



Newsletter of THE PALMERSTON NORTH MODEL ENGINEERING CLUB INC
Managers of the "MARRINER RESERVE RAILWAY"
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**March 2017
No 431**

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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 difficult. We may even offer you a cuppa.
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 4414	Place stamp here
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This Months Featured Model



Report on the February Meeting.

The visit to Rua Mudgway's Caterpillar Museum proved to be a very interesting evening. On display were Caterpillar crawler tractors from the small Caterpillar 10 to a massive Caterpillar D8. There was a D8 engine that had originally powered a generator (ex Army) and very nice it sounded running. There was a twelve cylinder Caterpillar engine that had powered a small locomotive in Australia and that too was started up for our benefit. Not having a starter motor of



its own, the V12 was started using a flat belt driven off the power take-off on a D2 and once running the V12 had a real bellow combined with the whistle of the turbo charger. An early Chamberlain wheel tractor was started up and the three cylinder GM supercharged diesel ran very nicely. The Chamberlain is owned by a friend who doesn't have room to keep it at his place. In the collection is a John Deere MC bulldozer. These were fitted with a



two cylinder petrol engine and are very common on farms in the Wairarapa.

March Meeting

This will be held at 7.30pm on the 23rd of March in the Hearing Association Rooms, Church Street, Palmerston North.

This month we well expect to see the models you have been working on since October 2016

Annual General Meeting

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

This will be followed by our normal monthly meeting. Bits and pieces will be the theme.

COMING EVENTS

Track running at Marriner Reserve Railway

April 2nd 1pm-3pm
April 16th 1pm-3pm

Open Weekends

Havelock Live Steamers 14th-17th April

Manakau Live Steamers 3rd-5th June

This Month's Featured Model

STIRLING HOT AIR FAN - Graeme Hall

A highlight of last year's UK holiday was a visit to the Bristol Model Engineering Exhibition. I was fortunate to attend a lecture by Julian Wood of the Stirling Engine Society and see many forms of hot air engines in operation on the Society's stand.

Having never built a hot air fan, a model of this type was to be my next – and a book on concentric bell-crank engines was obtained.

The closing date for the next issue of The Generator is Wednesday 12th April

These engines have a common cylinder for displacer and power pistons and a bell crank mechanism to drive the displacer piston with a 90° lead.

Calculations were made for a 1.5 to 1 volume between displacer and power cylinders and a used shock absorber cylinder with a honed bore of suitable size found.

Construction began with cylinder and crank shaft mounting plates, base plate and stand built, a used refrigeration fan was fitted, crankshaft with counterweight, aluminium rockers and connecting rods. The lightweight displacer piston machined from solid stainless steel .8mm wall thickness and sealed by an aluminium end cap.

Close fitting power piston from cast iron with bronze bush for displacer rod.

Ball races fitted to crankshaft and connecting rods, a finned cooling jacket for upper end of displacer cylinder.

A gas burner was machined from brass.

With no suitable size of gas jet on hand, a request at a local gas appliance company met with a reply that I was breaking the law building a gas appliance without a licence and could be prosecuted!!!

Needless to say - a suitable jet was located and used.

To concentrate heat at the lower hot end of the displacer cylinder a baffle was made from a used fly spray can with an exhaust tube and works well.

The fan starts after a short warm-up and will run continuously with a small gas flame.

Letter from Engand

By Stan Compton.

Fifty years ago there was a disaster in the small mining village of 'Aberfan' in South Wales when after a prolonged wet spell the slag heap of waste from a local coal mine slid down with a roar of sound, engulfing the local primary school at 9.15 am when classes were about to start. One hundred and sixteen children and twenty eight adults lost their lives. One boy was saved because he went into the school library to obtain a copy of 'Tin Tin'. In a radio interview we heard that he was trapped by the slag for two hours

with his head close to a little girl who was dead and he can recall it all after all this time.

Twenty-five years ago I recall hearing an interview with a man who was a 'Salvation Army' officer who set up their meeting room to clean the faces of the bodies of the children He only had a cold water supply and he combed their hair before the parents were allowed to identify their children. The 'slag heap' was known to be unstable but nothing had been done about it, after the disaster it was all removed.

When I was in my teens my father took me to a concert in the 'Birmingham Town Hall' where one of the items was a performance by a Welsh male Choir most of whom were miners identified by their pock-marked faces due to shot blasting. I was impressed by the quality of their voices in perfect harmony. It has been stated that to hear the miners singing in the 'cage' as it is being lifted up at the end of their shift, the sound increasing the higher it rose is most impressive, never to be heard again now that all the deep mines have closed.

I can recall the lovely voice of a soprano soloist, a slim woman 'Gwen Catly' wearing an evening dress and a little fur cape, It was cold backstage she told us. No microphone, she filled the hall with sound as a trained singer can.

I remember attending a concert in Kingston, Ontario, Canada in 1953 with a group of young singers and musicians was led by a Swedish tenor well known for singing the works of Wagner. The building was built to house an ice-skating rink and was most unsuitable as a Concert Hall but it was all that was available. Only a small audience so we at the rear were invited to move forward. I have forgotten the leader of the group's name but when he walked onto the stage he moved all the microphones to the rear saying "Vee do not vant these".

What an enjoyable evening that was, all the performers coped well with the terrible location and I suspect that they found many similar ones during their tour.

I have heard lately of regulations concerning wild life in the UK. I grant that some of these need protection but surely some wild life will adapt? A main road to Tewksbury passes under a motorway and some bats had adopted the brick arches for their home, ignoring the traffic above and below. It has been decided to close the underpass for several months each year during the bat breeding season. This, at great

inconvenience to commuters, but the bats get priority!! I have heard of land that had been sold to build new houses, badly needed. The site had been all laid out when 'newts' were discovered, so all building was cancelled. Newts are a small aquatic creature similar to a 'gecko' that is found in New Zealand.

I have told you before of a woman, of artistic bent, who is allowed to rescue items intended for the rubbish dump; remember the cast-iron manhole cover that had legs attached, painted green and was sold as a bedroom table. The weight was not mentioned but not many women could have picked it up!! Well our artistic lady found a paint splattered three inch engineers vice made by 'Record' that was considered only fit for a door stop. The lady decided that the vice would make a nice electric light with a lamp holder attached and hung by one of the bolt holes. Suitably decorated it sold for real money, they say there is one born every minute. The sad part is that no one could see what a useful tool a vice is even if only used as a nut-cracker!!! I have one of these vices in my workshop. On a visit to the Coventry Transport Museum I found a 'Rudge' side-car outfit with a lidded box and on it was a similar vice. The outfit had been used for travel through Europe etc pre-war. I believe that the firm of 'Rudge' ceased manufacturing in 1939.

We have a very good group of workers on the 'Hereford Track Site' replacing all the old sleepers on the elevated 5" & 3½" gauge track. One man undertook the work of cutting and slotting the treated timber sleepers, full marks to him. Now the bad sections have been dealt with so all will be ready for next year. The ground level track needs a lot of work but it will be a much bigger job. Some sleepers have rotted and will be replaced with plastic ones. Recently on a very busy day with many passengers celebrating 'Halloween' the rails parted and the locomotive dropped down causing a hold up. The track has been carrying far heavier loads than originally visualised and now to find volunteers to do the work. Twenty years ago I helped at 'Worcester MES' to restore a lot of their ground level track. The rails were steel angle and after many years of use each section of rail stretched creating an arch. Steel angle had been slotted and welded to the rails. Each section had to be unbolted, eight on each joint, placed upside down on four

by four timber blocks. Then a heavy slab of steel was placed on top and belted with a sledge hammer, it worked!!!



Stan Compton's 'Alex' an 0-6-0 version of 'Bridget' running at Worcester



NZR 'Ab 608' seen at Napier's Anderson Park

Port Hill Fires

Few of you will know that a Palmerston North Model Engineer was involved in fighting the fires near Christchurch. Bob Owen is a loader driver for Aerowork based in Masterton where he loads a Cresco flown by Andrew Denniston. Normally they spread super phosphate, lime or urea but the Cresco's spreader can be quickly changed to allow the hopper to be filled with water or



retardant for fire fighting. The Cresco is about twice the size of a Fletcher and has a payload of about two tons so is capable of useful work. Andrew and Bob got the call that their services would be required so the spreader was removed and the water spreader was fitted. With their spare clothing in bags stored in the fuselage (Bob forgot his sunscreen and that resulted in some sunburn) they took off from Hood Aerodrome and passed over Lake Ferry before turning and crossing the Cook Strait heading for Kaikoura. They flew along the coast seeing firsthand the damage caused by the earthquake and Bob was astounded at the way the sea bed had raised. He had understood from the TV reports that it had raised over a small area but in fact a huge area has been lifted. They were based at Christchurch International Airport



where they operated with another of Aerowork's Cresco's. The two Crescos contributed to the eventual control of the fires in no small way. While they were at Christchurch International Airport Bob saw one of Emirate Airlines Airbus 380 land and later take-off. Bob was amazed at



the size of the Airbus and how little of the runway it used to get airborne with very little engine noise. A C17 Globemaster landed while they were there and although the C17 is a big aircraft it was dwarfed by the huge Airbus. The C17 is used by the American Air Force to



re-supply Antarctica during the summer. When Andrew and Bob left Christchurch to return home Andrew flew inland to Kaikoura and Bob was dismayed to see the effect of the drought. No green in the paddocks and no stock either sheep or cattle. He told me that the paddocks were just dirt, not even dried of grass. They crossed Cook Strait and made their landfall near Lake Ferry and returned to Hood Aerodrome.

This was the first real fire that Andrew and Bob had worked. They had done demonstrations off the Army airstrip near Waiouru and on another occasion near the Chateau around the other side of Mount Ruapehu. Andrew and Bob were involved with a class that was run at Hood aerodrome last year run by the Wairarapa Rural Fire Service and attended by members of the New Zealand Army, forestry staff from the company Juken NZ, Department of Conservation and the Tararua District Council. At the end of the three day course the trainees were given practical hands-on training in filling the Cresco and a helicopter monsoon bucket.

In the Newsletters from other Clubs

Kapiti Miniature Railway

The old 'Nissen' hut has been dismantled and disposed of. Over the years the salt air had got at the steelwork. A 'working bee' has trimmed the hedge that was starting to encroach on the track.

Blastpipe Petone

December 28th saw John Antliff with his Phantom 'John Henry', Dave Brownlow and his S class Fairlie and The Barnes Family Phantom 'Florence' all in steam and at one stage all coupled together.

Maidstone

The weather has not been favourable for running days.

EBoP Model Engineers

Are proposing to build a railway viaduct. Meetings have been held with the Whakatane District Council to get clearance to proceed.

Whangarei Model Engineers

Have been having trouble with non toilet trained ants in their signalling equipment. They have purchased a P H meter which has proved their water to be only marginally acidic. A check of the water tower which is on a different system gave nearly the same reading. However a large ants nest was found in the water tower but apart from that all is well.

Thames Model Railway A very interesting article about the TSS Earnslaw.

LOCOMOTION - Ken Le Prou

Annual Event 4-5th March 2017

A group of the Hawkes Bay Model Engineering Society made our way down to Palmerston North for the LOCOMOTION annual event at the Marriner Park Railway.

Three of us brought our locos and riding trolleys to use on the track for a change of venue and it's challenges, sure showed up any problems needing to be sorted out.

There were a lot of visiting trains from around the North Island, most were running around the track during the day, a few stayed in the steaming bays.

I was quite surprised to see low numbers of public lining up at the station, trains were sitting waiting for passengers, others were circulating around having fun on their own.

A real nice traction engine with a wood cutting machine set up on a long belt drive, this attracted a lot of attention as people watched the saw cutting battens or similar.

Later the same engine was chugging around the park giving rides, giving others a try at driving the machine, nice to see the owner sharing his model.

Time was moving on and it was time to pack up ready to leave for home after an awesome day with the Palmerston North Model Engineering Club, they certainly looked after everyone very well, thank you team.

Watch the video from Ken.

<https://www.youtube.com/watch?v=II0II7d4Mu0>

PNME Editor Note

Once again thanks very much to all those who helped with the event especially the ladies of the catering corps, without their support it would be very difficult to put on an event like this. Their efforts were appreciated as was evident by the number of visitors complimenting them.



Two Burrells and two old B.....



Graham Leabourn with No 98 from Hawkes Bay



Dave Brownlow's S Class Fairlie came up from Wellington for the weekend.

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