

The Generator

Issue 516
October 2024



Palmerston Model Engineering Club
www.pnmecc.net.nz - pnmecc@trains.net.nz

Managers of the Marriner Reserve Railway - Marriner Street - Palmerston North
C/- 119 Ruapehu Drive - Palmerston North 4410

The Palmerston North Model Engineering Club **Upcoming Club Events**

Club Nights typically start at 7.30pm and are usually held at the
The Hall, 435 Church Street, Palmerston North.

Thursday 24 October

Club Night
Hydrogen Powered Model Car
Plus Project Progress

Sunday 24 November

End of Year Gathering
Pahiatua Railcar Society Visit

Marriner Reserve Railway

Sunday 3 November & Sunday 17 November

Railway operations at the Marriner Reserve
Trains in operation from 1pm to 4pm
Weather permitting (Richard Lockett 06 323 0948)

Thursdays

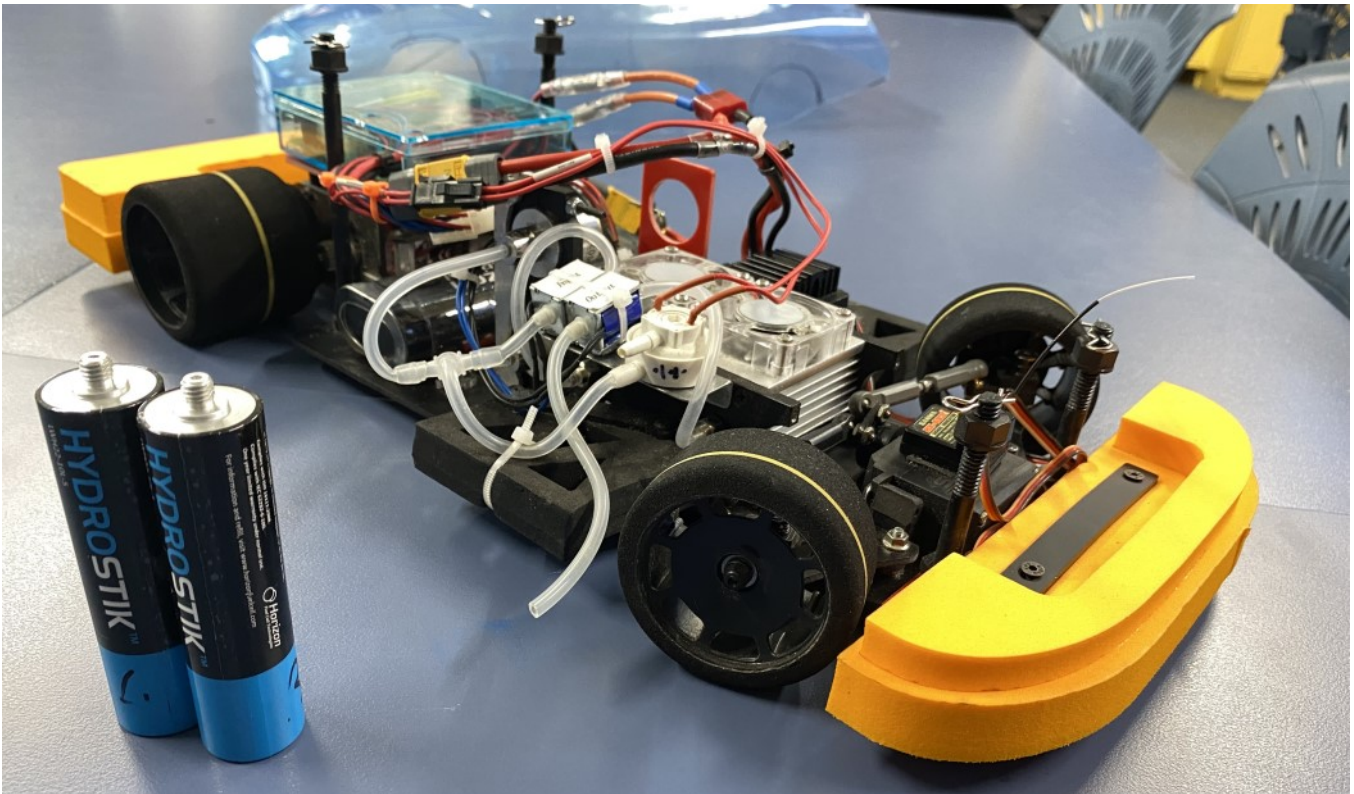
Railway operations for club members
Subject to ongoing track maintenance and weather
Contact track manager (Richard Lockett 06 323 0948)

Club Notices

October Club Night

Kyle Mudgeway has recently returned from California where along with fellow students he represented Freyberg High School in an international challenge to get the most out of a hydrogen fuel cell powered model car. They did their school and our city proud but I'll let Kyle recount their involvement with this exciting challenge.

As this is our last club night at the Hall for the year it is timely as a modelling club for us to check out what we have been working on over the last few months. Hopefully some of you have got a decent amount of time in your workshops progressing that project so bring something along and speak to it!



Fuel cell model race car

Photo kyle Mudgeway

End of Year Gathering

Please note that there is no Thursday Club Night in November!

But we will be having an end of year get together on **Sunday the 24th of November** which will be held at the Pahiatua Railcar Societies workshops adjacent to the Fonterra dairy factory on the Pahiatua - Mangahao Road. Starting at 10.30 am and with the Sunday being a working day for the volunteers at the society this will afford us a guided tour of their facilities.

As there is little on offer in Pahiatua as regards to being able to cater for our thirst and nutritional needs on a Sunday we will do a picnic lunch on the station platform BYO.

As part of the picnic the PNMEC will host a challenge to add to the occasion which will involve the use of a Thermette or if you are a military enthusiast a Benghazi Boiler, a classic piece of Kiwiana. The challenge is to be the first to make an acceptable cup of tea using your Thermette. A judge will be appointed on the day and their decision will be final. It may help to enquire of the judge as to their preference as to what would make an acceptable cup of tea, it may be milk with 2 sugars!

If you do not currently own a Thermette this notice is intended to allow you sufficient time to borrow, purchase or perhaps make one etc.

September Club Night Report

As part of the clubs requirement of a satisfactory 2 yearly safety audit of it's miniature railway operation we need to have a form of ongoing health and safety training for our membership. So the September club night focused on electrical safety or more to the point on why we as individuals sometimes bypass our training and experience in the heat of the moment to get the job done!

Chris Morton and Richard Lockett recounted an event from a few years back when the decking on our curved viaduct at the Mariner Reserve was being replaced which necessitated a group of members to assist with this task and the tools to achieve the replacement of said wooden bridge deck. Once the old decking was removed the pressure was on to get the new decking placed that day as not doing so would mean that a whole set of other health and safety issues would need to be addressed before we could go home. So get on with the job.

One of those tools was a small combination table and mitre drop saw used to precisely cut the decking for the triangular sections of the bridge structure. This tool was of an older pre double insulated construction which Richard had purchased many years beforehand second hand at that, but a nice precise tool to have handy in one's shed.

The saw was some distance from the power outlet so extension cords were in use with an RCD device in place on the outlet and when the saw was switched on the RCD tripped indicating that there was an electrical fault somewhere. Chris checked all the plugs and sockets and all appeared well but the RCD kept tripping and Richard suggested that the RCD be removed so that we could get on with the job as Richard had used the saw in the past few months at home and it worked just fine! Chris refused to remove the RCD and as we had another option as regards to a saw in the form of a skilsaw this was plugged in and lo and behold the RCD didn't trip which would indicate that the drop saw had an electrical fault. Chris informed Richard that he would be taking the drop saw home with him to have a look at it and later informed Richard that if he had been using that drop saw then he was lucky to be still alive as the internal wiring to the field coils etc had very little of their insulation left intact!

There were a few key points that Chris and Richard were keen to get across to the membership from recounting this tale. The first was that we all have electrical power tools in our workshops either portable or not and whether they are used infrequently or not are degrading over time. We are all capable in spite of our years of experience and training of not doing the right thing due to the pressure we place on ourselves due to internal or external force being applied to get the job done. During club activities miniature railway, maintenance work or other activity we need to keep a eye on each other to minimise the making of bad decisions or short cuts which have undesirable consequences. If you see something that you are not comfortable with say so, but don't scream and shout, just a tap on the shoulder and say "that's not a good idea". If you get that tap on the shoulder, don't scream and shout just say "thank you" as that shoulder tap may save your life!

The combination table and drop saw



Photo Editor

Lawrence Brooshooft was the quiz master for the night and had a dozen questions for us that were not all within the realms of modelling or engineering or of railway stuff, come to that, so a real mixed bag to challenge us all, which produced much discussion and humour to the evening! The winner was Bruce Geange with 6 correct answers, joint runners up were Cynthia Cooper and Richard Lockett with a score of 5 out of the 12 questions, not what you would call a pass rate at school. Of note is that the runners up are the editor and proof reader of our Generator newsletter so instead of a quick skim read and a toss into the rubbish bin a more thorough reading of the Generator may be of benefit to you all! Thanks Lawrence.

There were also a few project items on the table from Merv George, David Edmonds and Regan Olivecrona.



Regan Olivecrona showed off his skills with this I.C. aero engine. Photo Bruce Geange

Merv George has been working on reproducing some pressed metal motorcycle components. The photo shows a bash plate in alloy and a simple alignment jig for the fabrication of a pressed steel frame component.



Photo Bruce Geange



David Edmonds had been busy reproducing the gear shift for a Caterpillar 30 crawler tractor which has been getting some love by a group of enthusiasts in time for its one hundredth birthday.

Photo Bruce Geange

Locomotive “Tasha” Reboiler Project

The Mudgeway’s 7.5 inch gauge 2-6-0 steam locomotive is getting a new copper boiler to replace its steel Briggs style boiler which doesn't steam that well. As this is not a large boiler being only 150mm in barrel diameter a copper one is the better option. This loco was imported from Australia a few years back and has had a few NZ owners in that time. It is getting significant wear and tear related work done while the boiler is out. Owen performed a precision dissection of the steel boiler using an oxy acetylene cutting torch so we could have a look inside.



The gut's of the Briggs.

Photo Bruce Geange

The insides revealed very little in the way of corrosion which surprised us all as how well this boiler has been look after before it's arrival in to the PNMEC is unknown and it had been in storage for sometime as well.

The Thermette

Just to add a bit of history the Thermette was invented in 1929 by John Ashley Hart an electrical engineer by trade who hailed from the Manawatu but was living in Auckland when he invented the Thermette. Claimed to boil water for 12 cups of tea in 5 minutes, thousands were produced from 1931 up until the Second World War when many more thousands were produced for New Zealand soldiers serving overseas. Internal combustion engine fuel poured into a tray of sand was probably the fuel of choice, hence the Thermette's common name of the time the Benghazi Boiler! They are still in production and outdoor retailers stock them for around \$200.00. Beware of cheap inferior imported knock offs.



Photo Thermette by Wilsonco.co.nz

Date and Time			Activity
Thursday	24th October	7.30pm	Club Night Hydrogen Powered Model Car Plus Project Progress
Sunday	3rd November	1pm to 4pm	Marriner Reserve Railway Committee Meeting Marriner Reserve Railway End of Year Gathering
Thursday	7th November	7.30pm	
Sunday	17th November	1pm to 4pm	
Sunday	24th November	10.30am	
Sunday	1st December	1pm to 4pm	Marriner Reserve Railway Committee Meeting Marriner Reserve Railway
Thursday	5th December	7.30pm	
Sunday	15th December	1pm to 4pm	

If you would like to be notified when this newsletter is published, send us an email with your **Name, Club** and **Email** address to pnmec@trains.net.nz with **“Generator Please”** in the subject line.