March 2006
No 310

THE GENERATOR

Newsletter of THE PALMERSTON NORTH MODEL ENGINEERING CLUB INC
Managers of the **"MARRINER RESERVE RAILWAY"**
Please address all correspondence to **:- 22b Haydon St, Palmerston North.**

PRESIDENT	SECRETARY	TRACK CONVENOR	EDITOR
Chris Rogers	Murray Bold	Richard Lockett	Doug Chambers
(06) 356-1759	(06) 355-7000	(06) 323-0948	(06) 354-9379

PNMEC Home Page www.pnmec.org.nz
Email:- pnmec@clear.net.nz

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,
Palmerston North

Place stamp here

This 1:6 scale model was seen at Locomotion 2006

FEBRUARY MEETING.

Stuart Anderson had a copy of the official DVD of CanMod 2006. This was very interesting to see especially for those of us unable to attend the event in Christchurch. After the DVD attention was drawn to the many and varied projects members had been working on over the Christmas break.
Stuart Anderson had the frames of his Mogul, plus the smokebox and 'balloon'stack spark arrestor.
Ian McLellan had the tender for the 3 ½" NZR Ab that his father had built forty years ago. The model has only run 27 miles and has been in storage for the last thirty years. Ian is preparing the engine for a return to the track in the near future.
Murray Bold showed us the new Pennsylvania 'ten wheeler' in Gauge 1 that he purchased over the Christmas break. A handsome model.
Chris Rogers showed us the new steering box for his Clayton and Shuttleworth steam wagon.
The original unit not being up to the demands placed on it.
Brian Wiffin had a three-jaw chuck that was new and surplus to his needs. 150mm diameter and he was offering it for sale.
Roger Corlett displayed the body for the Santa Fe F 7 that he has been finishing for Doug Chambers who is finishing the locomotive on behalf of the Curtis family.
Doug Chambers had a brass model of an Airspeed Oxford, a bronze model of a Lockheed Ventura and a plastic kitset of a Ducati motorcycle.
John Tweedie had a steam stationary engine that he has just completed. Built from a Brunel casting set this was a most unusual engine. Single cylindered, but having two connecting rods, one either side of the engine cylinder and the crosshead was in front of the cylinder. Rather like a horizontal 'steeple' engine.
Merv George drew our attention to a new magazine called 'The Model Engine Builder'.
Fred Kent had a small light he has made up for his wife who has trouble seeing to knit at night. The light only draws about 1 watt but supplies enough light for the task.

MARCH MEETING.

This will be held on the 23rd February in the Hearing Association Rooms, Church Street, Palmerston North, at 7.30pm. The theme for the evening will be "A short talk of not more than 120 seconds on an unusual workplace experience."

ANNUAL GENERAL MEETING 2006

This will be held on the 27th April 2006 in the Hearing Association Rooms, Church Street, Palmerston North at 7.30pm.

COMING EVENTS

Mid Week Run at Marriner Reserve Railway

25th April between 10.00 am and 2 pm
Please contact Doug Chambers beforehand.

Track running at Marriner Reserve Railway

2nd April	1 - 4 pm
16th April	1 – 4 pm

OPEN WEEKENDS

Havelock North LS (Easter)	14th – 17th April 2006
Rotorua Model Engineers	29th – 30th April 2006

LOST / LENT TO SOMEONE

"Building the Shay" by Kozo Hiraoka. Chris Rogers is thinking of building the Shay and would appreciate the return of the book.

The closing date for the next issue of The Generator is Thursday 13 April

FOR SALE
PETROL- HYDRAULIC
'Hunslet' (7 ¼ "gauge)

This is the NZR Dsa built by the late Jim Curtis.
Fully detailed the Dsa looks good and runs superbly.
This is a classic example of model engineering.
It featured in the Australian Model Engineering magazine (September-October 2002) and comes complete with a purpose built driver's car built to the same standard.
Enquiries to Jean Curtis, 115 Guy Street, Dannevirke.
Or phone 06 374 7151.
Price $10,000.

FOR SALE
0 –4 –0 NZR Tr.

In 7 ¼" gauge. Powered by a Briggs and Stratton via an Albion gearbox. Including a driver's truck.
Asking Price $3,200

LETTER FROM ENGLAND

By Stan Compton

I live in a small market town and there is a local auctioneer whose son has started to organise regular sales of military items, plus railwayana, ie anything to do with railways of years ago, pictures, books, cast iron signs. The variety is immense. I had heard that there was a complete five-inch gauge garden railway in the latest sale so I went along to have a look at what was on offer.
The steam locomotive was a very tidy "Butch", the 0 –6 –0 tank based on the Glasgow and South Western version drawn by Charles Kennion for five inch gauge in the fifties. He supplied plans and castings and many examples have been built. I recall one was built as a club engine for Wanganui and it did a lot of useful work.
When nearly worn out it was offered for sale by the club about twenty years ago, I wonder what happened to it ?
Just out of interest I had a good look at the "Butch" in the sale. The smokebox was clean, always a good sign and the boiler backhead showed no sign of leaking fittings. The motion showed little wear, coupling and connecting rods not sloppy, a tidy engine with two sit astride ground – level bogie trolleys. Later on I found that one of our members had bought the engine and rolling stock, I shall be interested later on to examine and test the boiler.
Meanwhile I heard from a driver on the Severn Valley Railway, who had been asked to examine the "Butch" locomotive before it went into the sale.
He was able to check that the pistons were not seized – up, this means it probably has bronze cylinders. The stays in the firebox were calked with soft solder, normal practice years ago.
Then it was found that the engine had not been run for 27 years. It had been owned by Peter Morgan of the Morgan Car Company of Malvern Link, not far from here.
This confirmed my assumption that the engine had not had a hard life. It has gone to a good home, the club member who has bought it has been building a 7 ¼" gauge 0 –4 –0 Hunslet for a number of years. Now I hope to get him out helping with the public running on the Hereford track, good training against the time when his Hunslet is completed.
The other locomotive in the sale was an unfinished "Sweet Pea", the boiler is commercially made so should be OK.
A Hereford member also bought this so I expect to be able to examine it closely later.
Some time ago a new club member produced a boiler he had acquired with castings etc. for a Fowler Steam Ploughing engine for testing. Each firebox stay had a disc of soft solder about 5 mm thick enclosing the stay locknut. A local radiator repairer had done the patch-up. Now the problem is, the boiler looked rough but tested to double working pressure with not one leak, so I was obliged to pass it knowing that should the boiler ever suffer low water while in steam all that soft solder will disappear, and the resulting leaks will put the fire out.
I realised later that he had been using compressed air to test for leaks, and I believe that the radiator man charged plenty for the job.
My wife collects crystal sugar shakers with silver tops and often these items can be found in opportunity shops. So any small towns we visit I follow along on this quest. One day we were in the Market hall in Pershore, once well known for the yellow plums grown in the area, and I spotted a ten pound weight sledgehammer head being used as a door stop. Now I miss the seven pound

one I left behind in New Zealand, so I asked if they would sell it to me. “Make me an offer” said the woman in charge who had no idea of the value of such an item. I offered a quarter of new price and this was accepted instantly. It is now fitted with a suitable nicely oiled handle and has been used to drive in the metal pointed sockets used to hold up fence posts.
The point of this tale is that later on I found NZR stamped into the hammerhead, was it a reject or simply surplus to the original order?
This winter has been really miserable. I am warm in the workshop and the “Hunslet” is making steady progress but it can be really cold on Tuesdays working at the tracksite. The same men are always there and all the steel frames are in place for the new 7-metre long carriage shed.
Our chairman Brian looks after the team and we have been getting hot soup at lunchtime. It is a bit of a squeeze in the ex British Rail wagon-body used as our canteen. One day I counted seventeen workers there.
The Gauge 1 track can now be used and yesterday our New Year midday meeting with sausages and mash provided by Brian, Derek and lady helpers, saw a number of new locomotives in steam on it. The day was very successful, a chance for the wives to be present and everyone enjoyed themselves. Our junior member Jack is such a pleasure to have around, always a cheerful bright smile, unlike a lot of the youth of today.
One of our members brought along a freelance 7 ¼”gauge petrol – hydraulic locomotive for a test run. He had only got it running at 7.00 am that morning. That is dedication.!!!!!!

HMNZS CANTERBURY

Most of us saw the sinking of the decommissioned HMNZS Canterbury on TV. Few of us realise that the frigate had served the New Zealand Navy for thirty four years.
The Type 12 and Leander class frigates came into being in 1948 when British naval staff were faced with the need for an Anti Submarine vessel capable of crossing the Atlantic without refuelling (4500 miles at 15 knots) and to be capable of countering the threat posed by the Soviet nuclear submarines.
The Yarrow-Admiralty Research and Development organisation was set up to design and build a better propulsion system. The result was the Y 100 series of power plants which supplied steam at 550psi and 860 F (450 C) to new turbines, double reduction gearing and new propellers. The plant delivered 15,000 hp per shaft.
The new propellers were a major advance in technology. During WW2 propellers would cavitate at about 8 knots (cavitation being the low pressure eddies of the propeller tips forming vapour pockets- absorbing power and making noise). These new slow running 12-foot propellers were more efficient and did not cavitate until the vessel was up to nearly 20 knots.
The Type 12 and Leander class have twin rudders in the propeller slipstream enabling the vessels to turn in under 4 times the ship’s length.
HMNZS Canterbury was one of the Leander class.
Basically a Type 12 but redesigned to be able to carry a Westland Wasp helicopter. The helicopter was able to carry anti-submarine torpedoes,

which were essential to enable the new Soviet nuclear submarines moving at high speed to be engaged at long range. The Leander class was to be regarded as fleet escorts rather than convoy escorts.
HMNZS Canterbury was never fitted with a mortar for depth charge throwing. Instead she carried two American triple ASW torpedo tubes for anti-submarine homing torpedoes.
During her operational life Canterbury was to receive modifications to her weapons systems.
At a time when we are being pressured by Government bodies, local bodies and Greenies to

recycle all our waste, it seemed strange to me that the ship was not cut up for scrap.
However various interested parties assured everyone that it would be best sunk in a place suitable for recreational diving and that it would become an artificial reef supporting fish life.
Considerable doubt was expressed about the area it was proposed to sink the vessel in and the ability of the hull to withstand the severe storms the area is renowned for but the sinking went ahead.
Two months later there has been a storm, the wreck has broken in half and is now declared unsuitable for diving due to the dangerous state of the hull. Also the ratepayer-taxpayer has to foot the bill for the removal of washed up wreckage from the adjacent beach.!!!!!!

WASHING THE RAILS.

After having been interested in full-size steam locomotives for many years now, I thought I had become familiar with all the various devices to be found in the cab. However recently I read an article written by a fireman on the Erie Railroad of a run on an express train in 1942. The train was the Chicago – New York "Midlander" and the author was firing between Marion and Kent. The locomotive was a K5a 'Pacific' No 2960. It was fitted with a booster engine on the trailing truck, a twelve-wheel tender and the driving wheels of 79" meant that the engine was able to 'stretch her legs' when required. The coal was fed via a mechanical stoker.
On this occasion the train was running late when the young fireman and his engineer took over the engine.
The engineer made it clear to the young fireman that he would be attempting to make up the lost time and the 'Pacific' was driven hard. Even when running at speed the engineer was applying sand to the rail to prevent the big drivers from slipping even a little.
On curves the engineer would use the rail washers to spray the rails and wash off the sand to reduce the friction of the passenger car wheels on the rail.
I admit that I had never heard of rail washers and enquired from other more knowledgeable enthusiasts and railwaymen if they had ever heard of rail washers. All I got was a series of surprised looks.
I know that the shape of the railhead and the tper across the wheel tread is supposed to help the two wheels locked to an axle negotiating curves. I also know that it doesn't entirely get rid of the need for each wheel to try and slip to equalise the wheels and the rail washers getting rid of the sand and leaving a damp rail must have helped.
I have often wondered about the effectiveness of the taper on the wheel tread. When a train is ascending a grade on curving track there is a tendency for the locomotive to try and pull the train into a straight line. This means that the wagon wheels will be thrust over on the flange of the inside wheel.

Our old club passenger trolleys had both wheels fixed to the axle in prototypical fashion.
The new trolleys built by Richard Lockett have one wheel fixed to the axle and the other free wheels on bearings. It was a revelation how much easier the new trolleys were to pull especially up our 1 : 70 grade with 50 foot radius curves. The original trolleys felt like a brake was being applied when being pulled up the curving grade.

It would be interesting to know if water applied to the rails after the driving wheels of the loco-motive would assist the passenger trolley wheels to negotiate the uphill curves.
Mind you in our situation there is usually another engine following not too far behind and the driver of that engine would not appreciate having wet rails under his driving wheels.!!!!!!!

I remember reading of the two fish trains that left Malliag for Fort William (in Scotland) each day. The load was mainly herrings and the ice required to keep them cool. Malliag was on the coast and there was a steady climb up to Fort William and the second train always struggled for traction on the rails liberally coated in water, fish scales and slime.

LOCOMOTION 2006

Just a few of the photos from Locomotion 2006

Bruce Geange's 3" Burrell.
Gavin McCabe - 7.25" No66.
Colin Robinson - Fell Engine H199
Graeme Castleton's 3.5"Tich
Grant Alexander - Hiding No66 - Adam Hemi driving