June 2011
No 368

THE GENERATOR

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

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 May Meeting.

Richard Lockett gave us a very interesting talk on the use of 'O' rings in projects model engineers are likely to undertake. I believe all of us learnt something and that we might be better prepared to use 'O' rings successfully in the future.
For those of you who were not at the meeting there may be an article in a future '**Generator**' covering the various points covered by Richard in his talk.

Several members had brought along their current projects.
Fred Kent had the little 'Flying Scotsman' built from parts supplied by a magazine. Fred is altering the model to run on compressed air.
Graeme Hall had the nearly completed three cylinder model aircraft engine. As with all Graeme's projects it is superbly finished and we all look forward to see and hear it run.
Merv George had a new workshop vice. As it is to be used largely for welding on (mainly electric) Merv has fitted two shields to prevent splatter from getting on to the threads and slides.
Robert Edwards had some knobs he has made for another person's project. They had been made from aluminium, some of the off-cuts passed on to members by Merv George.
John Garner had a nearly completed 'Hot Air' engine. This is the one that has marbles in a glass tube that roll from end to end as the tube tilts. As yet it hasn't run properly but no doubt John will soon have it running as it should.
Janice Hall had accompanied Graeme to the meeting and as she was celebrating a birthday she had brought a cake. It was very nice. Janice declined to tell us exactly which birthday it was, admitting only that it was one of the ones that comes after your 21st .

June Club Night

7:30pm, Thursday 23 June 2011
Hearing Association Rooms
Church Street, Palmerston North

The theme of the Evening is

Disasters
Things that did not work

Bring along those items that you had to have one, or two, or multiple tries at making before you got them right.

Explain why you had so much difficulty so that we can all learn of better ways to approach our hobby.

Listen to your fellow club members and you are sure to hear something that will enlighten you, inform you and enlarge your knowledge.

COMING EVENTS

Track running at Marriner Reserve Railway

July 3rd from 1pm to 3pm
July 19th from 1pm to 3pm

Open Weekends

EBoPME 'Hot Pot and Night Run'
July 23rd - 24th

Subscriptions are now due.

They are Full member $30
Junior or Country Members $15

Note the Treasurer has changed his Address and Phone number

1502 Napier Road
Ashhurst 4810
Phone 06-326 9665

The closing date for the next issue of The Generator is Friday 15th July

MODEL MEE
EXHIBITION

We are having a Model Engineering Exhibition in the Leisure Centre, Fergusson Street, Palmerston North over the weekend of October 29th-30th

Members are asked to let the committee know what they have and are prepared to put on display.

All members are invited to put something on show and remember it doesn't have to be finished.

Works in progress remind the public that the models are not bought at the 'Warehouse', and that they are made from 'scratch.

A couple of photos from the last **Model Mee** in 2009

THIS MONTH'S FEATURED MODEL.

By Doug Chambers

The photo on the front page shows my 'Hunslet' with the new driving truck. During the last 18 months while building the 'Mountaineer', I have been trying out different types of driving trucks and wagons. The driving truck that gave my back the least trouble was the one that Richard Lockett had made for the Santa Fe F7. At that time Richard was determined that the driving truck for the F7 should look smart and match so far as possible the PNME clubs passenger trolleys. I was sure that one similar but with brakes would suit me very well, and would enable me to pull one of the club's passenger wagons. I told Richard about what I planned and he told me that he had some material left over from the one he made for the Santa Fe F7 and that he was prepared to build another for me as I could not stop work on the 'Mountaineer' that I was building for Barry Parker. I already had wheels, axles and brake blocks and so that gave the project a good start. After the 'Mountaineer' was finished I was able to help Richard by

making some of the smaller components. The completed frames and panels were handed over to me for painting, the frames are black and the panels are Brunswick green.

On the 19th May the Hunslet and driver's truck were taken down to the track at Mariner Reserve. Steam was raised and one of the club's passenger wagons was

coupled on. With Richard and John Tweedie acting as a load, I carried out some brake tests and found that the brakes on the driver's truck were more than adequate for the task to be demanded of them. A small water tank under the driver's seat gives a supply of cold water for the injector. The only concern is that the boiler steams a little too freely and already I have opened up the blast nozzle from 9/32" to 21/64". With the water pump by-pass turned off and all the water feeding into the boiler the safety valves still lift when the engine is ascending the bank. Not a very serious fault but a nuisance as the steam tends to restrict your vision somewhat especially on a cold frosty morning.

LETTER from ENGLAND

By Stan Compton.

Many of you will remember Trevor Baylis, the man who invented the wind up radio. I have just read his book "Clock this, my life as an Inventor". He struggled for three years to find a manufacturer for his patent radio, in the end it was a chance meeting with a group from South Africa who wished to publicise the problem of aids in that country. Batteries to power portable radios, used to spread the message, were expensive to people on a low income.

We all read, back in the nineties how all the big firms in the radio world could not see the point of his idea. His first model had little volume, but an African from the tribal lands likes lots of high volume sound.

It required a drive spring 10 metres long, 50mm wide, .2mm thick to achieve this result. The constant force spring, (of carbon steel) , preformed and wound around a storage spool. This is wound – against its curvature – onto the torque- spool, once fully wound and released the spring returns to its original position, thereby producing a constant force on the torque spool as it unwinds. This force drives a small D.C. motor in reverse, as a generator, producing about 100 milliwatts for the radio. Sixty winds provides 25 to 30 minutes of air-time.

The manufacture of these wind-up radios provided work for disabled South Africans who never thought that they would find useful work. It is of interest that Trevor's father was a model engineer who kept a tidy workshop and even bought Trevor an early Myford lathe. At twelve years of age he started to build a 1.9cc compression ignition engine to power an aircraft with a four foot wing span. It took 2 years to complete, producing a piston that was a perfect fit was really beyond someone so young, but he did succeed and the engine ran.

Why is it some school-boys want to make a gun? Trevor had a friend and they managed to find a formula for making gunpowder, next a length of gas pipe suitably charged and loaded with a steel ball-bearing was clamped into Dad's vice and aimed at a neighbours chimney pot. This crude weapon succeeded their aim, more by luck than by good judgement, so he claims!!!

Later on Trevor met another boy whose father was involved with the circus world. This appealed to Trevor leading him to learn all kinds of dare devil tricks. At about 17 years he was keen on serious swimming hoping to reach Olympic standards but lack of weight prevented this aim. Even so he enjoyed entertaining the public doing trick diving but once he got badly burnt doing a stunt that involved wearing a girl's dress over his trunks. The dress was splashed with a mild accelerant, and then lit with a match after which he climbed to the top diving board and dived into the cold water. The audience enjoyed his larking about but one day it went all wrong.

He used the wrong accelerant and the dress went up in a mass of flames, foolishly he carried on and climbed to the top board before diving into the water, the audience loved it thinking that it was all part of the act.!!! Taken to hospital his Irish nurse had no sympathy for anyone stupid enough to set fire to himself.

His father's comment was "Look on the bright side Trev. At least you didn't kebab your wedding tackle!"

He was now about 16 and he found an apprenticeship in Soil Engineering, concerned with building foundations; at last something to interest him. Later doing two years National Service as a P.T. instructor in the Army led to a variety of escapades, all considered to be good training in self-reliance. The years went by and he started a business selling swimming pools and did well at it, but his active mind got him utilizing his early workshop skills inventing. First of all mechanical aids for handicapped people and then found that the business world took him to the cleaners leaving him with nothing.
The inventor leads a lonely life, the wind-up radio took over two years to develop, yet he nearly gave up due to lack of interest, it was just by chance he learnt of a need for his invention in South Africa.
The rest is history.

Back to the Hereford track-site; a group of members paid for a 7 ¼" gauge tank locomotive as an easy option instead of building or buying ones own engine. Now this tidy little locomotive needs to have brakes fitted and an ejector so it can take part in public-running, but who is going to do the work?
I have been on light duties after a knee replacement and during this time a group of workers have modified the carriage shed for rolling stock with a mezzanine floor, above flood level and installed a Bridgeport Mill and a Colchester Triumph lathe. This is intended to encourage new members to build locomotives under instruction, but how many realise the time needed to build from scratch?

Meet Des O'Brien

By Stan Compton

Des O'Brien is an eighty year old retired New Zealand Fire Service Officer. I met him fifty years ago and realised he was a man who would tackle any problem dealing mainly with engineering, but this later extended to electronics.
Although self-taught he designed and built a system to control all the traffic lights on the main routes out of the city enabling the Fire-officer to send his crews out to a fire with all the traffic lights on green.
Later Des was sent to visit Fire Services in the USA and Europe to study modern fire-fighting techniques.
He is one of those men who only need to look at an item of interest, then could retire into his modest workshop to make an improved version.
When I met him he was restoring a player-piano for a museum and he later restored an ex Army 'Indian' motorcycle to use as daily transport.
Des told me that when he was twenty-two he was into photography and was living in the small town of Ohakune in the North Island of New Zealand, not far from the site of the worst rail disaster in New Zealand history.
On Christmas Eve 1953, volcanic activity on Mt. Ruapehu melted an ice plug allowing the crater lake to discharge. The lahar carried away the Tangiwai Viaduct minutes before a packed night express was due and the Ka class locomotive and the first five carriages plunged into the raging torrent causing the death of 161 people. Des was quickly on the scene taking photographs to supply newspapers with prints of the disaster.
The years went by; he raised one family then later married a girl from the Philippines.
Twenty years his junior Rosita came from a family of blacksmiths, however she went on to Varsity and graduated with a degree in Industrial Education. While bringing up their daughter Laraine, Rosita was able to help Des dismantle electricity meters to recover valuable materials to subsidize their income. Des is now 80 years old and with limited mobility, he has devised a method of transporting his electric mobility scooter by supporting it on the trailer hitch of his car.
Des always had a wish to build a steam locomotive, I think he began to build L.B.S.C.'s 'Mona' years ago but realised that it was not going to be completed.

Des has many tales of his time with the Fire Service many dealing with call-outs.
One incident involved an elderly lady who was bed ridden and the fire crew carried the bed and occupant outside, perhaps through a lounge window after the glass had been removed. Another occasion proved the effectiveness of a sprinkler system. There was a call-out to a factory in Tremaine Ave and the fire crew found that the fire was out when they arrived but the water was up to knee height in the factory as suitable drains had not been factored in when the sprinkler system had been fitted.
After leaving the Fire Service, Des went to work for Massey College, as it was known then, in the Physics Department building teaching equipment. By doing this a lot of money could be saved and I know he enjoyed the work. About this time he built an ornamental wood turning lathe. It was an exact copy of a commercial lathe made by John Jacob Holtzapffel. I remember that he made a vase or napkin ring with all the decorations on it and sent it to the Ornamental Turning Association
in London and it won an award. I still have a hardwood handle with a brass ferrule he gave me years ago and it is still used on a swivel de-burrer.
The lathe was later sold to Jeff Grierson of Stratford.
Last year Des built a model of the 'Thomas the Tank' engine mounted on a rolling chassis towed behind his electric mobility scooter.
The model has 'rolling eyes' moving side to side, belching smoke and a whistle. It proved very popular with little children watching the Christmas Parades in Feilding and Rongotea. The model has been on static display at model railway functions etc.
Age may have slowed Des down a little but his mind is as active as ever.

RAFFLE

The Committee has three vouchers from Trade Tools and have decided to raffle them.

First Prize is $70
Second Prize is $50
Third Prize is $30

The tickets are $2.00 each or three tickets for $5.00 and are available from the treasurer. There only 37 Tickets left so be in quick.
Palmerston North Model Engineering Club members only.

FOR TENDER

A Stuart Turner 10 V casting and parts set, complete, with drawings.
Tenders must be in the treasurer's hands by the 31st July
Highest or any tender not necessarily accepted.
Tenders restricted to Palmerston North Model Engineering Club members only.

Q:- Why should you not sleep on a train.
A:- Trains run over sleepers.