

PRINT POST APPROVED PP100003904

Secretary's Report

- Mick Walsh

Another year is almost over and the Board would like to thank our members and supporters for your continued voluntary work and support throughout 2017. The Society could not function as well as it has done over the last twelve months without your efforts.



The President has requested on behalf of the Board that he would like to take this opportunity to pass on our compliments of the season. We wish all a happy and prosperous 2018 and that what you wish for comes true.

In the last issue of Paterson Points I made mention of the grants available to us in the form of S2 and S3 funding. I thought that in this issue I would explain the difference between the two forms of funding.

S2 funding is allocated for the upkeep of heritage items that are held under a custodial agreement with Transport Heritage NSW (THNSW), such as the one we currently have covering rail motor 621/721. This funding is not available for the everyday maintenance and servicing of 621/721 but can be used for clearly defined projects that have been submitted to, and approved by, an Independent Funding and Advisory Panel (IFAP) setup by the NSW Government.

Before being submitted, projects have to be part of an Asset Management Plan for 621/721, drawn up by the Society and approved by THNSW. As mentioned in the last issue, we have obtained S2 funding for five projects in 2017 with one, the second radiator change out, already completed.

S3 funding is quite different, it is allocated under The Transport Heritage Grants Program (THGP) which is a NSW Government funded program, administered by the Royal Australian Historical Society (RAHS), with the support of Transport Heritage NSW. Its purpose is to fund general projects associated with Heritage Transport.

Knowing the condition of HPC 402's wheels and bogies, when the S3 funding applications opened the Society started to prepare a submission to cover the required repairs. This culminated in a THGP Application Form being submitted on the 22nd August. We were very pleased to receive notification on the 10th October of the success of our application.

The 14th October saw President Arthur Burgess, Secretary Mick Walsh and Operations Manager Bruce Agland represent the Society at the Transport Heritage Sector Development Day and Grants Presentation, held at Hazlehurst Gallery, Gymea and Sydney Tramway Museum, Loftus. On the day delegates received presentations from previous Transport Heritage grant recipients on how their grants monies were utilised.

Following an introduction from the new Sector Development Officer, Margot Stuart, there was a discussion session on her role. Discussion on the best way of utilising her role and networking between Sector Members also took place.

Jennifer Edmonds conducted an Asset Management Workshop in which, after her presentation, those present participated in a practical exercise of developing an Asset Management plan.

Delegates then moved to The Sydney Tramway Museum at Loftus where the Transport Heritage Grants presentation took place.

\$154,345 in grants were presented to nine different groups for twelve projects, including a very welcome grant of \$20,416 to the Society towards the HPC 402 bogie maintenance and wheel change out. Mr Howard Collins OBE, THNSW Director, CE of Sydney Trains and Mark Coure MP, Parliamentary Secretary for Transport and Infrastructure presented the Grant Certificate to The Rail Motor Society.

In August, the calling for expressions of interest (EOI) by THNSW for rolling stock that had been returned, drew our attention. Our interest was in the 73 class-shunting locomotive returned from 3801 Limited. The advantages to us being, 7344 would be of use for shunting in the yard and as a recovery locomotive if ever our rail motors are not able to return to the depot under their own power.

In discussion with THNSW it was intimated, if our EOI was successful, it would be under a custodial agreement as is the case with 621/721, and grant money would be available to relocate it to Paterson.

All applications were to be considered by IFAP and allocations made on merit, with reference to the business needs of the applying organisation, operating proposal, storage, care and maintenance of the items.

The Society lodged an EOI for a Custody Management Agreement for 7344 addressing the above criteria. After IFAP met twice to consider applications for rolling stock received in the EOI process, we were advised that IFAP had allocated 7344 to The Rail Motor Society.

THNSW has been working with TfNSW to draft suitable agreements for the successful custodians. We are waiting for this process to be concluded, this will then allow THNSW to provide us with a formal agreement to accept the rolling stock. THNSW will then work with the Society to facilitate the transfer of this locomotive to Paterson.

I wish to convey my thanks, appreciation and gratitude for the many hours of effort Bruce Agland put into assisting me with the preparation of the 402 grant and 7344 submission. It makes it easy for me, in my position, when I have someone like Bruce that I can call on for assistance and bounce thoughts off.

At the last Board meeting, our budget proposals were discussed. From this discussion, the decision was made to proceed with the concreting of the shed floor on number one road and the associated works from the existing concrete down to almost the Goods Shed. Rodney Short was appointed Project Manager to overseer this project.

Members are reminded your annual membership subscription for the year commencing 1st January 2018 is now due.

Again, I encourage more volunteers for our Wednesday workdays, or if during the week is unsuitable for you, there are usually members at the Depot on a Saturday who will make you welcome.

To any member who has suffered a bereavement since the last edition we offer our sincere condolences.

New Members

The Society welcomes new members lan Waldram, Mallabula and Ben Francis, Kangaroo Point, Queensland.

Working Days

Regular work days are usually held each Wednesday, new volunteers are always welcome. There is a wide range of tasks that need doing and we will certainly be able to find something to keep you engaged. If you are not a regular volunteer at the depot and would like to participate, contact the Secretary for further information.

Front Cover: July 2017 and a very rare view of three class leaders assembled for a photo opportunity at the Broadmeadow Maintenance Centre. 620 Class (621 from 1961), Endeavour Rail Car (2851 from 1993) and Hunter Rail Car (2701 from 2006) represent three generations of passenger service in the Hunter Valley. (Photo: Shaun Kalverla)



The 2017 Transport Heritage Grants recipients. (Photo: Transport Heritage NSW)

Open Days

The Society's Depot at Paterson is usually open for inspection between 10am and 3pm on the 3rd Saturday of each month except December, with the last guided tour commencing at 2pm. However, there may be times when our staff are engaged on rail tours or otherwise committed and it is not possible to open the depot on that day. Intending visitors should always contact the Secretary to confirm that staff will be available on the day concerned. Group tours can also be arranged at other times by contacting the Secretary. Entry is by gold coin donation.

Membership Details

If the details on the address label on your newsletter are incorrect or any of your personal information or contact details change please advise the Secretary as soon as possible.

Correspondence

All inward and outward correspondence for the Society should be via the Secretary using the Society's postal address as given in the Society Directory. Correspondence should not be addressed to individual Society members and where email is used all messages should be copied (cc'd) to the Secretary.

Donations

Please remember that the ATO has approved the Society issuing receipts for gifts /donations (not testamentary) which will be allowable deductions for income tax purposes.



Society Secretary, Mick Walsh, being presented with the Grant Certificate by Mr Howard Collins OBE, THNSW Director, CE of Sydney Trains (left) and Mark Coure MP, Parliamentary Secretary for Transport and Infrastructure (right). (Photo: Transport Heritage NSW)

Operations Report

- Bruce Agland, Operations Manager

Completed Operations since last report

28 August Stroud Road – Probus [CPH]

11 September Stroud Road – Shelly Beach Golf Club [CPH]

16 September Neath – TRMS [CPH]

3-5 October Brisbane - Cruise Express [620]
18-20 October Acacia Ridge - ARTC [402]
27-31 October Metro - DTRS [402]
2-4 November Port Kembla - DTRS [402]
7 November Taree - Maitland Rotary [620]

7 November Muswellbrook Cup – Westpac Helicopter [3 x CPH]

9-13 November South West – ARHS 402 Club [402] 18-19 November Gulgong – Peter King [3 x CPH]

25-27 November Kempsey 100th – Historical Society [3 x CPH]

1-3 December Seymour – Cruise Express [620] 9-10 December Moss Vale 150th – ARHS [620]

Operations for 2018

22 January Kandos – ARHS (2xCPH)
26 January Tamworth – Rotary (620)
4 March Berry – Valhalla Village [620]
9-11 March Brisbane – Cruise Express [620]

14-15 April Steamfest [620 & CPH]

Member Profile – Bob Walsh

Robert (Bob) Walsh is 72 years of age and has been a member of TRMS for about six years as a driver and safe working supervisor.

He worked as a share farmer from the age of 14 until he failed to receive a wheat quota and had to search for



other work. He then went to Stewart and Lloyds and Tube Makers in Newcastle for ten-and-a-half years until he managed to join the railways in 1979.

Bob became a train driver in 1983 and became qualified for all engines and all working at Broadmeadow Depot. In the 90s they all transferred to Port Waratah when they got the big engines. They did barracks, trips to Taree and Sydney but also went out to Werris Creek and Gulgong.

He didn't have too many dramas on the job although he had a major derailment and took out 1,000 sleepers with a coal train near the eastern side of Ardglen Tunnel but fortunately nothing tipped over; they were all standing up and still loaded. He had a few near misses with cars until one Sunday morning he hit a car in which an ex-railway worker was travelling at Quipolly which is to the east of Warris Creek

Bob says the best train trip he ever had was out to Cobar because it was new territory he hadn't ever seen before.

He has enjoyed working with all the different blokes at Paterson but due to increasing ill health believes he may not be able come to the depot as often next year.

Engineers Report

- Bryan Hicks

The next few months are going to be extremely busy for the engineering crew. Annual services on the CPHs are due to be done; with bogies to be removed, overhauled and painted as well as all brake gear to be serviced and tested.

HPC402 is to have its wheels changed and bogies inspected, luckily we had spare non driving wheel sets on hand. The driving sets are to go to Sydney to be pressed off and new wheels pressed back on, springs are to be sent to Lovel Springs for overhauling. As TRMS does not have the facilities to lift 402, UGL at Broadmeadow were contracted to carry out the work with payment from an S3 fund grant.

621/721 is to have its floors replaced, this is a massive job, as all the seats have to be removed and the under floor frames replaced. While the interior is stripped out it will be painted and new lino fitted.

Owing to the time factor and immensity of the work to be done, it will also be contracted out and funded with an S2 grant. The work will be carried out at the TRMS depot.

Briefly, other points to note are:

- S2 Funding for 621/721 has been approved.
- Both radiators on 621/721 have been changed out. The only job remaining is to strip the copper cores from the radiator that was removed last so they can be sold for scrap.
- A spare 621 engine and transmission have been sent away, transmission removed from engine and sent to Voith. Engine stripped waiting a report. There may be some crankshaft damage to a journal.
- Prices have come back for new fuel tanks for 621, there is some uncertainty regarding which way to go with advice being obtained from Banlaw.
- 621/721 flooring repair tentatively set for a six-week period in February.
 Prices have come back from two carpenters, one vinyl layer. We will have to make decisions on awarding jobs soon.
- S3 funding for 402 bogies has been approved. Spare wheel sets sent to UGL, UGL staff visited depot recently for another inspection of 402. We will have to remove some radio brackets from the roof.
- 402 annual servicing completed.
- We may have to chase up 621/721 brake components for a change out.
- CPH3 alternator was removed and sent to Baxters, still under warranty, as it will take two weeks for repairs, it was decided to purchase a new alternator and have one as a spare. A 105mm pulley will be put on to replace the 80mm pulley for a longer surface area for the belts to run on, and to slow the rpm of the alternator.
- 402's compressor governor magnet vale was replaced.
- CPH3's toilet tank is in urgent need of replacement due to rusty water.
- Two data loggers have been sent to UGL for repairs.
- CPH3's problem with going into direct drive has been rectified. The
 problem was found to be a finger in the centrifugal switch not making
 contact with the cam.
- CPH3's throttle air leakage on #2 end has been rectified. Throttle unit was removed and overhauled.
- 402's compressors are to be replaced with reconditioned units as soon as possible. Removed units will be will be sent to Nigel Woolly for overhaul.
- 621's fuel tank filler hoses have found to be leaking, Purtech have been scheduled to replace them.
- The toilet seats in 402 and CPH3 will have to be replaced as both have broken hinges.

Infrastructure Christmas Greetings

- Eric Larkins

This year has gone by so quickly. When I stop to think where it has gone and about what we have achieved this year, I would like to give the members of the infrastructure team a big thanks for all their hard work.

The KB was moved from the north side of the Goods Shed to the south side in March. Due to the need to take possession of the Paterson interlocking, this work could only be carried out on a weekend when ARTC had a close down. We obtained the services of a member who volunteered to act as Protection Officer for the transfer. We also hired two huge cranes from Tolsaf to lift the KB.

The inside of the KB has been sanded and repainted and is now being fitted out with shelves. We will soon be able to place all the spare parts in dry, organised conditions and label them so we know where we can lay our hands on them. We have also built a steel platform from the Goods Shed to the KB.

We have had a new extension built onto the eastern side of the shed. This area will be for the machinery plus some of the lockers. At this stage I'm arranging a quote to have power and lights put into this new area.

We have had to replace some boards on the Goods Shed platform as they were a bit rotten.

The gum tree at the bottom gate dropped a large branch during a storm and the branch went through the roof between the infrastructure containers. The roof has been repaired, but no trains can be stabled in that area until the tree has been pruned well back, which should be done before December.

All the fire extinguishers have been renewed on the trains and in the shed. We will have a fire drill in the new year to keep the members in touch and up to date.



Some of the infrastructure team during building of the platform to the KB. (Photo: Mark Oxford)

The tractor is still going well but it needs to have a good service to get all the hydraulics working.

At this stage the garden is getting away from me, but I can't complain because we only work at Paterson on Wednesdays and when I look back and see what we have achieved, it comes down to one thing, we have a great crew to do this work – so a big thank you to all.

Nancy and I would like to wish all members of the Rail Motor Society a Merry Christmas and a Happy New Year

Thanking you Eric Larkins



Unsung Heroes

- Jan Oxford

Before every trip our trains make, a crew of hard working people have been beavering away in the background ensuring that all is ready for the enjoyment and comfort of the passengers.

The Train Preparation Crew which consists of Bev Walsh, Trish Short, Bev Redman, Cheryl Davies, Margaret Pantlin, Lorainne Corcoran and Bruce Gehrig not only need to be on top of orders for food etc. but also must check the timetable each week to ensure that trains are ready for their next trip and if they have any special requirements requested by the customer.

Early in the life of the Society this crew had only to look after CPHs 1 and 7 and there were only a few trips each year, but now they have three trains and many more trips to cater.

Keeping the trains stocked with biscuits, tea, coffee, milk, water and soft drinks as well as necessary cleaning equipment and products is an ongoing task. Also souvenirs need to be sourced, chosen and ordered and then kept up in numbers on each train and, of course, the funds going in and out checked for viability.

Just before each trip the seats, windows, floors and toilets as well as the exterior must all be washed. The first aid kits and defibrillators must be checked, kitchens stocked with equipment and food and drink for passengers and crew and the urns and jerry cans filled with water for those all important cups of tea and coffee.

Some trips have special requirements in food and drink and our fantastic crew have even been known to decorate the trains and also dress up for special occasions such as Australia Day, Anzac Day, New Year's Eve, weddings and birthdays. Duties also include activities in the depot such as; keeping the cottage clean, tidy and stocked, providing food and drink in the FZ for volunteers and catering at the AGM and Christmas party.

The Train Preparation Crew may be ageing, as are all our volunteers, but they are certainly an important part of our organisation that we could not manage without.

Our unsung heroes are pictured below, corralled in front of CPH7. This is the Society's complete train preparation crew comprising, left to right, Bruce Gehrig, Trish Short, Bev Walsh, Lorianne Corcoran, Cheryl Davies, Margaret Pantlin and Bev Redman. (Photo: Mark Oxford)



Control, Alt, Delete: The end of the Murray publishing era

- S.G. Preston

As reported elsewhere, the Murray family publication team of Geoff and Karina have called it a day and handed over their "pen" and "brush" to Mark Oxford for production of the Paterson Points newsletter.

Geoff was a foundation member, former Society President and Public Officer over many years, contributing written and photographic items and printing support for the Society's publications from their outset. His direct responsibility for publications commenced in 2005 with the preparation of several editions of the periodic archival magazine The Tin Hare Gazette, Karina providing support with graphic design.

Desiring a change in editorial approach to Paterson Points, in 2008 the Society's management asked Geoff to take over the reins from Peter Kitcher who had managed the newsletter's production for six years. With new editorial policy and report content changes requested, Geoff sought opportunities to best manage the future production and prepared a plan to guide the process.

To undertake the design and layout duties Geoff enlisted the expertise of his daughter Karina, a graphic designer by trade, and a remarkable resource who never faulted when presented with a challenge over the dozens of issues they prepared.

The first "Team Murray" issue of Paterson Points came off the presses in 2008 and introduced a new format, a colour cover and a refreshed mix of content which was well received. With an extensive archive and contact database to draw on, the newsletter continued to provide the staple requirements of topical Society events and operations coverage but was also a reliable source of quality news and archive articles.

Requests for newsletter copies from parties outside of the Society still continue to be received and members of other societies have often commented on their desire for their own organisation to match the standard. Thanks to their extensive industry expertise, constant striving for improvement and innovative approach, the Society also benefited financially via the new preparation techniques implemented and arrangements for the production process being made.

Geoff and Karina were also responsible for the preparation of the Society's other documentation needs; including annual



The author Steve Preston (left), Karina and Geoff Murray on the platform at Neath. Geoff had come for a ride after his recovery from health issues on the Society's first operation on the South Maitland Railway. (Photo: Rod Short)

reports, membership and voting forms and ad hoc requirements including The Tin Hare Gazette magazine, brochures and handouts. Anyone who has ever handled a Society document will no doubt attest to the professional quality provided.

With Geoff at the reins providing great service for the Society, Karina's efforts should not be understated. Her ability to transform some of the worst resolution "postage stamp" photo contributions known to man into worthy inclusions have saved many editions from being under size and sparsely illustrated. Looking for constant improvement and being ever supportive she even provided guidance and words of instruction to assist the contributors improve their efforts.

Those that have kept their previous *Paterson Points* and *Tin Hare Gazette* issues are recommended to flick back through the pages, take another look at the legacy left by the Murrays and reflect on their fine efforts. Thanks Geoff and Karina for your outstanding contribution over many years. After this reset I'm sure there will be a newsletter for years to come – but it won't be the same.

(Ret.) Editor's Note:

Team Murray would like to extend their heartfelt thanks to Assistant Editor and "Ghost Writer", Stephen Preston.

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Geoff appointed Stephen Assistant Editor in August 2011, however he has been the source of a considerable amount of content for *Paterson Points* since 2008. Supplying quality articles, captions and photographs, his contributions have been invaluable in making this newsletter a success.

Most notably, Stephen took over the reins of *Paterson Points* in 2015 when Geoff became ill. He has provided unwavering support for Geoff, shouldering the majority of the editorial duties for the past two years.

We couldn't have done it without you SGP.

621 Radiator Change-out

- Mick Walsh

Towards the end of 2016 the radiator for #1 engine in 621 started to show signs of leaking at the separator flange between its cores and the search began for a replacement radiator. We thought this wouldn't be a problem because we believed there was at least one at the Heritage Section Broadmeadow. However, when we went looking, there were none to be found. It is believed that any that were there had been thrown out as scrap.

Because of tour commitments the set had to be kept going, this involved the use of copious radiator additives in an attempt to minimise the leaks. These additives served their purpose until arrangements could be put in place with Shaun Kalverla, Broadmeadow Maintenance Centre (BMC) and Maitland Radiators for the repair work to be carried out, with 621/721 arriving at Broadmeadow in early February.

The plan was for the radiator to be removed and sent to Maitland Radiators, where it would be stripped, cleaned, reassembled and tested. Also contained in the 621 radiator room are the cooling fan, its drive motor and the engine muffler. These components all have to be removed to allow clearance for the radiator to be taken out through the roof. Additionally, there was a leak of oil from the hydraulics of the

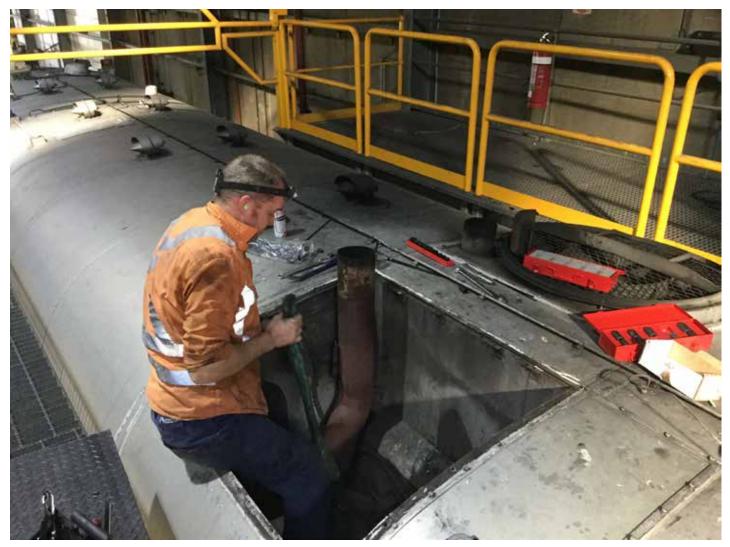
fan drive and this was to be repaired while the radiator was away. Our thoughts at that time were that the 621/721 would only be away for a week, maybe two at the maximum.

However, when the radiator was stripped, it was found that all of the bolts through the separator flange had "wasted" away and had lost their ability to securely hold the cores together. The cores and top and bottom tanks were cleaned, reassembled and made ready for testing. This test failed and it was clear the only alternative was to fit new components.

Richard from Maitland Radiators was able to supply all new components. The cores weren't a problem and he managed to get the last available tanks and separator at a reduced price, as they had been on the shelf for a while and the manufacturer was glad to get them out of the way.

Upon removal of the radiator, it was discovered that the base mounting was corroded and that the vibration deadening rubber was impregnated with rust and was unsuitable to reinstall. It was also found that over the years the muffler mounts had rubbed a hole in one of the walls of the radiator room.

The oil leak in the fan drive motor was repaired, a new base mounting was fabricated using the old one as a template, new vibration deadening rubber procured and the hole in the wall patched, all now awaiting arrival of the new radiator.



Having removed the radiator fan, Luke Wiggins fits a sling in preparation for lifting the exhaust system out in order to provide clearance to remove the radiator core. (Photo: Matt Temperley)

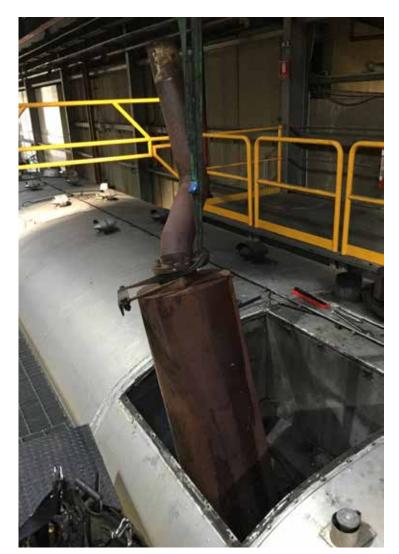
When the parts for the radiator arrived; it was assembled and passed testing. It was then despatched to Broadmeadow ready for installation.

With the new base in position, the radiator was installed without too many problems until it came time to refit the muffler. It was found that a bend in the exhaust pipe between the engine and the muffler was corroded and partially burnt away. Some good work and improvisation from Greg Dooley, one of the BMC fitters, saw the pipe repaired. This then allowed the fan and its drive to be reinstalled to complete the change out.

The radiator was filled with coolant and the engine started and checked for leaks, with everyone very relieved when the repair appeared to be a complete success. The next day, now getting towards the end of February, saw 621/721 heading home to Paterson.

The Society's sincere thanks go to Jenni Edmonds from Transport Heritage for NSW for her assistance in facilitating the S2 grant that covered the full cost of this project. Without her assistance, this repair would have been a huge financial burden on the Society.

Given the previous problems with #1 radiator and the fact it was time to apply for the 2017 round of S2 grants, a decision was taken that #2 radiator should be changed out as part of our Asset Management Plan for 621/721 – even though this one was not currently causing any problems.



The impressive size of a 621 muffler can be seen here as it being lifted clear. (Photo: Matt Temperley)

Along with other projects, S2 funding was obtained and planning put in place for the replacement of #2 radiator. The idea was to have a new radiator ready to change out and then to also assess the condition of the one that was removed with a view to its suitability as a spare.

After seeking quotations, a new radiator was sourced through Maitland Radiators. Once it was at hand, 2nd September saw 621/721 transferred to BMC ready for work to commence the following day. The #2 radiator that was removed was taken to Maitland Radiators to enable a few components to be transferred to the new radiator to allow its fitting. However, as with #1 radiator, corrosion had badly compromised the support base and replacement with a new one, manufactured using experience gained from the #1 radiator changeout, was the only option.

Unlike the problems previously encountered with fitting #1 radiator, the fitting of #2 radiator was relatively straightforward. Some work was also carried out with associated brackets and pipework. After refitting of the exhaust and fan components, the radiator was filled with coolant, the engine started and checked for leaks. Once again, all were relieved to see the work had been successful.

This changeout had to be coordinated with the BMC's normal maintenance activity and required shunting of our unit several times. This required some of our members to be present at varying times in order to carry out the shunting movements. With checks carried out satisfactorily, 621/721 was then ready for its return to Paterson, which it did so on 17th September.

Inspection of the radiator that was removed revealed that corrosion had holed the bottom tank. Due to the overall condition of the unit it was deemed unserviceable. We have to consider ourselves lucky that the corrosion combined with the anti-vibration rubber that sits between the bottom tank and the base had effectively sealed the hole in the tank, preventing an overheating incident while in traffic.

The Society extends its sincere thanks to:

- Shaun Kalverla, Greg Dooley, Micka Murray, Matt Templey, Luke and other people not mentioned at Broadmeadow Service Centre who did a terrific job; nothing was a problem to them
- Richard Patrick at Maitland Radiators whose service and workmanship were outstanding.
- Members for their time and the use of their vehicles and trailers to transport the radiators between Broadmeadow and Maitland.
- The TRMS crews who delivered 621/721 to Broadmeadow, shunted as required and returned the repaired vehicles to Paterson on both occasions.

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Contributions of articles and/or photographs for future editions of *Paterson Points* and *The Tin Hare Gazette* are most welcome and may be forwarded directly to the Editor.

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CTC 51 is starting to return to its former glory with the interior being painted and the original water cooler being restored in the foreground. (Photo: Jan Oxford)

Three steps forward, two steps back

- Jan Oxford

Work on CTC 51 was continuing really well on the internal "beautification" so the team's thoughts turned to practical considerations such as kitchen design and fitting of seats. However, we were dismayed to find that when the contractors had installed ply wall sheeting under the carriage windows they had not put in any solid anchor points for the seats.

As a result, all of the ply wall sheeting had to be unscrewed and very thick pieces of marine ply had to be glued and screwed in so as to have something secure to bolt the ends of the seats to in the future. It was like putting pieces in a jig-saw as all the pieces were different shapes and sizes. Then of course the ply outer panels had to be reinstalled. This delayed progress for quite a few weeks.

As we were putting the finishing touches to the window furniture we also discovered that many of the windows had excessive clearances due to variations in the sizes of the timber used and this would have driven the passengers mad with endless rattling. So the wooden seals at the sides of each window had to be removed and new ones individually manufactured to ensure that this problem didn't occur.

Meanwhile, progress in other areas included:

- Fitting door locks
- Completing ceiling painting
- Sealing newly installed ply and trim
- Stripping shellac, puttying holes and undercoating dividing panel
- Fitting 45-degree edging between floor and walls for lino to follow

Installing 1" curving quad trim on joins

- between panels and ceilingSanding painting and installing shelves
- in the old gas cupboard
- Commencing colour painting on dividing panels
- Rounding up and repairing the seat frames

Many hours have been spent searching through the depot and other old rail motors for light fittings and that elusive "just right" piece of wood or the correct colour of paint. But she is looking good and overall we are pretty pleased with the progress we have made.

Late News. The lino installer has now informed us that the 45-degree edging between the floor and walls must also come back out to allow Masonite sheeting to be fitted to the floor. Oh, well ...



Pulling The Pin

The following extract is reprinted from the letters section of the October 2017 issue of Garden Railways magazine, with permission. Thanks to Peter Macfarlane (aka P5), who thought it was worth sharing.

For the last 15 years I've been a volunteer on an operating railroad run by the California State Railroad Museum. I'm in charge of conductor certification, I'm a fireman on our steam engine, a locomotive shop worker, etc. We have about 150 volunteers in various crafts. I am one of six volunteer/managers responsible for routine testing of operating crew members (people who actually run the trains vs. carriage attendants, ticket agents, etc.) under the CFR49 Part 217.9 testing program. The question we wrestle with is "When is it time to give up the car keys?"

In both the public and private sector of paid jobs, this decision is usually made for the employee by a mandatory retirement age. In the volunteer sector, as well as in our own personal workshops and hobby endeavours, there is no clear standard. After years of working for a living, any person can volunteer and attempt to qualify to perform many somewhat dangerous activities. Unless we clearly cannot perform the function or we fail a series of certification tests, how do we police ourselves and recognize when the time has come? What are the warning signs and do we recognise them?

On our railroad, the median age for crew members is between 65 and 75 years. I am 74 years old. We routinely get on and off moving equipment and much of what we do is physical, strenuous, and somewhat dangerous. As part of our testing process, each testing manager develops an informal watch list in his mind of volunteers who appear to be deteriorating. My observation is that "situational awareness" is one of the most critical skills to deteriorate. I've seen numerous cases where the brakeman or conductor did all of the right things but was still injured because he had lost the awareness of where

his fingers were on a handbrake, where the blow down port was on a steam engine, or what foot he was using to get off of a moving train. That sense of being "street smart" - always observing, feeling, and hearing the sights and sounds around you - fades with age. As we age, it takes more of an effort to focus and concentrate on the job at hand. It is easier for the mind to drift and wander.

I've noticed through personal experience that careless or sloppy techniques that one could get away with in younger years are now far more unforgiving. Recently, I was standing on something precarious in the cab of our steamer, unscrewing the steam gauge for its annual calibration. I slipped and my body didn't react until I had hit every pipe and valve on the way down and cracked two ribs. Not a big deal – lots of jokes about how hard it is to heal when you're old. However, this accident would not have happened to a younger man. He would have jumped, instinctively protected himself, or had a better sense of balance.

Your editorial about your shop incident noted that you followed all of the safe procedures and yet you were hurt. Only you know what you did but I find we do get complacent over time - fingers a little too close to the saw blade, laziness about putting on hearing and eye protection, easy distractions, etc. I try to be more careful now than when I was younger. Life becomes more precious as we age and we don't want to lose it to a lapse in judgement. It takes effort and the realisation that we are no longer what we used to be.

With volunteerism within such easy reach for many of us, we need to address how to protect people from their dreams. On the railroad, we do have the ability to move crew members to less dangerous jobs but, if it is mandated, it is resented and we usually lose the volunteer. When my time comes, I'm not sure I'll have the courage to objectively evaluate my own shortcomings or the strength of character to recognise that the time has come.

Chuck Malay, Auburn, California

Paterson Depot Open Days

- Bruce Gehrig

Following the last monthly open day for 2017, a comparison was made with the number of visitors for the previous year. The number of visitors is summarised below.

	2016	2017
Open Days	125	380
Group Visits	50	79
Others	11	2
Totals	186	461

This year's numbers were significantly increased by the 160 visitors at the May open day, when the Society was part of The Australian Heritage Festival and ran shuttle trips to Wallarobba (see article in this issue) and 90 visitors in November who saw our advertisement for the open day on Facebook. We have also received correspondence from Paterson Historical Society, following their presence at the May Australian Heritage Festival, advising that they will add our depot to the end of their annual historic walk of Paterson in April next year.

Two group tours were held in June, with visitors from Port Stephens Community Transport and the Newcastle MG Car Club. In July, members of the Morris Owners Car Club of the Hunter also toured the depot. These three groups all proceeded to the Paterson Tavern for

> lunch after their tours, providing support for the local business community. In November residents of the Redhead Retirement Village came to the depot and proceeded to the Court House Hotel for lunch.

assisted on the open days, making them enjoyable for our guests and giving them a better understanding of the Society, its history

> Car Club of the Hunter, prepare to leave the depot in their vintage cars after the visit on



On Sunday 18th June, the 26 members of the Newcastle MG Car Club assemble for a group photo with our three trains. (Photo: Bruce Gehrig)



Tea ladies, Jan Oxford and Lorainne Corcoran, enjoy a few quiet moments at the Devonshire Tea stand.

Heritage Day

– Bruce Gehrig

At the end of 2016, the Society received notification from the National Trust of Australia that it was intending to conduct an Australian Heritage Festival from the 18th of April until the 21st of May 2017. As the Society could meet all the conditions for the event, our registration was sent off to the National Trust and duly accepted.

It was planned that we would add CPH shuttles to Wallarobba at \$2 per ticket to our normal monthly open day on Saturday 20th May, a BBQ with sausage sandwiches and Devonshire teas. The usual depot tours would be run, with inspections of 621/721 and 402 as well as the museum in the cottage being open for inspection and sale of souvenirs. An invitation was also extended to the local Paterson Historical Society to set up a stall on the day which was taken up by the Society.

A poster advertising the day was sent to passengers on our tours email list and posted on our Facebook page. The poster was also mailed to local schools in the area and placed in carriages on our tours leading up to the event. Three shuttles to Wallarobba were planned and bookings were essential to help us gauge the number coming for seating requirements as well as food and beverages.

The forecast showers for the day did not eventuate, and the day was clear and sunny, with 160 tickets sold on the three shuttle trips leaving at 10.00, 11.20 and 13.05. The day was a great success for both the Heritage Festival and the Society, with all costs covered. Considering other events such as the Lovedale Long Lunch and Fire Station open days were also happening on that day, the Society did very well, with thanks to all those members involved in the organising and helping out on the day. Much favourable feedback was received from our visitors.



CPHs 1, 3 and 7 set out from Paterson on a shuttle run to Wallarobba.

Supplying Digital Photographs

Mark Oxford

Paterson Points contains many great photographs submitted by our members and the general public. We encourage people to submit their images and really appreciate the support we receive. However, sometimes the images we receive don't have sufficient resolution for them to be used in a printed magazine.

While some images may look great when viewed on a small electronic screen they can become quite blurry and pixelated when they are enlarged for printing in the magazine. To help reproduce the kind of images we need here are some quidelines:

- Always use the highest resolution setting your device offers. The highest resolution captures the most detail and produces the largest file size.
- As a rough guide, a JPEG image file needs to be about 1MB in size to provide suitable quality for a half page printed image.
- Always keep the original file intact do not scale, crop or edit it in any way. If this needs to be done then our graphic designer will do so to give the best results in the final publication.
- If you have a large selection of images to submit all at once then this can make for very large emails and may exceed the email size limit set by your internet service provider. In this instance please make COPIES of the original images and resize the COPIES to around 25% of original size (i.e. a 4000 x 2000 pixel image would become a 1000 x 500 pixel image). Send these smaller images along and make it clear that you have supplied low resolution COPIES. If some of your images are selected for publication then we will ask you to send along the high resolution ORIGINALS of the ones we have selected.
- Note that some email programs can automatically compress images when sending them. This removes detail from the image which cannot be put back. If this is occurring then you may have to change the options in your email program to prevent images being compressed.
- The front cover of the magazine is a special situation where one image usually fills the whole page and the highest quality is essential. This is a portrait image (higher than it is wide) and quite often great pictures that have been taken in the more common landscape mode (wider than it is high) have to be rejected because they cannot be successfully rotated and cropped to produce good layout and/or resolution. Images intended for the front cover should ideally be taken in portrait mode and have a JPEG file size greater than 2MB.
- If possible, please supply the date and location of the images as well as your full name so that we can acknowledge you properly in the magazine. If you can recommend a caption for your image that can also be very helpful.

A SOLAR POWERED RAIL MOTOR

Mark Oxford

A new and interesting rail motor project is under way in Byron Bay and it will include what has been confirmed by the Australia Institute and Australian Solar Council as the world's first solar powered train. The Byron Bay Railroad Company, a not for profit tourist and heritage rail operator, expects to soon have a two-car rail motor set running on a restored section of the Casino-to-Murwillumbah line, which closed in 2004.

The three kilometre line will provide a public service from Sunrise, the Arts & Industry Estate and the newly opened Elements of Byron resort to Byron Bay town centre and beach, thus avoiding busy traffic congestion on the road and alleviating parking problems in the town centre. The original intention was to run the train as a diesel service, however with the rapid advancement of solar technology Byron Bay Railroad Company decided to invest in delivering a solar powered service.

As the service is not subsidised by Government the timetable will be reviewed from time to time in line with passenger demand and operating costs. Initially an hourly service will operate commencing at 8am and with the last train leaving at 10pm. Fares for a one-way journey will be: 0–5 years free, 6–13 years \$2, 14+ years \$3.

The rolling stock being leased for the task are power car 661 and trailer car 726 – as 661's original matching trailer, 761, was burnt to the ground by vandals at the Lithgow State Mine Railway in 2005. 661 is the only operating unit left from the ten two-carriage sets built as the 600/700 classes at Chullora in 1949. Unit 601 was rebuilt with Cummins engines as unit 661 in 1973 which enabled it to be compatible for multiple operations with 620/720 and DEB set units. Since 2015 661 and 726 have been operating well patronised tourist runs in and around the Lithgow area under LVR accreditation.

Prior to modification at Lithgow Railway Workshop power car 661 was fitted with two Cummins NT855-R2 diesel engines, with each engine driving the inner axle of one of the vehicle's bogies. The modification to electric power will remove only one of these diesel engines and replace it with two powerful electric motors running from a battery bank. One diesel motor will be left in place to provide back-up propulsion in the event of an electrical failure.

The three kilometre line has only one curve and is otherwise straight and level so with over 220kW (300HP) available from the two electric motors performance and traction should be more than adequate. While accreditation has been sought to allow operation at up to 60kph it is envisioned that running speeds will seldom exceed 40kph and this will be further limited to 25kph near the city centre as the railway line runs parallel to the beach and trespassing in the rail corridor has been very common. While fences and warning signs have been erected in critical areas it is thought that the entrenched practice of cutting across the railway line to access the beach will be very difficult to displace considering that the line has been out of use for over 10 years.

Two new stations have been constructed for the project. At the city end it was decided not to use the original Byron Bay station site as this would have involved a level crossing over a major road. Instead the new station has been built just before this crossing. At the North Beach end a completely new station was constructed along with a 45 metre shed behind the station to house the train.

The roof of the shed is covered in solar panels and these are used to charge the batteries in the train. The battery system fitted to the train is expected to contain sufficient energy to allow 12 to 15 return trips from a single charge. Excess energy captured by the shed solar panels is fed back into the local electricity grid. While the train itself will also have some solar panels mounted on top these are not adequate to provide all the traction power required but will still provide a useful contribution to the running of the train.

Even though the section of track being used is completely isolated from any other rail system, with several of the old bridges missing, and there is only train on the line, it is still a regulatory requirement that full safe working practices are in place and a staff must be carried on the train. In an interesting departure from the typical operating practice of other small lines it is intended to recruit drivers with no previous experience and train them via a newly developed course that is recognised under the Australian Quality Framework and delivered by a Registered Training Organisation.



From the outset Byron Bay Railroad Company has supported an extended train service along the branch line and is hopeful that this project will be a catalyst for future service extensions. The current focus, however, is just to make this three kilometre section of line operational and cost neutral.

Technical Details

Lithgow Railway Workshop was approached to come up with a solution to the environmental issues associated with the operation of the train and is largely responsible for resolving the technical aspects of the innovative solar concept. The workshop is currently engaged in the mechanical design work, drawings, fabrication and installation of the conversion. Additional specialist assistance with solar technology and battery electric propulsion systems is being provided by Nickle Energy and ELMOFO.

The conversion requires the removal of the No. 2 engine and transmission and the fitting of newly fabricated drive and transmission frames that will allow the two 110kW electric motors to be coupled into a single reduction gearbox which then feeds into the original drive shaft and final drive. The motors and much of the traction control electronics will be water cooled using the radiator that was previously needed for No. 2 engine.

The battery system is comprised of four Battery Modules with a total weight of over 700kg and this provides a 77kWh reserve to power the train. The battery modules will be mounted in a 'skid' to enable easy installation and removal as required. Various power supplies then also produce 24 volts to run the legacy electrical systems in the train, 12 volts for the electronic solar control circuitry and 240 volts to run two 3HP compressors which provide air for the train's braking system.

With a run of only three kilometres along a flat line much of the journey is expected to be coasting to, or braking at, the destination. Due to the electronic drive system much of the braking can be done by regeneration and it is expected that around quarter the energy that was used to get the train moving will be recovered through this process. This, along with the 6kW solar panels on the train's roof should make for very efficient operation. Should a quick battery top up be required for some reason there are rapid charge plugs at North Beach station.

Paterson Points would like to thank the following people for their assistance with this article — Geoff Clark, Railroad Safety Manager, Byron Bay Railroad Company Ltd; Tim Elderton, Managing Director, Lithgow Railway Workshop.

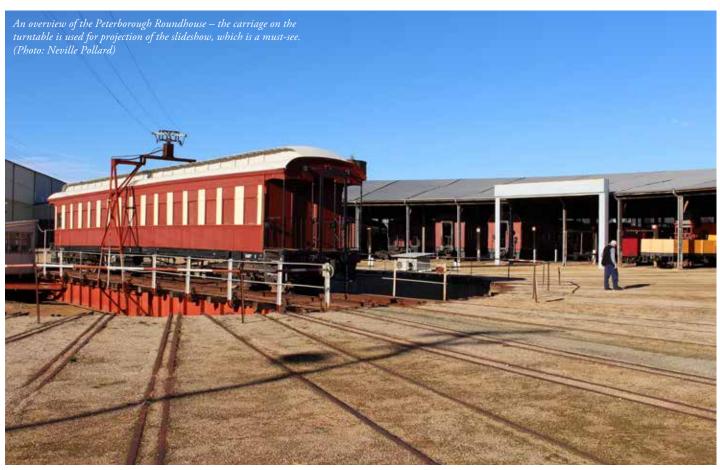


An aerial view of the path of the new solar powered rail service. (Image: Byron Bay Railroad Company)



A diagram of the main components of the solar train concept. (Image: Byron Bay Railroad Company)





ARHS Long Weekend Tour to Peterborough 9th to 13th June 2017

- Trish Short

It was an early misty Friday morning on Central Station with a band of keen rail fans congregating on platform 4 awaiting departure to Broken Hill and Peterborough. With the first group of passengers on board we departed at 5.02am and travelled through to Campbelltown where the remaining passengers joined the train. We travelled to Parkes via the transcontinental freight train route passing Goulburn, Cootamundra, Stockinbingal and Forbes. With a few hold-ups along the way we arrived in Cootamundra for lunch and, after receiving an earlier path than timetabled, we were back on the rails. The next stop was at Stockinbingal to inspect the 1893 station building then the run to Parkes was swift.

Broken Hill was 680km with a lunch stop at Ivanhoe catered for by some local volunteers from the local RSL Club. During our journey travelling west we saw kangaroos, emus and wild goats in plague proportions. Following the passing of Menindee Lakes we arrived in Broken Hill where we were to stay for two nights.

On Sunday morning and following an early breakfast it was all aboard a coach for Peterborough to see the Steamtown Heritage Rail Centre with the Division Railway Workshops the ultimate destination of our tour. There was a 15-stall half-roundhouse surrounding an 85-foot turntable that handled all three gauges – with Peterborough being one of only three triple gauge junctions in Australia. An impressive collection of both broad and narrow-gauge passenger cars was on show with Western Australian, South Australian and Commonwealth Railways locomotives. The place came alive after dark with presentation of the sound and light show – a one and a half hour presentation

mainly showcasing the history of the old Peterborough Division. The presentation was intensified by colour lighting roundhouse exhibits with suitable smoke to add effect. All in all, a wonderful presentation.

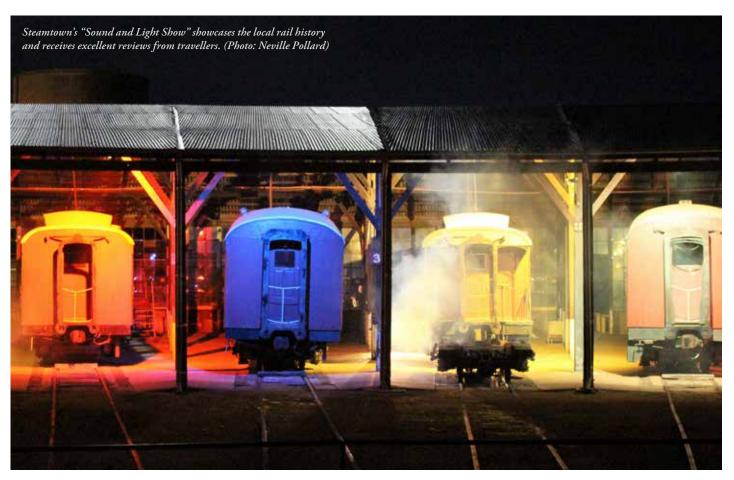
On Monday morning and after an early breakfast at the Musicians Club our return journey departed at 8am. This was followed by lunch at Ivanhoe which was again supplied by the RSL Club volunteers. Then we continued our journey to Parkes and were all ready for a well-earned rest and dinner.

Tuesday was our final day, departing Parkes at 8.30am and on to Bathurst for an enjoyable lunch. We arrived at Central Station at 6.30pm, earlier that timetabled due to a kind Sydney Train Control. This was another great weekend organised by Spencer Ross, the ARHS Tours Officer, and all passengers enjoyed their time on our rail motor.

This article is a condensed version of the report on the Peterborough tour by Neville Pollard which appeared in the August 2017 issue of Railway Digest and has been printed with permission.

Gloucester Chill Festival, Saturday 22nd July - Trish Short

We had 105 passengers on board the CPH rail motors en route to Gloucester Chill Festival. It was a frosty morning in Maitland at our 8.10am departure time, but everyone was happy and keen to head up the North Coast to Gloucester where the sun shone brightly for this annual festival. With markets and entertainment in the street and the cafes, the shop owners and stall holders were very pleased to see our group arrive. While in Gloucester we ran several shuttles to Bundook allowing local families the opportunity to take a ride on these 1920s rail motors. Although a little late leaving Gloucester and with a few hold-ups along the way home, everyone had a very enjoyable day.







Neath Tour for Kurri Kurr Public School Fundraiser, 16th September 2017

- Trish Short

After many months of negotiation with South Maitland Railways and Kurri Kurri Public School to

come up with a suitable date, this great fundraising day finally got off the ground. As always, once this trip was advertised it sold out within days. There were even people who came up from Sydney to buy tickets and then returned for the day of travel – with many others from around the Maitland and Cessnock areas quickly filling the seats.

At just after 9.30am we departed Maitland Station and travelled out through East Greta Junction and then the excitement began as lots of our passengers lived along the way and were proud to point out, "I live just over there". Everyone commented that it would be lovely to see passenger trains back on this line, however that is in the past. We motored slowly along to Neath where a lovely morning tea was provided in the park area and then it was everyone was back on board to continue our journey to Cessnock, with many friends and family along the track waving to the passengers as we went.

Once we reached the South Maitland Railway boundary at Cessnock we then retraced our journey to Neath Hotel for the usual great service and lunch, with a big thank you to all the hotel staff.

It is not often that we have the opportunity to see how the Society's short tours are reported by our customers but Kurri Kurri Public School has kindly given permission to reproduce the following item from their school newsletter.

At East Greta Junction, about to hand over the staff at the signal box. (Photo: Stephen Adams)

Last Saturday our school held a unique fundraiser of a train ride on a heritage-listed 1923 diesel train that used to be a frequent form of transport in this area. We were extremely fortunate to have great weather for this day and everyone on this adventure thoroughly enjoyed their experience.

For some of the travellers the journey was a reminder of some past memories, for other travellers the journey was a fresh new experience at what train travel used to be like, a warm friendly connected atmosphere was enjoyed and experienced by all. We would like to thank all of the travellers for supporting this event, special thank you to Paul and Beth Campbell, Susan MacDonald, Amee Bailey, Cassie Bailey and Steve Neilson for their assistance with this event.

A big thank you to the Rail Motor Society of Paterson, South Maitland Railway, Kurri Kurri Community Centre, Simply Bliss Bakery Weston, Reading Cinemas Maitland, McDonald's Restaurant, Newcastle District and Johnny Wipes Enterprises. A grand total of \$5,500 was raised from this event for our school.

Brisbane...again 2-5 October 2017

- Mark Oxford

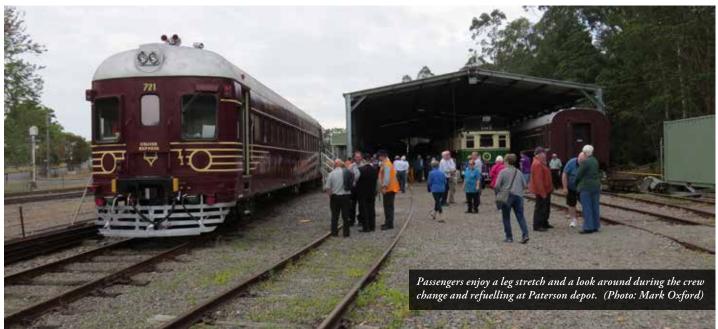
October saw another Cruise Express hiring for a trip to Brisbane. Unlike the last tour, where the passengers used the CPHs to return home after their sea voyage, this time they took 621/721 to Brisbane to begin their ocean adventure.

The run to Sydney to collect the passengers left the depot just before midnight on Monday 2nd October and returned to the depot with a near full load around 0900 the next morning for refuelling, crew change and a leg stretch. It was then off to Taree for lunch at the station and then to Grafton, which has now become established as the usual

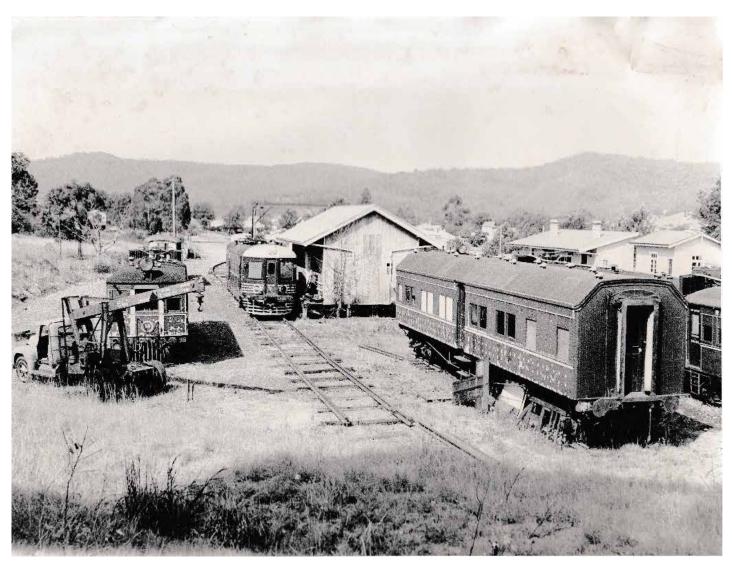
overnight stay during these tours. While it was a long day, the Cruise Express staff ensured that the passengers were well catered for and that there were plenty of snacks, nibbles and afternoon wine to help pass the time.

The next morning saw the passengers return to Grafton station for an 0730 start to begin the remainder of their trip. With only a stop for a leg stretch at Casino, and clear running, we arrived at Roma Street station around 1300. After farewelling the passengers and Cruise Express staff, we made excellent time back to Grafton for our second overnight stay. The return home the next day saw us almost 4 hours ahead of schedule until congestion on the line put us in some loops for a very long time, notably Monkerai, where we had ample time take in the scenery. Nevertheless, another good tour for all concerned.





FROM THE ARCHIVES



This view of Paterson goods yard, taken by Geoff Murray on October 7, 1984 shows (from left) "Tilly" the mobile crane (on loan from Newcastle Tramway Museum), CPH14 on styes, HPC402 on temporary track, a dilapidated goods shed and the "amenities" car BR1395. No power, water, sewerage or phone services existed at this time.

30 years ago...

Mark Oxford

A look at The Tin Hare Gazette No.14 from 1987 provides an interesting glimpse into Society activity 30 years ago.

- Four Community Employment Program participants were digging post holes for the perimeter security fence under the supervision of Steve Davies who was the Society caretaker at that time.
- Delivery was being taken of points and rail that had been donated to the Society by the Newcastle Tramway Museum which had previously recovered them from the former Newcastle Abattoir site at Warabrook. Unfortunately the Newcastle Tramway Museum went into liquidation in 1995.
- The Rail Motor Society was invited to participate in its first ever Maitland Steamfest with CPHs 1 and 7 running three return journeys to Singleton each day.
- A picnic train from Hamilton to Paterson was provided for the Hamilton Anglican Parish Picnic. This included a 90-minute picnic down by the Paterson River and then a run to Dungog.
- The Society ran its most complex tour to that date with the Wybong Winetaster which picked up passengers from Broadmeadow and Thornton and took them to Denman where they were meet by two coaches which took them to Hordern's Wybong Creek winery.

ARTC INSPECTION TRAIN



Thursday 27th July, HPC 402 stands on a siding at the SCT Intermodal Terminal at Bromelton, Queensland. The huge transfer shed is visible behind the SCT loco. (Photo: Bruce Agland)

- Bruce Agland, Operations Manager

In July 2017, HPC 402 was hired by ARTC for an inspection of the North Coast Railway. Following an early start (04:40 hours) from Paterson on Wednesday, 26th July, 402 proceeded northwards as empty cars. An uneventful passage saw the train arrive in Coffs Harbour around lunch time, a few minutes ahead of the timetable to board ARTC's North Coast Track Manager, John Smith, and ARTC Executives from Adelaide.

With our passengers safely on board, the train proceeded to Casino for the first overnight stop. With few freights on the line, the run through to Casino was again uneventful and the opportunity was taken to hold a ground inspection of a few areas of the infrastructure along the way.

On the morning of day two, we set off for our first stop at Namoona Loop where the ARTC team looked at some options for further developments at this location. After a delay due to a late running NT32 Brisbane XPT, 402 proceeded northwards for some further on ground inspections, before crossing the border into Queensland. On arrival at Bromelton, we turned into Specialised Container Transport's (SCT) new freight terminal. Here the ARTC executives were given an extensive inspection tour of the site. At the conclusion of the inspection, 402 returned to the main line and proceeded to Acacia Ridge where our passengers alighted for their flights back to Adelaide.

HPC 402 was then shunted to Acacia Ridge's turntable where it was turned to have the long (passenger) end leading ready for its next operation. We then proceeded to Grafton to refuel and stable in the XPT siding overnight. The return journey home was again uneventful, but punctuated by some lengthy delays for crosses at Wauchope (90 minutes) and Gloucester (60 minutes).



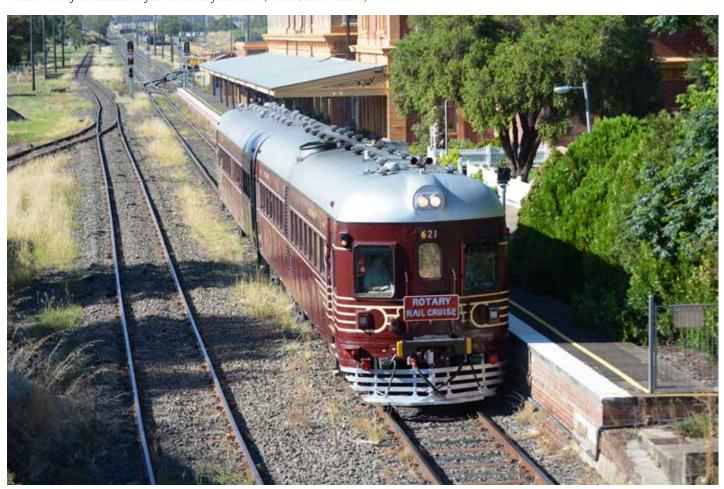
HPC 402 being turned on the turntable at Acacia Ridge, Thursday 27 July, 2017. (Photo: Bruce Agland)



 $\textit{The ARTC Inspection Team pose for a photo before joining the inspection train at Coffs Harbour Station. We dnesday 26th July, 2017. (Photo: Bruce Agland) \\$



Another view of the class leaders featured on the front cover. (Photo: Shaun Kalverla)



After stopping to pick up relief driver Bruce Matthews, 621/721 are seen departing Werris Creek station on Saturday 28 January 2017, on the final leg of the annual Rotary trip to Tamworth for the Country Music Festival. (Photo: Bruce Gehrig)