



STEAM SCENE

Newsletter of the Steam Tram and Railway Preservation (Co-Op) Society Ltd.
t/a Valley Heights Steam Tramway.
Affiliated with the Council of Tramway Museums of Australasia and
Rail Heritage Australia (NSW) Inc.

"Preserving the past,
enriching the future"

Volume 2 Issue 7

December, 2005

Introducing—the Gentlemen Ushers of the Footboard and the Honourable Stokers of the Footplate!

Our steaming day of Sunday, November 20, appeared to be going just like any other operating day. At a certain hour however, the tram crew gradually disappeared from the scene, leaving only the fireman and the usual conductor—Yours truly, on duty and as it turned out, totally in the dark. Suddenly from the depths of the roundhouse appeared this group of gentlemen dressed up "to the nines" in bowler hats, toppers, waistcoats, watch chains, corsages *et al.* Needless to say, everyone was stunned. What was going on, a wedding? A funeral perhaps? Not so. On parade were the new tram crew rig-outs. A throw-back to the late 1890's



All fitted out in their new uniforms (L to R) Ted Dickson (Brakeman) Peter Stock (Operations Manager/ Conductor) Steph Tolhurst (Fireman) Bruce Irwin (Conductor) Craig Connelly (Driver)

early 1900's when tram drivers and firemen were dressed somewhat more formally than later times.

Well yes, we may have gone a little "over-the-top" and the costumes may not quite be in sync with the era of our tram livery but hey—what's wrong with some fun being added to the equation?



A "very proud old tram driver" stands on the footplate of 103A. Frank Moag's first visit to see his beloved restored tram on November 20.

You must admit, they are different to the usual tram uniforms seen around museums.

Our patrons just loved our "new look". They (and us) had grins from ear-to-ear. One wonders what will come next, Craig with a handle-bar moustache? Perhaps even a singing steam tram quartet!

During the day, Life Member, Frank Moag paid us a welcome visit and stepped up onto the footplate once again. With steady hand at the regulator, it appeared that Frank had not lost any of his touch since his days in Parramatta Park. Not even any problem with those testy Korting injectors!

Later in the afternoon, when it was due to water the motor, the overhead water tank seized-up with a "toad in the hole". It appeared the ball valve was

stuck and wouldn't admit any water to the tank. A length of garden hose left/donated by a "benefactor" was pressed into service where-upon water streamed in all directions like the Archibald fountain! Another one of those items that should have been consigned to the garbage can not the museum!

Not a lot of people came through the gate this day but I am sure that when the word spreads, people will come from miles around to see the marvelously attired, "Ushers" and "Stokers" of the Valley Heights Steam Tramway.

P.S. Craig had trouble with the interior loading gauge of the motor cab. There just wasn't sufficient room for the topper to remain on his head!



Shades of a "Keystone" tramway. Water streams in all directions much to Ted Dickson's dismay.

From the Editor

A distinctly American flavour to this issue with an article on Steamtown USA and its preservation ethos to one on the restoration of one of our resident Yanks, 1022.

As can be seen from the lead story, although we try to present the steam tram faithfully, there is always room to inject a bit of fun. We don't always have to be hide-bound in faithful representation and display. Fun is an essential element in the membership life of any society. Too often though, the striving for achievement, the pressure of modern-day professionalism, the regulation, cheats us of having fun between ourselves and the travelling public. Because you have fun doesn't mean you compromise standards. It is just another way of applying them some times.

This calendar year has been one of great achievement. The co-operation between museum members and STARPS members to achieve the year's results has been remarkable. We can only go on in strength to achieve a museum of excellence.

The Board of Directors wish all our members, museum members and our friends and supporters a happy, holy Christmas and a great New Year.

Special points of interest:

- Operating days for January/ February/March 2006.
- January 1*, 15, 26
- February 5, 19
- March 5, 19

*To be confirmed



An aerial view of Steamtown gives some idea of the huge undertaking by NPS



Engaging youth— an important facet of a planned interpretive programme. On these young people rests the hope of the future for rail museums.



Letting people see how repairs are done in a safe environment. Some visitors are just as stimulated by this facet as by heritage train travel.

Static and Original or Active and Adulterated?

Sounds like a food storage problem but no; it's an old conundrum faced at most times by all credible rail transport museums. An article that appeared in "Locomotive and Railway Preservation" (USA) some years ago gives some food for thought in the matter. Indeed it is perhaps a different way of thinking about rail transport preservation.

Some years ago the National Parks Service (NPS) of USA found itself the "beneficiary" of a 67 acre railway yard complete with 29 steam engines, 86 carriages, a collection of buildings dating back to 1865 and a host of other miscellaneous associated equipment. With no previous experience in this type of preservation, they cast around the many and varied rail museums and organizations in an attempt to glean what was hoped would be, a consensus of practices, procedures and expectations that would point them in the right direction as to what to do with their acquisition. What they found was little or no consensus and few bottom-line principles upon which everyone agreed. There were many static museums with well established practices in cataloguing, restoring and displaying in a static environment. Similarly there were many operating rail museums doing a fine job in restoring, operating and giving enjoyment to themselves and the public. Various railway structures had also been carefully restored and turned into a variety of uses. Much had been restored but still there was little consensus about the "how" it should be done, era to be interpreted etc. NPS learned that most had something to offer but that they would have to establish their own situational criteria. NPS gradually found that the preservation movement generally fell into one of these two camps. Firstly, there were those who preserved certain elements of railway heritage providing an interpretive history of evolution and design. Many had recreated the experience of passenger travel by train. Secondly, there were those involved in railway preservation intent on preserving "original fabric".

Herein lay the nub of the dilemma.

This matter has been raised some time back in a STARPS annual report and also in a previous newsletter. When you use something it wears out and requires repairs. In the process of repair you are diminishing the original but the object continues "in life". Should you not use it and freeze it in time and give limited interpretation of its use or do you use it with compromise and give a better interpretation of its use? There are arguments for both points of view ranging from an ultra-conservative "save for the future" point of view to the "grand-father's axe" syndrome.

NPS was a body determined to come to grips with a multi-faceted railway preservation issue. As it turned out, they looked at it from an "outsiders point of view", being an organization not before involved in railway preservation. It was the age-old

story of a fresh set of eyes looking at a problem and tendering a solution. Not one for everybody but a solution never-the-less.

NPS found they had two choices. It was either to keep everything as static display or as functioning structures and equipment.

From their assessment of the rail heritage industry and their own experience with historic buildings and sites they came up with the notion of an "operating engineering system". In short this was to display and demonstrate how structures functioned. To bring them back to functioning life in order to use them in interpreting how a railway yard was designed and operated not so much as to what it looked like in previous eras. None of their many locomotives and passenger cars had any great claim to fame, they were just common work-horses. Their significance was not in what they looked like but in *what they did*.

NPS found that much of their criteria adopted as sound practice in historic place preservation was directly applicable to the Steamtown scenario. Quoting the "Secretary of the Interior's Standards of Rehabilitation", they state that, "long term preservation of historic structures requires the constant repair, maintenance and replacement of the structure's components." It is inevitable that components within structures wear out or decay over time. Never was this truer than in locomotives and carriages. Historic structures are living systems that must be allowed to change through time in order to survive. The inevitable replacement and adaptation is a means of preserving both a building's significance and its useful life.

Railway preservationists are still struggling with this issue. It seems more fundamental that when some part of an historic building deteriorates, that part is replaced albeit by something new that looks the same. This doesn't take quite so readily in some spheres of railway heritage. NPS have looked at the problem this way. Railway structures and equipment were built to operate. Their purpose was to produce. As a result this equipment wore out progressively and was repaired/replaced. Similarly, when improvements or efficiencies were available, these were adapted and accommodated so as to extend an active life. What happens to working systems such as locomotives when they are taken out of service? When they can no longer produce? Does it retain its significance and purpose or does it become nothing more than a physical symbol of what no longer exists?

NPS consider that an "operating engineering system" be it an engine, roundhouse or railway yard, contains three elements: how it evolved, what it produced and its relationship to people. The first

element is widely understood, the how and the why it was built and adequate documentation of this, including modification. The NPS consider however that of primary significance is the "product" or "service" element. In other words, the output of the system, not the system itself. They give an example of an old mill and loom they maintain. If it remained static, people would gain some understanding of its function. However if it operates with all its support structures functioning and a final product being produced, the perception and appreciation is immeasurably enhanced.

We may be enchanted and give locomotives a romantic nuance that they perhaps never had in their real lives. The loco is however, just one element in a railway system.

Thirdly, in the "engineering system" context is the human element. This is the almost palpable connection between humans and the machines they operate, fix and observe. This is particularly so with steam engines. People are fascinated by other people working on or around locos, be it servicing or repairing them.

But if we are to use our locomotives and carriages, what about the "consumptive use of original fabric". When considering this issue NPS considered the following questions:

- How much of the fabric is original?
- How much was changed during its working life?
- What was its original purpose?
- What is our purpose in preservation?

If the purpose was only to understand technological history, the answer would be easy: select an era, "freeze and store". From the NPS experience with historic buildings i.e. a "working architectural system" "freezing in time" is not an option. Historic buildings decay etc. Mortar crumbles and wood rots. Fire-suppression, security alarms need to be installed to prevent destruction. Do you let all fall away because replacement debases "original fabric"? No. NPS maintain it doesn't matter how much original fabric remains. What is important is for a building to retain its "function". So far as "operating engineering systems" are concerned, NPS suggests that some systems should be frozen in order to preserve significant features of their technology. Others however, should be allowed to adapt to change in order to keep operating and functioning significance. Railway structures, locomotives and carriages were continually being changed throughout their active service. Certainly with locomotives, wheels, boiler tubes, springs and a whole host of parts were periodically replaced in order to maintain their useful lives. If this is a problem with working systems from the past, think about the present and the future. Diesel locomotives are subject to possibly more radical replacement of parts than ever steam locomotives were. Indeed much is interchangeable. It is not impossible to conceive that some diesel locomotives today have only their body shells and number left as original fabric! Does this mean that say in

2050, diesel locos are not worth saving because they perhaps have only a small percentage of "original fabric" left?

An "operating engineering system" progressively wears out. This was known when it was created and it was made so as to be adaptive to new parts. Yes, you can freeze the system in time, not use it and not wear it out. But then that is only telling part of the story. What it did, how it was done, indeed, "its product" must be left to the imagination.

The Steamtown solution was to treat its buildings, collection and people as components that work together to interpret an engineering operating system called "a railroad". Each element could stand on its own however NPS was convinced that the elements were better preserved and interpreted as components of a larger, more meaningful whole, in order to provide a portrait of an historic railroad engineering system.



A mezzanine platform allows visitors to view the lighting up and raising steam procedure.

This sort of involvement (in a safe environment) is part of the human dimension and connection between people and machines.

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How does this relate to our small set-up at Valley Heights and our unique "little tea kettles". Do you weld or rivet, spray paint or brush, veneer or seek solid? Do we follow the conservative views of say John White Jun. of the Smithsonian Institution, warning of "grandfather's axe" or do we follow the perhaps more liberal views of NPS and Steamtown?

Seems to me that most credible museums pursue a quite conservative policy. We at STARPS most certainly try to. 103A for example still has much "original fabric", possibly much more than say 1A in the Power House Museum. Never-the-less, repairs are inevitable. We do make every effort however to replicate that which is being replaced. Similarly with trailer car 93B. Perhaps barely 60% of this car is original fabric. Its rebuild has replicated as far as possible original fabric that was beyond repair. What was the alternative; let both languish in an unrecognizable state? The answer is obvious. If both were to remain static, yes they would give some idea of what they were about. In steam and operating, the picture become more complete with what we saw previously, being only a pale shadow. Never-the-less, these and other collection items must be used conservatively. No one can forecast where steam heritage operations will be in 50—100 years time. Most certainly, the world will be a totally different place. We can only do the best we can today, enjoy it and enable it to be passed on to the next generation in the best condition possible to our knowledge.

The debate over "use or freeze" I am sure, will continue. The NPS entry into the heritage railway

scene does go to show there are different ways of looking at preserving heritage items. Whilst an "operating engineering system" might seem to be an appropriate ethos under which certain railway heritage, can be operated, who knows if a different concept might be just around the corner..

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This article was adapted and edited by Bruce Irwin from "Steamtown" written by John Latschar and appearing in "Locomotive and Railway Preservation" July-August 1994. The final section was by the Editor.

1022 - Will the Ugly Duckling ever be a Swan?



A very grimy 1022 performs the duties of "shed rat" during its working life at Enfield back in the 1950's.

The odd shaped lumps of metal on the next page are a steam locomotive in fully dismantled condition. This dismantling has been done to allow a complete rebuild to be undertaken. The last overhaul this locomotive received was at the Eveleigh railway workshops in 1956, after that overhaul it continued in railway service for a further 14 years then entered preservation where it operated in Parramatta Park for 23 years until damaged by fire in 1993. As can be imagined it was well and truly in need of the rebuild it is now receiving .

History: Built by the Vulcan Iron Works of Wilkes Barre, Pennsylvania in 1916;

1022 was one of two identical locomotives purchased by the Public Works Department for use on MWSDB construction projects. Both engines were taken over by the NSWGR the following year and received the numbers 1022 and 1023 in the 1924 locomotive renumbering. They saw use on several railway construction projects around the metropolitan area but spent most of their life as the "shed rats" at Enfield locomotive depot. Their duties here were to move dead locomotives and their tenders around the depot. Being very short they were ideally suited to this work as they could fit onto turntables along with the engine (often minus its tender) that they were shifting.

During World War Two, 1022 was loaned to the United States Army Transportation Corp who used it along with 1023 to shunt the sidings of the base established by the US Army at Sandown.

1022 was retired from duty as the Enfield "shed rat" in 1970 and entered preservation in Parramatta Park, hauling light railway carriages and tram cars up and down the tramway. 1022 was damaged in the fire of 1993 and has been out of service ever since. Overhaul with intent to restore to operating condition was commenced in 2000.

The sister engine 1023 was scrapped in 1968; some parts were salvaged however and may be used in the restoration of 1022.

A locomotive identical to 1022 and 1023 was purchased by the Emu Gravel Company in 1915. This locomotive shunted wagons around the gravel pits at Emu Plains until retired in 1970. Emu Gravel number 1 is preserved at the NSWRTM at Thirlmere.

Restoration: The restoration of 1022 is a formidable task. Thirty seven years of work has left many minor components such as spring and brake gear in a badly worn state. Every hole is worn oval and every bolt and pin is worn and bent. The boiler has also wasted in parts and will require a new smoke box tube plate and extensive firebox repairs. The saddle tank is salvageable but will require extensive patching on the under surface.

Progress in the restoration is being made on a number of fronts. Frame repairs are complete and the frames have been grit blasted and painted. The two centre frame stretchers have been reinstalled. New brake hanger pins have been fitted to the frames and the brake hangers are ready for reassembly. The steam brake cylinders and brake shaft bearings have been overhauled and refitted to the frames. Worn areas on the horns (where the axle boxes slide up and down on the frames) have been built up, the horn cheek liners have been repaired and new adjusting screws made. The driving wheel axle boxes have been machined externally to restore parallelism and now a-wait re-metalling.

Repairs to the cylinder castings have commenced. The broken off corner has been welded back on and all cracks repaired. Cracks in the chimney and smoke box door ring have also been repaired by welding. The cutting out and replacement of the rusted sections on the underneath of the saddle tank has also commenced.



1022, complete with cow-catcher, operating in Parramatta Park in the 1970's



1022 after the ravages of the fire in Parramatta Park in 1993.



1022—Restoration Photo Gallery



1022's boiler is lifted from its frame.

A selection of photos taken during the course of the continuing rebuild of locomotive 1022. Photos are by Assistant Works Manager, Steph Tolhurst.



The cylinder prepared for the corner to be welded back on



The weld on part of the yoke that forms the cylinders and smoke box end boiler support. The holes are from a previous repair done by the "Railways" in the form of a supporting plate.



(left) Luke Tolhurst cleans out a mass of corrosion from the saddle tank.



The broken corner of the cylinder, prepared for welding to cylinder, already welded together from two pieces.

Welding of the damaged cylinders has been undertaken by Dick Butcher with assistance and weld preparation by STARPS members.

Three welding techniques have been employed. Some cracks have been repaired by electric welding using Nickel based rods. The two pieces that make up the broken portion of the corner were welded together by a fusion welding technique using cast iron rods and oxy-acetylene heating. This piece was subsequently attached to the main part of the casting by an oxy-acetylene process using bronze rods.

Much of the damage to this cylinder was caused by rusting on the surface where the two castings bolt together. The expansion causing the faces to bow between the rows of bolts leading to fracture of one of the castings. In railway service a "temporary" repair was done by bolting on steel plates to hold the broken pieces in place. *(Written by Steph Tolhurst)*

2005 Annual General Meeting

The A.G.M. was held on Saturday, November 5 at the Valley Heights Depot. In all members attended. A fairly standard agenda was followed. The Annual Report and Balance Sheet revealed an operating surplus of \$3,089.88 with a net profit of \$7,539 being recorded. This was a very good result considering the down-turn in traffic for the year. Once again, substantial gifts from members and interest on investments helped the result.

No big surprises with the Board of Directors election. Craig Connelly, Peter Stock and John Webb were all returned unopposed. The board for 2005-2006 comprises:

- Craig Connelly—Chairman and Works Manager
- Peter Stock—Secretary and Principal Executive Officer
- Frank Millier—Deputy Chairman
- John Webb—Publicity
- Bruce Irwin—Treasurer
- Steph Tolhurst _ Assist . Wks Mngr.

A sausage sizzle followed the meeting.



The Board for 2005-06 (Back row L to R) Chairman, Craig Connelly, John Webb, Peter Stock, (Front Row L to R) Frank Millier, Bruce Irwin, David Lewis, Steph Tolhurst

"Preserving the past, enriching the future"

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The museum is located in Tusculum Road, Valley Heights. Ample parking is available. Public transport 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 1st and 3rd
Sundays of the month. Trike
rides on the 1st Sunday, steam
tram rides on the 3rd Sunday
only.

Last but not least...

Thank you Peter Goodman!

Our sincere thanks to member Peter Goodman for arranging and supplying a replica steam tram letter box. Postal boxes were a feature of outer suburban steam tramways some surviving into the electric era. Our box has been placed on the back of 93B and looks marvelous. It will most certainly enhance the interpretation of steam trams in their variety of roles other than passenger carrying. The very fuzzy photo enlargement below showing a mail box and its relationship to the tram's apron, was all we had to go on for making the replica.



New Admission Charge Structure

With the steam tram coming on stream with its greater passenger capacity, a new admission charge structure was implemented from September 18. Charges are as follows;

Adult : \$12.00

Child/Pensnr.: \$8.00

Family: \$28.00 (2 adults with one or more children)

This all-inclusive admission charge now provides unlimited rides on the tram or trikes which ever are operating. It is reasoned that unlimited rides provides an incentive for visitors to stay longer and perhaps spend money in other areas. The limited capacity afforded with loco cab rides previously, did not permit an all-inclusive charge.



General: Now that we are operating the tram there is much more cleaning of rolling stock required.

From the coal-face: 93B: Brake pan diaphragms fitted. Letter box made and fitted. One destination box fitted. Door fitting progressing. **103A:** Gongs fitted. Painting continues. Repairs to LHS lubricator. **"S" truck:** Wheels and spring gear cleaned preparatory to painting. **1022:** One cylinder cleaned and prepared for machining.

SAFETY REMINDERS

Occupational Health and Safety

The Society has an obligation to ensure that its volunteers work in a safe environment. This can be difficult to achieve in a voluntary organization. In view of these factors, I earnestly seek your co-operation in the following matters:

1. All Rail Safety Workers and members are reminded that under O, H & S regulations, proper and adequate footwear must be worn on all occasions.
2. On operating days or other work-days, high visibility vests must be worn when working on or near the tramway. This is a requirement of STARPS accreditation as a railway operator. This direction is applicable to members of all groups when on site. The only exemption is for Conductors, fireman and driver in the normal pursuit of their duties with the tram.
3. Please note that neither STARPS or VHLDHM are in a position to supply these items to members. Their acquisition is the responsibility of members. High Visibility Vests may be purchased at small cost from Go-Lo stores, etc. Appropriate fully enclosed footwear is readily available at retailers.

Please make the job easy for us. We don't want to have to police these matters for non-compliance. They are really so simple to comply with. Wear your vest and make it easy for tram crews to see you. Wear proper boots and avoid a crushed toe or steam burn.

Thank you for your co-operation,

Peter Stock

Operations Manager

A milk churn, box of oranges, a Meggitt's linseed oil drum, a letter box and the *piece de resistance*—two stuffed roosters in a cage! All these items have been placed to give an interpretive display of the secondary role of steam trams in the suburbs viz. mail and parcel carrying. Each item has a luggage tag attached giving a destination on one side and details of the particular traffic in times past. To date it has stimulated a lot of interest—particularly the chooks!

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Meet Gaylord the Driver

Don't be surprised if you look into Stepho's cab nowadays and see a pallid looking gentlemen attending the controls. Stepho has a new "driver". The society has acquired a mannequin as the start of a programme to have interactive displays. Gaylord has to have the electronics fitted yet to let folks know what it was like to drive an engine in the Central West. He will eventually have a mate in the ticket office.

Sick List

Member Col Burne, is not too well at the moment and has had a spell in hospital.

We wish you a speedy recovery Col and are looking forward to seeing you tending the fire again.

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New Member

A sincere welcome to new member Peter Butler. Peter is a keen Harley Davidson rider and photographer. Some of his work has been reproduced as post-cards for the museum. These are available at the museum visitors centre.

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What's on the back of 93?

An interesting collection has appeared recently on the back apron compartment of 93b.