



## Newsletter of THE PALMERSTON NORTH MODEL ENGINEERING CLUB INC

Managers of the "MARRINER RESERVE RAILWAY"  
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**PNMEC Home Page** [www.pnmec.org.nz](http://www.pnmec.org.nz)  
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### 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 onerous.

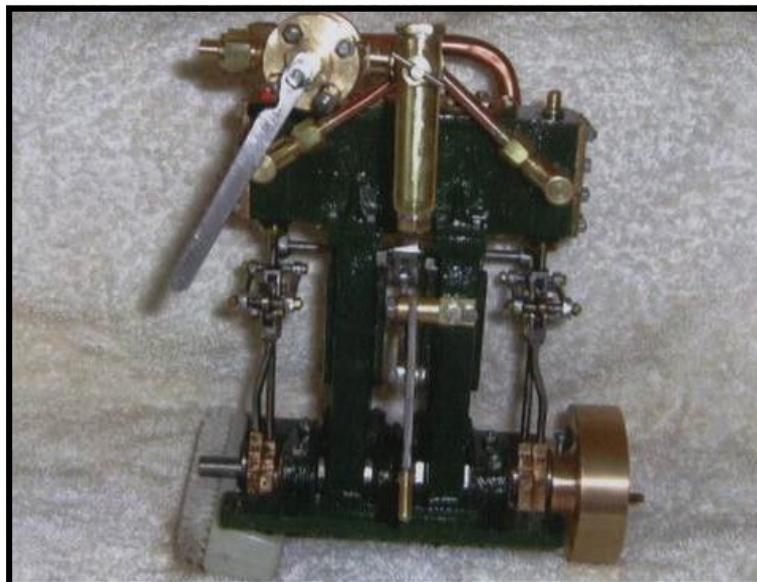
Visiting club members are always welcome at the track, at the monthly meeting, or if just visiting and wishing to make contact with members, please phone one of the above office bearers.

Sender:- PNMEC  
22b Haydon St,  
Palmerston North

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### This Months Featured Model



## REPORT on the November Meeting.

The November Meeting was our Annual Dinner. The RSA provided a good venue and the caterers had us sitting down to very nice meal. The company was great.

It is always good to see a large number of PN model engineers together.

It is also a chance for our long suffering partners to reassure themselves that they are not the only female who has a partner who enjoys making all sorts of miniatures in his workshop.

Stuart Anderson had put together a very good DVD with some movie clips of the early days and still shots of major events up to the present day. This was played on a screen and members old and new found it most interesting.

This year was the PNMEC's Thirtieth anniversary and to celebrate the occasion a large iced cake was brought out after the dessert. Our President, Richard Lockett said a few words and invited the three foundation members, Chris Morton, Bruce Manning and Dave Newstead who were at the dinner, to come forward and 'cut the cake'. And a very nice tasting cake it was too !!!

### FOR SALE

Whitworth taps and split dies from 1/8" to 1/4"

UNF taps and split dies from 1/4" to 1/2"

BA taps and split dies from 2, 3, 4,5,6,8.

40 piece metric tap and die set.

1/2" to 1" pipe die set.

Myford ML7 3 jaw, two four jaw chucks, face plate, angle plate. Usual extras. \$1500 ono.

Heavy duty drill press 3/16" to 3/4" Jacobs

Chuck, Power hacksaw, and a tapping machine.

All home made

Various drill vices, LPG torch and 9kg bottle ( needs retesting).

Contact Clem Parker 06 376 8353.

## JANUARY MEETING.

### January Club Night

### President's (BYO) B-B-Q

The third annual traditional club President's BBQ will be held at the

Vice Presidents home:

**119 Ruapehu Drive,  
Palmerston North**

(06) 354-7100

Starting at 6 pm on  
Thursday 24 January 2008.

All family members welcome.

Please bring whatever you would like to cook for yourselves, plus a salad or dessert to share.

## COMING EVENTS

### Mid Week Run at Marriner Reserve Railway

22<sup>nd</sup> January between 10.00 am and 2 pm

26<sup>th</sup> February between 10.00 am and 2 pm

Please contact Doug Chambers beforehand.

### Track running at Marriner Reserve Railway

3<sup>rd</sup> February between 1 pm and 4 pm

17<sup>th</sup> February between 1 pm and 4 pm

### Open Weekends

23<sup>rd</sup> – 24<sup>th</sup> February Hawkes Bay Model Engineers  
Anderson Park, Taradale.

1<sup>st</sup> – 2<sup>nd</sup> March **Locomotion Weekend**

Marriner Reserve, Palmerston North

The closing date for the next issue of The Generator is Friday 15th February

## **THIS MONTH'S FEATURED MODEL**

By Doug Chambers

The twin cylinder Marine Engine was built from a casting set obtained from 'Winter's' in Australia.

It is one of O. B. Bolton's designs updated by George Winter. The engine has a bore of 15/16" and a stroke of 1". However this engine is going to be used in a radio controlled boat and the boiler I found after lengthy calculations was not going to produce enough steam to run the engine. So the engine was sleeved down to 11/16". The boat is only required to cruise along sedately and I think that the boiler - engine will be able to do this quite easily now. The engine can be built to run in just one direction or it can be built with reversing gear. This one has been completed with reversing gear. The method of reversing the engine was via a hand-wheel and screw but this being difficult to operate by radio control was changed to a lever reverse. This will make it easy for the owner to set up with a servo. The main steam line had a screw down valve in the line and this was changed to a rotary drum type throttle operated by a lever, which again makes it easy for a servo to be fitted to open or close the throttle. The piston rings are a little different. The cylinders are bronze so cast iron rings could not be considered. O rings do not like being shuttled up and down a bore, so I tried something different.

The piston was machined with a very deep ring groove and an O ring was fitted in the groove. Then a 'Teflon' ring was machined, cut and fitted over the O ring.

The O ring holds a small amount of tension to the 'Teflon' ring which slides on the bore. 'Teflon' expands a lot with heat but as the steam is not superheated and the steam will cool a little in the steam line from the boiler to the engine, I do not anticipate any great amount of expansion.

If the 'Teflon' does expand a little, then the O ring will get squeezed up to compensate.

The small crankpin on the flywheel is to drive the boiler feed pump.

## **LETTER FROM ENGLAND**

By Stan Compton

To be taken out to a Restored Railway by my friend Brian is a real pleasure for me. I am not

happy driving on our motorways but we got to Bishop-Lydeard in two hours, this is the station at the end of the twenty mile trip on the West Somerset Railway. A real country railway with small stations with names like Stogumber, Crowcombe Heathfield, Watchet and Blue Anchor. !! All of the places and the whole Railway showed the keenness and dedication of the volunteers who maintain this standard. Even some of the carriages, awaiting restoration, had custom made vinyl sheets stretched over the roofs to protect them from the weather. Similarly, bogies had been wrapped with tarpaulin sheets and lashed with ropes.

Our train engine was a restored Somerset and Dorset railway 2 -8 -0 tender engine, built in 1927 at Darlington. The driver told us that another one runs at Butterley, the Midland railway Centre. The engine looked great in the original dark blue livery and it handled the load with ease. It was being fired on Russian coal. Some of the Primer School children passengers found the smell of the smoke offensive and pinched their noses as they waited to board the train, all so excited.

At Minehead Station, the main one, we found a good hotel serving roast-beef lunches at a reasonable rate, but also of interest was a GWR 4 -6 -0 loco 'Hinton Manor' in a sad state needing a lot of money for restoration. Now it so happens that the owner of the property, located near

Hereford, known as 'Hinton Manor' is a millionaire and is probably unaware that there is a locomotive of that name !!!

A pair of vintage locomotives at Minehead, a 'Terrier' tank and an 0 -4 -0 GWR saddle tank had been on loan for a vintage weekend. I counted twelve special weekends had been organised during the year and although we are into Autumn our train still carried plenty of passengers.

Blue Anchor is a holiday destination on the coast, it is a shock to see paddocks full of permanent caravan bodies all lined up military fashion, mounted on blocks overlooking the sea. I have been testing the Quarry Hunslet named 'Sophie' after our grand-daughter in Wellington. The coal supplied is smokeless anthracite available in bean size but it has no flame and a mainline five inch gauge engine will steam but needs constant raking to prevent clinker forming.

With a small firebox I could not get plenty of steam until we were given some 'Yorkshire Hard' steam coal and with that I had lots of flame and steam. The 'Hunslet' will climb a grade with just a few pounds pressure showing on the gauge.

The doubled up 'Maisie' from Australia with a Briggs boiler was brought out for a steam test recently, I could blow the fire up while men crowded around with the safety valves roaring, but afterwards out on the track with no load it would not steam. All the boiler proportions are wrong, a four by four inch grate gives 16 square inches, but when you double the size to eight by eight inches then you have sixty-four square inches of grate. The number of fire tubes is sixteen and at ½" diameter they are too small and too few.

It will be six months before we start public running next year, all rolling stock will be lifted up above flood level for the winter during which time we hope to have a permit to provide toilet facilities for the public. A financial grant will be applied for and our small team of workers are on site every Tuesday. Stewart, our chairman has obtained quotes for the supply of two cabins ex- building sites to be restored for use as toilets and a mess room. At present our ex-railway wagon body gets very crowded at lunchtime. One of the cabins will have to be altered to have a pitch roof and weatherboard siding similar to our clubroom.

There is talk in our Daily Press about overweight people and as the man in charge of the loads carried on the elevated track I have sometimes refused a ride for this reason but Terry driving my 'Maid of Kent' took a load on our last run that included a woman of about 140kgs. Having steel tyres and lead ballast he got the load started and finished the run. These people have no idea of what our engines are expected to do, I often think back to our early days at Monrad Park, we only had children for passengers then.

You may have heard about some derailments on

some of our mainline railways. It appears that a lot of these are due to the high speeds causing Vibration on our old type points. The nuts retaining the stretcher bars between the point blades have been vibrating loose, the problem has been known about but left to maintenance staff to sort out.

## CORRECTION

In last months 'Letter from England' Stan Compton told of seeing Brian Perkins Bristol Hydra radial aircraft engine. Stan had written that the engine was a 16 cylinder but your editor thought that it might have been a double row 14 cylinder, (two rows of seven cylinders). Radial engines with an even number of cylinders in each row are quite rare. Once again I have been found to be incorrect.

The Bristol Hydra was an experimental engine and had two rows of eight cylinders.

## AT LAST !



Richard Lockett applying the first match to his NZR W on Boxing Day 2007. This moment was a long time in coming, some 15 years, but as many of us are aware Richard has given his time freely to the PNME club and been the leader in all of the development projects undertaken. There were a few minor problems to sort out before the official steam test was completed. But with a build time of 15 years there is ample time for the 'gremlins' to try their best at sabotaging the engine. A successful trial run at Marriner Reserve followed.

## Manukau Convention

Some Impressions of My First Visit to a Convention. Hot and sultry weather - dehydration. Smoke from West Coast coal in large engines. So many engines in one place. The enjoyment on the faces of the passengers. The pleasure of being a passenger behind Richard's new "W". The thrill of the sound of the exhaust on the mountain section. Going to Glenbrook, the visit nearly spoiled by our almost missing the train because the bus driver had got lost. Great food and company.

**Chris Saunders**

The PNME Club was well represented at the 2008 Model Engineers Convention hosted by the Manukau Live Steamers; with eight club members and three locomotives in attendance. As well as running trains and catching up with friends a number of off-site excursions were available. We had a chance to go through the workshops at both Mainline Steam and the Glenbrook Vintage Railway. The catering at the convention was exceptional. One could not have had better. It was great to relax and have a few laughs. It was just what I needed.

**Cynthia Cooper**

5 days - 253 Delegates from UK, Malta, USA, Canada, Australia and NZ - 60+ Locos - 4 Traction Engines - 12000+ rides - Lots of old and new friends

**Murray Bold**

The convention was great with lots of different engines from 3½ to 7¼ that attended, there were engines from the South Island as well as a few new locos showing their face. They had a great number of people from around the world and a great number of people to have rides. Manukau Live steamers did a great job of the convention as there were trips to Chevpac, Mainline Steam, Glenbrook Vintage Rail and tours of the area, there was the Mana Ariki band.

**Stuart Anderson**

We came. We worked to help setup. We met many old friends and made new ones which is probably the best part of any convention. The hospitality was good and the whole event very enjoyable. We even got to go for a train ride on the last day. All in all a good event

**Chris Morton**



and keeping the challenge alive and congratulations to the Hamilton Model Engineering Club ( Don Plant ) for three wins in a row.

**Richard Lockett**



### Les Moore Challenge 08

Seven entries entered this year to build a steam-powered device to lift 2 litres of water to a head of 900mm. Pumps were the way to go, our design was to be a venturi device, with the two quickest raising steam and lifting the water in under 2.5 minutes. The winner was once again Hamilton Model Engineers taking just 2 minutes 15 seconds, and using just 50 cc of water but a lot of meths, to heat the boiler (flash steam) and the pump itself (condensation).

Credit goes to all entries for getting to the start line and keeping the challenge alive and congratulations to the Hamilton Model Engineering Club

## Wildwood Light Railway

On the 25<sup>th</sup> November, Janice and I were invited to the official opening of Heather and Eddie's new 5" railway in Wanganui. There were 5 locos at the track. Eddie's "Sweet Pea" and "DSA", Alan Morris's "Simplex" and "Rocket" and my "Tram". Heather presided over the opening ceremony, and was dressed in a railway hat and jacket.



The railway was officially opened by the local MP, Mr Chester Borrows. He hammered in the last spike and cut the official ribbon. Most of the afternoon was taken giving rides to the 80 -100 guests, family and friends of Heather and Eddie. For afternoon tea there were cream cakes, slices and muffins all from Heather's kitchen.

Well done Heather.

After all the guests went home we packed up at about 6pm and held a debrief over fish and chips in the barn. A nice end to the enjoyable day.

Murray Bold