



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 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
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Place
stamp
here

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

This Months Featured Model



REPORT on the Annual General Meeting.

The Meeting was well attended and got underway with the President reading his report. This was followed by the Treasurer's Report, Track Convenor's Report, and Boiler Committee's Report. All were duly read and confirmed. Elections for Club Officers were then held resulting in the following being elected.

President	Richard Lockett
Vice President	Cynthia Cooper
Secretary	Stuart Anderson
Treasurer	Murray Bold
Committee	Les Fordyce, Bruce Geange, Maurice Job, Brian Leslie, Brian Wiffin.
Editor	Doug Chambers
Librarian	Doug Chambers

The Boiler Committee is to be appointed rather than elected as in the past. This is a requirement we must adopt as part of the AMBSC Boiler Code that we operate under.

Doug Chambers was the recipient of the Compton Shield awarded to the Clubman of the Year.

Once the official part of the evening was over members attention was drawn to the 'Bits and Pieces' on display on the table.

Ian McLellan had his 'Maisie' for us to admire.

The boiler is now sitting in the frames although not bolted down yet.

Brian Wiffin had a compound table that he has made. Made to Brian's usual high standard and very substantial.

Alan Jensen had a set of chessmen that he has made out of steel. The job turned out to be more of a challenge than Alan believed it would be.

Chris Rogers showed us some steam valves he has made for the two 'Dolgochs' he is building.

Doug Chambers had a boiler for a 'Chubb' that he had be asked to examine. He pointed out serious problems with the boiler that led to him being asked to build a new boiler incorporating improvements to the original design and bringing the boiler up to standards required by the AMBSC. He had the outer shell and firebox for the new boiler on display. Don Dudley had an electric engine for a scale

Mustang that has a 48" wingspan. The electric engine will swing a 10" propeller and the special battery will give a flying time of 12 minutes. The battery can be recharged in about 1 1/2 hours.

MAY MEETING.

This will be held on the 24th May, in the Hearing Association Rooms, 435 Church Street, Palmerston North at 7.30pm. The theme for the evening will be the '**The Steam Traction Engine.**' Everything you need to know to build one. Everything from the oscillating- engined meths burners to the larger scales and full size. Members are invited to bring along their traction engine projects, part built or complete.

COMING EVENTS

Mid Week Run at Marriner Reserve Railway

22nd May between 10.00 am and 2 pm

26th June between 10.00 am and 2 pm

Please contact Doug Chambers beforehand.

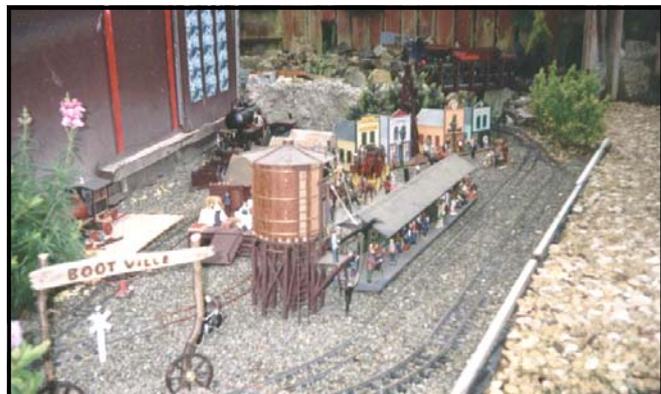
Track running at Marriner Reserve Railway

3rd June 1:00 - 3:00 pm

17th June 1:00 - 3:00 pm

For Sale

Garden Railway (G Gauge) Ex Graeme Hyslop Currently all packed up. For further information contact Graeme on 021 254 8931 or Murray on 06 355 7000 after 28th May.



Locos, Rolling stock, Track, Buildings, People, Controllers, Pumps and misc other stuff.

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

SUBSCRIPTIONS

Subs remain the same as last year. \$30 full members \$15 for country and junior members.

Note that Murray Bold is the new treasurer. You can give the money to him or post to him

C/o 22b Haydon Street, Palmerston North.

If you paid your sub and didn't get a receipt the let Murray know.

LETTER FROM ENGLAND

From Stan Compton

We had the first Club Running Day at Hereford Track site recently. A chance to test our engines ready for public running. My 'Speedy' had seized-up during the winter. This is an engine I traded a 'Terrier Tank' for. The 'Terrier tank' is now on display in someone's home and 'Speedy' is a useful engine to have for passenger hauling. The first time out after the winter lay-off always leaves the motion covered in rust off the steel rails. I was washing this off with kerosene and a paintbrush when one of our junior members, a high school boy, asked, "Why was I doing that?" I don't think that he had ever had to clean anything mechanical but when I finished instructing him on lathe work he did brush all the turnings off the Club Myford which I was very pleased to see.

A visitor from another club who is building a 'Sweet William' (the 7 1/4" Sweet Pea) had a good time out driving the 'Speedy' and it did not take him long for someone with little driving experience to grasp the basics of coal firing. In fact he discovered that the 'Speedy' steamed best with a very shallow fire. One of our members bought an American designed tank locomotive, a 4-6-4 'Boston and Albany' engine. A useful looking engine but it will not make steam. It struggles to pull itself along if the owner can even raise steam. Possibly the ashpan under the wide firebox restricts the air supply to the fire which is always 'lazy'. The piston rings may be worn as the engine has done a lot of work once, or perhaps the smoke-box is not sealed against atmosphere, without a good vacuum no engine will steam well.



A junior member is building a 'Simplex'. He brought along a new copper boiler for me to evaluate.

The work and brazing was first class and good value at 500 pounds.

"I guess Dad will lend you the money?"

"No, I already have it" was his reply.

What a difference to my financial situation when a youth. I heard that the lad had earned the money doing extra paper rounds.

I have been reading Tom Rolt's book 'Landscape with Machines', about his early life in the Kerr Stuart Works, the locomotive builders. He was involved with the development of a diesel lorry of six ton capacity, and having an unladen weight of six tons !!!!! It was not a success and a pig to drive. No power steering then and it required a push to get the engine started. Later he went into business with a partner, running a small country garage on a main road outside London.

One day he heard a car approaching with a mighty racket coming from the engine, "Sounds like a job for us and we need the work." The driver stopped the old Renault but kept the engine running, asked for petrol and lifted the bonnet. Then the cause of all the noise became obvious. A connecting rod had broken and while thrashing around had smashed a hole in the crankcase. It was uncanny to see the rod flashing in and out. All the driver said was "I had better get on my way" and drove off.

I have a neighbour who is a volunteer worker at a stately home, 'Berrington Hall' north of Hereford on the main road. This was on the old coaching road that went through the property then. Iron fences now show the route through the park, with specimen trees obviously not farmland. The neighbour and his wife were asked to help restore the butler's pantry, unused for many years. It contained an old coal and wood stove, the sort that the maid would have to 'blacklead' with a brush. It was so rusty it needed vigorous brushing with a wire brush "Oh no" said the expert, "You could spoil the metal surface. Use only 'Triple 0' steel wool!" Now that is the fine grade I use for polishing copper pipes after brazing.

The walls of the room needed washing and I would have used sugar soap. "Oh no. That will damage the original paint, use a mild detergent." Said the expert. It took a whole day to complete the job.

I went to a motorcycle 'swap meet' with a friend who is restoring an L E Velocette. It was an education for me to see what was on offer, it would be junk to the average person but it was finding buyers.

Of interest, besides the restored motorcycles were a

number of Morgan three wheelers. The sale was at Malvern near Morgan's factory and six examples were on display. There was a 1924 Super Sports, I had one of these in the fifties but did not keep it long. My father owned a four-seater in the thirties. He could drive it with his old motorcycle licence and I recall taking two mates camping near Hereford with it, how we got all our gear in it I don't know. It was wartime and imported dried egg made good pancakes, as fast as I made them the other two ate them!!!!

Morgan cars are still a family business in Malvern and they have full order books.

We had a talk in Ledbury by an ex employee of the firm, about his working life and going to the various sporting car venues. He told us about taking his girl friend at that time, to the Shelsey Walsh Hill Climb. At the interval a woman asked the speaker if he lived at a certain address in his younger days? "Yes I did" was the reply. "Well I was that girl you took out those days." What a small world!!!!

ANOTHER LOCOMOTIVE MAKES ITS DEBUT AT MARRINER RESERVE

The 7 1/4" gauge Price diesel now owned by Barry Parker has begun some trial runs on the Marriner Reserve Railway. Barry has bought the Price from Graeme Harris's estate. Graeme had owned it for some years, but it had some inherent faults that prevented him from running the locomotive. Barry has sorted out the problems and has also repainted the bodywork.

Price's of Thames built two very similar units. One was for Pacific Steel and that one is at the Ravensdown Depot in Feilding. The other was for New Zealand Steel and I believe it is displayed at the Sawmill Museum at Putaruru nowadays.

Barry believes his Price was modelled on the New Zealand Steel owned Price.

Both the prototypes weighed a little over 32 tons.



The Generator

LARGE BOILERED ATLANTICS

Members attending the AGM were able to closely inspect the 'Maisie' that Ian McLellan is building. The model was drawn up for 3 1/2" gauge by LBSC. It came about when LBSC was asked by a great friend who held an official post with GNR and later LNER and who was a great admirer of the H.A. Ivatt designed Atlantics, if

he could draw up a working model of his favourite engine.

The Atlantic was named by LBSC 'Maisie', after his friend's daughter.



The large boilered 'Atlantics' were designed by H.A. Ivatt for the Great Northern Railway. Ninety-four were produced between 1902 and 1910.

Until the 4-6-2s arrived in 1921 they ruled the GNR's portion of the East Coast main line from England to Scotland. After 1921 they were put on to high speed, lightweight trains.

The first 81 had outside cylinders, inside Stephenson valve gear driving balanced slide valves. Non of these were superheated. The last 10 built in 1910 had piston valves and superheaters. Although the saturated engines performed adequately the crews' felt they were sluggish compared to the superheated piston valve models. As heavy boiler repairs came necessary all the original 81 were fitted with superheaters. Most were fitted with piston valves.

Three compound engines were built but they failed to reach the standards of performance attained by the simple engines. In 1920 No1421 was converted to a normal two cylinder simple engine after it had cracked a cylinder. The remaining two compounds were both broken up by 1927.

It is well known that Sir Nigel Gresley was very impressed with the 'large boilered Atlantics'. Several types of superheating layouts were tried and the testing involved the use of steam temperature gauges taking steam temperature at different points. Sir Nigel was known to ride the footplate during these trials observing at first hand the results being attained.

An unusual feature of these engines was the 'Johnson Bar' or reversing lever. Most express locomotives had a screw reverse as the lever reversing gear made it very difficult to alter the cut-off when the engine was travelling at speed. It was well known that sometimes it took the combined efforts of both fireman and driver to move the lever.

These engines remained firm favourites of Sir Nigel Gresley and this ensured their long life. The only survivor is No 251, the class leader, which is displayed in the National Railway Museum in York.

THIS MONTH'S FEATURED MODEL

By John Garner

It was James Stirling who first patented a hot-air engine in 1816 but there followed many others and many variations of design. Basically, the most successful hot-air engines operate on the Stirling cycle, which uses a limited amount of air in a closed cycle. This air is alternately heated and cooled to cause expansion and contraction. The changes in pressure are then applied to a working cylinder. Not all hot-air engines use this same cycle, but this method was successfully adopted by Louis Heinrici who established an engineering workshop in Germany and produced several designs which were patented before the First World War and sold commercially.

I was looking for an engineering project and wrote to E&J Winter's Model Engineering Supplies in Medowie, NSW, Australia. Looking through the catalogue they sent me, I found what I thought would be something an amateur could tackle—a hot-air engine designed on the Heinrici principle. I wrote away for the castings, which arrived in due course. What most intrigued me was aluminium casting of the water jacket, which was made in one piece with a projecting platform on which the working cylinder sits. It was far larger than I thought it would be and much too big to be turned on a Myford 10 lathe. It took me some time to contemplate how I could deal with this without using a larger lathe. Meantime I decided to deal with the working parts- the two flywheels, the crankshaft and displacer rod etc. Inevitably though, I knew this great aluminium hunk had to be tackled!

The metal work class at Queen Elizabeth Night School on Monday nights was just the place to start. Ian McLellan was in charge and without his help I would have been completely lost.

The square aluminium water jacket with its overlarge protuberance was held in a four-jaw chuck, and after facing its surfaces I slowly bored out the centre. The only problem was that each time I came to the class I had to re-set the job in the lathe in exactly the same position! Not like at home where it could be left there until finished.

The next part of the project I could complete at home. I needed two copper cylinders of about two inches in diameter but one of which would have to fit inside the other. This was not easy to find so I decided to make the outer cylinder by taking a larger

copper pipe than I needed, then cutting it down to size. Doug Chambers came to the rescue and after reducing the circumference he used a set of rolls to close up the tube before the joint was easy-floed. All I then had to do was make the two ends. I tried my hand at metal spinning and made slightly domed ends.

When all was completed the burning question was "Would it work". I'd followed instructions as closely as I could and I knew that any friction in the working cylinder was not acceptable. So it came as a bit of a shock when I put the meths burner in the firebox and waited for something to happen. It didn't. I have forgotten how many hours I spent fine tuning it and replacing the oil seal at the top of the displacement cylinder. All this caused much frustration. But the solution came when instead of using a wick, I just set alight to a small bowl of meths. All it required was a little more heat and smoke to get it going!!!!!!

MODEL ENGINEER MISSING MAGAZINES

We are still just a few issues short of completing some of the years of our collection of 'Model Engineer' magazines. Here is a list of the issues we require to complete our collection.

Year,	Issue Number.
1939	No. 1990,
1940	No. 2017 No. 2062
1941	No. 2098 No. 2193
1943	No. 2180 No. 2193
1946	No. 2333 No. 2334 No. 2337No. 2351
1947	No. 2143
1948	No. 2434
1959	No. 3035 No. 3041 No. 3042 No. 3043 No. 3044 No. 3047 No. 3049
1963	No. 3230 No. 3232
1964	No. 3243 No. 3252
1965	No. 3269 No. 3271 No. 3286

If any one has any of these issues that they are prepared to part with would you please contact Doug Chambers, the Librarian at 22 B Haydon Street, Palmerston North or phone 06 3549379.

ROLLER VERSUS NARROW GAUGE TRAIN

Ireland was once a country abounding with quaint rural railways. The names of these little railways reflected the slow and gentle way of life of then and now. Tralee and Dingle, Listowel and Ballybunion, Cavan and Leitrim, Shull and Skibbreen and the Cork and Muskerry. All are gone now, but the event we are concerned with occurred to the Cork and Muskerry Railway on Tuesday 6th, September, 1927. The incident involved a steam roller working for the South of Ireland Asphalt Co Ltd. and a train running on the 3 foot gauge Cork and Muskerry Railway. The locomotive and two carriages had left Donoughmore at 7.45am heading for Cork. The collision took place on a section known as the 'Straight road'. Here the railway runs alongside the road for some 2¾ miles along what was the longest stretch of straight narrow gauge in the British Isles. The locomotive, named 'Dripsey' was a 4 -4 -0 side tank built by the Falcon Engineering Works at Loughborough in 1904, hit the roller breaking the fragile front fork. Both carriages left the track but one was easily re-railed.



In the photo the second carriage is being separated from the roller. The locomotive has left the scene to fetch further assistance.

The Press of the time reported that there had been pandemonium in the carriages. A few ladies fainted and although there was much shouting and panic there were no serious injuries. Some of the passengers were treated for bruising and shock.

A Donoughmore man had his basket of eggs broken and apparently several other passengers travelling on the train had their eggs broken too. In fact the reports in the paper were more concerned with the damage to the eggs than the damage to the steam roller, locomotive, and carriages.

The roller driver must have had to work quickly to prevent the fusible plug melting as without the front roll in place the boiler would have had a 'nose down' attitude leaving the crownsheet uncovered and liable to become overheated.

A note from the Editor How to get a coloured version of "The Generator"

You will all know by now NZ Post will raise the cost of postage to 50c from 1 June. This will raise the cost of "The Generator" to approximately \$8.50 per member / per year.

If most of the internet connected members get their issue via download and not get a printed copy, this will make a considerable saving in costs to the club.

The club has an online database for all the members to use and one of the options on the "My Account" page is the option to get an email sent to you when "The Generator" is available for download.

If you want to get your newsletter this way please make sure the option is changed to YES or advise the Editor and he can arrange it for you.

To access this database, there is a link on each of the PNMEC web pages. You must also have your email address previously entered into the database for you to have a valid login.

Send an email to the PNMEC email address (pnmec@trains.net.nz) to get this entered for you.

From the database you can printout your own up-to-date membership lists and keep your own data up-to-date.

PLEASE NOTE:- Only PNMEC members can access this database.