

# The Generator

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**Palmerston Model Engineering Club**  
[www.pnmec.org.nz](http://www.pnmec.org.nz) - [pnmec@trains.net.nz](mailto:pnmec@trains.net.nz)

Managers of the Marriner Reserve Railway - Marriner Street - Palmerston North  
PO Box 4132 - Manawatu Mail Centre - Palmerston North 4442

## The Palmerston North Model Engineering Club

### Upcoming Club Events

#### 30 January (Saturday)

An invitation has been extended to spend the afternoon at Jonathan and Donna Mason's property. From 1.30 PM (See Notices)

#### 13 February (Saturday)

Club Day at the Marriner Reserve Railway  
From 9.30 am (See notices)

### Marriner Reserve Railway

#### 7 February & 21 February

Railway operations at the Mariner Reserve  
Trains in operation from 1pm to 3pm  
Weather permitting (Kerry Puklowski 06 353 6189)

#### Thursdays

Railway operations for club members  
Subject to ongoing track maintenance and weather  
Contact track manager (Richard Lockett 06 323 0948)

## PRESIDENT'S REPORT

The first "PNMEC Club Day" is rapidly approaching and I want to take this opportunity to explain and promote this event. The uncertainty surrounding Covid made arranging another Locomotion too risky to consider. It was therefore decided to try a new approach and introduce a new day into the clubs social calendar instead. Club Day is intended to be a relaxed social day held at the Marriner Reserve.

- a) Club Day is about enjoying the company of people interested in Model Engineering.
- b) Club Members, wives, and family are welcome to attend.
- c) Members from other clubs and their families are also welcome if they wish to attend.
- d) Club Day is a picnic day, and as a consequence we will not be providing food or meals.
- e) The track will be operating, but this will not be a public running day.
- f) This day is about the club members, it is about socialising, it is about enjoyment, it is about drawing enjoyment from what we do.

The club benefits from the work of volunteers, non members who make a significant contribution to the operation of the Marriner Reserve Railway. The work done by these people is important and therefore it is only fair that they are invited to attend this event also. The committee will extend an invitation to these people. This is way of saying "THANKS, WE DO APPRECIATE YOUR CONTRIBUTION".

No model engineering event would be complete without a display of work in progress. To accommodate this a marquee will be erected complete with tables where members (and non members) can show off their latest achievements. If you have an example of your work please bring it along and show it off. All clocks, steam models, petrol engines, workshop tools, small railway machines, locomotive restorations etc. welcome. If you have something, bring it along we want to see it.

Club day is about club members and their families. Even if you have been away from the activities of the club for some time come along and spend time with new friends, old friends and a whole group of like minded people. Just remember to bring along beach umbrellas, chairs, and your own picnic lunch.

While I am on the subject of catering, I would like to extend a special thanks to the small team of ladies who for years have provided lunch and morning and afternoon tea to the participants of Locomotion. This revised format may reduce the workload we impose on you but your input over a long period of time will not be forgotten. To those ladies, and I will mention Janice Hall and Janice Bold by name, I ask that you find a nice shady spot at the grounds, sit back, and enjoy Club Day. From the Model Engineering Club:  
Thank You.

In closing on behalf of the committee I would like to wish all club members the best for 2021. I am sure there is a whole lot more drama to come this year, but just remember the club motto, KEEP HEALTHY and KEEP BUILDING.

David Bell

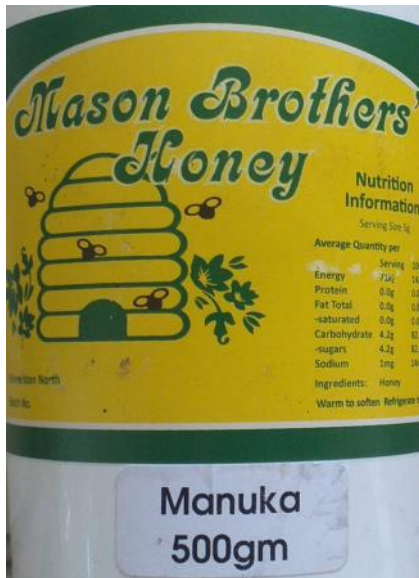
## Club Notices Shed Raid Saturday 30th January

Club members their partners and family are invited to spend the afternoon at Jonathan and Donna Mason's property at 150 James Line, Palmerston North .  
Jonathan along with his brother collect and restore vintage vehicles as well as model engineering while Donna has a stained glass and lead lighting workshop. Son's Mathew and Daniel run a beekeeping operation from the address and you will be able to restock your honey supplies on the day  
PNMEC will provide a continuous tea, coffee and cold drink service during the afternoon. Please feel free to bring your own treats food our drinks as required for your enjoyment along with your folding chairs etc!

**TIME** 1.30 pm onwards

**Venue** 150 James Line, Palmerston North

**Car parking** Please drive down the driveway as there is ample parking on site.



## Club Day at the Marriner Reserve Railway Saturday 13th February

From 9.30am onwards, tea coffee cold drinks provided by the club, bring your own food for the BBQ or not, your folding chair also.

Bring along your current project or part thereof for display

Bring along your Locomotive to run or just for display.

Opportunity to drive a steam locomotive if you never have before!



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## **ARMSTRONG PATENT TOOL HOLDER**

Being the owner of a light milling machine ideally suited for those smaller delicate jobs, I invested in a shaping machine for more brutal metal removal. After a year long rebuild, I became more confident in the capabilities of this machine and as it's performance improved the words of my first foreman came back to haunt me: **"David you can make anything in a shaper except money"**.

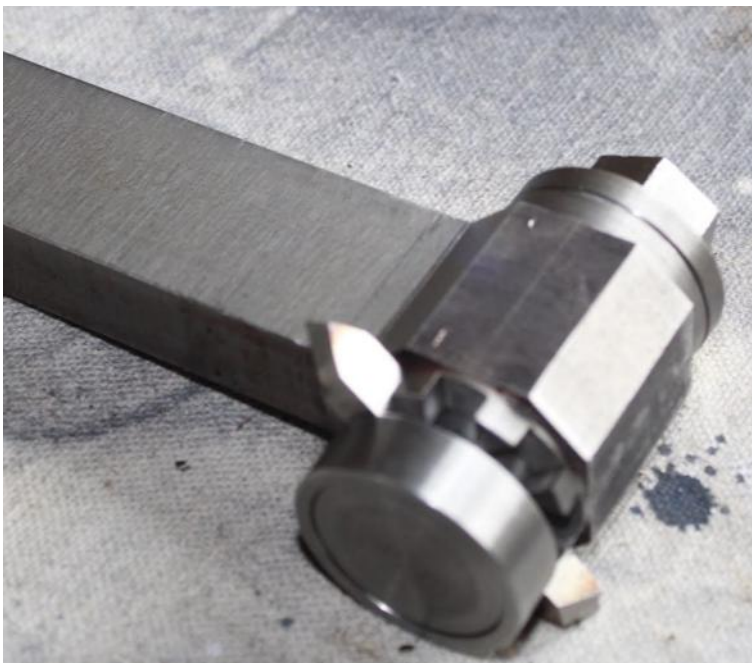
Shapers are not fast nor delicate, but they can be extremely versatile. And this is where this story begins because as you explore the capability of these machines you soon realise that a small shaper needs a special type of tool holder to realise its potential. So the hunt began for an Armstrong Patent Tool Holder, a tool holder specifically developed for these machines, and the weapon of choice for any serious operator.

The Armstrong Tool Company stopped trading eons ago and with that, the supply of these tool holders effectively dried up. Searches on Ebay etc. found some suitable tools of the size required, some were even in their original boxes, but the asking price for these (dead or alive) was prohibitive. Nothing more was done on this matter for about a year but a job came my way just before Christmas that forced the issue: If I could not purchase a tool holder I would have to make one.

My tool holder is a dimensional copy of an Armstrong and rigidly clamps the tool steel in slots locating the cutting tool in 5 positions: vertical, and 45 and 90 degrees either side of vertical. In common with the other tool holders I have made for my machinery, this tool was machined from a solid block of medium tensile structural steel. This material is sufficiently strong and tough enough for use on relatively low powered machinery without the need for heat treatment, however, it can be rather difficult to machine. This steel does not blue particularly well so I use the tool in an as machined state for a while, and when I am confident that no further modification is required, I simply polish them and apply corrosion protection.

This tool holder has been modified twice since manufacture, mainly to provide better access around the vertical slide of the machine head and is now ready for polishing. The two attached photographs show the tool holder (as machined and yet to be polished) machining the vee spigots, and machine ways for the rising block assembly of a machine attachment.

Article: David Bell



## REPORT ON A LOCAL GROUP OF MODEL BOAT ENTHUSIASTS

On the second Sunday in the month an informal event takes place on a pond at Kowhai Park in Fielding. This is a report about a group of gentlemen from Palmerston North and Wanganui who are not part of a formal club, but continue to do what they do because they enjoy doing it.

There is a lot in common between the Palmerston North Model Engineers and this group of Model Boat Enthusiasts. The son of a former Model Engineer is now an active member of this group. Many current Model Engineering Club Members have built and operated model boats. This includes one who currently has a radio-controlled working submarine. Furthermore, a current member of the Model Engineering Club was active in the model boating world. He held a NZ speed record for a specific class of electric powered boat. This was achieved by using a specially built water-cooled electric motor.

As discussed at the club meeting on 24<sup>th</sup> September, the committee is exploring the possibility of developing a closer relationship with this group of Model Boat Enthusiasts. They build scale model ships, etc involving accuracy and attention to detail. We can see a benefit to both groups if we work together. The Model Engineering Club gains through introducing diversity into our club. The Model Boat Enthusiasts gain through the exposure this co-operation could bring. By working together there is potential for them to display their models in public at model engineering exhibitions and other shows we attend. The Model Boat Enthusiasts would also benefit from access to the engineering skill sets the model engineers practice. If this co-operation could be developed, it would be to the benefit of all.

As an introductory move, the committee has decided to make the March 2021 Club Meeting a “Model Boat Night” and invite this group of Model Boat Enthusiasts along to display their work. We are aware that some club members have some fine model boats tucked away and now would be a good time to brush off the dust and polish them up. We are expecting to see them on display in March.

When I visited the Model Boat Enthusiasts on their sailing day on Sunday 11 October, high winds had brought activities to a stop. The following photographs show the boats present sheltering on the edge of the lake.

Article: David Bell



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## [Signal Fault Sorted not Shorted](#)

The worst kind of electrical fault is an intermittent one and this was the kind which came to cause a headache during track running at the Mariner Reserve Railway in the later part of 2020. The signal lights which indicate right of way on exiting the station loop would stop functioning at some stage during the afternoon, one of the light staying orange instead of switching off and the red switching on which gave each track the right of way! Chris Morton has been looking after the maintenance of the signals for a few years now, possibly having a good understanding of the issues involved around in keeping them working in the environment to which they have to operate in i.e. A printed circuit board housed inside a concrete block track side!

Chris was tasked with finding the fault which we assumed would be a cracked/corroded joint/connection on the circuit board. The boards were removed and tested by Chris at his workshop and found to be in working order, but he did find that the relays do not work if the voltage dropped below 8.5 volts. Our signals operate on 50 volts but the relay switching on the signals controlling turnouts are switched using the 12 volt supply inside the turnout motor boxes. After a bit of head scratching Chris came to the conclusion that the cabling between the turnout, signal post and the push button pendant were leaking voltage and depending on the ground conditions were leaking a bit or a lot! So this meant replacing the rubber based insulated cable which we had used back in the day (25 years ago, the price was right) as the acids in the soil brake down the insulation over time, hence the leaks. A bit of digging and drilling of concrete saw conduit laid between the three positions and new cables pulled through and connected we were back to having a fully operational turnout and signals again but this whole process did amount to a few Thursday sessions during the spring of 2020.

Thanks Chris.

## [Visit to Feilding Steam Rail November 2020](#)



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