

# The Generator

Issue 485  
January 2022



**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  
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 Hearing Association Hall, 435 Church Street, Palmerston North.

#### 30 January (Sunday)

Presidents Barbecue.  
12.15 pm, Details in club notices.

#### 24 February

Club Night  
Health and Safety re Marriner Reserve Railway operations.

### Marriner Reserve Railway

#### 6 February & 20 February

Railway operations at Marriner Reserve  
1pm to 4pm

#### Thursdays

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

## Club Notices

### **Presidents Barbecue**

The Mudgway family, Owen, Natasha, Kyle and Alex have very kindly offered to host the club for our January Presidents barbecue at their extended families **Ruakina Farm, 430 Milson Line, Palmerston North**. Situated about halfway between the Kairanga - Bunnythorpe Road and the end of the runway at the Palmerston North airport.

Some of you may remember that we had a club night visit to this venue back in March 2017 to view the museum established by Owen's father the late Rua Mudgway, featuring earthmoving equipment that are painted yellow!

### **Vaccinated Members only.**

**Time.** 12.15pm—3.00ish

**What to bring.** Bring along your folding chairs, BYO food for lunch. A smile and some good stories!

The club will provide a BBQ for those who wish to cook a sausage along with tea, coffee, milk, cups etc.



**Club members waiting in anticipation of something happening in March 2017**  
**Photo Editor**

### **Resumption of railway operations at the Marriner Reserve Railway.**

At the December PNMEC committee it was decided that public passenger carrying operations would tentatively resume on Sunday the 6th of February.

This decision was based on our regions move to “orange” under the traffic light system. The amount of infections within our community and the imminent roll out of vaccines for 5 to 11 year old children who form the bulk of our customers.

Although covid infections have steadily declined over the holiday period the new variant Omicron which wasn't a factor back at our early December committee meeting is stacking up within our MIQ facilities as I write this so as the club has said before, all our planned events are subject to cancellation at short notice!

### **Additional health and safety measures will be in place.**

We will be inviting vaccinated persons off our customer data base to resume riding on our trains if they wish to. Our street signage will not be put out. No customers will be able to be congregated within our station confines.



**The Club Locomotive F7 Santa Fe may get a run on the 6th of February.**

**Photo Editor**

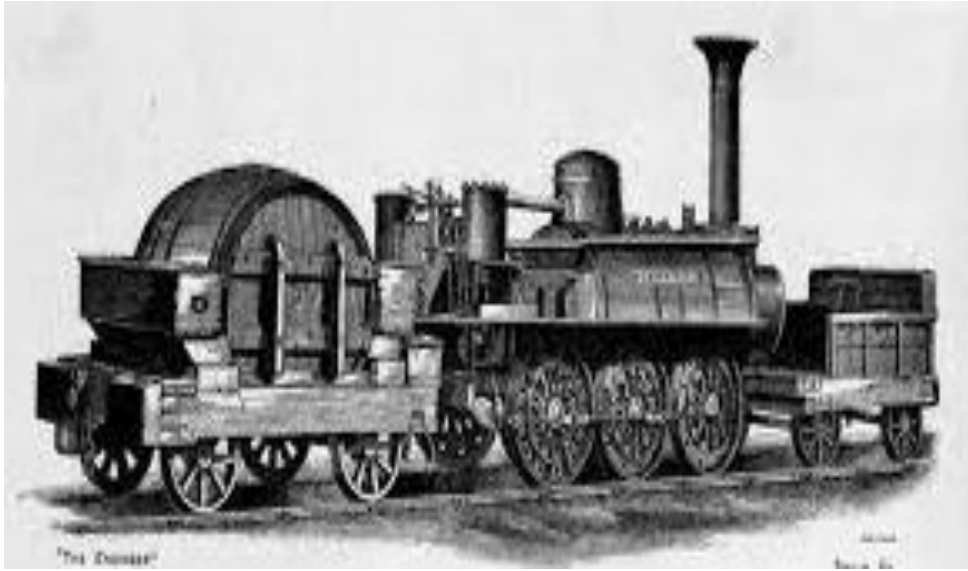


### New PNMEC club members

A warm welcome is extended to new club members **Lionel Ford** and **Francis Stapp**

Lionel who resides down in Foxtton Beach is building a 7.25 inch gauge steam locomotive, a 1831 Timothy Hackworth design called a Wilberforce 23. An 0-6-0 but with separate 4 wheel trucks front and rear for coal and water. Lionel is having to reverse engineer this loco from a couple of photo's and sketches using CAD.

Francis who resides in Feilding is this year starting out on his journey into higher education in the field of engineering with UCOL. Francis has an interest in Rocketry and is keen to built one or two working examples.



## Project Progress

Bruce Geange wasn't able to attend our project progress club night back in October but sent in to the editor some photo's of his recent efforts.

Bruce has completed a 1/12 scale model of the World War Two Dodge WC 3/4 ton four wheel drive truck of 1941 commonly referred to as beeps, the Dodge being a heavier vehicle than a Jeep.

On first looking at Bruce's photo's I thought that these were of a plastic kit set but this model is made from wood with a few metal components, wood being Bruce's preferred material of choice at present.

250,000 of these beeps were produced during the war and were produced from the Dodge and Fargo factories in different configurations, Bruce's being a WC 51 cargo truck, the others being Ambulance's WC54, a Gun Motor Carriage WC 55, a command Car WC 56 and a Carry all WC53 which looks like a large 4 door saloon car! All using the same 92HP engine and drive line components.

I asked Bruce as to why he chose the Dodge as a project and as a child Bruce had a school friend who's Father had one on the family farm as the farm Ute long before that term existed. This would have been an army surplus vehicle and ideal for taking the milk churns down to the creamery. Also these World War 2 era vehicles were still in use by the NZ army during Bruce's stint of compulsory military training (CMT) where he had to guard a fleet of these era vehicles over night on occasion. Probably not the best person to guard them as I can imagine the truck being dismantled and rebuilt during his shift!



**Bruce's 1941 Dodge WC51 Cargo Truck  
Photo Geange**

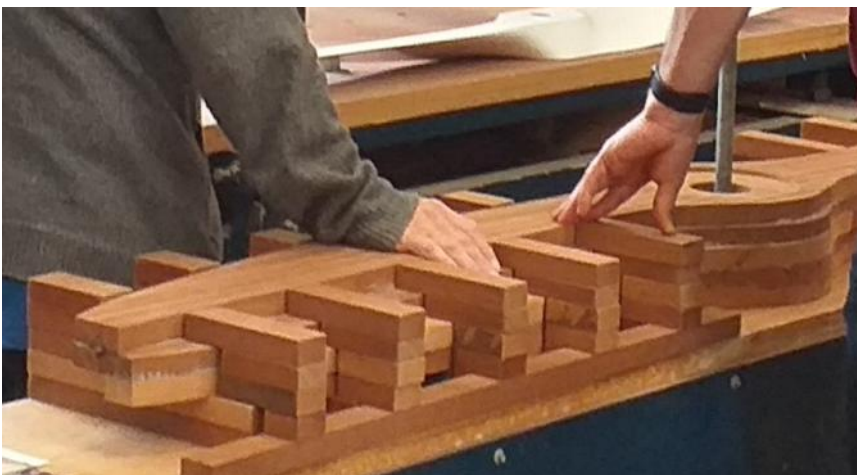
The under the bonnet detail of Bruce's Dodge which also features working lights. The Dodge's had the manufacture details on a plate located underside of the bonnet, Bruce has replicated this using his old army number.



## 2021 End of Year Gathering

Levin based club member Verdon Heath arranged for the PNMEC to visit Jeff who gets up to some interesting activities in his sheds. A good turn out of members and their partners gathered at Manukau south of Levin before heading over to Jeff's residence and the first shed of the day.

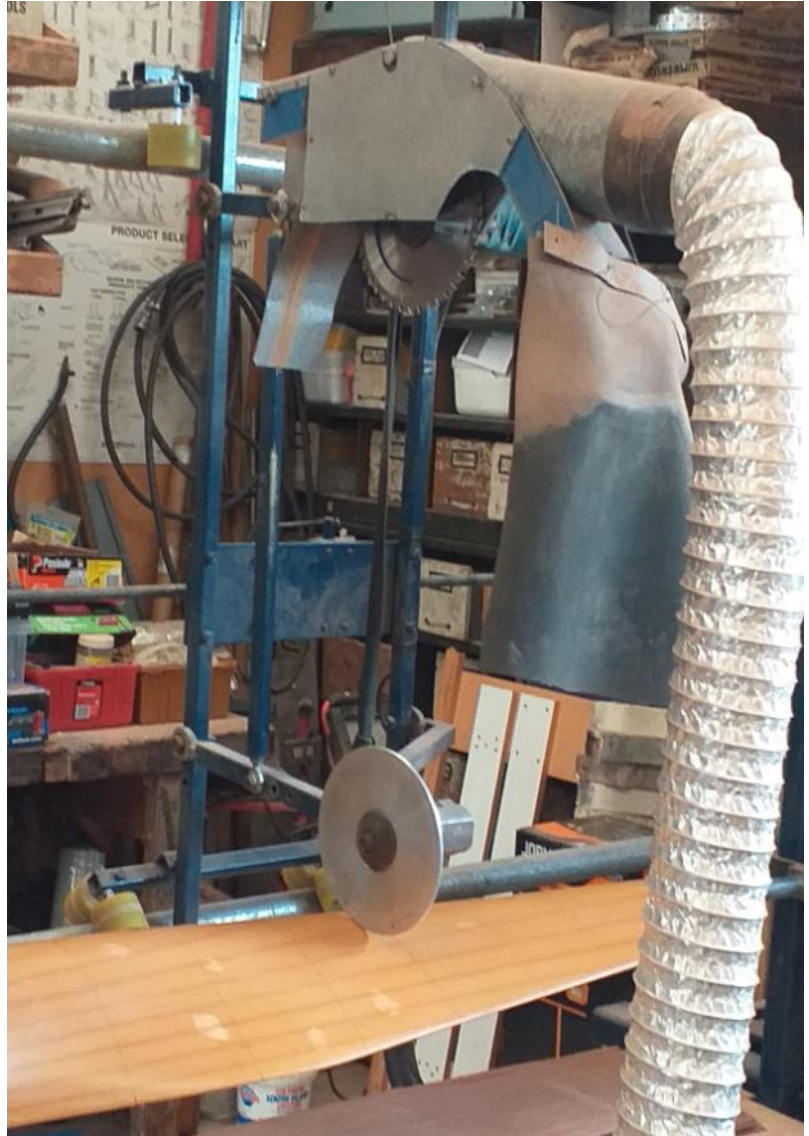
For many years now Jeff has been producing wooden propellers for older aircraft such as the Tiger Moth etc and the first shed we enter is set up for the manufacture of these propellers with production of about six prop's a year if the demand is there. For the machining of a prop a master blade has to be produced or a existing prop is used for such purpose. The manufacture of a new master blade is a very involved process as the pitch of these prop's has to match the desired engine rpm and without an original prop this can be a bit hit and miss! The master blade were made using hand tools, planes and spoke shaves etc . With a master sorted out fabrication of a prop can begin which starts with what wood or combination of woods are to be used, then cutting out the rough shapes before they are glued together which is one of the more critical parts of the whole process.



**A laminated wooden propeller clamped up onto a large steel I beam while the glue sets. PNMEC members assisting with this process!**



With the laminated prop passing an inspection machining can commence and Jeff had built two machine tools up for this purpose, one Jeff called a lathe. We engineers would call it a copy lathe with a milling head which in this case was a circular saw with a tungsten tipped blade and is used to rough out the blades. The master blade is mounted on a spindle with the to be machined mounted above on a separate spindle. A pivoting parallelogram frame is mounted to the side, the low part carrying the roller follower for the master, with the circular saw above raising and falling as the spindles rotate while being fed along the saw blade width with each rotation of the spindle! Finish machining was done on a copy router, with the master and roughed out prop precision mounted on the table and the stylus and cutter raising and falling in unison to accurately replicate the contours of the master blade. After final sanding various surface coatings are applied, with some prop's having brass covered tips. Balancing of the prop had to be done on a calm cool day as the slightest breeze or sudden temperature change can affect the process with a little spray of surface coating on one end or side sometimes being just enough to balance a finished propeller!



**The Copy lathe showing follower wheel acting onto the master blade**



**The copy router with master blade in position**



We then moved next door and entered another world altogether, the world of pre war British motorcycles, mainly 1920's Norton's flat tank models, there seem to be a lot of them.

These machine's weren't for Jeff personal collection but were a commercial venture with a group of like minded friends one of whom discovered a collection of these bikes under a house and so began an obsession with 1920 flat tank Norton's.

The Norton's are purchased as is and are rebuilt to showroom condition with serial numbers checked against factory records to ensure that the correct accessories are fitted as per the original NZ customer order specification back in the 1920's.

There are a lot of reproduction parts for old stuff available, old Norton's being no exception and no time is lost trying to make replacement parts, they just buy them and fit them. The painting is done locally in Levin and looked superb.

Murray Bold had arranged a booking for us all at the Levin Cossie club for lunch at 12.30pm and a few members were late on arriving because they had stuck their noses into another shed which held them up ( old cars) . After a sound lunch ( bangers and mash seemed popular ) we headed of to the Elmhurst Country Estate the new home of Janice and Murray Bold were we visited the Levin model railway clubs rooms and had a look at the developing outdoor G gauge layout within the estate.

Many thanks to Verdon and Murray for their organising of the day and to Jeff for giving up a Saturday morning for our benefit . Thank You.



**A Line up of Flat Tank Norton's**

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