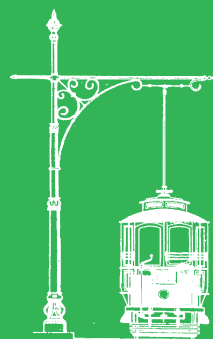


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A pristine Melbourne L class 103 sits on the car barn fan at Haddon after completion of its restoration.

Anthony Smith



The Sydney Tramway Museum's Federation Line liveried W2 249 is decorated for Christmas and heads for the northern terminus with its load of passengers on Members Day, 1 December 2007.

Martin

BEYOND THE CONTROL OF THE MANAGEMENT

By Alan Bradley

“This most regrettable accident cost the Trust a considerable sum of money, which makes the operation cost appear much greater than would otherwise be the case, yet the accident was beyond the control of the management.” - *Comment by the Engineer and Manager, Hawthorn Tramways Trust about the 1917 Burwood derailment.*¹

There have been many serious train accidents that led to safety improvements in railway operation. Did the same thing happen as a result of tramway accidents? This article looks at five serious tramway accidents and their causes, and asks whether they led to safety improvements in tramway operation. It also asks whether these accidents were “beyond the control of the management”. These incidents (all connected in some way to the Ballarat tramways) were the subject of various official enquiries. Details are taken from the official reports, found in the Public Record Office of Victoria, along with contemporary newspaper reports.

THE SEBASTOPOL DEPOT FIRE, 1909

What happened?

In 1909 the Ballarat Electric Supply Co of Victoria (ESCo) operated electric trams throughout Ballarat. However on the Sebastopol line electric trams only operated as far as Rubicon Street. Horse trams continued operating beyond Rubicon Street, mainly because the ESCo did not yet want to spend money on electrification in that section. The tramcars and horses were kept at Sebastopol depot, located just past the crossing of the tram track from the east to the west side of Albert Street. The terminus at the Royal Mail hotel was located a few hundred metres to the south.

On the morning of 10 October 1909 the Sebastopol depot was destroyed by fire. The fire was fanned by a strong wind. The night watchman Andrew Angus reported the fire at about 2:00am, and the depot foreman called the Sebastopol Fire Brigade. By the time the brigade arrived the fire was roaring, and the horses could be heard squealing inside. Angus opened a large iron door and went inside to rescue the horses, but was trampled by a horse. A former fireman, Charles Raine, went inside and rescued Angus from the burning building.

Angus was badly injured and died on 23 October, two weeks after the fire. Of the thirteen horses kept at the stables, eleven were killed, and the other two were put down because of their injuries. Also destroyed in the fire were five horse trams, horse feed, and items such as rugs and harnesses.

The fire was reported prominently in Ballarat newspapers. The *Ballarat Star* featured the fire on the front page, and called it “the most disastrous fire which has ever taken place at Sebastopol”. The *Ballarat Courier* reported:

“The stable is a large galvanised iron structure at the terminus of the Sebastopol line. It contained about 15 stalls on the northern side, whilst the other side was used for storing feed and straw. The car shed was attached, and it was also covered with galvanised iron. Looking at it from the outside, there appears nothing inflammable about the building, but the wooden frame-work, the horse feed, harness and other things generally to be found about a stable provided the flames with ample food, and they wrought great destruction”.²

The inquest

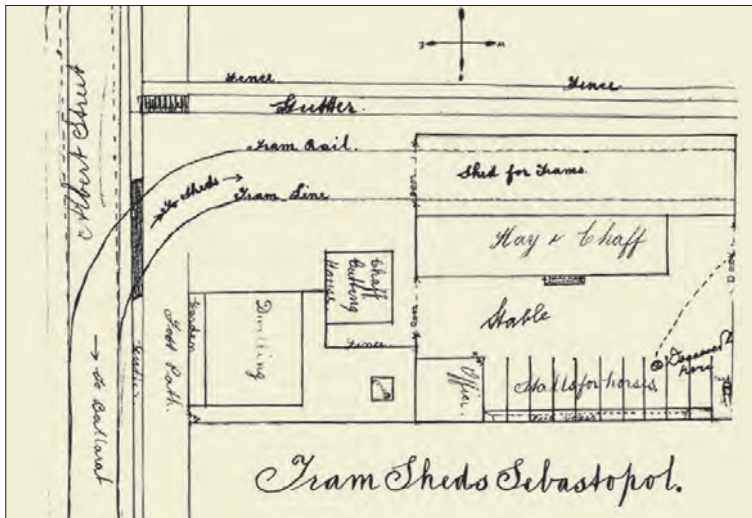
The inquest was held on 25 October 1909. William Laing, Sebastopol depot foreman, said that Angus was employed as the Night Watchman. His hours of duty were from 8:00pm to 7:00am. His duties included cleaning and oiling the tramcars, cleaning the lamps, and feeding the horses at 5:30am. Laing saw Angus at 11:30pm on 9 October, and then went to bed in his cottage next to the depot. At 1:50am Angus woke him and told him the stables were on fire. Laing said: “I got up – the stables were on fire – Angus was walking up and down with a lantern in his hands – he was very excited and I don’t think he knew what he was doing”. He also speculated on the cause of the fire:

“There was a lot of feed hay in there. I believe the deceased was a smoker – I cannot say if he smoked when on duty – that was forbidden”.

Evidence was heard from Police Sergeant Curtain, Abraham Powell, Charles Raine and cab owner William Cornish. At about 2:00am on 10 October the Sebastopol tram shed was found to be ablaze. Angus

¹ Report of Engineer and Manager FA McCarty, Hawthorn Tramways Trust “Report and statement of accounts for twelve months ending 30th September 1917”, p. 8

² *Ballarat Courier* 11 October 1909



A sketch of the Sebastopol depot, showing the location of Andrew Angus when rescued.

PROV, VPRS 1909/840

entered the stables through a rear door and tried to release the horses. One horse that had been maddened by the fire knocked him down and trampled him. Powell tried to rescue Angus, but the horse would not let him near. Shortly afterwards Raine (a former Sebastopol fireman) rushed into the burning building. Angus was lying on his back "about 30 to 35 feet" (approximately ten metres) from the door. Raine lifted Angus and carried him outside, and he was then taken in a cab to Ballarat Hospital.

The Coroner found:

"The deceased Andrew Angus was admitted to the Hospital about 3:00am on the morning of the 10th instant. He was suffering from shock and severe burns about the head and limbs. The whole of the face on both sides, the crown of the head, the right ear and neck were burnt. On the right arm there were extensive burns on the shoulder front of the arm and hand. There was also a contusion of the elbow. The front of the left arm was also burnt. Both hips showed burns in front, the upper thigh being the worst. After alternate periods of consciousness and delirium he died about 5:30pm on the 23rd instant. In my opinion death was due to trauma following the burns received on the 10th instant".³

The aftermath

The deceased Angus had left a widow and child, and the Sebastopol Council organised an appeal for

donations. Charles Raine was awarded a medal by the Humane Society for his bravery in rescuing Angus.

In the immediate aftermath of the fire the ESCo organised a cab service for passengers. The cabs met electric trams from the city at Rubicon Street, where the horse trams had previously terminated. Surplus horse trams were available in Adelaide, which had recently electrified its horse tram service. On 20 October the following were transported by rail from Adelaide to Ballarat: "2 horse tramcars Nos. 51 & 78, 2 sets swingbars, 5 sets harness, 10 horse collars".

Early in December 1909 a replacement depot and stables was built, of 144 feet by 34 feet of timber and iron. The ESCo maintained horse tram services in Sebastopol until electrification was finally completed in April 1913.

What caused this accident?

The cause of the Sebastopol depot fire remains clouded in mystery to this day.⁴ It was an example of how a combination of wooden framed buildings, oil lamps and horse feed made horse tram depots very combustible. There were no automatic sprinklers to extinguish the fire in its early stages. The recklessness and heroism seen at the fire scene remain a feature of human behaviour seen in present day fires.

³ Transcript of inquest into death of Andrew Angus (PROV file 1909/840)

⁴ One man later claimed during the 1920s that he and a friend had been drinking and had fallen asleep in the Sebastopol depot on the night of the fire. They woke up when surrounded by fire and somehow escaped. Story given in "Allan Radcliffe remembers the early days" in *Ballarat Courier* 125 year supplement 10 June 1992.

THE BURWOOD DERAILMENT, 1917

What happened?

In 1917 the Hawthorn Tramways Trust (HTT) operated trams on two routes (to Burwood and Wattle Park) in the eastern suburbs of Melbourne. It was two years before formation of the Melbourne & Metropolitan Tramways Board (MMTB). The HTT and its neighbour the Prahran & Malvern Tramways Trust (PMTT) operated hand-braked trams on steeply graded lines, many sections of which were single track. The trams of the Melbourne Brunswick & Coburg Tramways Trust were fitted with air brakes. The Victorian Railways (VR) had new bogie cars fitted with air brakes, but the VR's single truck trams were still hand-braked.

On 7 January 1917 HTT maximum traction bogie tram No. 11 was travelling westward along Norwood Road (now Toorak Road), Burwood. This section of track was on a continuous downhill grade from the Burwood terminus. When the tram reached a 'D' type loop at high speed near Highfield Road (east of the railway bridge) the front bogie went straight, while the rear bogie took the curve into the loop. The tram derailed, hit a tree and overturned. Passenger Clarence Handson, aged 16, was thrown from the tram and was killed. The cause of death was a fractured skull. Eighteen other passengers were injured.

The accident was reported in *The Age* with a headline "Electric tram capsizes: Sensation in

HTT tram No. 11 on its side surrounded by curious onlookers after the 1917 Burwood derailment.

Camberwell Local History collection



'Norwood Road Burwood'. In an era when photos were rarely published in newspapers, *The Age* featured a picture of the overturned tram.⁵

The Age reported that the accident occurred at about 4:00pm on a Sunday, and the tram was crowded with people returning from pleasure tripping into the countryside. Just before the accident the tram was travelling at considerable speed, and the motorman was seen trying to control it with the handbrake. Upon impact, two passengers were thrown out of the tram (one of them being the deceased Clarence Handson). When the tram capsized some passengers were thrown onto others. Injured passengers were laid by the roadside for medical assistance, or were placed inside the only two nearby houses. The HTT worked during the evening to recover the overturned tram.

The inquest

The inquest took place on 6 February and 13 February 1917. Motorman Stephen James Chapman testified that he knew the deceased, and had talked to him at the Burwood terminus. No. 11 left the terminus three to four minutes late, and so motorman Chapman was trying to make up time. He stopped at the first loop (Hill's loop), then drove at series speed, then full parallel, and then coasted down the hill. He attempted to stop for a passenger at Highfield Road. Chapman claimed that he released the hand brake, and tried unsuccessfully to apply the magnetic brake (as the controller had blown). He then applied the hand brake, but this did not slow the tram before it derailed at the next loop.

Conductor William Higginbotham stated that they were running late and the tram was travelling faster

than normal. He saw Chapman working the hand brake just prior to the derailment. Also interviewed were an attending police officer, three passengers on the tram, and another passenger waiting at Highfield Road who had seen the derailment occur.

⁵ *The Age* 8 January 1917, p7

Three HTT officials appeared at the inquest. Traffic Superintendent Charles Gaulway and Depot Superintendent Cecil Christie both said they had examined No. 11 after the accident. They saw no evidence of fusing, charring or blowing out of the magnetic brake. Engineer and manager Francis McCarty was of the opinion that the motorman had not used the magnetic brake as he had claimed.

H.P. Colwell, Assistant Electrical Engineer of the Victorian Railways, was called as an expert witness. No. 11 was fitted with B23E controllers, plain magnetic brakes and Geared Ackley hand brakes. Colwell examined No. 11 after the accident, and could not find any fault in its brakes or evidence of controller blow-out. He conducted tests on another maximum traction bogie car, No. 18 at the accident scene. These showed that the hand brake should be able to stop a tram at normal speed on the down grade there. He concluded that the motorman attained a high speed, and was unable to control the speed using the hand brake. Further tests were carried out at the accident scene on No. 11 a few days later, before any repairs had been made. These tests showed the magnetic brake and hand brake were in working order.

Colwell told the inquest: "The use of the magnetic brake at this point instead of the hand brake would probably have prevented accident, and I am of the opinion that the failure of the motorman to use it was due, either to his becoming excited or to his not realising how close he was to the loop".⁶

The Coroner found:

"The said Clarence Handson came by his death on 7th day of January 1917 on the way from Burwood to Melbourne. Clarence Handson died from injuries caused by the running of an up electric tramcar off the rails at the loop line junction in Norwood Road, Burwood near Highfield Road on the said day. I decide that the death is due to misadventure".⁷

The aftermath

The HTT's annual report of 1917 in its commentary on the Burwood derailment stated that "the braking equipment was found to be entirely satisfactory to the Coroner's experts".⁸ While this was true, it was obvious that air brakes were safer and more efficient than hand brakes, and may have prevented that derailment from occurring. The PMTT commenced

fitting air brakes to its fleet in 1919. When the MMTB took over the fleets of the various tramway trusts in 1920 it fitted air brakes to all of its hand brake trams over the next few years. The VR did the same to its hand brake cars. The well-publicised derailment of HTT No.11 was probably the decisive factor in forcing this improvement. Hand-brake trams operated in Adelaide until 1954 and in Brisbane until 1967.

All single track in Melbourne was eventually duplicated. This not only avoided delays in waiting at loops, but also meant fewer points and curved track for trams to negotiate. The Burwood line now terminates in Vermont South, far beyond the original terminus.

What was the "Ballarat connection"? Following the takeover HTT No. 11 was renumbered and became MMTB No. 117. In 1945 No. 117 became the first bogie car to run in Ballarat. It became Ballarat No. 22, and was later renumbered as No. 37. It was scrapped after a collision with semi-trailer in 1954. HTT No. 18 (which was used for tests during the inquest) became MMTB No. 124, then Ballarat No. 35, and operated until closure of the Ballarat system in 1971.

What caused this accident?

Several factors led to the Burwood derailment. Motorman Chapman tried to make up for lost time and drove too fast, and the speed increased on the steep downhill grade. Chapman did not use the magnetic brake, and was unable to stop the tram quickly enough with the handbrake. Once the loop was reached, running over the points and curved track at speed caused the derailment. Had No. 11 been fitted with air brakes, Chapman probably could have slowed it more before reaching the loop.

DEEPDENE LEVEL CROSSING COLLISION, 1923

What happened?

In 1923 a number of busy roads around Melbourne had tram-rail level crossings. Today there are only four remaining. In some locations the railways have closed, leaving the tramway to pass clearly along the road and in other locations grade separation has seen the crossings abolished. The crossings were protected by interlocked gates operated from a signal box.⁹

⁷ ⁵ *The Age* 8 January 1917, p7

⁸ Report of Engineer and Manager FA McCarty, Hawthorn Tramways Trust "Report and statement of accounts for twelve months ending 30th September 1917", p. 8

⁹ Interlocked gates are wound from a gatewheel which is part of the interlocking frame in a signal box. The wheel mechanism is locked with the levers in the interlocking frame. Handoperated gates are not interlocked with the signals. The gates are merely hand operated by the gatekeeper manually pushing them and then the gatekeeper operating the signals independently.

Locomotive F182, the locomotive involved in the 1923 collision, pictured on the 'Deepdene Dasher' at Deepdene Station.

PROV, VPRS 12800/P1,
Item H 1469



Whitehorse Road, Deepdene, a busy thoroughfare, had a tram-train level crossing not protected by gates. A steam-hauled passenger service (known locally as the 'Deepdene Dasher') operated between Deepdene and Ashburton stations, on a section of the old Outer Circle railway line. Goods trains ran occasionally to East Kew, slightly further past Deepdene. The single track tram line in Whitehorse Road that crossed it was the last section of the busy Mont Albert line.

The Outer Circle railway line once operated from Fairfield in the northern suburbs to Oakleigh in the south-eastern suburbs. It had become a symbol of railway building extravagance, and the VR administration of the 1880s that authorised it had been discredited. Later VR managements were keen to make any operating economies on the remaining sections of the Outer Circle.

At about 11:35pm on 4 August 1923 there was a collision on the Deepdene level crossing. MMTB tram No. 65 on a late night run to Mont Albert collided with steam locomotive F182 hauling the 11:10pm 'Deepdene Dasher' from East Camberwell. It was a Saturday night, and about ten passengers were onboard No. 65. F182 was undamaged, but No. 65 was damaged and pushed off the rails. Eight passengers received minor injuries, some of them caused by falling coal from the tender, or woodwork from the tram. No. 65 was towed to Kew depot, while F182 was able to complete its journey.

The Deepdene level crossing collision brought immediate negative publicity. On 6 August *The Argus* and *The Age* featured prominent news articles on the collision. The *Sun News-Pictorial* printed two photos of the level crossing and one of damaged No. 65, and

on 7 August featured an editorial on the collision titled "Death traps".¹⁰

The level crossing file: background to collision

The 1923 Deepdene collision was not the subject of a coroner's inquest. However the VR maintained a file on the level crossing, from which the following details have been obtained.

The Deepdene level crossing had gates (probably not interlocked) until 1911, when the VR removed them and substituted them with cattle pits. When the local councils complained, the VR replied that the Deepdene crossing was almost at the terminus and trains approached it slowly, so cattle grids would suffice.

During 1912 the PMTT advised the VR that it intended to extend its tram line along Whitehorse Road to Mont Albert, crossing on the level at Deepdene. The VR expressed its concern, as down trams would cross on a downgrade with a limited view of crossing trains. The VR estimated the cost of installing interlocked gates and signal box, and asked the PMTT to pay half. However the PMTT balked at the cost, especially as the VR might in the near future consider closure of the line due its low patronage. As an interim measure it was agreed that each tram would stop at the crossing, and the conductor would check if the crossing was clear before signalling it across. Train drivers were supposed to stop at a stopboard, blow the locomotive whistle and then proceed across.

¹⁰ *Sun News-Pictorial* 7 August 1923, p. 6



Deepdene level crossing, a view probably taken after the 1923 collision.

PROV, VPRS 12800,
item P3 ADV/0107

On 30 September 1916 the tram-train level crossing at Deepdene came into use. There had been a fatal collision at the crossing in 1914, and further injuries resulted from collisions in 1916 and 1922. Those accidents involved collisions between trains and vehicles, and trams were not involved.

The level crossing file: accident investigation

Following the 1923 collision an investigation took place. Two officials (one from the VR and one from the MMTB) interviewed the motorman and conductor of No. 65, plus the crew of the up tram that passed by shortly before the collision. They also interviewed the driver and guard of the train, and obtained statements from passengers.

F182 was travelling tender first at the time of the impact, and the driver was on the opposite side to the approaching down tram. Hence he was not able to stop in time.

It was found that responsibility for the collision lay with the conductor of tram No. 65, who failed to

observe the locomotive, and the locomotive driver who had failed to observe tram No. 65.

The aftermath

During 1927 there were local demands for the Deepdene station to be relocated to the other side of Whitehorse Road. But the VR had a more permanent solution. In October 1927 the 'Deepdene Dasher' (by now a railmotor service) was replaced by a bus. Until 1943 a twice-weekly goods service ran to East Kew, then that section of the Outer Circle was closed. Today the East Camberwell-Alamein section of the Outer Circle line still operates. That section has one of the four remaining tram-train level crossings in Melbourne.

What was the "Ballarat connection"? Tram No. 65 was transferred to Geelong in 1928, and was transferred to Ballarat in 1936. As Ballarat tram No. 11 it operated until the closure of the Ballarat system in 1971.

MMTB No. 65 after the 1923 Deepdene derailment, and prior to repairs.

William Simpson, from
Richard Gilbert collection



What caused this accident?

Was the 1923 collision “beyond the control of the management”? It had been agreed by the PMTT and VR in 1916 that interlocked gates at the Deepdene level crossing would make it safer. However financial considerations prevented that upgrade from occurring.

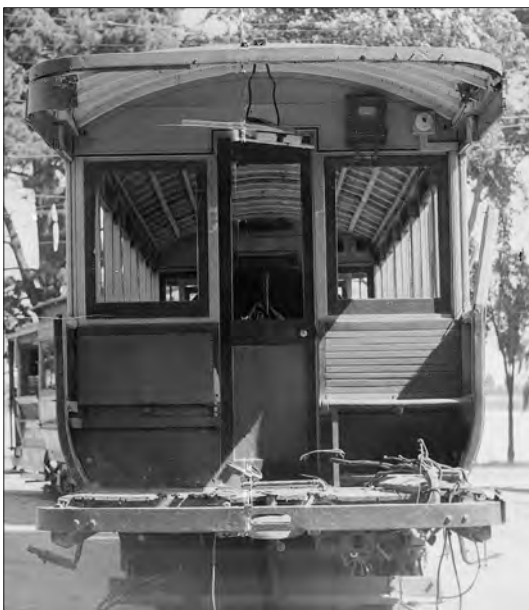
The inquiry placed the blame for the 1923 collision on the tram conductor and locomotive driver. However the main cause of the collision was the need by both the VR and PMTT to cut costs. Hence interlocked gates were not installed in 1916, and a rather cumbersome safety procedure with poor supervision was imposed upon operating crews.

A three-quarter view of the scrubber at the depot taken by police photographer George Stock, showing the accident damage from the 1936 collision.

PROV, VPRS 1936/802

A front-on view of the scrubber at the depot taken by police photographer George Stock, showing the accident damage.

PROV, VPRS 1936/802



HEAD-ON COLLISION IN WENDOUREE PARADE, 1936

What happened?

In 1936 the State Electricity Commission of Victoria (SEC) was busily re-conditioning its tram systems in Ballarat and Bendigo. In Ballarat much of the track had already been relaid, including the section in Wendouree Parade next to Lake Wendouree. The lakeside track was relaid on the side of the road as before. All of the original Electric Supply Company (ESCo) trams had been scrapped, except for No. 23 which had become the scrubber. The replacement second-hand trams from Melbourne had already been

fitted with air brakes, but the scrubber was still only fitted with hand brakes.

The ESCo had introduced a hand staff system of safe working on sections of single track after two bad collisions in Wendouree Parade in 1906. The staff system was still in use in 1936.

On 5 February 1936 a head-on collision occurred in Wendouree Parade, beside Lake Wendouree, between tram No. 26 and the scrubber car. The collision occurred around noon on a flat section of track on a ‘blind corner’ near Barrett Avenue, where thick vegetation restricted the view of approaching trams.

No. 26 was travelling east towards the city, and the scrubber was heading west towards the depot. The motormen driving the trams both jumped clear and escaped serious injury. Passenger Elizabeth Clarke (a 52 year old nurse at the Lakeside Mental Hospital) was trapped inside the tram, and a local resident used an axe to cut her free. The *Ballarat Courier* reported the



A front-on view of tram No. 26 at the depot taken by police photographer George Stock, showing the accident damage from the 1936 collision.

PROV, VPRS 1936/802

collision on the front page with a headline “Trams meet in head-on collision”. Its report stated:

“The impact was a very heavy one. The iron framework of the ‘scrubber’ tram, which is of special construction, was higher than that of the passenger tram, and it stove in the front of the driver’s cabin, and reduced it to wreckage. The telescoped portion of the tram was forced back on Miss Clarke, whose cries of distress brought nearby residents rushing from their homes”.¹¹

Clarke was taken to St John of God Hospital in a critical condition. Ironically she had been travelling to that same hospital herself to visit a colleague. Another passenger was admitted to hospital with minor injuries, and four other passengers “escaped with severe shaking and shock”.¹²

Clarke’s left leg was nearly severed in the collision, and it was amputated that day. Two days later she developed gas gangrene from the fractures to her right leg and hip, and died that evening. Gas gangrene is a condition that can kill quickly. Penicillin is now used to treat it, but it was not available until 1942.

The inquest

Police photographer George Henry Stock took two photos at the accident scene, and six photos at the

depot showing the damaged trams. The photos were part of the evidence presented to the Coroner.

The witness evidence indicated that Frederick Thompson, the motorman of No. 26, received a hand staff allowing him to proceed on that length of single track. However the scrubber did not run to a timetable. If it met another tram in between loops the trolley pole would be reversed and it would run back to the last loop it had passed. Neither John Tucker, the driver of the scrubber, nor tram track assistant Alfred Forte were aware that another tram was due to enter that section of single track from the other direction.

Thompson stated that after he saw the scrubber he used the ‘third emergency’ braking on No. 26. He jumped clear just before the collision, and upon impact No. 26 had stopped moving. Tucker said that when he saw No. 26 he applied the rheostatic brake, but the scrubber started to skid and he lost control. Both Tucker and Forte jumped clear just before impact. There was difference of opinion between the passengers as to whether No. 26 had completely stopped on impact, or was still moving.

Inspector Vic Mawby was called as an expert witness. He stated that the regular scrubber driver was on leave, and Tucker had only been driving it for three days when the collision occurred. He stated that the scrubber was fitted with a hand brake, plus an electric brake known as a rheostatic brake used in emergencies. The rheostatic brake was operated on the same controller used to drive the tram, but the controller movement was in reverse order. If the rheostatic brake

¹¹ *Bellarat Courier* 6 February 1917

¹² *ibid*

The 1936 collision location in Wendouree Parade, looking east. This photo by police photographer George Stock shows the limited visibility on this 'blind corner'.

PROV, VPRS 1936/802



The 1936 collision location in Wendouree Parade, looking west. This photo by police photographer George Stock again shows the limited visibility at this location.

PROV, VPRS 1936/802

was moved straight through all the notches, rather than progressively through the notches, the wheels would lock. The tension spring on the controller was weaker than usual, and if the driver was momentarily unbalanced on initial application of the brake the car would skid. Mawby suggested that the collision occurred because the rheostatic brake was incorrectly applied and the scrubber was temporarily out of control.

The Coroner found:

“Elizabeth Clarke died from gas gangrene occurring as a complication of compound fractures of both lower limbs, such injuries being received as the results of a collision between a passenger tram proceeding east along Wendouree Parade and a scrubber tram car proceeding west along Wendouree Parade – both trams being on a single line. I am of the opinion that the accident occurred through a defect in the rheostatic brake which allowed the brake to go on too suddenly thereby causing the wheels to lock and to skid”.¹³ The Coroner was reported to have said that the death was due to “an unavoidable accident”.¹⁴

The aftermath

During 1937-38 the ‘Forest City’ signalling system was installed on all lines in Ballarat except for View Point, which was not scheduled for regular services. The signalling system was operated by the contact of trolley wheels with contactors on the overhead wire. A red light indicated that another tram was in the next section proceeding towards that loop. The ‘Forest City’ system prevented further head-on collisions between trams in Ballarat.

No. 26 and the scrubber were repaired and returned to service, and both operated until the closure of the Ballarat system in 1971. The scrubber was never fitted with air brakes.

What caused this accident?

The *Ballarat Courier* reported on the inquest with

¹³ Transcript of inquest into death of Elizabeth Clarke (PROV file 1936/302)

¹⁴ *Ballarat Courier* 5 March 1936

the headline: "An unavoidable accident", reflecting the comments of the Coroner.¹⁵

The Coroner did not comment on the fact that two trams were moving towards each other on a stretch of single track. Neither did he comment on the practice of the scrubber meeting passenger trams in between loops, and moving back to the previous loop. The staff system of safe working had been compromised by the operation of the scrubber. In a location with limited visibility neither tram could pull up in time to avoid a collision. Added to this was a driver with limited experience of the scrubber and its braking system, who was unable to stop in an emergency.

COLLISION AT VICTORIA STREET TERMINUS, 1963

What happened?

The Victoria Street terminus in Ballarat was located on the main highway to Melbourne, (as was the Golden Square terminus in Bendigo). Every time a single truck tram terminated there, the motorman or conductor walked into the traffic while turning the trolley pole. The interior and exterior lights were out while this was being done, but two red battery lights at each end came on automatically once the pole was removed from the wire. All Ballarat and Bendigo trams were fitted with dash canopy lighting during 1960-61, but no safety improvements were made to the suburban termini.

On 6 July 1963 at about 6:10pm a west-bound car (i.e. a private motor vehicle) collided with tram No. 12, which was stationary after dark at the Victoria Street terminus. The driver of the car was killed, and the two passengers in the car were injured. The tram conductor was fortunate, as he had finished turning the pole eight seconds prior to impact. No passengers were in the tram at the time of impact.

The accident was featured on the front page of the Ballarat Courier of 8 July 1963, with a headline "Man killed car runs into tram" and a photo of the wrecked car.

The inquest

The deceased, Bernard John Bourke, was dead on arrival at Ballarat Base Hospital. A post mortem on 7 July found fractures of ribs and associated lung damage, and concluded that "death was caused by stove in chest". On 8 July Bourke's blood was

analysed. The conclusion: "I analysed this blood and found it to have an alcohol content of 0.120 per cent. This blood alcohol level in an eleven stone man would be equivalent to the minimum consumption of eight, seven ounce glasses of beer".¹⁶

The inquest was held on 28 August 1963. Evidence was given that Bourke was employed as a nurse at the Ballarat Mental Hospital. He had worked from 8:00pm the previous night until 7:30am on the day of the accident. Without having slept since finishing work, he and the two passengers left at 11:00am to drive to Melbourne to watch football. Bourke had stopped at three hotels on the way there and had drunk beer at each hotel. The return trip had been made without a break, along what was then a two-lane highway from Melbourne to Ballarat.

Police Constable Neil Patterson commented on the conditions at the accident scene as follows:

"The street lighting at this point is excellent and there is nothing to obstruct the forward vision of a vehicle travelling west on this roadway. The tram involved was fitted with reflectors and they appeared to be in good condition. The weather at the time was good and the road was dry".

Conductor Desmond Domaschenz testified that as soon as No. 12 arrived at the terminus he removed the trolley pole from the overhead. He walked to the other end, placed the pole back on the wire and clipped the trolley rope to the front of the tram, with the front lights now back on. He stepped inside the tram and heard a crash. He said it was about eight seconds after the lights came back on. He saw a car against the front of the tram, with the two men in the front seat badly injured.

Motorman William Maes testified that after reaching the terminus he opened the door nearest to him for the return journey. He then reached back into the motorman's cabin to remove the controller key and brake handle, when he heard a loud bang and was thrown violently forward onto the controller box. He looked outside and saw the car wedged under the front of the tram.

The Coroner found:

"I say that on the 6th day of July 1963 at Ballarat in the said State, the said Bernard John Bourke died when a motor car he was driving collided with a

¹⁵ *Ballarat Courier* 5 March 1936

¹⁶ Transcript of inquest into death of Bernard Bourke (PROV file 1963/1399)

A police photo of the accident scene at the 1963 collision at Victoria Street terminus.

PROV, VPRS 1963/1399



stationary tram at the terminus of the Victoria Street tramline. The reason he ran into the tram – the evidence adduced does not enable me to say¹⁷. He returned a finding of accidental death.

The aftermath ... and its lessons

Immediately after this accident, questions were asked as to whether the lighting at the Victoria Street terminus was adequate. Suggestions were made that flashing lights be installed at the Victoria Street and Mt Pleasant termini. The SEC advised the Ballarat City Council that little would be gained by the installation of flashing lights at either location. In regard to the recent fatality the tram had been illuminated for six seconds prior to impact, which represented more than 100 yards assuming the car was travelling at 35 miles per hour. At Mt Pleasant, the speeds and traffic density were much lower.¹⁸

The accident did not result in safety improvements at suburban termini in Ballarat or Bendigo. However improvements have been made over the years to termini in Melbourne, such as placing them in safety zones or reserved track.

Bourke's blood alcohol level of 0.12 per cent was over twice the present legal limit of 0.05 per cent.

¹⁷ Transcript of inquest into death of Bernard Bourke (PROV file 1963/1399)

¹⁸ SEC to Ballarat City Council 12 September 1963

However the 0.05 per cent legal limit did not apply in 1963, and detection and enforcement were difficult. The increasing road toll from accidents like this led to road law change in Victoria. The 0.05 per cent legal limit enforced by breathalysers became law in Victoria in February 1966, part of the change that came with the end of six o'clock closing of hotels. Other changes followed: the wearing of seatbelts became compulsory in 1971, random breath testing came in 1977, and 'booze buses' (mobile breath-testing units) in 1990. These changes have saved countless lives.

Tram No. 12 was repaired, and continued in service until the closure of the Ballarat system in 1971.

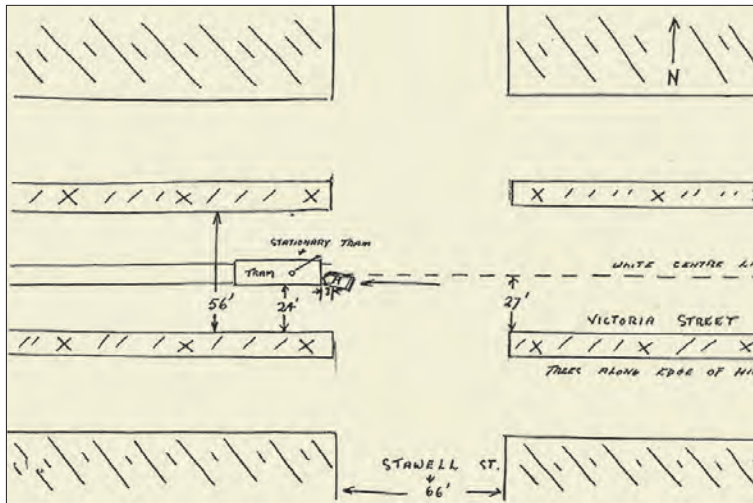
What caused this accident?

The Coroner was unwilling to speculate on why Bourke drove his car into a stationary tram on a dry road with good visibility. However the evidence indicates that Bourke was affected by alcohol and fatigue.

CONCLUSION

I return to the original question: did the incidents described here lead to safety improvements?

It is unlikely that the Sebastopol depot fire of 1909 led to any safety improvements. The solution here was electrification of the horse tramway and closure of the Sebastopol depot.



A police sketch showing the scene at the 1963 collision at the Victoria Street terminus.

PROV, VPRS 1963/1399

The Burwood derailment of 1917 did lead to safety improvements. Within a decade all passenger trams in Melbourne were fitted with air brakes, and this was probably due to the adverse publicity following the collision.

The Deepdene collision of 1923 led to continued attention being drawn to the Deepdene crossing. However the ultimate solution was closure of that section of the railway. Grade separation eliminated several tram-train level crossings around that time, but the planning for those occurred prior to the 1923 collision.

The Wendouree Parade collision of 1936 probably did lead to safety improvements. Inspector Vic Mawby told the inquest that "the installation of automatic signals operated by trams approaching such curves was under consideration". The adverse publicity following the collision ensured that the 'Forest City' signalling system was installed in Ballarat and Bendigo as part of the tramway rehabilitation.

The Victoria Street collision of 1963 did not lead to any upgrades to suburban termini in Ballarat or Bendigo. By itself that collision did not lead to change, but as one of many fatal car accidents it led to traffic law reform in Victoria.

Looking at all the events listed here, none of them was "beyond the control of the management".

Acknowledgments

The author thanks the following for their assistance with this article: the staff of the Public Record Office of Victoria (for assistance with access to official files and photos); Richard Gilbert and Des Jowett (for details of railway safe working and the Deepdene level crossing); Warren Doubleday.

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ADELAIDE'S TRAMCAR CAMPGROUND

Letter to the Editor

The 'Complete H Car Listing' on page 24, that accompanied the interesting article in the August 2007 *Trolley Wire* is slightly misleading with regard to car 352. It is shown as 'Scrapped after accident 1957'. Since the article is about the disposal of the H class cars, it would be more correct to say that 352 was 'withdrawn in 1957', for it was not scrapped but sold to Adelaide business man Romilly Harry, along with approximately 30 F and F1 class cars. These he transported to his property at Goolwa, where they were arranged in a long rectangle and converted to holiday chalets. In the centre of the rectangle, H 352 was placed immediately behind F1s 261 and 268 (which stood hard together, side by side) to form the 'dining complex'. I visited and photographed this (being a school friend of one of Mr Harry's sons) circa September 1959, at which stage the cars were in 'as delivered condition' and work had not started on converting them. I have a photograph of the development, completed and in use, taken in December 1962. However, John Radcliffe tells me that many years ago the site was closed and that when he visited it, all the cars had been scrapped with virtually no trace of their existence remaining.

Yours sincerely,

Richard Horne
South Croydon, Surrey UK CR2 7QA

John Radcliffe has supplied the following additional information:

Romilly Harry was an Adelaide entrepreneur with an office on the corner of Hackney Road and North Terrace, Kent Town in a building which he had refurbished after the carriage archway in the centre of it collapsed rather spectacularly in the middle of the night in the mid 1950s. He conceived the idea of building a campground with chalets made from old tram bodies purchased from Hackney depot a few yards down the road. He arranged for many to be painted with white undercoat while still at Hackney, and then delivered the first three to a block he owned at coastal Robe, in the South-east of South Australia. The local council quickly advised that it wasn't happy with the idea, and the three cars, 235, 253 and 260 quietly faded away under the depredations of neglect, sea air and passing vandalism.

Subsequently the remaining cars were tastefully deposited on a large rectangular block that Romilly Harry owned at Goolwa, near the mouth of the River Murray, just along the coast from Victor Harbor. After laying them out, a bulldozer pushed sand up against the cars to provide a level entrance at the dropcentres. Various gaps in the sides were filled in, some by turning around existing dropcentre bulkheads to the outside. Clapboards covered the gaps between the cars. The whole area was grassed. Continuous new roofs were pitched over the cars, lattice was erected and oleanders planted to separate out each chalet. As Richard Horne points out, cars 261, 268 and 352

H1 type 381 returning to Hackney Depot in about 1954, passes the carriage archway which subsequently collapsed spectacularly in the night.

Noel Reed



formed a 'dining complex'. (Car 352 was the first H car disposed of as its frame had been bent when coming from Cheltenham during late 1956. Its rear truck split the points and went into the central standing road in Victoria Square north, colliding with F1 252 which was waiting to make a trip to St Peters. Subsequently the turnouts into the standing road were removed and St Peters cars left from the south-east quadrant of Victoria square.)

But within a few years, rising real estate values made the area a great sub-divisional prospect and the trams were disposed of. All that could be found was one torpedo ventilator under a bush.

Cars 208 and 252 (the other end damaged from its collision with 352) wait in Hackney depot after preparation for their final trip.

John Radcliffe

Cars 235, 260 and 253 were delivered to Robe, but no further developments took place there.

John Radcliffe

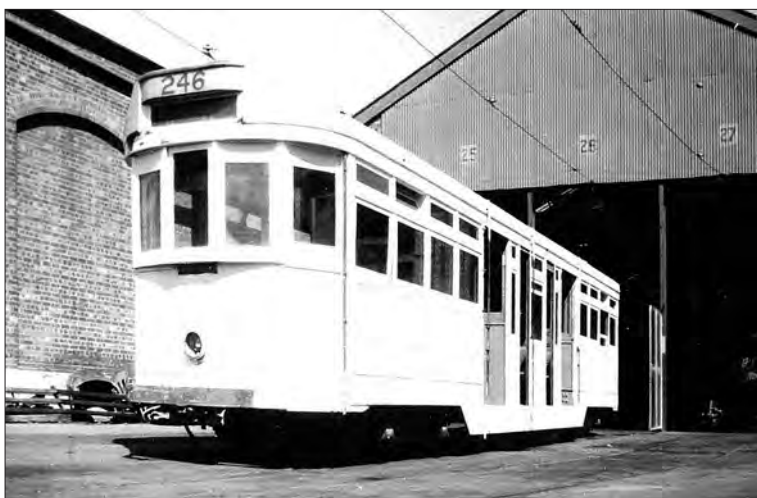


Michael Harry (son of Romilly Harry, the owner of all these trams) in the cab of F 205. It shows that the trams were barely stripped of fittings, as destination blinds, short working destination plates, etc., were all left in-situ, as were the controllers and air brake handles in some of the cars. Michael is holding a plate for 'Jeff's Loop' on the Paradise line.

Richard Horne

F type 246 sits outside the truck shop at Hackney, having been stripped and then undercoated ready for its sojourn at Goolwa.

John Radcliffe



Cars 352, 261 and 268, seen around September 1959, were placed in the centre of the Goolwa quadrangle to become a dining complex.

Richard Horne



At Goolwa, the trams were arranged in a great quadrangle.

John Radcliffe



The trams had been converted to holiday chalets by January 1962.

Richard Warren
from R Horne collection



The kitchen/dining complex in January 1965. By then, some kitchen equipment appears to have become redundant.

John Radcliffe

From the outside, the boobialla hedge screened the trams from view. Rapidly rising real estate values resulted in the site and adjacent pastures being subdivided for housing.

John Radcliffe



By January 1965, the appearance of the various units had matured.

John Radcliffe

HERE AND THERE

AUSTRALIAN AND OVERSEAS NEWS

Perth light rail study

The Western Australian Department for Planning and Infrastructure has recently released the report of the Perth Light Rail Study. The study investigated the feasibility of introducing a light rail service between East Perth and Subiaco. It concluded that such a service is feasible and would provide transport and planning benefits. However, it would require substantial changes to the streetscape and the use of inner city roads.

The report, prepared by Maunsell Australia Pty Ltd in conjunction with Faber Maunsell UK, has been sent to the two local authorities involved in the study – the City of Perth and the City of Subiaco for their formal comment. The Western Australian Department for Planning and Infrastructure will also be discussing the findings of the study with key stakeholders in the City.

The Department for Planning and Infrastructure is also investigating the option of a bus rapid transit system as an alternative to light rail, and options for staging the full route from East Perth to Subiaco if this were to proceed.

The report can be found at - www.dpi.wa.gov.au/cityregionalplanning/15642.asp

Adelaide update

The revised destination signs were finally being displayed from Tuesday 27 November. They are:

Adelaide
City West

Glenelg
Moseley Square

South Terrace
Shuttle Service

Ten out of the eleven Flexity cars are required for Monday to Friday service. Passenger loadings on the paying section of the line (South Terrace to Glenelg) are up approximately 15 percent and overcrowding on most trams during the day is occurring.

Coupled H cars returned to weekend heritage run service from Saturday 1 December. There was a problem with the new Victoria Square platform which

stopped coupled H car service to this date. The platform had been cut back to allow for the underfloor equipment on the H cars (added during rebuilding of the cars in the early 2000s). This had created a gap between the platform and the rear doorway of the second car of a coupled set. To enable coupled H car operation to resume, this doorway has a temporary barrier put in place by the conductor forcing passengers to use the other three doorways in the coupled set.

The automatic public address system which announces the next stop name and number now announces the correct stop numbers (numbered stops now start from Stop 1 – Greenhill Road – the fare paying section).

Milan, Italy

Azienda Trasporti Milanese (ATM) in Milan, Italy, has announced that, having regard to increased rolling-stock requirements for new extensions under construction, it will now be necessary for a large number of the classic Peter Witt bogie cars – the oldest of which will very soon be 80 years old – to soldier on in service for several more years.

It has been decided that fifty of them should be given a major overhaul in ATM's Via Teodosio workshops. In a joint initiative with the City Council, and in recognition of the Peter Witt cars' close association with Milan, the first 50 cars outshopped will be returned to the original 1928 livery of yellow and white. With such a highly symbolic operation, ATM has chosen to have all commercial advertising removed. Further, these cars are made unique with an on-board photographic exhibition explaining their first use and story. The first car so turned out was presented to the media on 4 December 2007. The first completely restored cars entered service on Line 1 on 5 December, running through or past some of Milan's symbolic sites, such as via Manzoni and La Scala theatre. The remainder will be completed during the first half of 2008.

The ATM statement went on to say that it has now been recognised that the Peter Witt tramcar, known as 'Carrelli' cars in Milan, presents the classic face of Milan to the world. It is the joint wish of ATM and the City Council (notwithstanding their desire to give their

public the best possible service by the progressive introduction of modern rolling stock) that a number of these cars will be kept in service indefinitely.

Milan has also placed in service two restaurant trams, converted from Peter Witt cars and known as ATMosfera1 and ATMosfera2. The second tram was commissioned on 16 October 2007. The service is available from Tuesday to Sunday, excepting Christmas Day, New Year's Eve and Easter Sunday. The restaurant trams depart at 8:00pm every evening from Piazza Castello at the end of Line 7 and return about 2½ hours later. The two trams follow a set route in opposite directions. The choice of a meat or a fish menu is provided, at a cost of 65 euros.

ATM was officially established on 22 May 1931. On 1 January 1965, it changed its name to Azienda Trasporti Municipali following the implementation of the New Regulations governing relations between the City Council and the Company. On 1 January 1999, ATM became a 'special company' and took on the new name of Azienda Trasporti Milanese, only to become a joint-stock company fully owned by the City Council

of Milan on 3 January 2001, as established by Regional Law 22 of 29 October 1998. Today it is structured in the form of a Group, comprising a holding group, ATM S.p.A., and eight subsidiaries.

Houston light rail success

MetroRail, the light rail system of the Metropolitan Transit Authority of Harris County, based in Houston, Texas celebrated a major milestone in November 2007 when it carried its 40 millionth rider. It is the most successful light rail line in the USA and carries about 45,000 boardings each weekday, a number Metro did not expect to achieve until 2020.

MetroRail officially started operating on 1 January 2004 and reached its 20 millionth boarding in February 2006. Since then MetroRail has generated new businesses along the line and has allowed Metro to reduce its bus system, removing 600 buses from downtown streets each day.

Metro's Board of Directors recently approved the expansion of the light rail system to five new corridors. Construction on these will begin this year.

COTMA

COUNCIL OF TRAMWAY MUSEUMS OF AUSTRALASIA

PO Box 61, Carlton South, Victoria 3053

www.cotma.org.au

From Warren Doubleday

2008 Conference

Planning for the 2008 COTMA conference to be held in Launceston is continuing. The Launceston Tramway Museum Society (LTMS) had hoped to have information out before Christmas, but delays have occurred in finalising costs. Details should be available by early February 2008.

The dates, however, remain the same: opening on Friday, 21 August 2008 in Launceston and finishing with the Conference General Meeting on Tuesday 26 August. A post-conference tour finishes in Hobart on the weekend of 30-31 August.

As soon as details are available, they will be placed on the COTMA web site, www.cotma.org.au

Rail safety

In November 2007, the NSW Rail Regulator (the Independent Transport Safety and Reliability Regulator, ITSRR) sought comment on a paper titled *Safety Regulation of Heritage Railway Operators*. COTMA worked closely with the Association of Tourist and Heritage Rail Australia (ATHRA) on our responses to ITSRR. The paper discusses the barriers that heritage rail operators encounter in trying to meet the ever-growing demands of the regulators and the problems of representation by umbrella bodies, particularly in NSW. Tramway museums that operate heritage vehicles are faced with the same barriers. Copies of the submissions are available on the COTMA and the ATHRA (www.athra.asn.au) web sites. They are worthy of perusal. One of the concepts

Fifty of Milan's iconic Peter Witt cars are being refurbished and repainted into the original 1928 livery. The first, car 1936, is on the depot fan for its media launch.

ATM



Milan has introduced a restaurant tram service. The restaurant trams are known as ATMosfera and the first car was converted for this service from Peter Witt car 1855.

ATM

The tastefully decorated interior has the tables set, ready for ATMosfera's diners to arrive.

ATM



that was put forward was a 'Deemed to Comply' safety system, in lieu of the existing regulatory system.

The overbearing regulatory system is robbing museum personnel of the time that could be put into preparing funding submissions, working on restoration, etc. The continued existence of heritage

rail organisations is threatened because of the impact of these regulation on the few that have the skills to prepare such documents and the resultant volunteer burnout. COTMA, along with ATHRA, is trying to mitigate the effects of these ever-increasing demands. It is slow going, but we have made some headway over the last two or so years.

VALLEY HEIGHTS

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

From Peter Stock

It has been some time since *Trolley Wire* reported on the progress being made at the Valley Heights Steam Tramway.

Accreditation

During the past year considerable effort has been directed to establishing our Safety Management System. Compiling the SMS document has been a major task. Compilation, revision and implementation of associated documentation and manuals has also taken substantial time and effort.

The society has completely revised its pre-trip inspection checklists for steam tram motor 103A, trailer car 93B and our steam locomotive Stepho. Technical input for the associated manuals is being collated and put into sequence. It is apparent that certain technical aspects of the steam tram's mechanical and operational procedures and practices related to old technology and work practices. These are being re-written and adapted to today's circumstances in order to comply with current regulatory requirements.

So far, we estimate that the society members charged with the implementation of the Safety Management System have spent well in excess of 600 hours on various tasks, with the result that considerably less time has been available for rail heritage conservation work.

Our new shed and access to the signal box

Our new shed is situated on the ash roads at Valley Heights. Based on the old Dubbo engine shed, which

was first mooted to be re-erected at Valley Heights, the building was erected with grant moneys obtained in 2002 and topped up since then to cover increased costs. The building is of substantial construction, has a clerestory roof and enjoys considerable natural light. It is 42 metres in length and contains two roads. At the western end a large rainwater tank has been installed and will be connected to the overhead water tank for use on operating days.

The original two ash siding roads have been enclosed within the new building. The old 80 and 90lb. rails and the wooden sleepers have been replaced with 107lb. rail supported by concrete sleepers. In the near future the shed floor will be concreted.

In 2007, the society was involved in talks with Railcorp and the NSW Rail Transport Museum with the aim of entering into a formal agreement for access to the abandoned sidings, the old ash disposal roads and the Valley Heights signal box. In December, an on-site meeting discussed a draft Interface Agreement relating to physical and operational aspects of the connection from the down refuge line, its connections and sidings. A risk assessment document was also presented and discussed. When it is finished, it will form part of the society's accreditation documentation.

Tramway operations

Open days at the Valley Heights Locomotive Depot Heritage Museum have been changed. From 1 February, the depot will be open on the second and fourth Sundays each month. We plan to operate our steam tram on both days.



The Society's new shed is based on the design of the former locomotive depot at Dubbo.
Dennis O'Brien



The original 80- and 90lb rail on timber sleepers has been replaced with 107lb on concrete sleepers. The second track has yet to be constructed.

Dennis O'Brien



The shed covers the site of the former Valley Heights Loco Depot ash roads. This view is looking towards the western end of the building.

Dennis O'Brien



Steam motor 103^A with its crew. From the left are Fireman Ted Dickson, Driver Craig Connolly, Trainee Fireman Col Burne, Tram Guard / Conductor Bruce Irwin and Operations Manager Peter Stock. ST&RPS

The Valley Heights Steam Tramway began regular steam tram operations (as opposed to the previous locomotive cab rides) during the sesquicentenary of the NSW Government Railways. At that time we continued the approach adopted at Parramatta Park and chose to operate on the third Sunday of the month. The Valley Heights Locomotive Depot Heritage Museum was also open on the first Sunday but without the tram. Track maintenance vehicles (trikes) were added later as an attraction on the first Sunday. These monthly trike operations reduced wear and tear on our steam tram equipment.

During August, 2007, the society was visited by the NSW Government's Independent Transport Safety and Reliability Regulator (ITSRR) when the operation of trikes was discussed. Matters relating to speed, the nature of couplings and containment of passengers were of concern to ITSRR. Representatives also referred to an incident in New Zealand in 2004 when a passenger was injured by a derailing trike. They concluded by advising that our trikes should not run as planned from September, and we then ceased this activity voluntarily. A risk assessment will need to be carried out and submitted to ITSRR before trikes can be used either for carrying maintenance materials or passengers. If they are to be used as passenger vehicles in the future, the trikes may have to be equipped with speedometers and passenger restraint equipment.

Since its return to service in September, 2005 our steam tram has operated regularly for the enjoyment of our visitors. As part of its triumphant return to service,

operating staff dressed 'to the nines' in white shirts, bandanas, ties, bowler hats, toppers, pith helmets, waistcoats, watch chains, white gloves, spats and corsages. Our passengers loved it although some were stunned by this throw-back to the late 1890s when tramway staff were dressed more formally than in later times. Many passengers request a photo, standing with us for their personal collections. Museums can be fun!

In other developments, improved pre-trip sheets are now in use after being trialled in various formats. The sheets were adopted in January after being developed in consultation with operating staff. Spare tramcar bogies are also being built from our collection of parts. This will allow the exchange and overhaul of bogies should this prove necessary.

Our trainee firepersons have commenced a program of assessment by Workcover NSW. The assessor visited Valley Heights during November when two trainees passed their oral, written and practical examinations. Another program of assessment will be held shortly. Later in the year steam locomotive driver assessments will be conducted.

The method of gaining a certificate is not the same as it was in the past, with accredited private examiners now examining candidates. The society has invested considerable time in both the tutoring and examining sides of the 'steam ticket' process. The availability of several more qualified firepersons will take some of the load off our existing qualified men.

ST KILDA

AUSTRALIAN ELECTRIC TRANSPORT MUSEUM (SA) Inc
 PO Box 213, Salisbury, South Australia 5108 www.railpage.org.au/aetmsa

From Colin Seymour

50th Anniversary dinner

Our 50th Anniversary dinner was held in the Balcony Room, Strathmore Hotel, North Terrace, Adelaide on 23 October 2007. The location and date had been selected to coincide with the opening of the tram line to City West in North Terrace.

It was pleasing to see friends from museums in Brisbane, Sydney and Victoria as well as many of our local rail museum friends attend.

Our new portable display which had been developed as part of our Displays project had its first public airing. The portable display appropriately describes the 50 year history of the AETM. Special thanks to David Williams for arranging the display.

The highlight of the evening was a speech from our special guest, James Hall, Manager Trams for TransAdelaide who gave a very interesting insight into the building of the City West line and its operational requirements.

The new portable display commemorating 50 years can be seen in the background as members enjoy their meals.

Paul Shillabeer



Colin Seymour welcomes members and friends to the 50th anniversary dinner at the Strathmore Hotel, North Terrace, Adelaide on 23 October 2007.

Paul Shillabeer



Bruce Lock and Michael Crabb making steel bands to support the air compressor tank for car 118 on 16 November 2007.

Chris Summers

Glenelg tram line extension grand opening

Committee members and a number of long time members were fortunate to take part in the official opening of the new City West tram extension on 14 October 2007. Two video screens in the official marquee in Victoria Square next to the new tram stop showed footage of the construction as well as archival footage, including parts of the AETM's Tramway Tapestry DVD which included footage taken by Keith Kings in the 1950s. In the procession of trams which opened the extension, museum members were fortunate to ride on car 351 which had opened the Glenelg line in 1929.

Bib and Bub project

A crossbench seat from MTT car A 1 has been sent to Husnjak Joinery as a pattern for fabrication of crossbench seats in the drop ends of our Bib and Bub set (cars 14 and 15) and also for car E 118 which used the same style crossbench seat. Peter Letherby has done a fine job of refurbishing the large ploughshare bolts for re-use in attaching the footboards.

E type tram 118

Bruce Lock and Mike Crabb have installed an overhauled brake cylinder under the car. Hangers have



Mirko Husnjak of Husnjak Joinery with the seat frames for cars 14, 15 and 118.

Michael Bosworth

been fabricated in readiness for attaching a new air receiver for the air brakes. Pipes for the air brakes are being laboriously bent to fit within the confines of the underframe. New cross-bench seats for the open section are being fabricated as part of the Bib and Bub project.

H type tram 378 (restaurant tram)

Maureen and Stephen Parker have been busy cleaning the windows of the restaurant tram. It has proved to be a larger task than on most of the other trams due to the double-glazing. Sealing of the space between the panes of glass has not been very effective, as the inner surfaces have become quite dusty over the years. To obtain access it is necessary to remove the

inner pane. This proved to be more difficult than expected due to the close proximity of the curtain rail and in some cases the window frame fell apart as the inner pane was prised out.

A number of table tops where the brass inlay had lifted were rebuilt by Husnjak's Joinery. Jack Pennack has reinstalled these tabletops and they only require varnishing to bring them back to original appearance.

The temperamental motor alternator set still proves to be an irritation as it drops out frequently on notching up and on passing through section insulators. The real nuisance is that the interior lights and air conditioning are powered from this unit, and it takes three to four minutes to go through its restart cycle.

On hand for the concrete pour on Friday, 9 November 2007 were Michael Bosworth, Bruce Lock, Mark Jordan, Michael Crabb, Ian Seymour and John Pennack (not all in this photo).

Chris Summers



The newly arrived ramp to enable disabled access to trams.

Chris Summers



Michael Crabb test drives the new ride-on mower on 23 November 2007.

Chris Summers

Tram maintenance

Car 42 at the end of operations one Sunday refused to notch-up. It proved to be an intermittent fault, sometimes it would notch-up, then without warning the car refused to budge. Once car 42 was over the pits, Ian Seymour found the problem, a faulty dropping resistor on the line breaker. With the resistor replaced the car operated reliably once more.

Trackwork

The roads 5/6 switch has been re-laid in concrete. While this work was in progress operations were restricted to two of the five main depot roads for a few weeks.

150 sleepers have been donated to the Museum by TransAdelaide. They have been sorted into usable and un-usable quality by Victorian member Andy Hall.

Other news

A portable disabled access ramp has been acquired to allow disabled access to certain trams. The ramp can be used for W class and F type drop-centre tramcars only. Wheelchair access has always been restricted to these cars as they have wide doorways.

A new ride-on mower was recently purchased following a member donation.

BENDIGO

BENDIGO TRAMWAYS

1 Tramways Avenue, Bendigo, Victoria 3550

www.bendigotramways.com

From Len Millar

Our 35th anniversary

Thirty-five years ago, the Bendigo Talking Tram Tour carried its first passengers. A concerted community campaign persuaded the Victorian Government that the Bendigo trams should live on after closure of the State Electricity Commission system. The Bendigo Trust, a non-profit body, obtained the depot building for \$1.00, and the 23 trams locked up inside for another \$1.00 – quite a bargain!

The assets are held in trust for the City of Greater Bendigo Council, and a mix of volunteers and paid staff maintain what has become a well known tourist attraction. Over the years, WIN Television, the Bendigo Advertiser and the local ABC radio station have regularly aired news of our activities and achievements.

In the past we have celebrated our anniversaries by cavalcading our trams down Pall Mall. This year we did it a bit differently. Michael McGowan and Shirley Turner planned detailed timings, rosters and instructions, and the shed staff dusted off some of our more interesting relics.

Saturday, 8 December dawned hot and sunny. We ran six trams in traffic on 18 minute headways. Because of the limited length of double track, we needed good time-keeping, concentration and some luck. Two of the trams operated with the tour commentary tape, while

the other four were there mainly for their looks. And good lookers, they were! Electric Supply Company toastrack 17, Birney 30, maximum traction cars 18 and 25, Melbourne Y1 610 and Adelaide H 369 rotated through the day, with 34 and 808 being the trams 'running on the tape'. It was good to see 18, 25 and 30, all members of our 'first fleet', running together in service.

Although patronage could have been better, there were lots of Melbourne people, many armed with cameras, riding the trams. A celebratory cake in the shape of a Birney car was cut at the depot in the afternoon and a local band regaled us with music from the tip-over bench seats on No. 17. Long-time employee and supporter Julie Cain made an excellent speech about our past and present, and it was a good day all round.

Celebrating Christmas

Single trucker 21 was again awarded the role of Myer Santa Tram this year. Decorated with plastic greenery, stars on bouncy spikes, glass bells and baubles and tinsel, it provided an exciting way for local children to ride to town to meet that special man in red with white whiskers! The size of the decorations was such that No. 21 fouled the depot doors on its way in and out, necessitating special care by drivers.

Darren Hutchesson, Julie Cain and Trust Chairman Lloyd Cameron cut the birthday cake.

Bendigo Tramways



Toastrack No. 17

We have finally applied finishing touches to No. 17. This long-lived tram built in 1913 is our oldest operable car. In State Electricity Commission days, after becoming surplus to passenger-carrying requirements, it was converted to a track scrubber. A large water tank replaced the timber seats and carborundum blocks were pressed down onto the rails between the two axles to clean the track of slippery autumn leaves, tar and other material that impede electric traction and efficient braking.

An early Trust restoration project was to take the car back to its original form. It is run in Talking Tour Tram service, and has been an ideal mobile platform for brass bands and carol singers. Earlier this decade, it ran in a black livery in Melbourne as part of Trams on Parade, an event in the city's Moomba festival.

No. 17 was returned recently to the red and white livery of the ESCo and the Bendigo Trust. With its new lettering, it looks resplendent once more.

Y1 610

Our Y1 class car from Melbourne left the paint shop in time for the busy 35th anniversary outing, and was then returned for a final coat of MMTB panel green. In due course we will install a sound system, turning indicators and the other equipment for Talking Tram Tour service. On its one day in traffic, Driver John Clowes commented that it was "shorter than a W, heavy, and slow to get moving. But it would eventually sail along quite nicely!"

Sydney J class 675 and C class 33

On 18 January 2008, J 675 moved out of the depot under its own power for the first time in over 70 years.



Melbourne Y1 610 stands freshly painted in the depot yard.

Bendigo Tramways



J class 675 in the depot yard after being driven for the first time in over 70 years.

Bendigo Tramways

A small group of tramways workers were present to witness the occasion. Work still to be completed on the car includes fitting life trays and gates, a bell circuit, hand brakes and couplers. It will then return to the paint shop for painting to be completed.

The carpenters eased off on C class 33 over the Christmas New Year period so they could finish their part on J class 675. The lower deck roof has been canvassed and the upper-deck floor boards are primed and ready to be installed. The truck to be used under this tram has been dismantled and all the parts cleaned and primed ready for reassembly. The lower deck windows arrived inside W2 577 and Terry Boardman transfers small parts when he comes to Bendigo to drive trams.

W2 577

Our workers tackled the dismantling of a very shabby Melbourne W2 car, No. 577, in December. The Sydney Tramway Museum acquired the car from Port Kembla where it had suffered serious deterioration as a result of long-term exposure to the weather.

All serviceable parts from 577 were removed and stored for future use by the Sydney museum. Nuts rusted to bolts posed a problem in separating most of the components and oxy-cutting equipment was used continually to complete the dismantling task. A fire extinguisher was kept handy.



W2 577 being dismantled for spare parts. It was part of a failed tramway project at Port Kembla.

Bendigo Tramways

Rail Tram and Bus Union

Executive members of the RTBU in Melbourne visited Bendigo in November as they have done in previous years. They provide the staff and volunteers with a barbecue lunch and we use the opportunity to

show them our facilities and operations. After arriving by train from Melbourne, the union members were picked up by tram at Charing Cross. After a day that combined business and pleasure, we took them to Charing Cross on Y1 610, in time for their return journey.

WHITEMAN PARK

PERTH ELECTRIC TRAMWAY SOCIETY (INC)

PO Box 257, Mount Lawley, Western Australia 6929

www.pets.org.au

From Michael Stukely

Tram restoration

Over three Wednesdays from 31 October, the body WAGT (Perth) E class No. 66 was prepared and lifted, the un-motored No.1 trucks removed, and the body positioned on a repaired set of raised body-support dollies to enable the under-floor work to be completed.

The body was lifted using the hydraulic lifts, and timber sleeper sties were used as a safety backup. The dollies had to be inserted sideways beneath the car body, rather than rolled in from the end, due to the height of lift required. The 77E trucks ex Kagoshima, Japan, were retrieved from beneath the body of Perth No. 130 for overhaul for use under No. 66. One motor requires major work, and will soon be sent out for this. The No.1 trucks from beneath No. 66 were then installed under 130. This work was done by John Azzaro, Graham Bedells, Noel Blackmore, Peter Day, John Davies, Frank Edwards, Ric Francis, Tony Grose, Jim Paton, Shane Parsons and Lindsay Richardson.

The saloon floor-boards of No. 66 have been cleaned of old malthoid remains by Jim Paton, and some were removed for replacement. The steel support framework for the floor trap-doors at the eastern end of the saloon has been replaced. Rubbing plates have been fitted to the side-bearings at the two ends, with final adjustments and machining still to be done. Timber for replacement flooring, and for new steps for the end platforms, has been delivered.

Ric Francis has continued rebuilding the clerestory roof of Perth G class No. 35.

Bryan Adcock and his team are progressing well with the restoration of the body of Perth B class No. 15, for future static display with the City of South Perth Historical Society.

General

Spring patronage on the trams was very good. School holiday services (seven days per week) during the summer holidays were very popular in December, with significant numbers of visitors especially on the milder days. Unfortunately, no trams operated on Boxing Day as an extreme fire hazard was declared.



The first stage of lifting Perth E class No. 66 has been completed, and the No. 1 trucks have been pulled out on 7 November. Perth K class No. 130 is at right.

Frank Edwards



Stage two of the lift of No. 66 has been successful, and the body support dollies were inserted on 14 November. Noel Blackmore checks the line of the body from the far end. Sleeper sties can be seen around the hydraulic lift units.

Frank Edwards

On that day, Perth experienced its hottest December day ever, with a maximum temperature of 44.2°C being recorded.

Geoff Morrison, John Azzaro and Roy Kingsbury carried out major services on our most heavily used trams, W4 No. 674 and W7 No. 1017, in time for the school holidays. Geoff and Roy have completed the annual inspection and tagging of all hand tools and leads.

The track team, led by Trevor Dennhardt and Lindsay Richardson, replaced 15 rotted timber sleepers with steels on the southern leg of the Triangle on 10-11 November. To 31 December 2007, a total of 1,066 steel sleepers had been installed on the tramway.

The cattle-grid halfway up the hill on the track between the Triangle and Village has been relocated

just north of Red Dam, as part of a new fence installation carried out by Park Management. The purpose of this is to keep the grazing cattle out of the full area of native bushland to the west of the tramway. We hope that the resident wild Western Grey kangaroos will continue to 'camp' under the trees closest to the tramway here, to the delight of our passengers.

Ric Francis has prepared a computer listing of details plus drawings of 90 per cent of our tram spare parts. He has also co-ordinated a sorting and cleaning up over several months of a large amount of material in the 'might be useful one day' category, that had accumulated in the rear compound over many years. Two large bins of scrap steel were carted away, with more to follow, and the sale of this has already raised substantial funds that will help with future special projects.



Tony Grose prepares to remove the last of the sleepers near the dolly at the eastern end of No. 66.

Frank Edwards

No. 66 on its support dollies towers over W2 No. 393 and Perth 130. Frank Edwards



Pat Ward, John Azzaro, Tony Grose and Peter Day have completed major repair work on the crane and the Acco post-hole digger, and have largely rebuilt the trailer with a new floor and upgraded structure, and various accessories installed.

Excavations commenced for the new retaining walls along the full length of the north side and the west end of the Lindsay Richardson Car barn on 21 November. The installation of the concrete wall panels was completed in December.

Donation

On 28 November a presentation and hand-over to the Society of a model of a 1903 Brill bogie tramcar was

held at the Car barn, at the Wednesday group morning tea.

The model, built of wood which was by then in poor condition, had been given earlier in 2007 to member, Bryan Adcock, by Mr Robert Dearle. It had been built in circa 1922 by Mr Dearle's father-in-law. Bryan inquired whether the Society would be interested in having the model, to which the reply was a very definite "yes!". Max Hayles volunteered to repair the model and add the missing fittings, and painted it in 1920s WAGT (Perth) livery. Bryan is making a cover to be affixed to the base on which the tram is mounted, and the car's aprons will be adorned with the number 35 (a Perth G class). It will be an outstanding future display item.

HADDON

MELBOURNE TRAMCAR PRESERVATION ASSOCIATION

PO Box 324, Prahran, Victoria 3181

www.railpage.org.au/mpta

By Kym Smith and Tony Smith

Annual General Meeting

The 24th Annual General Meeting was held at the home of Alick and Mandy Gipps at Emerald on 10 November. The election of office bearers for the coming year was conducted, and as the number of nominations equalled the positions vacant, all nominees were appointed with the positions being filled by:

President: Anthony Smith
Vice President: John Withers

Secretary: Jacqui Smith
Treasurer: Lindsay Bounds
Committee Persons (three positions): Mandy Gipps
Arthur Ireland
Kym Smith

L 103

During November, Jacqui Smith completed the touch up painting of the bodywork. New thread plates



Anthony Smith and Daniel Edwards dismantle a damaged RC2 controller to provide parts for use in SW5 843.

Jacqui Smith

L 103, SW5 843, and VR 41 on the carbarn fan as SW5 843 is prepared for moving to the workshop.

Jacqui Smith



Kym Smith cleaning and painting components from one of Y1 612's door engines.

Jacqui Smith



have been fitted to cabin doorways and running boards by Anthony Smith. The tram was transferred from the workshops to the carbarn on 15 November where remaining cabin signage was completed and the four external mirrors positioned and adjusted. These tasks were undertaken by Kym Smith.

The sight of L 103 fully restored next VR 41 is an impressive one and a credit to all involved in its restoration.

SW5 843

With the completion of L 103's restoration, 843 was shunted into the workshop and work commenced on its overhaul. During November the trip gates and lifeguard assemblies were removed and dismantled. The metalwork will be sandblasted, painted and timber slats replaced as necessary.

The four external and two internal cabin doors have been removed for repairs and repainting. Arthur Ireland will perform this work. During evaluation of the doors, it was decided to replace the internal doors removed from 843 with others as they had been drilled for barrel locks, a later day modification that would require insertion of unsightly plugs to restore them to original condition.

We have been fortunate in being given access to some of the tram bodies stored at Newport Workshops to obtain parts such as cab doors which will assist restoration of 843. Trams stored at Newport were used as a source of parts both before being placed in storage, and more recently by various museum groups. Over three days Frank Schroeders, Anthony Smith and Kym Smith removed certain items from various nominated tram bodies, and the Association thanks VicTrack and Mike Ryan of the Department of Infrastructure for their assistance.

W7 1008 is lifted from its trucks to allow access to remove the turntable and rubbing plates.

Anthony Smith



Arthur Ireland removes the cab floor timbers from W7 1008 for use on SW5 843.

Anthony Smith



In addition, the Association was able to help the Australian Electric Transport Museum in Adelaide, the Perth Electric Tramway Society and the Museum of Transport and Technology in Auckland in securing for future use various smaller components from the tram bodies stored at Newport.

Overhaul of door engines

The MTPA is currently overhauling the door engines from Y1 612 for the Tramway Museum Society of Victoria. The project is progressing well and should be completed shortly.

W2 357

The trolley poles were replaced with new poles in October and the bases adjusted accordingly. The new poles were previously prepared for Z series trams in Melbourne and are slightly longer than those fitted to W2 class cars. The increased length as well as the better-condition of the carbon shoe holders have overcome 357's tendency to dewire at some frogs.

Trams used for spare parts

In recent months, work has concentrated on dismantling W7 1008, with most useable parts now in storage.

Minor dismantling has now commenced on SW5 809 with the roof mounted equipment and cab fittings removed. We are currently using the interior of this car to house body components and other parts from 1008 that are destined for the AETM at St Kilda. Dismantling of 1008 will commence in earnest once these items have been collected.



SW5 843 showing the removed cab floor.

Anthony Smith



Daniel Edwards and Arthur Ireland watch as Anthony Smith and the crane truck operator slew the spare parts container into position. Jacqui Smith

Frank Schroeders welds steel supports into the container for use as shelving.

Anthony Smith



Frank Schroeders cleans up the welding on the heel of the Road 5 point blade. Anthony Smith



The two most recent restorations, VR 41 and L 103, together on the car barn fan. Four of the seven trams at Haddon have now been fully restored. Anthony Smith

Trackwork

During our routine track inspection and servicing of points, it was found that there was excessive movement in the heel area of the No 5 road point blade. The blade was removed and the heel area built up by welding and grinding before being reinstalled and tested with perfect results. This project was preformed by our resident boilermaker, Frank Schroeders.

Storage of spare parts

The need for additional storage space became acute as a result of the tram dismantling project. In addition to altering storage arrangements for various smaller items in our storeroom and our ex-railway 'B' van, the most economical solution for larger items was to purchase of a 40-foot shipping container. The container was delivered on 16 December and has been located near the tower wagon shed. Work will commence shortly on relocating parts to the container.

Tower wagon shed

Shelving has been installed along the back wall of the shed and the overhead fittings that were housed in

the railway 'B' van have been moved to this area. The floor will be concreted when funds are available.

Site improvements

Grass along the front roadway nature strip and lower paddock area was slashed by tractor in late November by Frank Schroeders. During its December outing, our ride-on mower suffered an engine failure that will require its replacement. A new motor of similar capacity has now been obtained and we are currently machining a replacement drive pulley and carrying out modifications to the engine mounts. Additional weed poisoning was carried out by Jacqui Smith and Daniel Edwards to keep the late spring growth in check.

During December the area between Nos 1 and 2 roads outside the workshop building was excavated to remove old fill. This was replaced by crushed rock to improve drainage. A petrol-powered fire fighting pump and hoses have also been acquired and alterations to the water tank plumbing system have been carried out to enable it to be used in the event of an emergency. We hope that use will only be made of our fire fighting equipment during fire drills and servicing.

BALLARAT

BALLARAT TRAMWAY MUSEUM

PO Box 632, Ballarat, Victoria 3353

www.btm.org.au

From Dave Macartney and Warren Doubleday

After years of consultation with the Ballarat Council over various versions of the Gardens Master Plan, an asphalt path was finally installed, connecting the front of the Depot with Wendouree Parade. All the plans had shown the path running on the south side of the access track, but it eventually appeared on the north side, which is a more logical arrangement. The Accreditation Panel of Museums Australia has stressed constantly the need for such a path whenever the Museum's operation is being audited, but the Council have been more interested in projects adjacent to the lake while the water level is still very low. It is hoped to asphalt the depot fan area at some future date to gain the full benefit of the path. As this will have to be funded from Museum resources it will have to take its turn.

Some progress was made late in the year to prepare for the installation of shelving along the rear three bays of Road 7 and across the back of the shed behind Roads 6 and 7. The shelving material was acquired some time ago, but will require concrete foundations to support the weight of spare parts that will be located there. Much of these valuable spares have been languishing underneath various trams for many years, requiring a deal of unnecessary shunting whenever something is required, which usually turns out not to be there. The entire area earmarked for the shelving was cleared out – a daunting task in itself – and a truckload of gravel brought in to raise the floor level to rail head height. This section of the shed had never been properly filled in since construction.

The City of Ballarat workers laying the long awaited footpath from Wendouree Parade to the depot on 27 November 2007.

BTM Collection



Alan Snowball assembles the brake beams for No. 14 on 21 December 2007.

BTM Collection



Amongst the assortment of long-term equipment squirreled away here were three DC streetlights which had been removed from Lydiard Street opposite the railway station some 20 years ago. A thoughtful employee of the State Electricity Commission had dropped them off at the depot after their removal in case they might prove useful some day. They had been installed in 1938, and it was decided to finally clean them up for some possible further use, perhaps outside on the depot fan. The clean up has revealed that they are almost pure copper, and look magnificent when fully stripped back. It would probably be tempting fate to hang them outside, given the price of copper, so they are more likely to find a home inside the shed.

The wheels for No.14 have been returned and refitted to the truck, but the motors are still not to

hand. This has resulted in a frustrating lack of progress on this job. There is a growing list of cars with large or small problems that require the use of body jacks. The weather blinds of No. 661 were removed during November and sent to a local canvas business for replacement of the vinyl material with a clear plastic to improve visibility in the centre of the car on dreary winter days or during charter work.

A number of track joints in Wendouree Parade are giving trouble, particularly near the playground. All of these are on the original 1905 railed section. Once the January running is over a program of repairs can begin.

Around three tonnes of tram rail was recently recovered from Geelong. Richard Gilbert while on a visit to Geelong noticed that part of Malop Street was being reconstructed and that tram rail was being removed. Following contact with the contractor, Hoare Bros, arrangements were made to acquire the rail at scrap steel prices. The rail, which is generally in good condition, was picked up on 11 December and transported to Bungaree for storage. It will be useful in patching up the Wendouree Parade track in the future.

During November, the Museum received a Significance Assessment of its collection. The assessment was funded by a Heritage Victoria grant and undertaken by Stella Barber, a freelance historian with qualifications in archives and history. The assessment looked at the full collection of the Museum, now just over 4,000 catalogue items. The collection includes the tramcars, photographs, paperwork, books, tickets, drawings, memorabilia, badges and newspaper cuttings. The final paragraph of the assessment reads:

What is vital contextually is that the BTM operates as a living museum and is one of a very few that operates

The rail loaded at the Hoare Bros Geelong yard, ready for transport to Bungaree on 10 December 2007. Alastair Reither, Alan Snowball, Simon Green stand by.

Richard Gilbert



in a street environment and is run by volunteers. The BTM is globally significant in that it operates an authentic museum, has a catalogued collection of small items, has formulated and ratified a conservation policy, is an accredited museum, is a museum that meets high standards and tells the story of Ballarat and SEC Provincial tramways. The Ballarat Tramway Museum is clearly one of the leaders in Australasia in terms of what it has achieved given its resources. Significantly (!), at time of writing, the BTM will be the first tramway museum to commission a professional significance assessment of its full collection in Australasia. It is not possible to assess this particular fact on world standing; however, if others have commissioned such a report, they would be few in number.

The Museum was saddened to learn of the death of the last Ballarat Tramway conductress, Jean Maxwell, aged 91, on 27 December 2007. Jean joined the tramways in 1942 and worked until 1946. Her first husband, tram driver George Cheney died as a prisoner

of war in Rabaul. She later married returned serviceman and tram driver Arthur Maxwell. Arthur retired as an Inspector when the system closed in 1971. Following advice from the Museum, both *The Courier* and local television station WIN TV subsequently reported on her death, a fitting tribute to Jean.

An annual event the Museum supports is the Cops 'n' Kids; a four day camp for children with cancer. Since 2001 the Museum has been providing a tram so that the kids can enjoy what is often their first and sometimes their only tram ride. This year's visit took place on 19 November with the tram driven by Dave O'Neil, with Austin Brehaut as conductor. Another great day was had by all.

A workers and friends barbecue was held at the depot on Saturday afternoon, 15 December. About 30 people attended a very pleasant afternoon. It was great to catch up and meet our fellow workers.



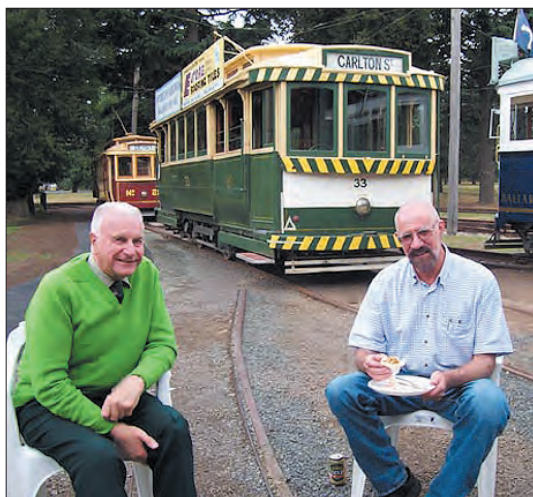
No. 18 dressed for the forthcoming Christmas running on 27 November 2007.

BTM Collection



Dave O'Neil, the one with the sunnies, surrounded by 'Kids' alongside No. 671 on 19 November. Austin Brehaut

Tina Twiss and Simon Green work the barbecue.
Warren Doubleday



Bill Kingsley and Warren Doubleday are most likely discussing COTMA affairs at the barbecue. BTM Collection



The depot set up for the Christmas workers and friends barbecue on 15 December 2007.
Warren Doubleday



LOFTUS

SOUTH PACIFIC ELECTRIC RAILWAY CO-OP SOCIETY

PO Box 103, Sutherland, NSW 1499

www.sydneytramway.museum.com.au

From Mike Giddey and Howard Clark

Trackwork

The concreting of the re-laid western track north of Pitt Street has continued as surplus concrete has been received and is now approaching the new points which will form one half of the new trailing crossover.

Overhead wiring and steel poles

On 26 November a contractor erected a new heavy duty treated pole on the National Park line to replace life expired pole number 150. On 8 December the trolley wire was transferred temporarily to the new pole and the old pole cut up and removed. Dave Rawlings prepared a new side arm bracket and fittings and this was installed the following Saturday.

A number of the timber poles, particularly on the National Park line, will need replacement in the next couple of years as some have been attacked by white ants. This is an expensive process, as the cost of replacing the one pole in December was just \$904!

Some relief has been provided through the efforts of Craig Tooke and COTMA, and the generosity of Yarra Trams, who have made available six surplus steel poles for collection in Melbourne.

North terminus

The work site at this location has continued to expand, and to allow access by Railcorp heavy equipment it was agreed with John Holland that the southern gate could be reactivated on an 'as required' basis. In early January the rail stack blocking access was moved and a second gate on the John Holland site fencing was installed. Access was graded and 'No Standing' signs were erected, whilst our track team gained the use of the John Holland crane and backhoe to assist with our works. In due course the crane will be made available to us to assist with installation of pointwork at this location.

Equipment from Newport

We are grateful to Mike Ryan of Victrack and to COTMA for assisting with the donation of surplus motored bogies for use under W5 car 792 which is to be sent from Cessnock on loan to Glenreagh Mountain Railway, and for other equipment to be used at Bendigo in the restoration of the truck for double deck C car 33.

Our Matador recovery vehicle was on display at the State Transit Authority's 75th Anniversary of Government Buses display at Luna Park on Sunday 2 December.

Bob Merchant





Trams from four states meet at Loftus on Members Day, 2 December 2007. The trams are Melbourne 249, Adelaide 358, Brisbane 295 and Sydney 1497.
Liam Brundle

Melbourne cable trailer 589

The Canberra Tradesmen's Union Club has donated this car to our museum and is covering the transport costs of delivering it to our old site for storage. This car, which is expected to be delivered during February, will provide us with a complete grip and trailer set for eventual restoration and display.

P car 1501

This car was purchased at auction at Lightning Ridge about nine years ago. For the last seven and a half years it has been stored under cover in a light aircraft hanger and barn at Byrock. Regrettably we were not aware of all the details of the storage arrangements advised to us at the time, which have been disputed by the property owner concerned.

After protracted discussions, arrangements have now been concluded for the car to be delivered to Bendigo near the end of February, at a total cost of \$12,000 for transport and storage. There was no alternative to this if we wanted to save the car. It is one of only four P cars still in existence and is in a fit state for restoration. Please help if you can.

H car parts

We are grateful to the support of the AETM, St. Kilda, for donating H car trolley poles and other parts, and to Ian Seymour for delivering them to Bendigo for forwarding to Loftus for fitting to 357.

J car 675

Our J car turned a wheel under its own power at 5:35pm on 16 January, albeit briefly, for a couple of



The underframe of D 117 was turned over on 15 December to facilitate fitting underfloor equipment.
Matthew Geier

Bill Denham assists Bill Parkinson with the reassembly of the overhauled motor for D class 117. Martin Pinches



glitches were found which caused a brief substation outage. These issues were resolved by the next evening when the car ran successfully under power in the depot building. The efforts of Don Webb, the electrical marvel at Bendigo, Darren Hutchesson and Tim Blythman were greatly appreciated in achieving such a milestone, the first time 675 has moved under its own power in 73 years!

The other workshop staff and coachbuilders, Luke Jenkins, Dennis Rodda and George Sterling, along with volunteer Bill Chan and others deserve special mention for their efforts in making a dream possible. The car looks complete now that footboards have been added. As reported in news from Bendigo, various mechanicals including handbrakes need to be finished, as well as fitting of lifeguards and final painting.

D car 117

The underframe of this car has been completely rebuilt and assembled by Geoff Spaulding, and various steel underframe fittings have been fabricated by our Wednesday staff and fitted whilst it was supported upside down. The underframe was undercoated and then painted black by Bill Parkinson, before it was righted on the trestles. The roof has been placed on the frame to enable ribs to be replaced and repaired as necessary. Ross Traeger has fabricated various side frame supports, panels and other components at his joinery, and these are now on site.

C car 33

Work on this car is proceeding well in Bendigo. The floor for the upper deck and other works soon to



J car 675 nears completion in Bendigo's workshop on 17 January. Howard Clark



Electrician Don Webb fastens the power cable to the roof cleats of J 695 on 16 January.

Howard Clark

be completed will see the lower deck finished there before the body is transferred to Loftus for fitting of the upper deck. The quote for the two staircases of \$7,000 is \$3,000 over our budget, so again we are experiencing some cost overruns needing funding. This is however an exciting project which when completed will attract a great deal of interest in our tramcar heritage and in our museum. In addition the springs on the Brill truck (ex 137s) all need to be replaced at a cost of around \$7,000: this was not necessary for D 117, and is again something not included in our budget.

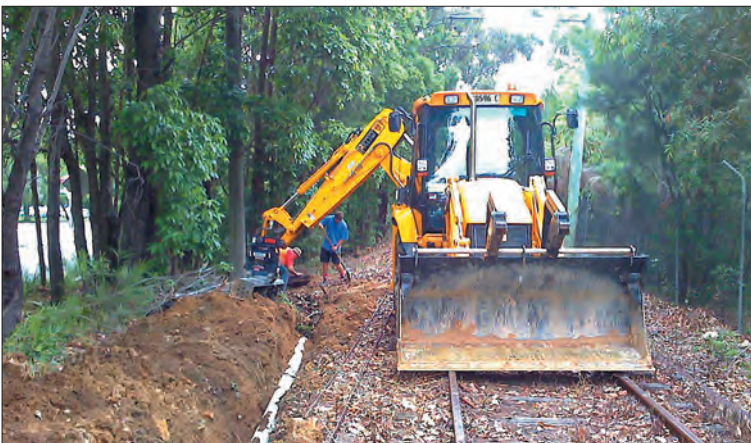
Ross Traeger has fabricated the upper deck side and corner pillars and will do other joinery works for the upper deck. He has made a prototype upper deck reversible seat based on the principles, and end steel brackets, of F car seats. The design has been amended already as it was found that the solid F car seat backs were unworkable with a smaller seat base. A design with a top seat back rail similar to Hobart and English style cars has now been fabricated.

Ballast motor 42s

Dave Bennett and Chris Olsen are continuing the re-wiring of the car in the workshop extension mainly on Tuesday nights. Ian Hanson has commenced painting the car and Bill Denham will be assisting him with the finer work.

Launceston cars 1 and 14

Agreement was reached with the Launceston Tramway Museum to exchange the body of car No. 1, which was donated to us some years ago by the Canberra Tradesmen's Union Club, for car No. 14, as car 1 was deemed historically more important to that Museum. It is expected the delivery and exchange between Bendigo gasworks and Launceston will occur during February.



On 8 December Holland's backhoe was used to excavate a trench from the top of the grade from the Army Depot to the roadside dish drain, drainage pipes laid and the trench backfilled. This will drain the point pit to be constructed for the new points to be installed at the southern end of our northern terminus.

Danny Adamopoulos

FERNY GROVE

BRISBANE TRAMWAY MUSEUM SOCIETY

PO Box 94, Ferny Hills, Queensland 4055

www.brisbanetramwaymuseum.org

From Peter Hyde

The last few weeks have seen both frantic activity and a restful sojourn over the Christmas/New Year period when custom dictates that museum activities give way to family activities, especially when the regular Tuesday workdays fall on the aforementioned holidays!

While there have been many rainy days, the major water shortage in the Brisbane supply system has

necessitated the continuation of level 6 restrictions which prevent the washing of trams. Ironically the rain periods have actually made the appearance of the operating trams worse by causing dirty run-off streaks from the roofs. The rain has also led to an explosive rate of growth in the grass and the mower fleet has been flat out trying to keep pace.

Restoration work on FM 400 continues apace. The re-wiring of the lighting circuits has been completed as well as the painting of all internal timber and steel in the ceiling space. Once the masonite ceiling panels are re-installed, we expect they will not need to be removed again in our lifetimes.

Saturday, 19 January 2008 marked the 70th anniversary of the entry into traffic of this car, and 41 members and friends gathered at Ferny Grove for a barbecue and a few tram rides to celebrate the occasion.

Work continues on the 39E1 bogies for Dreadnought 136 with the motor re-installed in one of the completed bogies on 22 January using a crane that was on site for unloading our latest acquisitions.



Prototype four-motor car 400's birthday cake. Peter Hyde



Brian Martin, leader of the restoration team, giving a run down on the state of play.

Peter Hyde



The resumption of heavy duty mowing means mower maintenance. Keith Tidey, Kev Maizey, Ken Howard and Noel West deal with a cracked jockey wheel support.
Peter Hyde



Arrival in the workshops of the Brown-Boveri rectifier and fire-proof safe.
Peter Hyde

In other news, the Queensland Museum kindly made available one of the original Swiss Brown-Boveri 500kw steel tank mercury arc rectifiers from the Brisbane system. Although not complete with vacuum pump or water cooling equipment, it will make as a static exhibit an interesting comparison with our glass bulb rectifier also on display. Also delivered on the same day was a large fire-proof safe dating from 1857 which will be used to house archival material. This is believed to have survived (despite falling several floors as the building collapsed) the fire which destroyed the former Supreme Court building in Brisbane many years ago.



John Hudson and Kev Maizey bask in the reflected glory of the first test of the re-wired lights in 400.
Brian Martin

The Brown-Boveri rectifier and the safe in position.
Peter Hyde



Beven Burnes and Darryl Soden working on the 39E1 bogies from Dreadnought 136.

Peter Hyde



Neil Andrews hard at work on one of the bolsters from a 39E1 truck from Dreadnought 136.

Peter Hyde

A motor being lowered into one of the overhauled Brill 39E1 bogies from Dreadnought No 136.

Peter Hyde





A pristine Melbourne L class 103 sits on the car barn fan at Haddon after completion of its restoration.

Anthony Smith



The Sydney Tramway Museum's Federation Line liveried W2 249 is decorated for Christmas and heads for the northern terminus with its load of passengers on Members Day, 1 December 2007.

Martin