

The Generator

Issue 499
April 2023



Palmerston Model Engineering Club
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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.

Thursday 27 April

Club Night
Annual General Meeting
Model Engineering Quiz

Thursday 25 May

Club Night
Jonathan Mason will give a presentation on high voltage power transmission projects that he has been involved with during his career in this industry

Marriner Reserve Railway

Sunday 7 May & Sunday 21 May

Railway operations at the Marriner Reserve
Trains in operation from 1pm to 3pm
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

Annual General Meeting

The Annual General Meeting of the Palmerston North Model Engineering Club Inc will be held on Thursday the 27th of April 2023 at 7.30pm at the Hearing Association Hall, 435 Church Street, Palmerston North.

The AGM will be followed by a Model Engineering specific quiz to test your knowledge or to expand upon your knowledge of our hobby. Topics may include designs, personalities, workshop processes and equipment.

Donation of Weed Eater

Club member Chris Saunders has very kindly donated his Weed Eater to the PNMEC for our use at the Marriner Reserve Railway as Chris no longer has a need for such a device. Many thanks Chris.

Metal Casting Weekend

There is an opportunity to get some casting done for your projects

TechniCast Foundry in Whanganui will host an annual event where one can take your patterns along and view the process of the casting

This will take place on **Matariki** weekend commencing **14th July**.

Last year the cost was \$9.00 per Kg of **Cast Iron**.

If this is of interest to you then best to start pattern making **now** so that you are ready for this event!

More details to follow.



Marriner Reserve Railway

The railway operational side of the PNMEC have had good track runs over the summer with enthusiastic customer support making our track runs all the more enjoyable for those members involved with our railway operations. Early April saw a visiting locomotive present to run on our rails, young Reid from Ashurst brought along his battery electric North American steam outline locomotive G gauge. The gap between the outer 7.25 inch rail and the inner 3.5 inch rail seems to roughly fit the G gauge so Reid was able give his locomotive a run although I didn't think it would get far without a tender!



Photo Editor

The Generator

Those of you with a eye for detail will note that the edition number for this months Generator is number 499. So what, I hear you say! Well that must make the next edition May 2023 number 500 rather special.

The first newsletter issued by the Palmerston North Model Engineering Club was in April 1977 and it wasn't till issue number 19 in March of 1979 that the newsletter carried the title of The Generator. We need to acknowledge the efforts of our previous editors and assistants in reaching this milestone.

The first editions were edited by then club secretary Shirley Penhall up until April 1980 when Rex Toms and Bruce Manning became the editors with Fin Mason taking over in May 1992, then handing over to Doug Chambers in May 1996 who enjoyed the role so much he remained as editor until April 2017 with Murray Bold taking over until mid 2020 with current editor Richard Lockett taking over. It also has to be acknowledged the work that Murray Bold did in the design and the compiling of the Generator from when it became digital using Microsoft Publisher software from late 1999 till mid 2020.

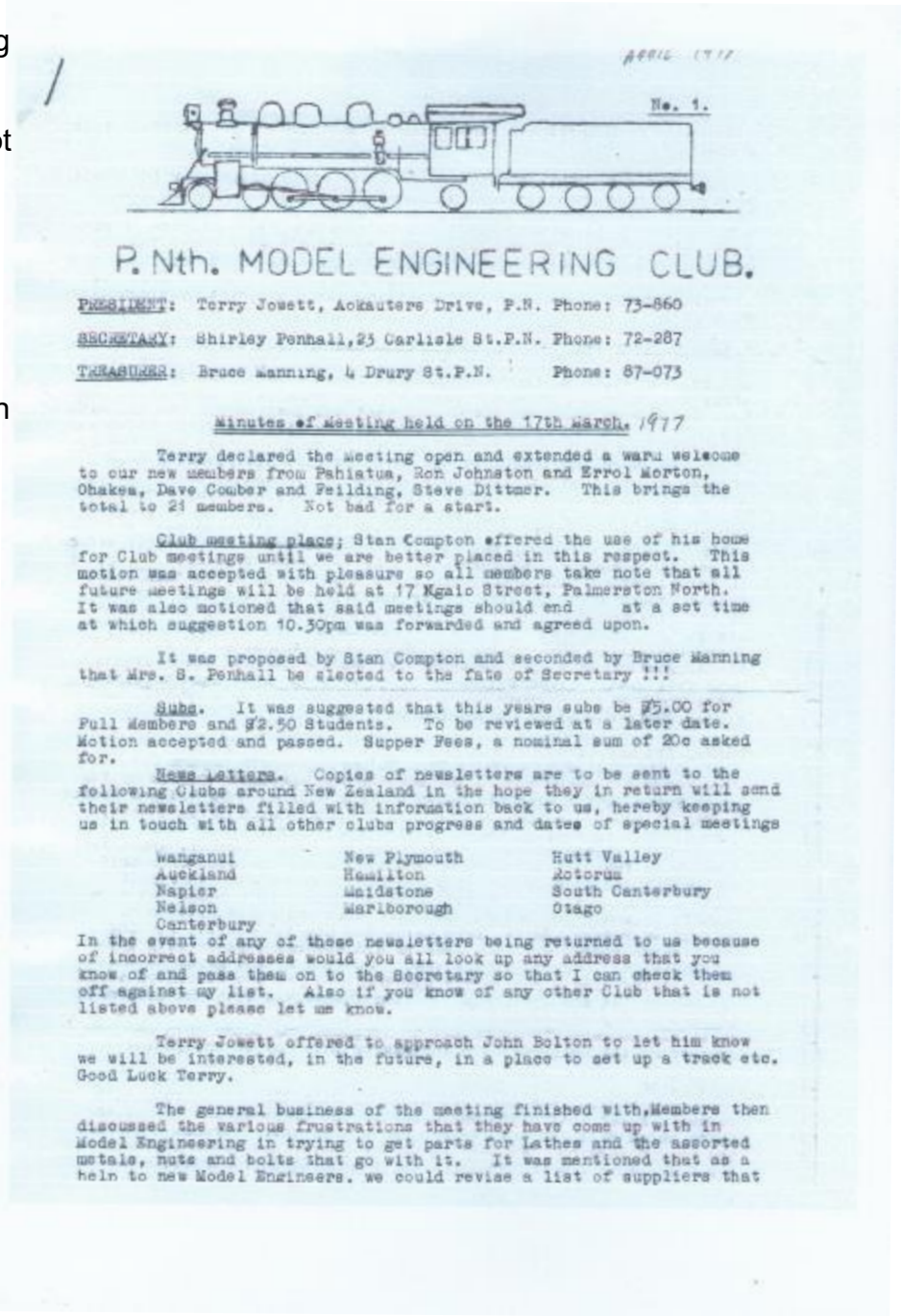
With the Generator becoming digital proof reading became practical, a function ably carried out by Cynthia Cooper ever since.

Palmerston North Model Engineering Club newsletter No 1 April 1977.

Produced on a typewriter with the Locomotive a tracing from a book not sniped from the internet!

Please study newsletter no 1 carefully as you may be asked a question or two about it at the Model Engineering Quiz after the AGM on the 27th of April.

I'll give you a heads up, one question will be to identify the locomotive!



Club Night Report

The theme for the March club night was the prevention of fire in our home workshop environment. Matt Clark from Fire and Emergency New Zealand gave a presentation around the hazards commonly associated with our activities and answered a few queries on not so common hazards which a couple of members had encountered over the years! The fire risk of charging power tool batteries was brought up as this would seem to be a common occurrence and with the vast amount of these devices we each have should we be concerned? If the battery has been damaged by being dropped etc sufficient to damage the outer plastic case then one should assume that there is internal damage as well and do not try and recharge it! Junk it.

Matt previously had been a member of the New Zealand Defence Force with the NZ Army employed as an armorer and this was also of great interest to the members present. Thanks Matt.

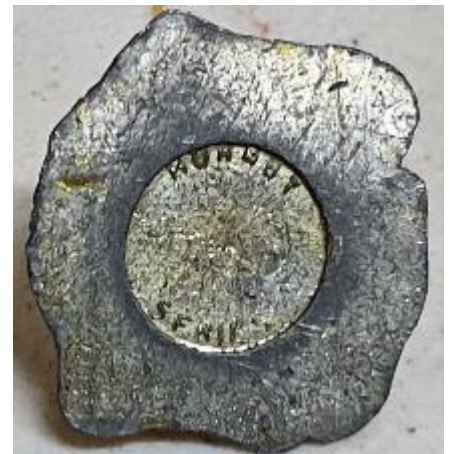
Chris Morton brought along the propellor for the aeroplane windvane that he is rebuilding and a couple of odd metal items that he had discovered in the bottom of a box of assorted Hornby/ Meccano odds and sods that he had successfully bid for at a toy auction. Chris didn't know where these odd items fitted in but under a magnifying ring the name Hornby was stamped underneath and so he had to do some research to establish what they were. I let Chris explain.



Tree stands apparently

Bottom of page
Blades and hub for windvane
propellor.

Photo's Bruce Geange



As a result of my showing the Hornby Series Diecast Stands for trees at the last club night and all the questions that I couldn't answer at the time. Here are some answers which the editor might publish.

Trees of a sort were first made in 1932, then in 1933 trees became available as separate items, poplars at 2 shillings a dozen or oaks at 2 shillings and 6 pence a dozen. Assorted trees complete with stands of 6 trees sold for 3 shillings. The tree trunks were wooden dowels, initially not stained and later of a dark hue, with the foliage made from loofah died green and sort of shaped to resemble the appropriate tree.

There were also hedgerows available at 3 shillings a dozen, each length matching the straight track sections in length.

These were probably the second most dangerous item that Hornby produced, as these were strips of wood with upwards facing pointed nails with loofah impaled on the nails!

The most dangerous of Hornby's vast product line was the HV Metropolitan Locomotive which was powered from the 250 volt mains household supply via a 60 watt lamp. Theoretically the resulting voltage was safe, despite there being enough volts left to give you a healthy electric shock. The English Home Office intervened and these locomotives were withdrawn from domestic sale in little over a year. There was no objection to continued production for export, colonials and foreigners evidently being expendable!



The Generator

The Bobber Project Part 3

In considering the frame design there were several features around the engine that needed to be finalized first. Hence attention was turned to the engine.

The priority is to locate the main “immovable” components first.

I started with the electronic ignition. This is a Paxon unit out of England, designed for similar engines. However I needed to make a housing and driveshaft to suit. The BSA B33 has a timing gear train up the RH side which originally drove a magneto and a generator. It was easiest to mount the electronic ignition in the same location.



Left
Timing case machined for custom housing.



Right
E I housing fitted up.

All Photos Merv George

Other considerations: it was envisaged that an alternator be mounted to the left of the electronic ignition (E.I.), with its drive from the LH side of the engine. This put a size limitation on the E.I. housing. Instead of 2 bearings and a seal in the E.I. housing, one of the bearings was relocated to inside the timing gear casing resulting in a shorter housing.

The original drive gear could be used with an in case bearing behind it and outside the casing a new housing. The gear needed its spigot (hardened) ground down to suit the new internal bearing and the casing needed boring out also.



Right
Modifications to the timing
Gear.



Setting up to machine the E I housing.

A locating diameter behind the gear was used to locate the new housing on. Three of the timing cover threaded holes were drilled through and tapped to secure the housing screws in from each side of the holes. These were the only points with enough strength as the casing was thin on the rear face. It also had to be milled flat.

As some of the dimensions were quite tight the housing was drawn up to ensure there would be no break throughs etc. on the tapered area. Turned from a piece of 100 dia. alloy with the base milled to an off centre triangular shape was a good exercise for me and one I didn't rush.

A circuit board fits into the housing, over the rotor and a recessed cover was turned up to enclose it all. The drive shaft had a taper at each end. I'm happy with the end result but realise the timing will probably have to be done before the alternator is fitted! Lets hope it never slips. Merv George.

The bobber Project. Part 1 August 2022. Part 2 September 2022.

Restored Jubilee

Bruce Cooper from the Auckland Society of Model Engineers sent to the editor photo's of his newly restored 5 inch Jubilee class locomotive. As you can see from the photo below Bruce has done a tidy job of getting this locomotive looking great again in its new LMS livery. I hear you ask as to why this is of interest to us down in the Manawatu! Well this fine model locomotive was built in Palmerston North, Manawatu Street to be precise, by Ron Walker in the late 1980's and had done many Km's around the Marriner Reserve Railway before passing to Maurice Brownell and then to Brian Leslie. Ron had painted the locomotive in the colours of the Buenos Aries and Pacific Railway, a dark green where as Brian wished to repaint it in the English LMS livery as well as some other modifications. Unfortunately Brian had to down size to move into a retirement village and the loco was sold to Bruce before completion.

Photo Bruce Cooper



Date and Time		Activity
Thursday 27th April	7.30pm	Club night AGM plus Model Engineering Quiz
Thursday 4th May	7.30 pm	Committee Meeting
Sunday 7th May	1pm to 3pm	Marriner Reserve Railway
Sunday 21st May	1pm to 3pm	Marriner Reserve Railway
Thursday 25th May	7.30pm	Club Night Power Transmission Projects
Thursday 1st June	7.30pm	Committee Meeting
Sunday 4th June	1pm to 3pm	Marriner Reserve Railway
Sunday 18h June	1pm to 3pm	Marriner Reserve Railway
Thursday 22rd June	7.30 pm	Club Night TBA

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.