



Newsletter of **THE PALMERSTON NORTH MODEL ENGINEERING CLUB INC**

Managers of the "MARRINER RESERVE RAILWAY"

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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 difficult. We may even offer you a cuppa.

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.

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This Months Featured Model



Report on the February Meeting.

Members were told about the various jobs volunteers would be asked to undertake during the Locomotion Weekend and then attention was drawn to the items on the table.

Richard Lockett showed us the progress on the tender bogie frames for his NZR 'U' class.

Eddie Bleackley had the tender chassis for the 'Britannia'. This is the locomotive that Phil Chalk built, completed in 1965.

Murray Bold had a ratchet spanner that he made on his 3D printer. It replicated one made on the International Space Station.

Fred Kent told of attending the Wairarapa Air Show and also getting down to Featherston to see the Fell Museum.

Chris Bjerga Had a boiler for a 3 1/2" LNER K4. He has a Colchester Student lathe and he told of what he went through making a half nut for the lead screw.

The meeting ended with tea and biscuits and a fair bit of chatter as members caught up.

Model Mee

The Leisure Centre is booked for the **29-30 August**. The hall will be available for set up on Friday. Keep working on those current projects.

March Club Night

This will be held on the **26th March at 7.30pm in the Hearing Association Rooms, Church Street, Palmerston North.**

Richard Lockett will talk about local engineering heritage.

COMING EVENTS

Track running at Marriner Reserve Railway

April 5^h from 1pm to 4pm
April 19th from 1pm to 4pm

Open Weekends

59th AALS Convention
Easter 2015 at the Penfield MES
near Adelaide.

Havelock North Live Steamers
Easter Weekend 3rd - 6th April

New Plymouth Model Engineers
Easter Weekend 4th - 6th April

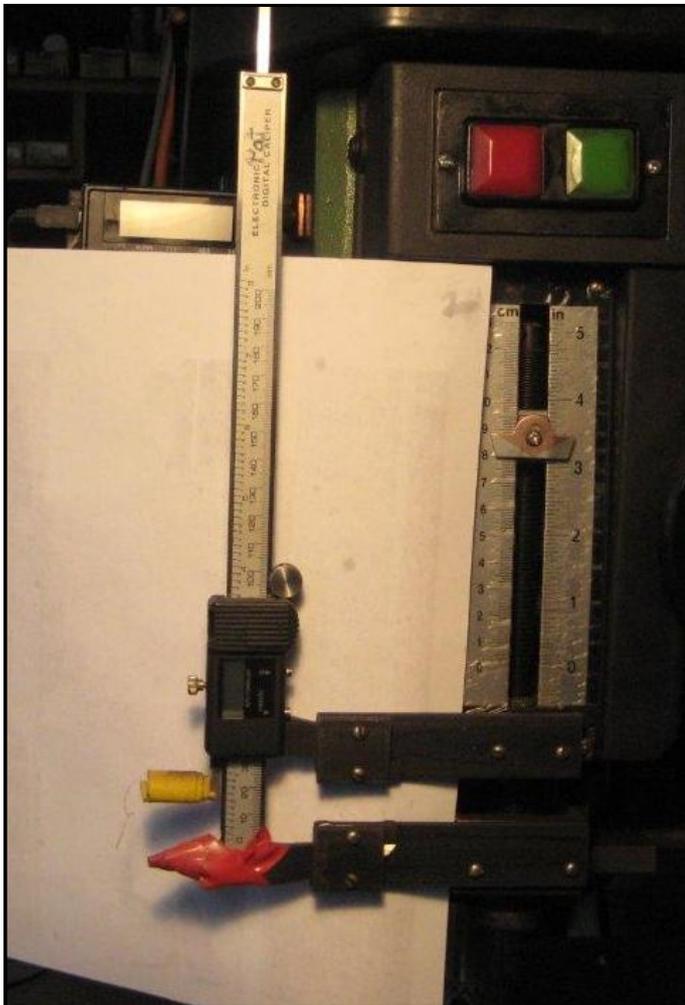
Nelson Modellers
Easter Weekend 3rd - 6th April

A USEFUL TIP

Pat O'Shea writes, I have always had a problem with drilling or milling to a certain depth. The scales on the drill / mills and drill presses are not very accurate for vertical work. I over came the problem

The closing date for the next issue of The Generator is Friday 10th April

with (as seen in the photo) a set of 'Vernier' callipers (which are not expensive these days). The tape is covering the sharp bits which I have not got around to cutting off yet. The picture explains it all, but if you have any problems then I will be happy to help.



THIS MONTH'S FEATURED MODEL

By Merv George

"Some projects are just a little large to take into the Monthly meetings. Such is this tapping head that I made. It was built to speed up production tapping.

The main features of it are:-

A large variable speed reversible drill supplies enough torque for more than 10mm taps. Gripping ability of the chuck is the limiting factor but it is better that the tap spins in the chuck rather than the tap snapping, for instance, if bottomed out in a blind hole.

A parallelogram linkage holds the tapping head, so it is always at right angles to the vice table. A draw slider allows the head to move outwards from the parallelogram to reach to each end of the vice table

A counterweight in rear tube frame to assist the spring in supporting the head. Lead was poured into the counterweight tube until it was just the right weight

A quick release vice was required for convenience of use along with wide jaws to hold long work pieces such as a piece of RHS. The wood work vice selected has more than enough opening. Extra "jaws" were fitted running the full width of the table, providing a shelf for an RHS or similar to sit on.

Relevant tooling is mounted on the table so hopefully everything for the tapping operation is within reach . The tapping head is a work in progress but is very convenient to use even for tapping just 1 or 2 holes. I am not sure the full width front jaw will remain as it limits holding some L shaped work – it will probably work just as well without it"

April Meeting.

This Meeting will be our **Annual General Meeting.**

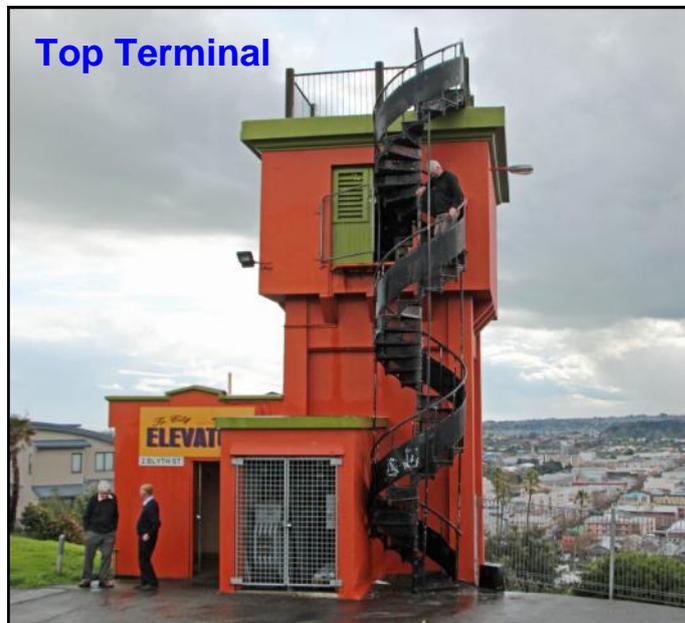
It will be held on the 24th April at 7.30pm in the Hearing Association Rooms, Church Street, Palmerston North.

During the evening members will be asked to vote for the **'Clubman of the Year'** so you should be giving some thought as to who you think would be a suitable recipient.

Visit to the Durie Hill Elevator in Wanganui.

By Bruce Geange

A group of us had the opportunity to be shown through the workings of the elevator. Before walking up the 213 metre tunnel we were informed about the history of the lift. This was proposed by the local News Paper Editor John Ball and friend Edward Crow that an elevator would help the people living on Durie Hill. The project started in 1916 with the digging of the tunnel. The original entrance was buried by a land slide soon after work started. The remainder of the work was completed without more problems. The tunnel is lined with concrete and now has a concrete floor and good lighting. The elevator shaft was dug from the bottom and then down from the top. A lining was moulded at the top and lowered down the shaft. Arriving at the end of the tunnel to the elevator door a sign reads, Please ring bell for lift. Above the entrance to the tunnel the date reads 1916 with the opening date being 2nd August 1919. When boarding the lift car you either step up or down into it. There is a charge of \$4.00 for the ride with concession tickets available and has an attendant that operates the lift. The lift travels 66 metres and takes about one minute. Originally the DC power of 500 volts that operates the lift came from the tram lines and with the trams gone in 1951 the power now comes from the grid. Once at the top we were shown the electrical control room with transformers, switch gear and the mercury rectifier encased in glass that converts the AC power to DC, giving out a blue light as the lift operated. From here we climbed the spiral staircase to the machine room where a rather large DC motor with a rating of 34HP was just inside the door coupled to the brake and gearbox. The lift was manufactured by Smith Major & Stevens Ltd, Engineers, London & Northampton. All components are built large and heavy compared to today's machinery. The guide rails for the lift car and counter weight are wood whereas the modern lifts are steel. Most of the lift is as it was installed when new. There is a viewing platform on the roof of the building and the Memorial Tower just a short walk away.



Top Terminal



Mercury Arc Rectifier



Winding Gear



Entrance

LETTER from ENGLAND

By Stan Compton

In the late fifties we had a Hay business in a village in Suffolk. The local garage was bought by an ex Air Force man, the locals called him "Mr Stresses and Strains" because that had been his occupation and frequently the subject of his conversation. He bought a 'Showmans Road Locomotive at scrap price and had no idea of its weight. When it was unloaded onto the garage forecourt it crushed the concrete. How he moved it I have no idea and I do not know what happened to it later. By coincidence later on I was in hospital with a broken ankle and the garage man was in the bed opposite me in traction. This means that weights are attached to one of his legs by straps leading over a pulley hanging down at the foot of the bed. His problem was that the bed was raised up at the foot and as he moved while asleep the weights would clank up and down on the metalwork of his bed. Sometimes the weight would get caught on the framework of the bed and the next time he moved while asleep the weight would drop with painful results!!! Desperate, he made a sketch of a simple device to mount the pulley on, well clear of the foot of the bed. The hospital carpenter made a good job and we all got a good night's sleep afterwards. When I arrived in the village a local shopkeeper was quick to inform me that my driver had once served a short term in prison for a minor offence! The man never gave me any trouble but had experienced real poverty as a child. Many times on his way to school he would climb over a farm gate to pick a turnip to eat to allay his hunger!! Possessing only one pair of boots he could not attend school when they were being repaired.

A real countryman, while in the Army in France, prior to Dunkirk they were left to fend for themselves; he would sleep nice and warm in with the pigs while his companions froze wrapped in a blanket in a ditch!!!! He was not a good driver however, one memorable day loading straw on a sloping field he foolishly drove diagonally across the slope and this transferred all the weight onto one side resulting in a broken half-shaft in the rear axle. By good fortune a driver of a single-cylinder 'Field Marshall' diesel tractor came to the rescue. We always carried a heavy chain in the truck cab and we were soon witnessing the amount of energy stored in a heavy flywheel. Just a few revs and out of the hole came the lorry, a silver coin changed hands and I was off to locate another half-shaft and a bar to push the broken piece out. This is part of my life that I may have written about before so please forgive me if I have repeated myself.

Recently, I was able to visit a man who helped me years ago with the design of a water feed pump for a model of the 'La France Steam Pumper' to give its correct name. It is an American horse drawn fire engine and my model of it is on display in the home of the present owner in Lincolnshire. I had kept in

touch with my mentor on fire engines; his models win Gold Medals at the Annual Model Engineer Exhibition in London. He is now in his nineties and is still active in his workshop. He was involved in wireless telegraphy in the RAF and was a POW of the Japanese during WW2. All his work is first class but he has now got to the stage in his life where he has to part with his collection of models.

This is something that we all have to face and all of mine have been disposed of. However I purchased from him a small compound steam engine suitable for a model boat which will always have a home in my family. I can build clocks but I doubt that I would tackle the 14BA studs, 1mm in diameter. At present he is building a 'Trevithic Steam Pump' to a published design which is not very good. Imagine making the 14BA square nuts!!!

He gave me the planked on frame hull modelled on an 18 foot steam launch from Lake Windermere in the Lake District called 'Lady Elizabeth' that many years ago had sunk in the lake. It was recovered and restored and is now based in the Steam-Boat Museum on the Lake. The hull he gave me was not up to his usual standard so he built a second one!!

My driver for the day was Fred Jenkins who had been in the 'Airborne Regiment' and it was nice to hear the two men chatting with mutual interest in aircraft; being retired in an English Village can be lonely.

Full marks to the Tuesday gang working at the Track site at Hereford. I am told that large works are taking place, like removing the old two foot gauge track that ran into the Old Waterworks, it would not meet today's safety standards and this will give more car parking space. Also there is construction of a larger boat pond. This is a big job, Wally set up a drilling rig and located a supply of water to keep the pond topped up once completed. Our local council provided funding for the pond intending to help local wild-fowl, you never know we may find a swan in residence, we had one once after a flood. New sleepers made of re-cycled rubber are on site to replace old ones on the ground level track and this work is all being done out in the winter weather. The elevated track is also receiving some attention. We shall have 15 running days on both tracks this summer.

One of our members had a new almost complete 7¼ " gauge GWR 2-6-0 engine and tender stolen. Thieves cut into his workshop that backed onto a paddock, they came back a week later to steal his kitset model of a 'Tiger Tank'!!!!

Locomotion 2015

Some of our recent Locomotion events have been marred somewhat by wet weather. This year the weather was on our side with a vengeance. Very hot, almost too hot. Visitor numbers were down a little and on the Sunday passenger numbers were down but we still ended up in the 'black' financially. Good to be able to catch up with old friends and some new ones. We hope to see you all again next year.



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