

The Generator

Issue 448
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Palmerston Model Engineering Club
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Managers of the Marriner Reserve Railway - Marriner Street - Palmerston North
PO Box 4132 - Manawatu Mail Centre - Palmerston North 4442



Kenneth (Ken) Anton Nielsen

25 September 1928 - 28 August 2018

Ken Nielsen, a long-standing club member passed away late last month (August). Ken had suffered a decline in health over the past two-three months due to a heart valve problem which was unable to be treated due to his age. Up until this time Ken had been in good shape and was a frequent visitor to Marriner Reserve on Thursday mornings and Sunday running days. He had stopped attending Club Meetings about 3 years ago because of hearing difficulties.

Ken was a month short of his 90th birthday at his death. He was active in his workshop up

until a month ago and he had just finished his last locomotive (a 5-inch gauge Shay). Unfortunately his rapid loss of health prevented him from running his Shay.

Ken had been an active club member for many years and served on the committee in several capacities including Treasurer. Ken was also a long standing member of the club boiler committee. He completed five steam locomotives, all of which look amazing and all run exceptionally well. He built several stationary steam engines some of which powered several radio-controlled boats that he made. His workshop was full of accessories he had built for his lathes, milling machines and other tools. Ken was a model engineer of a type that I fear we are losing. When I joined the club I asked Ken if he would be prepared to teach me. He said he did not like people watching him while he worked. However, whenever I visited him at home and he was in his workshop I always learned something useful just in general conversation.

John Tweedie.

The above was read at Ken's funeral by Chris Morton.

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

**Track running at
Marriner Reserve Railway**

October 7 th	1pm - 4pm
October 21 st	1pm - 4pm
November 4 th	1pm - 4pm
November 18 th	1pm - 4pm

The Palmerston North Model Engineering Club **Upcoming Club Nights**

27 September 2018

A club member will demonstrate 3D Printing and Laser Engraving.

25 October 2018

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

The above meetings are all to be held at 7.30pm in the
Hearing Association Hall, 435 Church Street, Palmerston North

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 **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.

If you haven't **PAID** your sub, you will have had an emailed invoice or received one with your posted newsletter. Please pay ASAP

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**

STIRLING HELICOPTER – Graeme Hall

With the Morton Aero Engine completed, my thoughts turned to my next project.

An email from our Newsletter Editor entitled 'So you want a Stirling Engine.' It had a youtube attachment. It made me curious, as I had seen these models at the Bristol Show in England 2 years ago.

A search on the Internet came up with a basic plan, but the text was in German!! No problem – all necessary measurements were in metric.



The recommended building material was brass, but not having sheet brass – aluminium was substituted.

The model required 5 small bevel gears – making them a daunting task. A bit of research located suitable nylon gears in Brisbane, Australia – delivered in 2 days!!

Building this model was much like clock making – with frames, shafts, gears and small bearings. The main rotor blades are flattened aluminium streamline tube. Carbon graphite power piston and displacer rod bushes were fitted to reduce friction.

The displacer section required 2 pyrex test tubes, which are difficult to obtain, but were obtained with the help from a friend. The test tubes had to be cut to length, very carefully, with a diamond cut-off wheel and mounted in housings with O-rings to prevent air leaks.

With the completion of the landing skids – assembly began.

Many adjustments had to be made for correct alignment of bearings, shafts and tooth contact of bevel gears and lengths of stroke of displacer and power cylinders. A meths lamp was built to heat displacer.

An O-ring was obtained to drive rotor pulley and first test run. Surprise it ran!!

With adjustments to timing and more running time – speed increased as friction decreased.

A wooden mounting block made by an old work mate finished off the project.

But it does not fly!!

For Sale

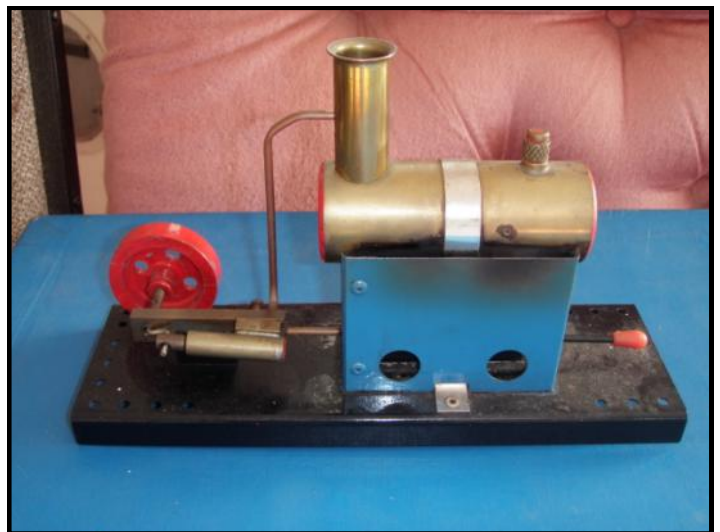
The following items 'for sale on behalf' by R Lockett. Proceeds to be used to purchase Stoat, Rat and possum Traps to be installed at a specific location in the Ruahine Ranges

Stuart Models kit set for a Oscillator Engine \$25



Steam Boiler feed pump \$50
Sets contain castings, bar stock and bolts etc all still in blister packaging.

Also 1994 David Auld built horizontal steam engine and spirit fired boiler in tidy condition \$65



All enquires to
Richard Lockett 06 3230948

Last Month's Club Night

The August meeting started with a few words from Robert (President) followed by a few announcements from Cynthia, our resident organiser.

The main part of the meeting was another instalment from Richard Lockett of photos and material gleaned from the archives of the NZ National Library and the Turnbull library.

Of note were early photos of the Mangahao power station building, of a Pelton wheel used to drive the generators and of the switch board room. There were also several photos from various railway workshops which gave an impression of the scale of engineering carried out.

The clarity of these photos was very good and Richard's commentary provided a

great deal of interest to the images.

The meeting closed with a short "Bits and Pieces" session.

Robert Edwards showed photos of his recently completed riding trolleys for his home railway.

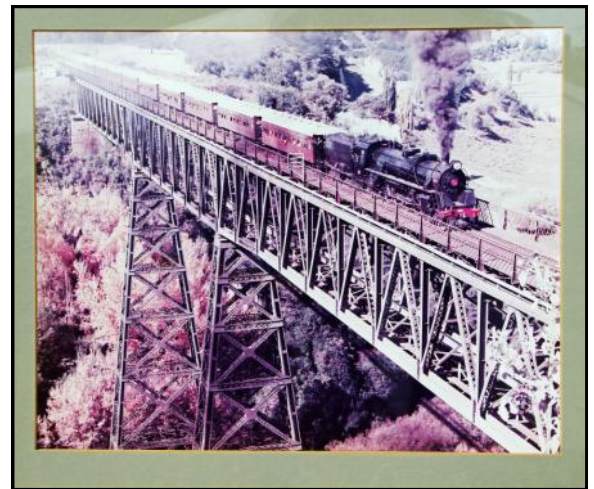
Graeme Hall had brought along a recently completed small model helicopter powered by small heat engine. This worked very well.

Ed: See page 3 for article

Chris Morton showed an endoscope that he had obtained. He suggested that it could be used for inspecting the inside of boilers and well as other hard to reach places.

Brian Leslie showed a picture of a train on the Makohine viaduct. The gift was from a former NZR guard who manned trains with Brian. Brian noted that many of the drivers would attempt to upset the guards from their seat in the guard's van as the train started.

This particular guard thanked Brian for not participating in these pranks.



Letter From England

Stan Compton

I had a problem recently with a group of young children who were bored while waiting for their ride so they started racing round the benches on the station platform, all good fun, but they get psyched-up. The driver told me later he could feel them kicking the trolley skirts and bouncing about. This is why I stopped the racing round. The parent in charge thought I was not helpful, but she had never driven a steam-loco in such circumstances. I recall that New Zealanders would always wait quietly in line for their turn for a ride. Maybe our modern children treat our railway like a playground.

I heard a story about a young girl living on a farm who met an older girl who was involved with a group of bikies. She had a jumper she had grown out of so she gave it to the farm-girl who was delighted with the gift and wore it with pride. It had an inscription "Piston Broke". She wore it until her Mother found out what those two words actually meant!! "Ed: Piston Broke means drunk and having no money."

When I built my four inch scale Allchin Traction Engine I wanted to be sure I had good quality bronze to cast my boiler fittings, so I acquired scrap steam valves and melted them down in my propane fired furnace lined with ceramic fibre.

When I took my final drive gear pattern into a foundry in Lower Hutt, who made

trailer hitches in malleable iron, the Manager said. "I would love to mould this up myself but I only have one man capable of doing this job." The result was first class. That was probably forty years ago. Such a pity to learn that many patterns at a midland supplier are likely to go to the tip due to a lack of demand for castings.

Everyone knows about the Morris Mini car but would be unaware that after the basic prototype was built no one had thought about where to fit a petrol tank! One of our members was involved with producing the dies to press the tank panels. He told me that to form such odd shapes the metal was stretched as thin as an eggshell!

Our last running day is Halloween. A bonfire will be lit and crowds expect to ride. It is hard work for the volunteers who have to withstand the screams of the children when they go through the tunnel. An excuse for making money by the commercial world it was a serious business for many years and real damage to farms and crops would happen.

Years ago I had a V-Twin steam engine brought to me to test for a young naval officer who told me that all engineers were crazy. My reply was. "You would be in trouble without us to run you engines." This animosity goes back to when steam took over from sail in Victorian days. Admiral Fisher thought it would be a good idea for upper-deck officers to be taught the basics of steam propulsion.

Should the engineers get killed they would be able to take over. This met with such opposition it has never been forgotten. The V-Twin engine was a design by his relative as a young man. It was impractical and would waste steam.

I told him this is what the builder found out on testing in a boat on a river. I made a base to bolt it for display purposes. A Thank-you job! The builder had never thought it would end up this way over a hundred years later. The same could be said of a Model-T Ford chassis that was discovered in a local rubbish tip recently. Someone may be glad of it.

Our National Health system loses three million pounds every year due to overseas visitors who arrive here as visitors, then find they need hospital treatment not by accident. It costs a lot for a pregnant woman for a delivery overseas, both that and a serious illness will be known about. Payment is difficult to make a claim once the patient has returned home. With many overseas immigrants arriving, our health system is overloaded when added to by residents. Rather than wait twelve months for a lens implant I dug into our savings and paid. Well worth the money.

I discovered my surgeon intends to build himself a violin when he retires. He is lucky he can play one. I wish him luck.

One quiet day at Broomy Hill, Hereford I had the loco in steam when a young woman visitor told me that she fired locos on the Llanfair Narrow Gauge Railway. So I offered her a drive of a five-inch gauge main-line engine. She protested that she had never driven on a model track. "Not to worry, you will soon learn." After showing her the miniature version of the controls, water feed, etc, I let her take over with me as a passenger. After one circuit she could take over and the look on her face told me she enjoyed the experience. To hear those valve-beats is so similar to a full-size locomotive. In return she offered me a ride on the footplate at her railway but I was never able to accept the offer.

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-1

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.pnmecc.org.nz/PNMECC%20-%20Operations%20and%20Safety%20Manual-2014.pdf>

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

Purpose: To operate, maintain and develop a Miniature Railway at the Marriner Reserve in a manner as to minimize any risks to persons involved in railway operations and other reserve users.

Contents: 1) Railway operations. 2) First Aid. 3) Infrastructure. 4) Grounds Maintenance. 5) Railway infrastructure construction/maintenance.

RAILWAY OPERATIONS

1.1 The OPERATOR

Every track running occasion. The track is to be walked before any locomotive is driven onto the hoist.

Looking for mower damage. Looking for intentional damage (vandalism). Removal of windfall sticks and branches from the tracks. Removal of any broken glass. Check operation of turnouts.

The person undertaking the track walk becomes the **OPERATOR** for the running occasion.

For **LOCOMOTION** weekend the operator is appointed by the Committee PNMECC for the occasion.

Signs the log book to the fact that the track walk has been done and is safe to use or otherwise. Records any damage or obstructions. Records all locos running. Records any accidents or serious incidents. Checks that the **FIRST AID BOX** is present and that any consumable usage is recorded on the white board. Records any new hazards identified during the running occasion. Oversees **all** railway operations.

1.2 THE LOG BOOK

All Track Running Occasions. The log book is kept on the middle shelf above the notice board in the Operations Shed. The Log Book is used to record the Railway activities of the Marriner Reserve Railway. That the track inspection has **been** done. Any identified damage to the railway infrastructure. Obstacles on the track. What Locomotives were in service. Any accidents or incidents.

Please ensure that your locomotive has been entered into the log book and that a track inspection has **been** done before you move your locomotive onto the hoist.