

STEAM SCENE

Newsletter of the Steam Tram and Railway Preservation (Co-Op) Society Ltd.
t/a Valley Heights Steam Tramway.
Proudly associated with the NSW Rail Transport Museum (Blue Mountains Division).
Affiliated with the Council of Tramway Museums of Australasia and
Rail Heritage Australia (NSW).

"Preserving the past, enriching the future"

Volume 5, Issue 5
October 2008

Santa to Visit Valley Heights!

The numbers coming through the gate at Valley Heights have not been too flash recently. Our Chairman, Craig Connelly has been thinking we

need some help to get more visi-Craig tors. thought he would enlist the help of that tried and trusted attractor of you and old-Santa. Making a special call to his off-season hideout, Craig soon had Santa readily agreeing to visit the Valley on the weekend of De-13-14 cember Santa even agreed to make an early appearance at the museum to enable some press release photos to

be taken.

Santa poses for the camera along with a lot of other "posers"

There will be a lot of work to be done before

hand to prepare for our august and esteemed

visitor but if we can draw attention to what a great

Over the weekend of his official visit, he will make a triumphant entry (or two or three) by tram and be ready to take the requests of the littlies. To add to the jollity, there may even be a few carolers on hand and some lollies for the children.

place "the Valley" is to visit and attract a goodly crowd of visitors, then it will be well worth the effort.

Some Youngsters and Seniors Visit the Museum

On Tuesday, September 23, the Museum and STARPS were delighted to play host to a visit from pupils of the local Grammar School. Dual Member Andrew Tester was the MC and escorted the children around the depot. He explained the local significance of the depot in the development of rail transport across the mountains. The kids were of course thrilled to experience street transport in the form of the steam tram.

In the afternoon a group of about 20 seniors visited us as part of a "short-break". They were enthralled as they were taken back to the past in the tram. Andrew again escorted the group around the depot.

These types of visits are what is sought to bolster our numbers through the gate. The "Valley" has great visitor attraction. The task is to get it known about to a wider audience.

(Top Rt) Eager hands great Andrew as he quizzes them on rail transport. (Bottom Rt) The walking frames and sticks couldn't' get this eager group of seniors to the tram quickly enough.





From the Editor

STOP PRESS!!

All the hard work in putting together an expression of interest for the acquisition of locomotive 1308 and an endplatform car, has paid off. We have recently received a "Yes" to both items having parried off as far as we know, some stiff competition, at least for 1308. We now have eight weeks during which we have to take delivery. A formal deed of agreement with Railcorp has been signed by us. What mode of transport will be used to convey both the loco and car, is not known at this time. It may however be possible for the car to be moved by rail to the Valley as part of another delivery to that site.

1308 will of course be a long term project however we expect the end-platform car to be capable of being pressed into service with Stepho in fairly quick time. It is fully kitted-out with seats. It will of course be subject to necessary safety checks, a general survey and risk assessment. A good cleanout will also be necessary. With an end-platform car almost ready to use, our hope is that it will provide a new rail experience for our visitors, with the capacity to re-attract past visitors.

Till next time, Bruce Irwin, Editor



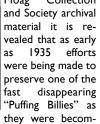
ATRIO AND A HALF OF STEAMTRAMS

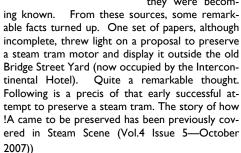
Secretary Peter Stock has assembled a most interesting account of the three surviving steam tram motors from the NSW system. Also surviving in Crich, England, is a motor that was unsuccessfully trialled in NSW, "John Bull". And the half? - you will have to wait until the end of the article!

Most members know that there exists just three Baldwin steam tram motors from the extensive N.S.W. Tramway system. Without counting the several examples of British-built steam tram motors that were trialled in the late 19th and early 20th centuries the Baldwin-built and locally built Baldwin-style motors were the mainstay of daily operations. These motors finally numbered 132

> units. Today there remains just three, with one of the British tram motors named "John Bull" being located out of service at the tramway museum, Crick, UK.

> From the Frank Moag Collection as 1935 fast





In the following narratives the words in italics have been transcribed as they appear in old correspondence and society minutes. Some wording is probably best described as not being the technically accepted form. Occasionally the usual fleet number style may be not be in accordance with the norm however, for accuracy of the narrative, the original texts are quoted.

I. STEAM TRAM MOTOR IA:

With the steam tram era rapidly drawing to a close, A Mr. A.H. Dunstan, Secretary of the Railway Circle of Australasia (later to become the ARHS) wrote to the Commissinmer of Road Transport to see if motor !a could be preserved and perhaps mounted on a plinth outside of the former Bridge Street Yard as a memorial to former steam tram men. Allowing for gaps in the correspondence now extant, it appears that the matter was eventually taken up between the Commissioner and the Technological Museum (now the Powerhouse Museum) This resulted in motor IA being withdrawn from service just prior to the closure of the Kogarah-Sans Souci line. The vener65able motor was taken into the Technological Museum's transport collection, housed in the old fire station that was situated behind the old museum building in Harris Street.

The question of whether the motor saved was actually 28A or IA, is discussed in the previous SS

In 1938 the body was lifted and placed on a tractor where it hauled a facsimile d/d tramcar for the Sesqui-centenary parade. Returned to the frame, it stood until used in the first Waratah Parade in Sydney in 1951. This time a "new" d/d car had been built. However the body was not used in subsequent parades due to wear and tear. A facsimile motor body was built in its place.

After many years, motor IA finally was to be publicly displayed in the Powerhouse Museum Sydney. It has subsequently been transferred to the museum's facility at Castle Hill where it is on

The initial effort, by a group of people interested in tramways, just may well be the first successful petition to interest transport authorities of the value of preserving our street transport heritage. As mentioned, the Railway Circle of Australasia went on to become the highly respected Australian Railway Historical Society. It is from the Circle that a special interest group emerged. This was the Steam Tram Study Group, which in time developed into the N.S.W. Steam Tram and Railway Preservation Society. That is in itself another

2. STEAM TRAM MOTOR 100:

The society minutes record considerable efforts during its formative years to bring home the ex-Sydney steam tram motor 100 situated in Wanganui, New Zealand. Careful perusal of the minutes, point to considerable efforts being expended by our pioneer members to somehow secure 100. Attendant to the problem was to arrange its transport back to Sydney by sea. The motor was sold out of government service to Thomas Saywell, Brighton-le-Sands as a back-up locomotive to protect his electric tramway from Rockdale to his development on the shores of Botany Bay after this new system suffered a failure necessitating hiring a small government locomotive. This event prompted Mr. Saywell to acquire 100 from the tramway department as stand-by motive power to haul the electric tramcars. Subsequently Saywell sold on 100 to the local authorities in Wanganui, NZ, who actually operated their electric tramway for a time using 100. The well-traveled motor then ended its days in the yard of a local engineering firm where it was found by the society. The first reference to the acquisition of motor 100 was recorded in the minutes of November, 1954, that the secretary, Mr. Bruce Macdonald, was to . write to the Town Clerk at Wanganui, NZ, enquiring about the existence or otherwise of motor 100A.



Motor IA photographed not long before it went on public display at the Powerhouse museum annexe at Castle Hill



An undated note attached to minutes of June, 1955 to Frank Moag advised, amongst other things . . . we have had word that No. 100 is ours if we take it away. Negotiations are in hand with the shipping Co. but I don't know just what the outcome will be. In the July minutes the matter of 100 was mentioned. Although not clear it alluded to a company being approached re transport. months. The suggestion was carried. Would members storing the 5/be an early version of the "keeping it in the cunning kick"? By February, 1956, the Department of Customs had granted the society an import license for 100.However in August . . . correspondence from Johnstone & Co., Wanganui, advising of the cost of transport and shipping No. 100 was read. Obviously the costs quoted were beyond the capacity of the society treasure to remit . . . the secretary being directed to take any action he considered fit to get the amount reduced. Handwritten notations suggested . . . they won't be in it - three hundred pounds (\$600) or no 100 - think it over & let me know if you have any other idea.

Motor 100 dominated discussions at the September meeting. A letter was read . . . from the Union Steamship Co. advising that the cost of transporting motor 100 would be two hundred pounds (NZ) and the secretary should continue his enquiries for a cheaper or more satisfactory arrangement but meanwhile we would complete our financial contract with Blake Engineering Co., Wanganui, and pay the fifteen pounds (NZ). This figure may have been some sort of deposit or even the full purchase price for 100. This was undertaken as the December minutes note . . . Correspondence from Blake Engineering enclosing invoice and receipt. That would indicate the society now owned another tram motor, although it was in NZ. The matter of financing the freight costs weighed heavily on the members thoughts. A suggestion . . . on securing of finance for payment of the freight account for motor no. 100 that each member store privately or pay to the treasurer the sum of 5/- (50c) per week and this would work out to one hundred pounds (\$200) in six

It was recorded in July the Union Steamship Co. confirmed the previous freight price. A further thirty pounds (\$60) was added to the fund. At this time correspondence from the Baldwin Works re motor information was tabled (for 100 or 103A?). But the August minutes recorded . . . after discussion it was resolved that a member's portion of the money in the fund for No. 100 be re-directed for the cost of transport of the Davenport provided such a cost was not exhorhitant. (The Davenport was a 2' gauge locomotive of the Kiama Quarries being moved from Kiama to Parramatta Park –PS.)

A written report, presented to the February, 1957, by Frank Moag . . . on No. 100 and the meeting with Mr. Blake (from Blake Engineering Co., Wanganui–PS) and that enquiries be made as to the possibility of returning No. 100 in a complete condition was tabled. Further . . . Mr. Blake be approached to see if he will act on our behalf in shipping from Wanganui direct. We can guarantee two hundred and fifty pounds (\$500) and that Messrs Howard Smith be contacted regarding their vessels which call at Wanganui.

A meeting of members in June was minuted. From the record it appears that considerable time was spent discussing 100. Attention of members

was directed to . . . the portion of a letter regarding the limit of the ship's derricks and the possibility of dismantling No. 100 for easier transport. Offering Blake's the boiler as compensation for labour, Mr. Macdonald stated it may be possible to obtain a boiler locally to fit 100. It was decided . . . that Blake be ap-

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Motor 100 standing outside of Blake Engineering, Wanganui NZ, in 1958.

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stated it may be possible to obtain a boiler locally to fit 100. It was decided . . . that Blake be aþproached on the question. Also that the local boiler situation Ьe checked. By August however, the society's interest in No. 100 was becoming urgent. It was recorded that . . . correspondence from the Wanganui Model

Engineers re dismantling 100 was read and the secretary was instructed to notify them that we did not intend to pursue this course now. Again the acquisition of No. 100 was raised again at the October meeting. In the absence of society records it appeared that . . Blake Engineering Company in NZ advised that delivery of the motor was required by 1958.

(Continued on Page 6)



Motor 100 proudly steams along the tracks at MOTAT, Auckland NZ.



The Sad Tale of Frederick Eames

Our tram uses a vacuum brake system of the Eames patent variety. The next time you see it in action, you might consider the following story of its inventor.

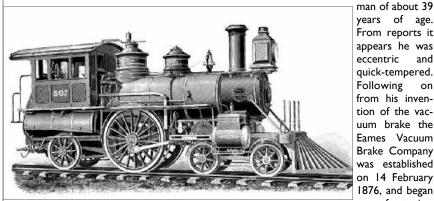


We are all familiar with the Westinghouse brake system in use on most of the world's trains. Less familiar is the vacuum brake system, in particular, (there were others) that invented by Frederick Eames. The brake system invented by George Westinghouse is now paramount in usage. It was not always so with vacuum brakes, using a vacuum to operate the brakes rather pressure, having vied for supremacy at one time. Indeed some Australian railway systems, notably Western Australia and Tasmania used vacuum systems until comparatively recently. This story is not about the merits of either system but about the inventor the Eames vacuum brake system, a fatal victim of chicanery. Frederick William Eames (1843-1883) was born at Kalamazoo, Michigan, the son of an inventive farmer-mechanic. He had just entered college when the Civil War began, and he promptly enlisted in the 2nd Michigan Infantry. He subsequently mustered out to accept a lieutenancy in another Michigan regiment. He was honorably discharged in 1863 and appointed aide in the Revenue Service patrolling the Mississippi River.

Another source says Eames came to Watertown, New York, in 1861 "to install for the municipality a pumping system of his own devising. That same year, Lovett and Moses Eames (his father and uncle respectively) bought Beebee Island, New York, and established a machine shop there in one of the old stone buildings which had survived the cotton factory fire." Frederick Eames appears to have arrived some time after his army discharge.

He received his first patent in 1874. Besides the power-brake that bears his name, he invented an automatic governor and cut-off for engines of ocean steamers, a steam pump, and "a multitude of other mechanical devices."

At the time in question, Eames was a married



The 4-2-2 Baldwin locomotive, Eames had shipped to UK for demonstration trials of his patent braking system.

the brakes in his father's machine shop on Beebee's Island at Watertown, New York. The company was capitalized at \$500,000 (more than \$8 million in today's buying power), but was short of capital from the first. Being in a highly competitive environment (notably with Westinghouse) Eames decided to go to Europe to sell his system there. Eames traveled extensively marketing his brake. To

Only two of the English lines made purchases, apparently because there was already a Britishmade vacuum brake available. It was an "automatic" brake: if the train parted or the ejector failed, the brakes were applied automatically. Eames determined to make his own automatic brake on his return to the States. Whilst he was away in June 1882, the Vice-President, Secretary and Directors of the company entered into an agreement with Thomas Prosser and Son of New York, whereby they transferred and leased to the latter, all the property of the company including the patterns etc. and the exclusive right to manufacture the brakes in USA under Eames' patents. Evidently the Eames company owed Prossers \$47,000, a very considerable sum. Immediately after the transfer, Frederick Eames returned from Europe. One could imagine his mortification and anger on learning of what had transpired. He immediately set in train an action against the conspirators, (his fellow directors) together with Prosser's, to have the agreement set aside.

Following the institution of the action, although the shop was under the charge of the Sheriff, Eames, maintaining his rage, entered the shop and proceeded to choke the officer in charge! Eames was arrested under warrant. It appears there was much bitter feeling between Eames and the shop hands.

On April 20, 1883, a judgment was given which held that all the transfers were void. The Sheriff and Eames were given immediate possession of the works however Eames had to repay Prossers' the outstanding amount. Wasting no time, Eames, his brother, the sheriff and under-sheriff together with a Baptist minister who was a stockholder, went straight-away to take possession. With the Sheriff formerly turning the works over to Eames, Eames went down into the basement to close the engine down. On his way down he passed Charles Higham, a pattern maker and Superintendent of Construction. After closing down the engine, Eames made his way up to the office and caught hold of Charles Bingham, who had been in charge of the works since the commencement of the suit. With pent up anger and wanting to reek revenge, he attempted to throw Bingham out of the building. The Sheriff intervened. Proceeding to another level, Eames went to the end of the building where a door had been put in to connect with an adjoining property. Behind this door had retreated Higham. On seeing Eames steaming toward the door, Higham promptly locked it. On coming to the locked door, Eames promptly broke a glass pane in it with his cane, put his hand through and unlocked the door. Up until this time, Eames and Higham had been the best of friends and had never had any cross words. Higham was probably terrified on seeing Eames in his seething

Workman said they saw Eames raise his cane above his head as if to strike him. Higham subsequently said Eames hit him twice. In any case,

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Higham pulled out a .32 revolver and fired two shots at Eames who fell to the floor quite dead. One ball had hit him in the lower part of the head whilst the second had entered his right breast passing through his heart. The Rev. Townley, who was following close behind, found Eames down on the floor and Higham standing over him as if he intended to shoot him again. The reverend gentleman promptly took a club and beat Higham off. The murderer promptly gave himself up and put himself in the custody of the Sheriff. After going to inform his wife of what had happened he went with the Sheriff to the local gaol. It was said that during the afternoon, Higham was prostrate with grief.

Higham was 33 years of age and had worked for the company almost since its inception. Workmen said they never knew Higham carried a gun although some outsiders believe that since the trouble had began the shop was like an "arsenal and that all the men had been armed". A post mortem examination was quickly arranged as was a coronial enquiry.

Higham subsequently went for trial in December 1883. He was found "not guilty" on the grounds of self-defence.

Later History of the Company

Though vacuum brakes were doing well overseas, in the United States they were losing out to the Westinghouse automatic. One of the few large sales was to the narrow gauge Denver South Park & Pacific, which outfitted 700 cars in 1880. A year later, the Union Pacific [which just happened to own the Denver South Park & Pacific] purchased 300 sets, also for freight cars. In 1885, the Eames Company developed its own automatic brake, spurred on by several railroads that wanted to block the Westinghouse monopoly.

In 1886, trials were run on the Burlington. The Eames vacuum brake came out second only to the Westinghouse pneumatic, proving too weak for long trains. One of the major goals of the railroads at that time was to increase train length to more than 50 cars.



In 1890 the Eames Company reorganized as the New York Air Brake Company. The plant was eventually moved from Beebee Island.

George Westinghouse sued the New York Air Brake Company, but his earliest patents had expired, and after years in the courts, in 1912 the companies agreed on a cross-licensing arrangement that allowed them both to do business. John White estimated in 1978 that New York Air Brake held about a 25% market share against Westinghouse's 75%

The New York Air Brake Company is still in business, "a supplier of innovative train control systems for the railroad industry." They have a website at http://www.nyab.com/.

The New York Air Brake Company's works on Beebee Island New York. Frederick Eames established his company in his father's machine shop here. The Eames company was suc-

Commemorating an Epic Journey— Pumping a Sheffield into Central

Back in 1988, one of the more remarkable Bicentennial activities, was the Sheffield Conquest trike trip from Perth to Sydney. This took place over six weeks, to celebrate the railway pioneers and the role played by railways in the development of Australia.

This epic journey was the inspiration of Ken McCawley, former guard and train-controller. Ken was and still is, passionate about the perway side of railway operations. Ken, his wife Betty, John Cooper and others formed the core group of operators of the Sheffield hand-trike. (This is the same as the one we have at Valley Heights.) Together with hundreds of members of the general public paying their way, all shared in this unique adventure. Robyn, myself and the kids had the privilege of pumping the Sheffield on the last weekend of the trip from Katoomba to Leura.

Eventually the Sheffield became a regular attraction in Paramatta Park where we charged the public Two Dollars for a ride, as a fund-raiser after the fire in 1993.

The trike bug we and truly had bitten me to the extent that I have acquired one or two that have been added to the attraction of Valley Heights .

Friday, October 10, 2008 was the 20th anniversary

of the Sheffield's arrival at Platform I, central. Ken had the idea that he would love to take part in a re-enactment of the arrival. He certainly must have known people in high places because he managed to pull off what most people might have said would be impossible nowadays for such a venture—possession of platform I track, out to and including the Indian-Pacific Motorrail siding. This was authorized for an opening of a few hours. Under the guidance of the appropriate Railcorp Safety Officer, at I pm, the original crew pumped the Shef-

Seating and a PA system had been set up on the platform together with banners of welcome etc. Short speeches were made . The main guest was Rob Mason, CEO of Railcorp, He commented that he was from Sheffield in England. He doubted that his home-town had anyting to do with the naming of the Sheffield hand-pumper. (He was right).

field down to the buffer stop of platform I.

Donning safety-jackets, guests were taken for rides about half-way along the platform. As an experienced trike operator and as someone who had taken part in the original trip, I was asked to participate in a number of these short rides.



"Preserving the past, enriching the future"

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Chairman and Works Manager, Craig Connelly 02 9729 3536 Secretary and P.E.O. Peter Stock (02) 9587 9051 Treasurer and Editor "Steam Scene" Bruce Irwin (02) 9651 1707 Membership Secretary, David Lewis (02) 9630 6304

The museum is located in Tusculum Road, Valley Heights. Ample parking is available. A train service is available to Springwood. Valley Heights station is accessible for museum visitors but you must walk around to the Tusculum Road entrance and not attempt to short-cut across the tracks.

The museum is open between 10 and 4 on the 2nd and 4th Sundays of the month. Steam operations on both days. Works Report: 93B: Brake diaphragm replaced. Stepho: Prepared for boiler inspection.

New Shed: Electrical fit-out completed. Floor painted.

Also was tabled correspondence from . . . Messrs Mellor and Stewart requesting purchase option of 100 was read. These two gentlemen from the emerging NZ historical tramway circles were eager to obtain 100 and retain the motor in that country. After more discussion . . . it was resolved that advice of sale to Messrs Stewart and Mellor be withheld until it is ascertained if a member was unable to assist in the immediate financial crisis.

But at the members meeting in February, 1958, the saga of No. 100 was laid to rest with the terse reference . . . that money loaned (by members) for the transport of 100A and which item was now sold. be returned.

To be fair the foregoing was gleaned from society minutes of the day. The luxury of referring to the appropriate files correspondence and papers is not available to the

Further the society at that time was physically involved in the acquisition of tramcar 74B at Byron Bay, were combing the countryside for other B-cars in paddocks and yards, acquiring a SV wagon, moving the 2' gauge Davenport locomotive and commencing the publication of a series of booklets relating to the history of steam trams and quarry railways. Not the least the society was engaged in negotiations, at times quite rocky, with the Parramatta Park Trust. These negotiations led to the establishment of what was at that time an untried and pioneering concept of a depot and exhibition tramway over which to operate motor 103A and future rolling stock. And to cap it all our own motor was stored off-site at Homebush in a member's backyard being overhauled! And the only communication with NZ was by mail or expensive telephone calls, whilst the days of cheap air travel was many years in the future.

Interestingly enough, many years later a benefactor to the society the late Hermon Slade, said that at the time the matter of transportation of 100 was being debated, he offered to finance the deal. He stated that he was a member of the society, although there is no extant record of same. Few people remain to confirm or deny this claim with accuracy.

Suffice to say No. 100 found its way into the care of these gentlemen and was placed in safe custody. She is in a superb mechanical condition, operating from time to time at the Museum of Transport and Technology, Western Springs, Auckland, NZ. At the present time (2008) no. 100 does not yet have a tramcar to haul. However the remains of a Wanganui tramcar rests beside no. 100 at MOTAT ready for the green light to be given to begin its restoration. (*To be continued.*)

Last but not least...

(Continued from Page 5)

What a buz! to be allowed to do this sort of thing in this day and age with all the panoply of rules and regulations that we have nowadays—it probably wont happen again.

The final thrill of the time slot given to us, was to pump the Sheffield right along platform I, out into Sydney yard, wait for the signal box to change the points over to the Motorail siding and proceed back down that track. Here, the Sheffield was taken off the track and place on a car trailer. Congratulations to the original crew for the completion of the original epic and to Ken McCawley for having the determination to achieve the reenactment against the odds. (By David Lewis, Membership Secretary)

THE GARDEN

Move to New Pastures

For many years Roz

and Keith Reynolds have looked after the grounds at Valley Heights. In all weathers they have toiled to keep the place spic and span. The tidiness of the grounds was frequently remarked upon by visitors to the museum. All good things come to an end and unfortunately the Reynolds have resigned their gardening role to become involved with the perway gang. Thank you sincerely Roz and Keith for all that you have done in the past. The future of the museum grounds looks uncertain at this stage.

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Sick List

Our Deputy Chairman Frank Millier, was recently hospitalized for serious surgery. He is now home convalescing. We wish you a speedy recovery Frank. All the best to you and your lady, Daphne.

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Stepho

Although he has been dormant for some time, boiler inspections still have to be done. After having been prepared by Craig and Steve, Stepho's boiler was examined by our boiler inspector and given a clean bill of health.

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What's Happened to Our Day-Out?

Well may you ask. Despite frequent enquiries to the Rail Motor Society re the hire of their stock for an outing, little or no response has been received. Time has passed on and it now appears likely that we will do something in late March or during April.

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SAFETY ZONE

Safety—First
Anger is one letter
away from Danger–
keep calm and in
control!

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