



Newsletter of THE PALMERSTON NORTH MODEL ENGINEERING CLUB INC

Managers of the "MARRINER RESERVE RAILWAY"

Please address all correspondence to :- 22b Haydon St, Palmerston North 4414

PRESIDENT

Robert Edwards
(06) 280-3057
pnmec-president@trains.net.nz

SECRETARY

Fin Mason
(06) 356-7849
pnmec-secretary@trains.net.nz

TREASURER

John Tweedie
(06) 358-0150
pnmec-treasurer@trains.net.nz

EDITOR

Doug Chambers
(06) 354-9379
pnmec-editor@trains.net.nz

February 2014
No 397

PNMEC Home Page www.pnmec.org.nz
Email:- pnmec@trains.net.nz

**T
H
E

G
E
N
E
R
A
T
O
R**

TRACK RUNNING

This is held on the FIRST and THIRD Sunday of each month, from 1 pm to 4 pm Summer and 1 pm to 3 pm during the Winter. All club members are welcome to attend and help out with loco coaling, watering and passenger marshalling - none of the tasks being at all difficult. We may even offer you a cuppa.

Visiting club members are always welcome at the track, at the monthly meeting, or if just visiting and wishing to make contact with members, please phone one of the above office bearers.

Sender:- PNMEC
22b Haydon St,
Palmerston North 4414

Place
stamp
here

This Months Featured Model



Mark 4 - 1st Place

Report on the Presidents BBQ.

An extremely strong wind probably deterred some members from attending a very pleasant evening, even though the wind kept us indoors. As always it is a quiet time to hear how others passed the Christmas holidays, and to hear the details of the Christchurch Convention from those members who attended. Chris Saunders had loaded his photos of the Christchurch event on to a USB stick which Robert displayed onto a very large TV set. Those who had attended the Convention were able to give a commentary of what was on the screen. The food prepared on the BBQ was good and the deserts I fear would not have helped those trying to lose what had been gained over Christmas. Probably not good for your editor either (he is a diabetic) but never mind. Thanks very much to Robert and Margaret, your new home is an ideal venue and thanks to all those who had a hand in preparing the food.

February Club Night

7:30pm, Thursday 27 February 2014
At the Hearing Association Rooms
Church Street, Palmerston North

Bring along your current project and tell us about the progress made during the Christmas holidays. There will be details of preparations for Locomotion 2014 the next weekend.

Locomotion 2014

1 + 2 March 9am - 5pm

The committee requests members for the following duties over the weekend.

- Help with general setting up.
- Station helpers and Ticket sellers.
- Help out as hospitality Kitchen staff.
- Steaming Bay and Parking Attendants.

The public will arrive from 10am so we need to have most things set up by then.

Members are requested to bring a plate for morning or afternoon tea for either day.

There will be a BBQ Saturday night for members and guests.

COMING EVENTS

Track running at Marriner Reserve Railway

- March 16th from 1pm to 4pm
- April 6th from 1pm to 3pm
- April 20th from 1pm to 3pm

Open Weekends

Locomotion 1+2 March 2014
 1000 to 1600 each day

Cross Creek Steam Festival,
 Featherston. March 8th

Keirunga Park Railway
 Open Weekend April 18th -21st Easter.

The closing date for the next issue of The Generator is Friday 14th March

The Les Moore Trophy Challenge!

PNMEC entered 3 "trains" in the Les Moore Trophy challenge at Canmod 2014 (Christchurch). The requirement was for a device to travel on the raised track (2.5", 3.5" or 5" gauge) powered only by a supplied 300mm length of bungy cord. The trophy was awarded to the device that travelled the furthest.

Our club got off to a good start securing more genuine bungy cord enabling us to build several models and also do experiments. The challenge was quite simple in theory but we ended up making several models. At a club night we had a bit of a think tank and some good ideas came out of it. Fred Kent and I ended up the builders with ideas coming from each other and club members. These ideas and trials proved invaluable - with not much spare time left before the event!

My Mark1 was based on the successful 2012 pneumatic "train". The plastic bottle reservoir was replaced with an air pump powered by the bungy cord. A simple concept, but there were too many losses in the system and it became apparent it was never going to travel very far.

Mark 2 was very simple - a bungy cord / string pulling direct onto the drive axle. Steel drive wheels were used for the flywheel effect. However they were not large enough and a lot of energy was lost in wheel spin.

Fred was working on a similar design with a gearbox / string - pulley system which showed great promise.



Merv's Mark 3

My Mark 3 was the mark 2 with a step up gearbox. The first attempt had too much step up but luckily one counter shaft could easily be removed and the gearbox ration was then acceptable. There were still significant friction losses Fred had mentioned large wheels as ideal. The quest for an easy solution came with Richard supplying some plastic tube and from my vast pool of resources the other materials. Mark 4 was born - basically the same concept as Mark 2 but with large wheels.

Competition day arrived with Fred flying down especially for it. Murray ran the Mark 3 & 4 models.

The Good News: PNMEC entered 3 models and they placed 1st, 2nd & 3rd!!

The Bad News: there were only 3 models entered.

Fred also had a problem over winding his before the event and he had to do some hasty modifications to get it across the start line.

Morals of the story:-

- **Yay** PNMEC for your success.
- **Several** minds are likely to have better ideas than one.
- **Start** the project early even if you have lots of time.
- **Do** lots of testing and trialling.
- **Put** in an entry, or you can't win.

Looking forward to the next challenge -

Merv George



Fred's entry

LETTER from ENGLAND

By Stan Compton

Do any of you remember using the old 'Primus' stoves? The original ones with a brass fuel container were the best.

I recall an Indian trader who demonstrated a small one that was well worn but still fired-up and ran well.

A retired neighbour asked for help with his old one, a friend of many camping expeditions; the nipple was blocked but I was able to drill it out but now I think that the bore may be too big because after pre-heating with meths it runs well but then changes to a liquid discharge.

Could this be due to excess fuel?

Spare parts are now unavailable and the more modern propane-fueled stoves have replaced the old 'Primus'.

Yesterday was almost the last running day at the Hereford tracksite. It was wet and not really worth being there.

Fred had his Hunslet in steam and a family from Wales turned up so all the children had a ride. The Waterworks Museum next door was open with a display of 'Hot air' engines brought in by a local group; such a variety, even one that powered a small 12 foot boat. The Museum has two 'Stirling' engines that weigh over a ton, built about 1895. One is about six feet high with a firebox two feet in diameter and is rated at one horse-power. The only one left in the country. The other one is rated at half a horse-power, both useful in their day. It was pleasant to be inside in the warm compared to outdoors at the wet track site! Parked outside was a 1930s Morgan sports car, originally a three wheeler but it had a Austin Seven rear axle fitted making it a four wheeler! The front suspension had been modified with longer coil springs and telescoping damping units; badly needed these days with the amount of pot-holes.

Our modern railways have very expensive track inspection units travelling at main-line speed, track conditions are recorded and displayed on a screen.

Everything is collected, not just rail location, but ballast condition, even growth alongside the track.

Years ago it was a lot simpler, the inspection was mainly to discover track condition and it was expected that a coin would be able to balance on edge while travelling at 100kph (60mph). Any imperfections were indicated by a spray of white-wash onto the track-bed and as you might expect the maintenance staff called the unit 'the Whitewash Train'.

In those days an award was made to the staff responsible for track maintenance, who could be seen waiting at the trackside for that tell-tale splash of whitewash on a known bad patch, spoiling their chance of success.

No sophisticated track-laying machine then, just the 'ganger' whose workers walked their section every day. A simple device was used to detect the condition of ballast under a sleeper that was seen to 'pump up and down' as the train passed over. This device recorded the compression load on the ballast by a beam, one end buried in the ballast, a pivot provided a reading to be taken on the beam, one, two or three indicating the number of cans of 10mm ballast to be put under the end of the sleeper, simple but effective.

Many years ago I helped at a Gala Day at West End School in Palmerston North, loading children on to a farm trailer for a ride hauled by a 'Burrell' 5 ton tractor. My arms ached at the end of the day; some children were like lifting a sack of potatoes! Early on the engine kept running out of steam, so I asked the owner if he had altered anything,

"Well yes. I thought that a venturi was needed, so I made one and fitted it above the blast nozzle." I said that Burrell's knew how to build good engines, take the venturi out and see how it goes. Sure enough the pressure began to rise and there was no further trouble.

There is a good case though for a venturi to be fitted to a railway engine.

Bob Sanderson of Australia wrote a very good article that featured in the 'Model Engineer' 15 June 1984. He lists examples of engines that were known as poor steamers. 'Conway' is one and by coincidence I was able to advise the builder of one to alter it and once the choke was fitted it became a different engine.

We have a club member in his eighties building a 3½" narrow gauge locomotive called 'Charles'. Its chassis is the same length as his 'Maid of Kent'. He got into difficulties building the boiler but men of our generation do not give up and after making a new outer wrapper he is carrying on.

A Great Time in Christchurch

The Palmerston North club was well represented at the Convention in Christchurch in January. The weather was warm and dry most of the time, but the wind seemed to blow continuously! A whole host of us opted to camp on the club grounds and after a tiring day with the trains, among all the other things, we had a jolly time together in the evenings.

We were having such a good time one night that another camper asked us to stop the night running as they had small children that needed to sleep. That's the way it is with these shindigs, lots of good talk and laughter with friends. If you are not one of those that travel to other clubs I can recommend it.

The Christchurch Club hosted a great event. Very well done.

Cynthia Cooper

I was one of the people to travel down to the convention in Christchurch.

On arrival we set up our tents.

Cynthia is very organized and I would like to thank her for driving me down and all her help.

The next day we registered and then unloaded my Heisler. I ran on the raised track as I had never done this before. I found it to be very nice for myself, as the driver, to be more level with the cab on my Heisler. However the level track meant that my loco did not work very hard to keep the fire hot and steam up.

Consequently when I had no load, I had the brakes on most of the time.

Part of the track runs through the trees which is a very nice setting and was a pleasure to run on.

The next day I ran the Heisler on the ground level track. This is about twice the length of the Marriner Reserve track and has a few good grades. My little loco was doing very well until my last trip around when on the first grade she could not get up the hill. I checked that the steam and fire all looked good. In the end I got off to push the loco up the hill. I then discovered that I did not have one adult and two children, my max normal weight, but a load that would make the big engine's work hard!

The MEANZ-AGM went well and we received a lot of information about needing to register our clubs, duplex boilers, coal supplies, among other things. The MEANZ committee is a very well qualified group of model engineers. We should all be happy and very grateful to have these people at the helm.

If you wish to read the minutes to the meeting they are online at the MEANZ web site. www.meanz.org

On the Sunday a small group of us drove over to Ferrymead Heritage Park. We found an NZR Class F in pieces, so my camera was very busy. Chris Saunders and I also got a foot plate ride on their NZR Class W. I believe this is the loco that Richard Lockett based his NZR Class W on.

It would be nice to get more of our club members to the next convention at Tauranga in January 2016. We had a good time, so could you.
Robert Edwards



Robert



Richard



PNMEC Campsite



Murray



Winners of the Les Moore Challenge



John



Steam Road Vehicles

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