

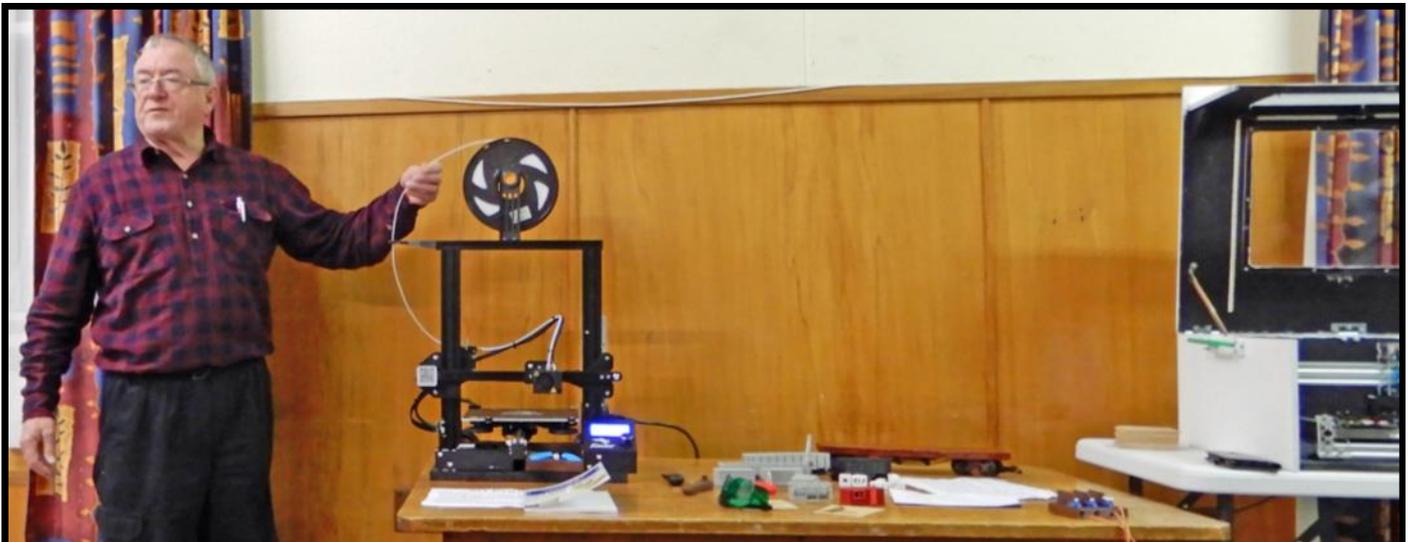
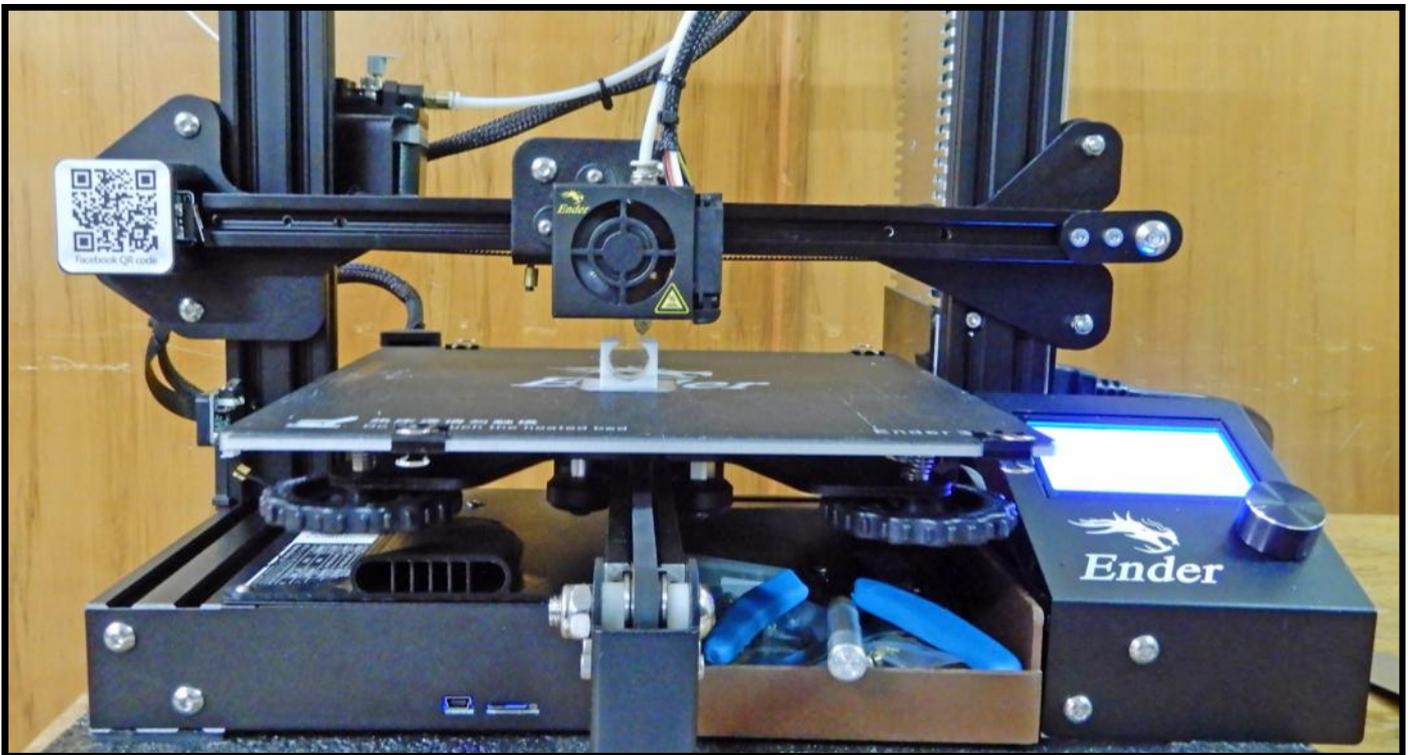
The Generator

Issue 449
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Palmerston Model Engineering Club
www.pnmec.org.nz - pnmec@trains.net.nz

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



Murray Bold demonstrating his new 3D Printer and Laser Engraver.

What's happening this month and in the future, Check out the PNMEC Club [Calendar](#)

Track running at Marriner Reserve Railway

November 4 th	1pm - 4pm
November 18 th	1pm - 4pm
December 2 nd	1pm - 4pm
December 16 th	1pm - 4pm
January 6 th	1pm - 4pm
January 20 ^h	1pm - 4pm
LOCOMOTION	
January 26 th	10am - 4pm

The Palmerston North Model Engineering Club Upcoming Club Nights

25 October 2018

Bring along the project you have been working on this year.

The above meeting will be held at 7.30pm in the
Hearing Association Hall, 435 Church Street, Palmerston North

If your model is too large or heavy, please take a photo or two, put them on a memory stick and let Robert Edwards know so he can bring along the projector.

22 November 2018 **NO MEETING**

There will **NOT** be a meeting at the **Hearing Association Hall** this month as we will be going to Wanganui on **Saturday 24 November 2018** for lunch and visiting a few workshops while there.

There is **NO** meeting in **December**

24 January 2019

This is the Presidents BBQ held at Robert and Margaret's home.
More information next Month, but it will be the same place as last time.

26 January 2019

This is the New Date for our **LOCOMOTION**
It will only be on the Saturday

Inclement Weather on Run Days

If the weather looks a bit rough, squally, wet, wild or just iffy on the morning of a regular Sunday Run Day and you are wondering if trains will be running; then phone **Kerry Puklowski** and he will let you know if running is going ahead or has been cancelled. **Kerry 027-445-5487 or (06) 353-6189**

Last Month's Club Night

The September club meeting started with a few words from Robert (President) followed by a short period of silence remembering Ken Nielsen, our long standing member who passed away recently.

The meeting was attended by about 28 members and one visitor. There was some general discussion regarding a new format for Locomotion. For 2019 this will be held over a single day (Saturday 26th January). Further information will be forthcoming.

The main event of the evening was a demonstration by Murray Bold of his recently acquired 3D printer and 2.5 watt laser engraving machine.

Murray's previous 3D printer is about 5 years old and has an accuracy of about 0.4 mm (layer thickness) and cost \$1500. The new machine has an accuracy of about 0.1 mm and cost under \$300 including freight from China.



Murray had several items that he had made using the printer. These were mainly parts for HO scale model railway components. The level of finish and definition of these items was very impressive. Murray gave a short demonstration of the printer in action while he talked about the laser engraver. This machine gives good results on wood and plastic and can produce stencils by burning away the unwanted regions of paper sheets. Murray

had several examples of engravings he had made on wood and plastic and these showed a high level of definition. The 2.5 watt laser is not capable of cutting out from anything more substantial than thick paper and Murray mentioned that he was



contemplating upgrading to a 15 watt laser.

There were a large number of questions and considerable discussion of these techniques and these continued over the usual cup of tea and biscuits.

John Tweedie

Saturday 24 November 2018



A Visit and Lunch in Wanganui

The first stop will be in Fordell at Bruce Ardell's Vintage Museum at 10am, and then on to Wanganui.

You will need to leave Palmerston North by 9.00am. Fin Mason has offered to arrange Car Pooling if you want. He is also taking names and numbers for the Lunch time catering that Janice Hall has arranged.

Please call him (06 356 7849) to advise if you are coming and if you have a spare seat or need a seat.

There will be a charge for Lunch. (approx \$15)

The afternoon visits are still to be arranged.

More information next month

Feilding Steam Rail have invited us to run our portable track during their Open Weekend Saturday 10 and Sunday 11 November.

We will require a couple of able bodied helpers over the weekend. If you are available to help, please contact Murray Bold (06) 326 9665



Letter From England

Stan Compton

About Twenty Years ago while working the original ground level track of the Worcester and District Model Engineers Society, I found out about a "Maid of Kent" locomotive that had been started to construct but the builder found it was too heavy to work on and gave up. A pity I never met him while he was alive I like 4-4-0 locos, it is possible to hinge the grate and ashpan to empty it after a run. I completed the engine to represent a Midland Compound but with two cylinders instead of three, taking care to set the valve-gear correctly, with seven inch driving wheels it sounded great pulling away with a full load.

Although the Midland Compounds were named I put the man's name "Charles Roberts" on the splashers, this pleased the family so. One day after running it was left clean on the steaming bay at Broomy Hill when a visitor approached representing "The model engineer", "Ah! What have we here?" was his comment and walked away, he had no idea who I was but a kind word would have been nice to hear, obviously he expected a correct replica. The number on the cab-side puzzled the purists, it was the man's date of birth!

Something that gets forgotten with a steam locomotive that is not in regular use is to free the stainless ball in the suction-valve on the mechanical water feed pump. These often get stuck during a lay-up period. I usually fit a brass screw in the elbow below the ball giving access with a rod of wood to check that the ball can lift under suction. I know of a locomotive that has a leaking fire-tube in the boiler due to a low water level when the pump fails to a stuck suction-ball. A minor leak past a copper tube can be repaired with a taper drift, a smear of grease and a sharp rap with a suitable hammer. When a boiler is due for a hydraulic test DO NOT move the throttle if the boiler has not been in use for some time.

I had been boiler testing for many years and only one member from mid-Wales used to arrive on site with a large pressure-gauge mounted on top of the boiler due for testing and reading the test pressure! He understood the regulations that the owner of the boiler should test the boiler by plugging off all spare outlets and using the hand-pump. Many times I have been presented with a boiler for test that was not plugged-off. The owner would assume it was the job of the tester to do this. Often he ends up doing this because the owner of the bought engine had not bothered to acquire a set of plugs to enable the test to proceed. The volunteer inspector did not make the rules, many times I have had two hand-pumps in use to get a leaking boiler up to test pressure when the throttle is leaking and filling the cylinders with water. Often the pressure-gauge fitted on the locomotive does not read up to test-pressure and should be removed, but it can be used by the owner up to the limit of the gauge as a primary test.

Some time ago we had the grand-daughter of my sister in New Zealand visit us for a week or so while on her way to London where all young Kiwis want to go to work for a year or so. I warned her to travel light but did she listen? Oh-no! We met her off the coach and the double-case intended for a film-star had to be dragged over the cobblestones in our old town. Then when we arrived home she found we live in a two story property built in 1836. That wretched case had to be left downstairs in the dining room, the narrow stairway was not suitable. When the time came to leave us she would need help to get across London and phoned a contact to get help. His reply was "You are on your own Gal, do like the rest of us do!" That case was left open, it contained a lot of cotton clothing no good in our winter.

My wife took her on the bus into Hereford and found her a very smart winter coat at a very modest price in an op-shop. The Polish fruit pickers do this when due to return home.

I am reading a new copy of a book named "Endurance" about the expedition lead by Ernest Shackleton to cross Antarctica in 1915. The polar winter crushed his ship named "Endurance" leaving the survivors on an ice-flow with two of the ships boats

and some supplies. The crew dragged those boats over the ice to a safer place. One was used as a shelter, while Shackleton took a small crew in the other boat and sailed it twelve hundred miles to reach South Georgia where there was a whaling station to get help to return to Elephant Island and save his crew after being left for a year on their own. This took many attempts, the last one being successful. In the preface in my copy of "Endurance" the name of Dr Fuchs who led a team across Antarctica in 1957-8 in a well equipped Snow-Cat was mentioned, but nothing about Ed Hillary and his team on Ferguson Tractors. One is in the Christchurch Museum. I have seen it.

Last month I talked about foundry work and the satisfaction gained from a successful pour. I forgot to mention the modern method of forming a resin-based mould instead of traditional moulding sand. I once was able to examine a cast iron Chinese tea pot which was covered with very fine vines and leaves. It was very ancient and must have been cast using the lost wax principle. This method must have been used many years ago where the object to be cast is formed in wax which is moulded with a resin based substance. The wax is then melted leaving the outline of the object to be cast. It is then possible to obtain very fine detail on the finished casting.

A traditional pattern maker was the skilled man in the foundry years ago. Just examine a Victorian item of furniture and you will realise that the wooden pattern had to be perfect, any flaws in the wood would stand out on the finished job. It was usual to cast an aluminium casting to be used for repetition orders saving the original pattern to replace the aluminium one as it got worn.

Years ago I made a number of alloy castings mounted on heavy plywood to be able to build Don Young's Rail Motor, a simple 0-4-0 locomotive that was the engine that was attached to a carriage as a feeder to the main lines in the U.K. Built in five inch gauge with a five inch diameter boiler they were good steamers. Built with a small tender they were a handy locomotive. I imagine those plate patterns are still in Davis Foundry (Ed: Now known as Milson Foundry) in Palmerston North.

My youngest son built one. I made the boiler when he was at high school and it got him an apprenticeship. Many British Railway companies built Rail Motors in the early days, not really a success, servicing them was a problem. The carriage was not wanted among steam locomotives but as a model no problem. This reminds me of a loco builder from the east coast in New Zealand. He died some years ago before completing a seven and a quarter gauge Beyer Garratt using drawings for a B.R. Black Five 4-6-0. I tried to warn him of the difficulties of the size of the project. His constant reply was "no problem" so that became my nickname for him.

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.org.nz with "**Generator Please**" in the subject line.

Marriner Reserve Railway Operation and Safety Manual Part-2

We need to undertake a discussion within the club membership in relations to our **Marriner Reserve Railway Operation and Safety Manual**. Towards that end we are going to publish over the next few months the complete document (without photos) in serial form. If members would prefer to [read](#) the entire version with photos, this can be found at <http://www.pnmec.org.nz/PNMEC%20-%20Operations%20and%20Safety%20Manual-2014.pdf>

Palmerston North Model Engineering Club Marriner Reserve Railway Operation and Safety Manual.

1.3 AWA PUNI STATION

Public Running Occasions. All egress on or off the trains is to take place in the Station confines only.

The Station is to be manned at all times by a **PNMEC** member. To greet our customers. To allocate seats on trains. Ensure that no roller skates/blades are worn or footballs, dogs or video cameras are carried on the train by customers. To assist with the coaling and watering of locomotives. **Perform a safety briefing** to customers on each train before it leaves the station. **Consisting of:** Advising customers to remain seated at all times. To keep their feet on the running boards. Don't lean out and grab track side objects.

The Station has furniture and equipment consisting of: A Donation Box. A Clock. Gate chains. Hand cart with coal bin, water hoses and a battery for turnout.

1.4 LOCOMOTIVE DRIVERS

Public Running Occasions. Drivers are responsible for the makeup of their trains. Drivers are responsible for the safety of their passengers. You have the right to refuse patronage. You have the right to remove persons from your train for non compliance with the safety briefing.

All locomotive drivers hauling passengers are to have a miniature railway locomotive drivers licence issued by the **PNMEC** or another **MEANZ** club or be in the **PNMEC** locomotive driver training scheme and under the supervision of a licensed driver.

1.5 PNMEC LOCOMOTIVE DRIVERS TRAINING SCHEME

Aim: To provide a consistent level of training to **PNMEC** members wishing to obtain their locomotive drivers licence.

The scheme as follows: Ask for and obtain a **PNMEC** miniature locomotive drivers training and experience logbook from the track manager. Show up from time to time on a Marriner Reserve Railway running occasion. Record in your log book all instruction and experience/time received in the operation locomotives. Have the logbook signed off by your instructors. You may be asked to read publications dealing with aspects of miniature railway operation. When experience has been gained and an ongoing level of competence has been demonstrated a license may be issued by the committee of the **PNMEC**.

Most locomotives are privately owned and their owners are under no obligation to let other club members drive them.

1.6 PNMEC LOCOMOTIVE/RIDE CAR INSPECTIONS

Locomotives and Ride cars/Rolling stock either **PNMEC** owned or owned by members of the **PNMEC** and listed as operational equipment on the **MARRINER RESERVE RAILWAYS** Amusement Device Regulations Certificate will be subject to annual inspections.

PNMEC owned equipment - S and V inspections (Structures and Vehicles) in accordance with requirements of equipment specific record sheets in the S and V book.

Member owned equipment - Locomotive/Ride car Inspection Record issued to owner by **PNMEC** and to be kept up to date by owner in accordance with requirements of equipment specific record sheet.

Boiler Certificate for Steam Locomotives - Issued by a **PNMEC** boiler inspector in accordance with AMBSC codes part 1 and 2.

1.7 LOCOMOTIVE DRIVERS OPERATING ETIQUETTE

Any running occasion: To assist in the enjoyment and safe running of your locomotive some operating etiquette has been established over a number of years.

When entering the main line through the turnouts from the sidings please return turnouts back to mainline before proceeding further. Orange cones to be placed onto the track **NOT with right of way at** the non signalled turnouts.

A safe following distance is to be maintained at all times out on the mainline.

Be aware of where other trains are out on the track.

Clearly signal your intentions if **reversing off** the main line.

Please **do not stop** on the station passing loop to replenish water etc.

1.8 SIGNAL SYSTEM

The signals are located on a rack stored in the bunker. Only signals 9 and 12 are used on club running days and are used to control the station passing loop turnouts.

Numbers 1 to 8 are only used during a Locomotion Event or when otherwise deemed necessary and are used to control train spacing.

Signal Instruction:

Red = Stop The train in front will be 30 - 40m away before you get a green signal.

Green = Go Maximum speed at Mariner Reserve Railway is 8 KPH.

Orange = Proceed with caution You are approaching turnouts.

Turnouts/Points Instruction

To change the road you wish to travel, press the **white button** once. If both roads/signals are **red** you will be unable to change the point until one of the signals goes **orange**.

The signals and points are interlocked in order to prevent the points being changed under a locomotive. The signals will not change until the train ahead is well clear.

If you do run against a **red signal** at the points you could be **derailed**.

1.9 FLAMMABLE LIQUIDS

Flammable liquids are used during the operation of the Marriner Railway, for fuelling IC powered locomotives and for lighting up steam locomotives.

Use only **Kerosene or Diesel** for light up fuel. Refuelling of IC powered locomotives is a **controlled activity**. Please advise the Operator if you wish to refuel your locomotive. So that it can be done in a safe location away from ignition sources **i.e. Steam Locomotives**. Generally this will be on the back shunt around to the bunker.

No refuelling to be carried out in the Steaming Bays or Awa Puni Station areas.