



March 2004
No 288

T H E G E N E R A T O R

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 onerous.

Visiting club members too, 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,

Place
stamp
here

Coming Events

Coming Events: February Monthly Meeting. This will be held at the Hearing Association Rooms, Church Street, Palmerston North on the 25th March at 7.30 pm. **SHARP.** See further details on page 2.

The PNME club's Annual General Meeting will be held on the 22nd April 2004.

Mid Week Run at Marriner Reserve Railway : 23rd March , between 10. 00 am and 2 pm.
27th April , between 10.00 am and 2 pm
Please contact Doug Chambers beforehand.

Track running at Marriner Reserve Railway: 4th April 1 - 4 pm
18th April 1 - 4 pm

Open Weekends : Thames 15 -16 May. Registration forms available from Murray Bold
Auckland Model Engineers . Easter Weekend 9 -12 April
Havelock North LS Easter Weekend 9 -12 April
Rotorua Model Engineers 24th - 25th April

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

REPORT of the FEBRUARY MEETING

Richard Lockett completed his previous talk on Measuring Equipment for the workshop. He displayed three callipers, a vernier calliper, dial calliper and a digital model. He went into the uses of each and the advantages of the different types. He advised to buy a robust model when purchasing, as the lighter types are liable to twist and give inaccurate readings.

There was a varied collection on the table brought along by different members.

Richard Lockett displayed the vacuum braked bogie for one of the two new club passenger wagons.

Maurice Brownell had a rock drill bit and explained how the drill was powered with compressed air at 120 psi.

Fred Kent had an electric motor (24 volt) that he had modified for use in preparing circuit boards.

Bruce Geange showed us a toy grader he has restored. It is possibly an old 'Triang' made toy and he also had a couple of toy farm tractors, an Oliver and a Ford of about 1970 vintage.

John Garner had the model Heinrich 'Hot Air' engine that he has just completed. He admitted that as yet it hasn't run properly, but I expect that with a few minor alterations it will run, as it should.

Ian McLellan showed us the 3 ½" gauge drivers truck that he has made for the track he is laying at his home. He also told of some of the problems he had to overcome while track laying in a confined space.

Jim Spall had a picture of a Canadian locomotive. It appeared to be a 2-10-4 and was probably one of the mighty "Selkirks". It was interesting in that the one in the picture had an experimental high pressure boiler that supplied steam at over 1000 psi.

Editor's Note. A "Selkirk" fitted with a standard boiler operating at 275 psi and weighing 200 tons for the engine alone, developed a tractive effort of 78,000 lbs and increased by a further 12,000 lbs when the booster mounted on the trailing four-wheeled truck was in operation.

Doug Chambers displayed the "Rob Roy" 3 ½" 0-6-0 tank that he has built over the last six months. Complete except for the fitting of the pressure gauge.

Doug also had the completed chassis and boiler components for "Edwin", the Gauge 1 loco being described in 'Australian Model Engineering' magazine, that is his current project.



John explaining the workings of his Heinrich 'Hot Air' engine.

MARCH MONTHLY MEETING.

Barry Young will speak to us on New Zealand made toys, especially "Fun Ho".

PNME members will be asked about what models they will make available for display at the Exhibition to be held in the Leisure Centre over the weekend of May 8th – 9th. Set up will be on the Friday evening as per usual.

ANNUAL GENERAL MEETING

The Club's AGM will be held on the 22nd of April 2004 at 7.30 pm in the Hearing Association Rooms, Church Street, Palmerston North.

7.25" LOCOMOTIVES FOR SALE

NZR "TR" Shunting Locomotive and ride trolley. Briggs & Stratton powered, Albion gearbox. \$3500.00

NZR "Wa 165" Built by John Heald (Rotorua) as featured in Jan/Feb 1998 AME (Issue 76) POA

All enquires for both Locos to Dennis McConkey Phone 04 - 904 6195

LETTER FROM ENGLAND

By Stan Compton

Three years ago when Fred Dibnah, the ex-steeplejack, was at a steam rally signing his videos, he told someone of his ambition to dig a mine shaft complete with pit-head winding gear on his property. At the time I thought this was ambitious but I was not surprised to see this project being filmed for the BBC. Fred had gathered a small group of retired men willing to do the hard work and following the correct methods had built a five foot diameter mine-shaft down to about twenty-five feet of the proposed one hundred and twenty feet.

The pit-head frame, with suitable wheels, was in place, very substantially built and an ex ship's steam winch was in place in a purpose built winding house. Planning permission had been obtained to build the latter but I am not sure about the pit-head gear, we know the neighbours are not happy about Fred's activities but you have got to give him full marks for all the hard work involved. We were shown how a pit is sunk utilising a ring of steel plate of the shaft diameter, wide enough to carry the bricks forming the shaft lining. Digging a hole deep enough for six courses of bricks, the steel ring is dropped in and correctly levelled and supported. Lining the shaft is commenced by building up to the surface from the steel plate.

After the mortar has set, digging out the spoil below the ring allows the ring to be re-set and levelled and bricks are laid on it dry for the first course with mortar to join up with the bricks already laid. Every six feet in depth the brick lining is supported with lengths of flat steel bars driven into the surrounding soil radially from the shaft.

I hate to think what all this is going to cost and what the reaction of the Health and Safety people will be, even at the depth already achieved. Although on private property a volunteer could get injured while work is being done, but it was great to see a group of older men slogging away and enjoying it.

When our eldest son was a student at Massey University he did all sorts of outside work but when he became part of the ambulance crew he found for the first time in his life what it was like to be part of a team and when a patient was rushed into the operating theatre, the staff moved into high gear. This was team work and even this junior porter felt part of it. Fred's crew were experiencing this !!.

When I read the article in "Model Engineer" about building a Christmas tree engine, I was most impressed by the keenness of the young person concerned. This made me think of building a Marble engine as a break from the latest fire engine.. I had a book of Hot Air Engine designs by Julian Wood who is always at the main Exhibitions, demonstrating them. This is where I had seen these fascinating toys working. For those people who have not seen one they comprise of a rocking test tube containing a number of marbles slowly rolling each way. A flame is heating one end causing the air inside to expand past the marbles to the plugged end where a flexible tube passes a minute force to the power cylinder that drives a scotch crank which rotates a pair of gears that drive a flywheel. Simple enough, soon knock one of these up I thought, now where can I buy a test tube? I tried every source possible, even our local hospital, no luck. So I phoned Julian Wood, "Yes I have got a couple left over and suitable marbles".

I told him I had bought marbles from a toy shop.

"They won't fit, steel balls work if you can find any, new ball races must be washed out with CRC, friction is our big enemy."

So to work, soon had a flywheel 55 mm diameter made, the easiest scotch crank is a wire bent like a hair-pin, this tip from Julian, a crosshead of teflon, not essential but it looks good. Power cylinder is a short length 3/8" bore brass tube through which I forced a steel ball coated in thin oil leaving a dead smooth finish. Lapping is usually recommended for bore and piston but I used teflon machined to form a lip seal on the piston. The cylinder is silver brazed to a base with the outlet tube in place and I was in business. Or so I thought!!!. With a suitable flame applied the thing just would not go, then the penny dropped. With so little power the flywheel was too small. I substituted a 100 mm disc, now we are getting somewhere. A larger wick for the meths burner, balancing the weight of the brass end plug by moving the tube in the pivot and we were away, success at last !!! My grandson thinks it a waste of time, but his mother was fascinated. !!

One of the Hereford members wanted to buy a small crucible to melt some aluminium, looking in the telephone book he found a manufacturer of these items just outside Worcester, only 20 miles away. He found the works and told them of his needs, they were at a loss of how to deal with his request, normally handling only wholesale orders. However he was taken into their warehouse where he found crucibles as large as Ali Baba oil jars down to egg-cup sized for the jewellery trade. Searching through their stock he found one of the size he required, but how to pay for it ? A quick discussion and it was decided it would be easier to give it to him but

he was never to darken their doorstep again !!!

The same member was looking for small springs for the axle boxes of a 3 ½" gauge locomotive he is building, when he happened to find in a novelty shop, a length of spring the correct size in the form of an "Alice Band" that young girls wear to keep their hair tidy. Cut to suitable lengths they were ideal. I still have not worked out why a child's hair does not get caught up in the spring !!!!

I have been reading an illustrated book on the life of David Weston, the painter of railway subjects. He described the difficulty of getting his work accepted, but now he is in the same class as David Shepherd there is no problem. As a 15 year old boy he set up his easel in a city location and thought he had made a fair job of the subject when a busy housewife looked over his shoulder, walked away, then returned and said "Well at least you are out in the fresh air !!"

UNDER CONSTRUCTION

EMD F 7, Santa Fe

By Jim Curtis

In between riding my motor bike, running his 'Beejax' and 'Hunslet' locomotives at Marriner Reserve and Keiranga Park, and winding up my mower repair business and spending several weeks in hospital after a heart attack, I found time to embark on another Locomotive Project.

With the 'Hunslet' being so successful, I decided I liked the general appearance of the 'War Bonnet, Santa Fe in 7 ¼" gauge. I purchased a very tidy Honda 8 hp OHV sloper with electric start and an alternator from Graeme Harris. This formed the nucleus from which the loco would develop.



I would have liked to use another Eaton Hydrastatic Unit but getting the drive to both bogies through right angle drives, universals, and splined joints looked messy and impractical. I turned to 'full hydraulics', with the motor driving a hydraulic pump through a control valve unit to two hydraulic motors, one mounted in each bogie with chain final drive to all four axles. (I hope it works.!!)

Building the body could be a bit of a mission, but where there's a will there's a way. If it's been done before I'm sure that it can be done again, possibly with some help from my friends. (If I've got any left by then !!) It's a bit too bulky to bring along to a 'Bit's and pieces" night now, so I hope the photos will suffice.

A track run shouldn't be all that far off, but the CME says" No string and wire, finish it properly before the test run".

So one never knows 'Locomotion 2005 might see a new Locomotive on our track.



Locomotion 2004

At last fine weather in the Manawatu.



"NZR Fairlie" brought north by Graeme Harris.



Les Fordyce's "DSA"



Passengers Waiting



Bruce Geange's D&NY Traction Engine



Doug Chambers reaches to change the points.



" Kermit" under Compton's Crossing



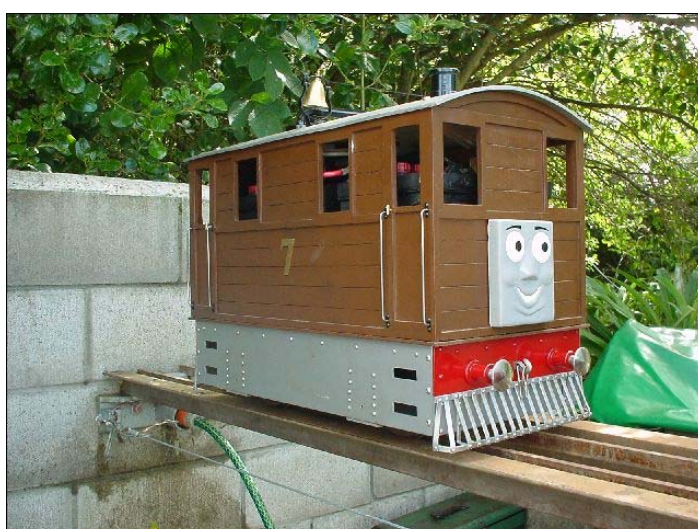
"Mr Sandman" - Barry Parker in the seat.



"Shirley" from Havelock North



"Speedy" up from Wellington.



"Toby" from New Plymouth. Kerrin Galvin



Wab Waiting.



"Ww" - Robbie Galvin

Check out the Club Website "www.pnmecc.org.nz" for more photos in the Photo Album.

The Generator