October 2008
No 339

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	TREASURER	EDITOR
Richard Lockett	Stuart Anderson	Murray Bold	Doug Chambers
(06) 323-0948	(06) 357-3420	(06) 355-7000	(06) 354-9379

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

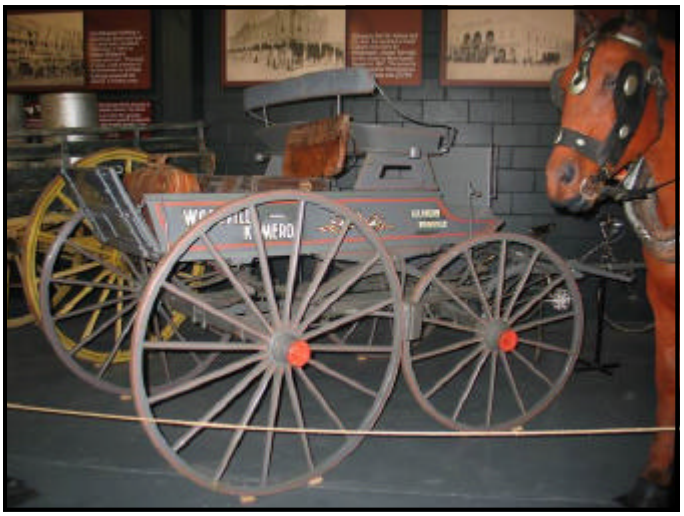
Sender:- PNMEC
22b Haydon St,
Palmerston North

Place stamp here

This Months Featured Model

Report on the September Meeting.

The visit to the Manawatu Historic Vehicle Collection in the Coach House Museum proved most interesting. The fifty vehicles of a wide range of types, some restored to a very high standard surprised many of the PNME members.



A collection of photos from the very early days of Feilding and its surrounding district showed many of the types of cart, gig and phaetons in use during that period.

Members of the Manawatu Historic Vehicle Trust were on hand to answer questions and the evening concluded with the usual tea and biscuit.

WANTED

Set of plans for a Stuart Turner No 8
Please ring Ian Stephens 06 327 6415

October Club Night

7:30pm, Thursday 23 October 2008
Hearing Association Rooms
Church Street, Palmerston North

Bits and Pieces

With Summer just around the corner, this is your last chance for the year to share your current projects with your colleagues.
Bring along whatever you are currently working on; or that project that you haven't looked at for several months - but need help with; or an example of a puzzling problem - maybe someone can answer to your questions. We look forward to an interesting and diversified collection of models.

Annual Dinner

On 27 November we will be having our annual End of Year Dinner.

We would like to get some indication of numbers likely to attend, so please check with your, wife, spouse, partner, significant other, children, and any other interested party.

All the more the merrier.
We will be collecting names and numbers at October Club Night.

COMING EVENTS

Mid Week Run at Marriner Reserve Railway

28th October between 10.00 am and 2 pm
25th November between 10.00 am and 2 pm
Please contact Doug Chambers beforehand.

Track running at Marriner Reserve Railway

November 2nd from 1pm to 4pm
November 16th from 1pm to 4pm

Open Weekends

.Tauranga Model Engineers 8th – 9th November

The closing date for the next issue of The Generator is Friday 14th November

THIS MONTH'S FEATURED MODEL.

By Stan Corlett

The 1914 Governor motorcycle was first owned by "The New Zealand Mounted Rifles – Hawkes Bay Regiment". This would probably make it among one of the oldest Military Vehicles still in existence in New Zealand.

The next owner had a raspberry farm at Taradale (near Napier). One night after dark, while riding home to Napier without lights, he rode off the road and into the water and sludge filled roadside drain. Next day attempts were made to find the submerged motorcycle but without success.

Thirty-seven years later two fellows who recalled that event saw an excavator cleaning out the drain. They stopped and spoke to the operator and asked that if he came across an old motorcycle would he leave it to one side and not load it on the truck that was taking away the spoil. They then hurried home and made a grapple which they pulled slowly along the drain with a car. They found the motorcycle and after washing off the muck it was found to be in fair condition. Due to a lack of oxygen very little corrosion had taken place.

The Governor changed hands several times over the next twenty-five years. Finally my youngest son found it up in North Auckland and after he purchased it, it was stored in my shed for twenty-two years until 2006.

It was then I took over the task of restoring it.

I made a new fuel tank, half the rear mudguard had to be replaced and also a section of the frame.

Some details, The Governor has a 211cc Villiers two stroke engine, no clutch or gearbox, but it does have a brake on each wheel. It is quite rare, possibly only one or two left in the world.

Editors Note: As the Governor is 12" to the foot it is not quite correct including it as 'This month's featured model'. However, anyone fortunate enough to have seen Stan's collection of vintage cars and motorcycles will appreciate the skill he has in repairing and in some cases making completely new panels.

LETTER FROM ENGLAND

By Stan Compton

We are having one of those wet summers that make everything grow, now our farmers are waiting for some real sunshine to obtain a good cereal harvest. Meanwhile our team of volunteers at our track –site work hard to keep the heavy crop of grass cut every week, some even bring their own mower to help with the work that is never ending. Last year Harry, who is a retired agricultural lecturer and takes charge of site work, layered the hedge on our boundary along-side the River Wye which was once a famous salmon river, sadly very few are left now. He found a strange weed growing two metres high in that hedge, it has a rhubarb like stem and pink flowers which I identified as 'Japanese Knot-weed' which you all know about down under. Stewart, our chairman got onto the internet and found various names for this pest. It appears a sample was obtained for Kew Gardens many years ago and some escaped, yet this is new to Harry who will advise the City Council of our problem.

By a bit of luck I met the man who is describing the turret clock construction in "Engineering in Miniature" at the Bristol Model Engineering Exhibition recently. He had one of those clocks on display ticking away perfectly 'in beat', what a pleasure to examine what I am attempting to build. When I told him my problem cutting the teeth on the escape wheel, the most important item, he offered to complete it for me, what a kind thought. My cutting frame is really too light to take the heavy cut with a fly cutter so I ended up filing the teeth to size the hard way. But I have got to start again and modify a simple dividing head on my milling machine. I am determined to succeed with my own efforts, but it is nice to know that help is only an hours drive away.

I have been assured by a retired planning officer that such a clock face can be mounted on the front wall of a property and described as 'Garden furniture', it is knowing the right term to use that is all important evidently.

Being on the Club display stand at the Bristol Exhibition, one gets to meet many men who are interesting.

One man told me about being given an old Drummond lathe, cantilever bed and treadle powered, when he was twelve years old. He set it up in the garden shed and taught himself how to turn metal making a number of small stationary engines. A lucky young man, this started him off in our hobby.

Someone else was restoring a 1950 Myford ML 7. He visited the Myford Works and found them very helpful. How many firms are there in business today that will supply service and spare parts for an old machine? A worthwhile project and I hope he enjoys making things on it.

This reminds me of an article in 'Model Engineer' years ago by a retired accountant living in Sydney who wanted a lathe so as to get started in our hobby. He found an engineer's warehouse with large industrial lathes on display. He explained his needs and the staff searched and found something like a 3½" Portass lathe, still in its crate and covered in dust. So old the original invoice was lost but a deal was struck and the lathe loaded up into his car.
On the way home his wife who had been quiet in the background asked, "What are you going to make with the machine?"
"I don't know yet" he replied.
"Well, I need some brackets to hold the bedroom curtains up" she said.
"I am not sure if it will make those" was his reply.
There was silence for the rest of the journey home!!!!
Later he found a group of model engineers engaged in track running, they made him welcome and gave him a job selling tickets for rides, his wife realised that she might as well get involved so joined also and helped by loading the young passengers.
Going back to the escape wheel for the turret clock I realised later I should have sawed out the bulk of the metal before applying the fly-cutter to clean up the teeth. Just by chance my mentor said, "I have cut escape wheels with a slitting saw." The penny dropped, I found a small ten thou slitting saw, made an arbour to hold it, set up a direct indexing spindle using a change wheel located with a quarter bolt turned to a point, and an hour later the teeth were cut. When I measured my first attempt I found the blank had moved slightly as fly-cutting proceeded, but we live and learn.
I live in an old property in a block of four, with two ten foot studs we have a high blank wall at the front, an ideal location for a two foot square clock face. My neighbour is delighted at the prospect of such an impressive clock.
Last week I had a 'Bridget' boiler to test, built and tested fourteen years ago but hardly used.
The manifold flange had some stripped studs so the new owner decided to cut the rest off and had the boss spot faced and tapped. When plugged to apply a normal hydraulic test we found quite a bad leak under the cleading. All we could do was cut a section of cleading out, remove the insulation and locate the leak at the base of the brazed manifold bush. I suspect a speck of flux had been holding the pressure through the years but the vibration of machining had caused the leak. It is not easy to dismantle the boiler and cleading to rebraze so I will try a Loctite sealant first. I have a lot of faith with Loctite Products, I once repaired a lock from the main doors of Massey University in Palmerston North with a Loctite Product as a replacement was unavailable.

ARIEL MOTORCYCLE and SIDECAR

Included in a recent letter from Stan Compton was this picture of an early 1930s Ariel and sidecar. The model was displayed at a recent Midlands Exhibition but unfortunately there is no information

as to scale and size. Obviously a very well made model with great attention to detail. The full-size Ariel would have been a 500cc single cylinder with two overhead valves. Although it would have only one exhaust valve this machine is fitted with twin exhaust pipe and mufflers. Note that the rear axle is ridged and there are girder forks on the front.
The ungainly lower, front mudguard stay doubles as a stand so that the front wheel can be removed.
There is another stand for the rear wheel (it can be seen just behind the fish-tail exhaust).

TRACTION ENGINES IN AUSTRALIA cont.

By Doug Chambers

Before I left New Zealand for Melbourne Mike Barnes told me to make every effort to contact Paddy Griffiths who lived in Greta West, Victoria, about 200km north of Melbourne.
When I settled in Melbourne I worked as a mechanic for Bayford Motors who were Ford Agents.
I was involved with servicing Ford tractors and this meant travelling all over the State of Victoria as much of the servicing was done on the farm. It wasn't long before I found myself near Greta West and with a little spare time in hand I called in to see if Paddy Griffiths was about. He was and when I left an hour or two later it was with a firm invitation to return and spend a day with him. I was to call in and visit Paddy on several occasions over the next two years and was able to piece together much of his working life.

When I met him in 1968 he would have been in his early seventies. His father was a contractor and owned two traction engines, a threshing mill and a chaff cutter. Paddy recalled to me being taken out of school for a couple of months at the age of ten to drive the engine powering the threshing mill when his father was short of an engineman. He didn't have to move the engine as it was belted up to the mill. He had to keep an eye on the engine speed, water level in the boiler, and stoke the fire. Wood was the fuel used.

Paddy had a box to stand on in the manstand so he could see the belt and another on the ground so that he could heave the wood up into the bunker.

A farmhand with a horse and a Furphy water tank was responsible for keeping the tender tank full. They would have been working six days a week and they would have been ten or eleven hour days.

A lot of responsibility for a ten year old lad but in those days' farm boys had to grow up quick and ready to lend a hand.

Paddy left school to work for his father driving one of the two engines, threshing and chaff cutting. When there were no crops left to thresh, he went to work driving engines for other contractors involved with road haulage and sawmilling. He worked on farms too and was always involved with the repair and maintenance of traction engines.

His father's two engines were, a Burrell 7nhp single cylinder, two speed and no springs and a Ransomes, Simms and Jefferies 6nhp single cylinder, two speed and unsprung.

I remember Paddy telling me that the Burrell was always used on the threshing mill but the slightly smaller Ransome would drive either the threshing mill or the chaff cutter. The Burrell would not steam well enough to run the chaff cutter.

I must admit I couldn't understand why the chaff cutter required more steam than the threshing mill until Paddy showed me a chaff cutting set up.

The oats pick up a lot of dust and when the horses ate the chaff the dust got in their eyes, often causing serious infections.

To overcome this instead of the sheaves being forked directly from the stack to the man feeding the chaff cutter, they were fed onto a chain elevator which passed through a tin tube about twenty feet long. In the tin tube was a steam pipe with small holes drilled along its length and capped at the end. The traction engine supplied steam to the pipe so that as the sheaves travelled up the elevator to the chaff cutter's feeding platform, they were "steam cleaned".

The man feeding the chaff cutter had to wear heavy leather gloves that extended the full-length of his arms as the sheaves were so hot after steaming that they could inflict serious burns.

Why did the Ransomes steam better than the Burrell? I believe that the Ransomes was probably fitted with a 'colonial' firebox suitable for burning wood. (For ten years I owned Ransomes, Simm and Jefferies No 24090 a 6nhp single and it had the 'colonial firebox'). The Burrell probably had a firebox suited to burning good quality English coal.

Paddy said that both engines required a lot of care when moving from farm to farm during the summer as the crisp bark of the single cylinders exhaust would lift embers out the chimney and there was always the chance embers falling out of the ashpan.

By World War 2 the days of the traction engine were numbered and a lot of traction engines were broken up for the wartime scrap drives.

By 1950 Paddy was becoming disheartened, seeing so many of the traction engines being cut up for scrap. By now farming, he had room to spare in the paddocks behind the farmhouse so he began towing home some of the nearer traction engines and portables with the farm tractor. Later a truck was used to bring home engines from a greater distance. As most of the operations took place on back roads he was able to avoid the attention of the Police who would not have been amused at a three ton truck towing a fifteen ton traction engine.

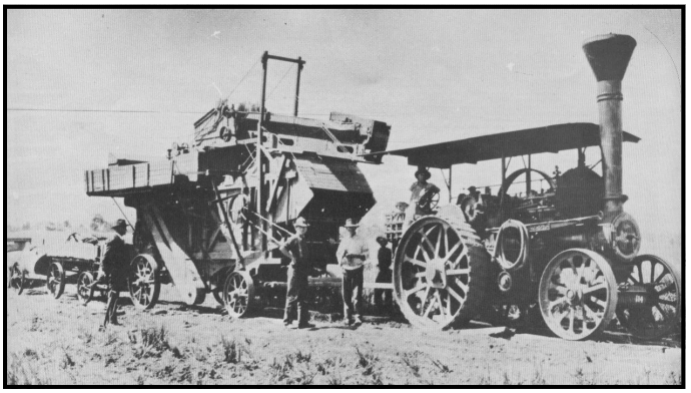
Remember this was taking place long before the Traction Engine Clubs and individuals started restoring engines. When I first visited Paddy in 1969 he had about 60 or 70 engines and portables. By then he had sold off quite a few. In 1976 when on holiday in Australia I visited Paddy again and by then there were only a few engines left.

An engine that was complete and having a sound boiler would be sold for a very fair price.

I remember a Ruston Proctor 8nhp compound traction engine in the paddock behind the house in 1969, it had a full set of grips (spuds) pins and clips for the back wheels, all the original fire irons, brass work etc. The boiler cladding was in great order; the engine had been nearly always housed and owned by the one family. I can't remember the price Paddy had on it but it wasn't very much even for that time.

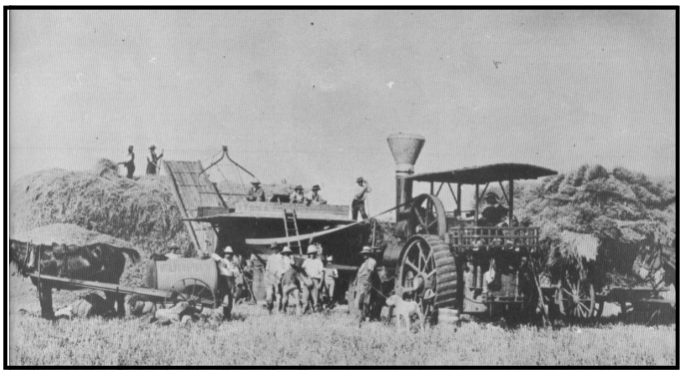
I attended a Traction Engine Rally at Lake Goldsmith during that holiday and was annoyed to hear one 'would be traction engine enthusiast' running Paddy down, saying that he was only interested in making a fortune out of selling off his engines. I pointed out that if it hadn't been for

Paddy's efforts there would be 100 engines less, available in Victoria to restore.
During that visit an Aussie mate of mine took me up to Sydney after the Traction Engine Rally was over. It took two days to get to Sydney because we stopped to look at traction engines as we went.
We called in to see Paddy in the afternoon of the first day and he insisted we stay the night. We sat up till the very small hours looking at his photographs and talking steam
My Aussie mate had been extolling the virtues of American traction engines and portables. They have smaller flywheels than English engines and the belt drive to the mill or chaff cutter is often taken off a large pulley. This means that the engine runs faster and apparently the governor tends to be more sensitive to changes in load.
I explained to him that I couldn't make any comment on this as there were virtually no American traction engines imported into New Zealand. This came about because of some severe stationary boiler explosions in the Thames area causing the Government to pass an act making the Marine Dept. responsible for design regulations and surveying of boilers. Basically the Marine Dept. adopted the English codes and this meant the lightly built American boilers did not meet the standards required.
Knowing that Paddy had driven all sorts of engines I asked him how he felt the American engines compared with the English ones. With a wry grin on his face Paddy said, "As long as there was a mountain of good firewood and a river of water handy, the American engines weren't too bad" !!!!!
I felt that settled the question, and evidently so did my Aussie mate as he never raised the subject again.
Paddy's own traction engine was a Ruston Hornsby 8 nhp compound. One of the last Ruston's to be made. In one of his sheds was a huge threshing mill. Paddy had towed it down from the Mallee District in NSW.



I can't be sure of the make (possibly a Marshall) but if you study the pictures accompanying this article you can see the size of the Clayton threshing mill compared to the Fowler 8nhp Compound Traction engine shown threshing in the Hamilton district of Victoria in about 1920.
Well the mill Paddy had was a lot bigger than that one. I estimate the feeder would be standing on a deck some 14 feet above ground level. In the photo showing the Fowler belted up to the mill there are three men sitting and one standing on the feeder's platform.
Note the spark arrestor and the 'fish and chip basket' extension to the bunker on the Fowler to allow more wood storage. Also the horse drawn Furphy water cart, all typical to the Australian threshing scene.
Note too that the sheaves are being brought to the mill on a wagon.

I remember watching a Burrell 8nhp single cylinder driving a mill at Hawarden on Logan Quigley's property just north of Christchurch. Operations had just begun and there were about 6-7 men forking the sheaves over to the feeder. Easy work as the stack was higher than the feeder's platform.



There were two old farmers in front of me and I overheard the following.
"Plenty of hands on the stack." from the first.
"Wait till they get down towards ground level and they have to throw up to the feeder. There won't be too many working then." Replied the second.
And he was proved to be right.