



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

Managers of the "MARRINER RESERVE RAILWAY"

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**July 2013  
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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.

Sender:- PNMEC  
22b Haydon St,  
Palmerston North

Place  
stamp  
here

**This Months Featured Model**



## Report on the June Meeting.

**John Tweedie's** talk about his recent trip to Switzerland was very interesting and the photos and movie clips helped make his presentation. John and his partner Katherine were able to travel to the top of the Jungfrau on the rack railway. This railway has electric locomotives but another nearby has steam and diesel powered locomotives for motive power. In Basle John located a 7¼" – 5" model railway but found the language barrier a problem until he showed a photo of himself driving his locomotive. Immediately he was taken over to an English speaking Swiss gentleman who was able to manage to translate questions and answers.

**Graeme Hall** brought along his nearly completed aero engine. Made, as we have come to expect to his usual very high standards.



**Brian Leslie** had a strange looking device which had us all puzzled, it was used to remove a dead calf from the unfortunate cow by cutting the calf into sections to allow removal piece by piece. A retired vet who still teaches trainees, arranged for Brian to repair and supply some missing parts for the device.

**Richard Lockett** had a driving wheel and a bogie wheel for his



NZR U class. Both fitted up with medium tensile steel tyres and looking very nice indeed. An extremely cold night didn't deter an excellent turn out of members to a very interesting evening.

## July Club Night

7:30pm, Thursday 25 July 2013

Hearing Association Rooms

Church Street, Palmerston North

We have guest speakers from the bearing firm SAECOWilson Ltd (SAECOPRECISON), and their subjects will be " Bearings, and how not to cause them to fail prematurely " and " Glueing things successfully with Loctite ".

They will be welcoming questions on their specialist subjects, and there may be handouts of data for us.

## MODEL MEE 2013

Only One Month to Kick Off

This will be held on 24 – 25 August 2013. All members are asked to dust off their models, and be prepared to bring along the current project completed or not.



## COMING EVENTS

**Track running at Marriner Reserve Railway**

August 4<sup>th</sup> from 1pm to 3pm

August 18<sup>th</sup> from 1pm to 3pm

**Open Weekends**

**Kapiti Miniature Railway**

Official Opening of their 7¼" gauge extension  
28<sup>th</sup> -29<sup>th</sup> September

**Havelock North Live Steamers**

Labour weekend 25-28 October (4 Days)

**New Plymouth Model Engineers**

Labour weekend 26-28 October (3 Days)

The closing date for the next issue of The Generator is Friday 9th August

## THIS MONTH'S FEATURED MODEL

By Ian Stephens

Building a model of a twin cylinder Tangye Mill Engine has been on my mind for some time and finally I made the move and got the project underway. First up was the flywheel which was turned from a disc 7 inches in diameter and 1 inch thick mild steel. After a lot of lathe work I ended up with a very heavy flywheel. The bed plate was manufactured from 1½" by 3/8" mild steel and after being milled and bent to shape it turned out pretty well. I had made two trunk guides for another project but they hadn't been used. They were not quite correct but they have worked out OK. The engine has a 1½" bore by 1½" stroke so it is quite a 'stokey' engine. I asked Graeme Hall if he would make up the governor for me and he agreed and what a magnificent job he made. Many thanks Graeme.



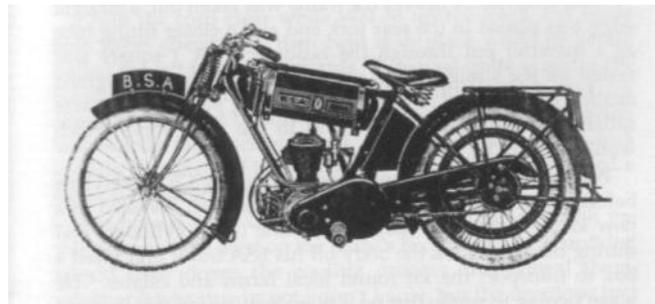
The engine could be fitted with either one or two governors. If two were fitted then the engine could have one cylinder disconnected and still run. I decided that one was more than enough. I redesigned the bed plate to make it less bulky. It now sits on a metal base 6½" by 8½" by 1½" high that sits on a wooden plinth. The engine runs very well and I am very pleased with the end result.

Another one to polish for display at Model Mee 24<sup>th</sup> -25<sup>th</sup> August.

## LETTER FROM ENGLAND

By Stan Compton

I found an article in 'Old Glory' on the history of a 1924 model B 250cc side valve BSA having the 'round tank' and designed for the 'everyman' market. About 15000 were built in 1924, the year of my birth. A basic machine with chain drive and a two speed gearbox. Later models had a three speed gearbox. When I was about sixteen I found one for sale at a local dealer for ten pounds, a man's wage would be about three pounds then. I put ten shillings deposit on the



machine with little hope of finding the balance after paying my board at home which was the norm in those days. At about that time I was out on my bicycle one weekend and I came across a boy of about my age with a 250cc BSA coil ignition motorcycle broken down in a village. I believe his parents bought it for him as it cost 48 pounds ten shillings. His battery was flat so I told him to go to the village shop and buy two twin cell bicycle lamp batteries, each battery had 2.5 volts and the pair together would give 5 volts, enough to excite a 6 volt coil. I made a lash up with scraps of wire and told him to try it out and sure enough it started on the first dig on the kick start lever. He did not deserve such a nice machine and I was left to pedal home on the bike I had paid for out of my wages.

Years later in 1950 a relative owned one of these 250cc BSA's. He worked at the Dunlop tyre factory and he bought us a four inch thick foam rubber mattress. He rolled it up and tied it with string and then delivered it to us slung around his back on the little BSA!!!

Recently I went to a local auction firm to view the vintage motorcycles about to go 'under the hammer', purely out of interest reminding me of my youth. There was a 1935 250cc BSA just like the one I was keen to own as a lad of sixteen. Now all the British manufacturers have gone due to the Japanese who started from scratch aiming at a new market. Do you remember when Honda took a small team to the Isle of Man for the TT races? Everyone laughed at them that first year, again the second year, but they learned quickly and the third year they had some success and carried on. Later their Honda 50cc found a new everyman customer and women took to them too. I bought an old Honda 50 for our daughter to ride to High School before I let her drive a car. When she came off on loose gravel I made the point, "Now you know what can happen in a car". That bike was passed on to her brother to learn on and later was sold to an overweight youth and it still kept going.

I remember in 1938 seeing two small two stroke

German motor cycles lying outside the experimental workshop at B.S.A. works so even then the management must have been contemplating producing an inexpensive everyman machine. No one was to know they would be offered the design of a D.K.W. two stroke to become the 'Bantam', at the end of WW 2 !!!!

Up for auction were about fifty motorcycles ranging from two scruffy Auto-Bikes for restoration, up to a 'Scott Squirrel 600cc twin two stroke built post War with teleforks. Can you imagine the sound of a 16H 500cc SV 'Norton' fitted with a 'Brooklands Can' silencer'?

An Italian ex Army bike, a 'Calighia' looked very practical. Our despatch riders in North Africa would dump their 'Norton' side valve if they found a Moto Guzzi left behind by retreating Italian Forces. With a spring frame and a 500cc ohv engine they were a pleasure to ride, but the British Army made the despatch riders give them up.

At the end of the War I found work at a motorcycle dealer's. All used machines were brought into the workshop and overhauled before sale. We tackled everything and the perk was to take the bike out on test and one bike I always recall was the 350cc 'cammy' Velocette. Race bred and an old design, the engine revs could rise with no vibration, the gearbox was like a dream, so was the steering, like following tramlines. A pity about the oil leaks but modern Orings would have sorted that out.

I have mentioned our junior members before; it seems that the modern way is to give them a kitset locomotive to assemble with all the problems that entails. They do not learn to make simple projects from scratch like I did at their age at home in Dad's shed, but times have changed.

Airships have always interested me ever since I saw the ill-fated R101 cruising over Birmingham when a child. Such a pity it had design faults and was overloaded when it set off for India on a Public Relations cruise in 1930. Recently we saw a documentary, produced in the UK of the probable cause of the destruction of the 'Hindenburg' as it came in to land at Lakehurst, USA. A number of scaled down replicas were used to simulate the crash. Espionage has been suggested as the cause for years, so one experiment involved placing an explosive on board, however the result was unlike the original fire. All the known witness's

at the time were on the ground but by chance a man came forward who as a child had been taken to witness the airship landing from a local hill giving a broadside view, who recalled seeing a blue flame appearing on top of the hull, forward of the tail fin. The flames from the hydrogen when the scale models burnt were red, producing the theory that static electricity, known in sailing ship days as 'St Elmos Fire', ignited the leaking gas in one vertical vent pipe.

A thunderstorm was taking place as the 'Hindenburg' was docking and lightning which is not normally a problem away from the earth might have caused the build up of static electricity which would then 'earth' when the landing rope were dropped to the ground. A model of a vent pipe was set up showing clearly an explosion occurring in simulated conditions.

The R101 was designed and built the Air Ministry (with the unlimited backing of the UK taxpayer, editor's note) the design team was the same as that which had designed the ill-fated R38.

The R100 was built by the Airship Guarantee Company, a subsidiary of Vickers Ltd. On the design team for Vickers was Barnes Wallis later to design the Wellington bomber and the (bouncing bomb used to destroy the dams in Germany) and the Chief Calculator was Neville Shute Norway, who wrote some excellent novels under the name Neville Shute. The change in name was because he was not sure of Vicker's reaction to him writing novels in his spare time. It seems strange that both the State and Private Enterprise should build competing airships to the same specifications, but it came about through the newly elected Labour Government led by Mr Ramsay MacDonald setting out to prove which was the better principle, capitalism or state enterprise.

The R100 proved by far the better design and made a trouble free flight to Canada and return to be dismantled after the R101's tragic crash. Germany produced successful 'Zeppelin' airships and flew regular flights to South America for fifteen years on a 'Trade Wind' route with stable weather. Lack of modern weather forecasting was the big problem. Also the USA had all the natural supplies of helium, unlike the flammable hydrogen.

A repeat programme from the 'Antiques Road Show' showed a man with a high quality pilot's

watch dating from World War 1. He had bought it at a country market for a modest price. He also had a receipt for the overhaul of the watch with the name and address of Mr Shaw. He had no idea that this was Aircraftman Shaw better known as 'Lawrence of Arabia' putting the value of the watch way up!!!!

A young man being treated for injuries to his leg after an accident was asked by the nurse, "Can you hold your 'bits and pieces' out of the way?"

### In the Newsletters from other Clubs

**Blastpipe** Bad weather affecting the track running at Maidstone and Brian Hawke has made a re-railing device which will ease the strain on the backs of some of the members. One of the large trees on the Petone Club's road frontage was blown over in the storm and the water supply to the clubrooms was cut off. A seabird was found dead near the ticket office. It was not a common seagull and was later identified as being a white-faced storm petrel.

**EBoP Model Engineers** Paul and Lyn Huxford visited Manderville on a recent trip to the South Island. Paul evidently very impressed with the replica DeHavilland Comet being built in one of the hangers. This is the twin engine monoplane built for the pre WW2 air races.

**Whangarei Model Engineers** one of their members has found that he is making a lot more progress with his A3 locomotive since retiring. An article on the Rack Railway in Tasmania. Their Running Days on the third Sunday of the month have been washed out three times in a row.

**Christchurch Model Engineers.** Busy extending their loco shed when the weather allows. Weed in the boating pond becoming a problem.

**Auckland Model Engineers** Mike Orange talks about the 'Phantom' headlight he has made. Alan Foster has made a turret attachment for his Myford Lathe. Bill Parker has a copper boiler for a 'Springbok' locomotive for sale. Complete and hydraulic tested.

If you would like an email when this newsletter is published, send us an email with "**Generator Please**" in the subject line with your **Name, Club and Email** address to [pnmec@trains.org.nz](mailto:pnmec@trains.org.nz)

### For Sale on behalf

A boxed set of BA taps and dies. A taper and plug tap and a split button die for sizes from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10. There is a tap wrench and a die-stock.

The set appears to have had little use.

It is offered on behalf and the asking price is \$250 ono.

Enquiries to

Doug Chambers at 06 354-9379.

### For Sale

Drill-Milling machine.

Model WMD 34, overall size 720mm x 800mm x 1120mm, weight 220kg.

Drilling capacity 32mm,

End mill 20mm,

Face cutter 75mm,

Spindle taper MT3,

Spindle shank 70mm,

Head tilt + or - 30

degrees, Spindle speed

variable from 50 to 3000

rpm, working surface

700mm-210mm,

Longitudinal travel 425mm, Cross travel 220mm,

Vertical travel 370mm.



There are three 'Tee' slots 10mm wide.

The motor is 1100 Watt single phase.

The main spindle bearings have been replaced with Timken roller bearings. Price \$2200

Apply to Brian Wiffen Phone 07 888-8493

### What's on at "Te Manawa"

Roman Machines is the current Exhibition from 13th July to the 6th October.

See their website for further details

<http://www.temanawa.co.nz/roman-machines.html>

This article was clipped from the May 8th, Tribune weekly newspaper.

Note the reference to the Palmerston North Model Engineering Clubs station.

## Rail direct to racecourse

Did you know there was a siding off the Foxton-Palmerston North railway to the Awapuni Racecourse between 1905 and 1935? The track is seen here crossing the former Awapuni Lagoon in about 1910. Racing was a popular recreational activity and the many patrons coming from Wellington could travel directly to the course. The line was also used to transport race horses. The old station sign for "Awa Puni", meaning "blocked river", is now attached to the Palmerston North Model Engineering Club's steam rail shelter at Highbury's Marriner Reserve.

Photo: PATAKA IPURANGI: MANAWATU MEMORY ONLINE / SUPPLIED

If you have photographs, memories or records of Palmerston North you would like to share, contact City Archives at Palmerston North City Library. You can view many more historical images on Pataka Ipurangi: Manawatu Memory Online at [digitallibrary.pncc.govt.nz](http://digitallibrary.pncc.govt.nz).



## Moutoa Floodgates

by Murray Bold

On the 8<sup>th</sup> June a number of PNMEC members took the free bus to Moutoa Floodgates that Horizons Regional Council provided. We went to the 50<sup>th</sup> year celebration of the Moutoa Floodgates and the Lower Manawatu Flood Protection Scheme. The flood gates mainly protect the slower moving 39km downstream from Shannon and remove flooding pressure from the catchment around the Oroua river.

The flood gates were constructed from 1959 to 1963.

There was 26000 tonnes of concrete, 1000 tonnes of reinforcing steel was used in their construction.

The concrete is now 50% to 70% stronger now than when it was first built. There are 9 Steel gates, each of 15 tons that are controlled with 9x ¾ horsepower motors.

Before the gates are opened there are some rules.

The farmers in the 9 Km channel to the sea must be given 24hrs notice.

The water level at the gates must be greater than 8.25 meters.

If the gates are opened it will take 10 days after closing for the channel to dry out again.

They must keep 40% of the water flowing in the main channel to prevent it silting up.

The new floodgates were first opened on 5<sup>th</sup> June 1963 and they performed, better than expected. The next time they were opened was 18<sup>th</sup> March 1965 when the Manawatu River peaked at 7.95meters. The gates have been opened many times since, and have prevented flooding of farmland around and downstream of where the Oroua River joins the Manawatu.



As I write this article the Flood gates were opened at 10am on Friday 12 July 2013 to relieve the pressure on the lower Manawatu River. This is the 40th opening of the gates since they were built.

