on the refurbishment of our 1903 depot is nearing completion. In recent months the old depot fan was removed and a new foundation was excavated and levelled prior to installation of a new stormwater drainage system. After relaying the existing pointwork the whole fan was set in mass concrete. While this work was under way, we lost tram access to the depot for a few weeks. During this time, service cars were housed at the 1988 depot on the north side of the old gasworks and were brought down to the old depot each morning.



Inside the refurbished Starter's office.

Bendigo Tramways



Andrew Howlett, Ken Andison and Les Woodfield work on tram No. 25.

Bendigo Tramways

In other improvements, roller doors have been fitted to the doorways of the motor vehicle garage at the back of the depot and the new offices have been occupied. Four small offices have been made into two new offices, and the former administrative space has had two walls installed, creating a meal room, library and shop. The former kiosk has been altered to create a manager's office and a small but useful boardroom. We have been able to rescue and install the original Trust board table and chairs.

Our fleet

Trams have been coming and going, and others have progressed through heavy maintenance or restoration.

W7 1036 was despatched to the Sydney Tramway Museum, and SW6 891 arrived from Preston Workshops en route to its new owners, the Perth Electric Tramway Society.

Work has commenced on dismantling Melbourne City Circle car 957, after receiving the go-ahead from Yarra Trams. After the frame is examined, we will determine the extent of the work required to rebuild the tram. SW6 959, another recent arrival from Melbourne, will also be assessed with a view to rebuilding and refurbishing the car.

In September, Victoria's Transport Minister Terry Mulder announced that 959 would be part of an \$8 million restoration program of Melbourne's W cars at Bendigo. "The program would run over four years, and the ongoing maintenance work was great for Bendigo" he stated. "While about 40 W class trams are

in service in Melbourne, there are many in all states of disrepair. They have enormous heritage value not just for Melbourne, but for Victoria. By preserving the iconic W class trams, there will be ongoing maintenance work for the Bendigo Trust to do, which will help their specialist skills can continue to be learned and practised", Mr Mulder said.

In parallel with the contractors working on our depot, we have found space to start repairing the damaged end of maximum traction car 25. An accident at Easter saw the driver's cabin almost ripped off, but the damage has been repaired with new head-stocks, summers, dash and sash framing completed, and the controller, air pipework and wiring commenced. No. 25 is one of our First Fleet that opened our Talking Tram service in 1972, so we will be glad to see it return to service.

Car 44 has had replacement wheels fitted as well as new motor suspension bearings.

Birney 302 is nearing the end of a major restoration, and new signage has been applied. The low voltage wiring will be tackled next.

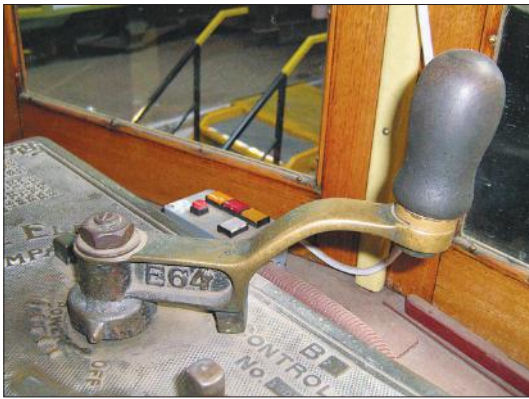
CD players have been fitted to Nos. 30, 808 and 369. Occasionally we have had sound systems (both tape and CD) become defective and we are looking at alternatives and solutions for the problem. New technology and old trams can be a difficult mix: sometimes the systems fail to work while on others the trams are so happy to have 'found their voice' that they don't want to stop talking!

Track relaying in Thunder Street.
Sam O'Brien



Items stolen from Bendigo's trams include seven controller handles similar to this one in 610.

Bendigo Tramways



Track relaying in Thunder Street

In conjunction with the City of Greater Bendigo Council, we invested some effort in improving the curve and check-rails and installing extra tie bars in Thunder Street, North Bendigo. After raising the track to a higher level, the Council closed the road at various times to enable pavement resurfacing to take place. We look forward to returning to the Emu Point terminus near the Trust's Chinese Joss House in the near future.

Theft of interior fittings

On the night of Saturday 29 October several of our trams were entered and items stolen from the Weeroona Avenue depot site. The items taken were from trams 610, 5, 7 and 976. Taken were seven controller handles, one conductor's bell, 24 brass bell cord hangars, and a CD player. Most of the items taken were polished brass. Could all readers and associates please keep an eye and ear out for these items and report any information to Bendigo Tramways or Bendigo Police. For more information or photos please contact Bendigo Tramways. Fortunately only one window was broken and no malicious damage was done.



A conductor's bell was also stolen.
Bendigo Tramways

Twenty-four brass bell cord hangars were stolen.

Bendigo Tramways





Ballarat No. 40 meets No. 39 in Wendouree Parade. For the first time in many years both of the Ballarat Tramway Museum's bogie cars were able to operate on the same day.

Warren Doubleday



The tram convoy at the launch of Perth E class 66 in the Village Mall at Whiteman Park on 9 October: W2 393, E 66, W2 329, W4 674 and Fremantle 29.

Timothy Sandu