November
2014
No 406

THE GENERATOR

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 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
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Place stamp here

This Months Featured Model

Report on the October Meeting.

Bits and Pieces evenings always seem to be interesting and this one was particularly so.

Graeme Hall led off with the components he has made for a V twin aero engine of about 9cc. He told us that the 'Snow' engine has been running and that he will bring it with him to the Presidents BBQ in January.

Richard Lockett has been making parts for a 1913 New Hudson motorcycle that a friend is restoring. Richard has found (to his dismay) that in those days manufacturers used all sorts of thread forms and pitches and that has led him to having to get some extra change wheels for his lathe.

Ian Stephens is making a model of an 1896 Peugeot car. He showed us the pair of brass headlights he has made for it and explained that they were candle powered pre-dating the use of acetylene. The steering is by tiller and this led to some problems getting the wheels to turn the right way.

Patrick O'Shea showed two splendid stationary steam engines. Both verticals, one the upside down type and the other having an extended piston rod and the guide bars above the engine. The engines have been left unpainted and highly polished. The flat surfaces finished on a surface grinder that Pat made.

Eddie Bleakly showed us the tender tank of the 'Chalk family's' Britannia. Now stripped of paint and with a few minor repairs it is ready for painting. The engine too has been completely overhauled, having been stripped to the last nut and bolt, and is also ready for painting.

Robert Edwards had a trolley chassis he is building. He also has a big project at his home building a railway around the house. He was able to purchase the track from the Rotorua Model Engineers.

David Bell of Bell Marine Systems who specialise in air conditioning systems for all sorts of vessels from luxury pleasure craft to Naval ships was able to show us samples of hull plating, no longer steel because of weight, but all sorts of composite materials. He showed us pictures of a catamaran built by InterCat of Tasmania that speeds across the Mediterranean at speeds of 115kph. The two V12 diesel engines are in a very small compartment and the air temperature is not allowed to exceed 40 degrees.

Merv George had a flyer telling of a new type of grease nipple being produced in the USA.

Bruce Geange Brought along the Caterpillar D8 model and demonstrated its ability to drive forward and reverse and steer using the steering clutch controls. A magnificent achievement!!!!!!! Bruce is very well respected in the field of Meccano and was recently nominated for the 'Golden Spanner' award. This award is World-Wide. The five judges come from different overseas countries. Bruce won the award and he showed us the **'Golden Spanner'** recognising his achievement.

The closing date for the next issue, "January Generator" is Friday 12th December

Club End of Year Dinner

PN Cosmopolitan Club
22 Linton Street
Palmerston North

Thursday 27 November 2014

Drinks 6pm Dinner 7pm

The cost is $25 per person. (Pay as you arrive.) They also have a licensed bar for you to purchase innervating liquids.

Bring the family and join us for a relaxing lead into the summer.
We look forward to seeing you there.

We need to give the restaurant an idea of numbers. Please let us know if you plan to attend and how many there will be in your party.

Dave, 027-457-6175, newstead@clear.net.nz
Murray 326-9665, engineer@inspire.net.nz
Cynthia, 354-7100, cynthia@trains.net.nz

The January Clubnight will be the
Presidents BBQ on **15 January 2014**
Keep the date free

COMING EVENTS

Track running at Marriner Reserve Railway

November	16th	from 1pm-4pm
December	7th	from 1pm-4pm
December	21st	from 1pm-4pm
January	4th	from 1pm-4pm
January	18th	from 1pm-4pm

Open Weekends

Locomotion 28 February +1 March 2015
10am to 4pm each day

Marlborough Model Engineers are having an Open Weekend on Waitangi Weekend. 6th,7th, and 8th February. Morning and afternoon teas supplied and a visit to the engineering firm that makes replica Gnome rotary engines may be arranged.

Manakau Live Steamers Waitangi Weekend 6th, 7th and 8th February. On the 6th family's with special needs children travel free, the 7th is a 'Phantom' Day and the 8th is 'All In'.

59th AALS Convention Easter 2015 at the Penfield MES near Adelaide.

THIS MONTH'S FEATURED MODEL

Editors Note While this is not a recently completed model it was begun by a past member of the PNMEC and then completed by another PNMEC member. Now owned by Robert Edwards.

My New Locomotive Robert Edwards

I have started putting down my new railway around my house. I thought that I needed a locomotive that was a quick starter for taking the grandkids around, as they are very young and will not wait for a steamer to get going. Up pops this electric locomotive and it looks good, so I go for it and buy it. To my surprise Grant Alexander is the seller.
A 'free-lance' model but with good detail, bright paint, and good spacious cab with some details. Loosely based on a NZR DSC style locomotive but built more to look like a 2' gauge locomotive. 7¼" gauge Bo-Bo battery electric locomotive. The loco is 1670mm long, 570mm wide, and 760mm high. 2 x 105ahr batteries and 1 x small battery for sound system

Some history from **Grant Alexander.**
The initial kick-off for this loco (that we called "Big Red) was when John Comrie passed away maybe 10 years ago now and the estate kindly offered me one of his loco's for a tempting price. This offer I took up and it provided a chassis, wheels, transmission and the two motors you have there. I significantly shortened the chassis and up rated the batteries a few years ago to the ones you now own. I also reconfigured the wiring, fitting a 4QD controller capable of 110 amp bursts. I considered this a reasonable choice as the stall current of the two motors combined is just a bit over 50 amps.
I did re-profile the wheels as the flanges were vertical and weren't 100% reliable on my home track, and although the effect of this was to end up with thin flanges, this didn't seem to be a problem as long as I kept the Back to Back at 172mm. I also reworked some of the transmission system including the chain tensioner, but nothing significant.
Regards the body, I thought long and hard about this, making up a lot of card and paper models until I had a pleasing profile and proportions. It is based very loosely on my interpretation of what an NZR DSC would have looked like if it had been built for 2' gauge track!!!

We have found the model to be an attractive and very successful loco, easy to drive for the many visitors we have here at Squirrel Valley Railway. The main reason for selling is that it was primarily built to suit 2' gauge as at that stage I owned #24, a very large steam engine again built after a 2' gauge prototype. When we sold #24 and traded down to a smaller locomotive Big Red was very out of place, towering over everything else in our train shed, so I built a new battery electric loco more in keeping with our smaller trains, and Robert was fortunate to pick up Big Red for a very reasonable price.

LETTER from ENGLAND

By Stan Compton

It is 1500 hours on a Friday at a Canadian Army Transport Depot where I was employed as a vehicle inspector; all work for the week was completed when one of the staff invited me to join them watching films. The year was 1952 and the films were those used to train military personnel in vehicle maintenance, probably made for the US Army. One of the films had a title 'Down the Gasline Trail' and you may not believe this but it was intended for raw recruits who had no knowledge of vehicle construction. So we are shown a diagrammatic drawing of the average vehicle fuel-line with bends and filters. It was in a cartoon form and we saw a cowboy and his horse in the petrol tank. He gallops along and finds his way blocked at a bend in the line, he dismounts and clears the blockage and carry's on to a blocked filter that needed replacement. The film probably lasted for ten minutes and had obviously been seen by the staff of the depot many times as they treated it like a 'Mickey Mouse' cartoon. I cannot remember the rest of the films that were of a similar type aimed at a person of low IQ.
It was the easiest job I ever found in Canada. The army vehicles were rarely used so there was little to report. I spent a lot of time reading instruction manuals and I was very pleased to be hired by the Canadian Locomotive Co. Assembling diesel engines but that is another story.

My wife and I have just returned from a coach trip to Maidstone in Kent and one day out was to Chatham Dockyard (www.thedockyard.co.uk). I was based there for a while during the 1939-45 conflict and now it is all set up for tourists with so much to see. We had five hours there and we really needed more time. There are three vessels to see over. A destroyer built in 1944 HMS Cavalier. On the bridge is a wooden chair similar to the one actor Jack Hawkins used in the film 'The Cruel Sea'.
HM submarine 'Ocelot' built in 1962 was interesting. A diesel –electric submarine that had 17 years of service before being retired without firing a shot. 'Ocelot' was used for spying missions that even today are still classified.
HMS Gannet was the first composite ship having iron ribs and teak planking. Fitted with masts for sails and a steam engine for when there was no wind. The order of the day was "Down sails-Up

funnel". The propeller would be lowered when steam was raised and lifted again when the ship was under sail. Raising the propeller meant less drag but the vessel was faster under sail' HMS Gannet was built in 1879 but was converted for use as a training ship for boy-seamen in 1913 and at that time the boiler and engine was removed. HMS Gannet remained in this service until 1937.
In the Dockyard is a ¼ mile long 'ropery' and this was very interesting. It is still in use and was demonstrated to us. Even today there is still a demand for ropes of all sizes and we were shown examples of the craft ending up with cables 150mm in diameter originally used to anchor 'ships of the line'.
There was a very interesting article in 'Model Engineer' recently about Soviet Railways. I read that the 'class FD 21', a freight locomotive was found to be very successful and 11,000 were built.
Over the years I have written to the editor of the 'Model Engineer' and recently I wrote again to complement the writer of an article on the construction of a model of a variable pitch screw as used on modern ships. I explained that I knew a machinist years ago who worked on 'Rotol Airscrews'. The original aluminium alloy casting weighed 120 pounds, but after machining it only weighed 85 pounds. It was a very time consuming process. When a German fighter aircraft was brought down over the UK during WW2 the intact nose cone was found to be still intact and it was handed over to 'Rotol Airscrew' personnel for examination. They found that it was made from die-cast zinc alloy similar to that material used in an automotive carburettor!
Now I discover that a hand-written letter to 'Model Engineer' is ignored, they only want email correspondence. However when I had trouble with a new central heating boiler I wrote to the head office of the maker and got a reply straight away, probably because my letter was not email!!!
You may have heard about the problem with badgers over here. Many of them carry TB and dairy herds get infected and all the cows have to be slaughtered. To a farmer who has brought his stock up as part of the family, compensation means little. The badgers are protected and he cannot go out and kill them. Our Government ordered a cull in our district and marksman are paid to go out at night with another man as a spotter. Badger lovers go out also to distract the cullers creating friction; you can't win.
A true story that happened some years ago. A young man bought a 'Vespa' motor scooter, a red one and when going for his driver's test he was instructed to ride around the block and his tester would step out onto the road for a brake test. The young man rode around the block but saw no sign of the tester so he went back to the office where he was told that the tester had stepped out in front of a red 'Vespa' and ended up in hospital. It was a stranger who had no idea why this idiot appeared from nowhere. But our young man got his driving licence.

In the Newsletters from other Clubs

Blastpipe Petone Article on firing locos with Welsh Coal

Whangarei Model Engineers Article on an interesting Belgian locomotive.

Manakau Live Steamers Mike Orange, Bill Parker and Greg Burrows travelled down to Hamilton to assist with the Hamilton Club's Child Cancer Charity Weekend.

Christchurch Model Engineers. Photos of the models that won awards in this year's competition.

Hawkes Bay Model Engineers. Held their Exhibition at the local Boys High School.
A brief history of the 16" gauge loco that was built by Niel Alexander of Hawkestone Station near Potaka in 1975. Graeme Learbourne assisted Niel with the engine. Niel died young and the engine was sold going to the Ngonotaha Railway in Rotorua.

New Plymouth Model Engineers

Have pencilled in January 10th with the 11th as an alternative day in case of weather problems, for their inaugural Charity Running Day.
Nelson Model Engineers On the 24th August they hosted an invading party from Blenheim which saw two 'Britannias' and 'Belton Manor' making good use of the raised track.

Part 3.
The continuation of the D8 story.

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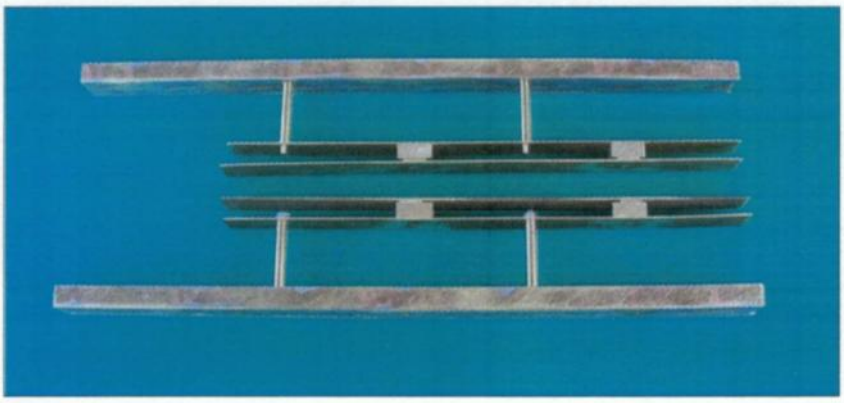
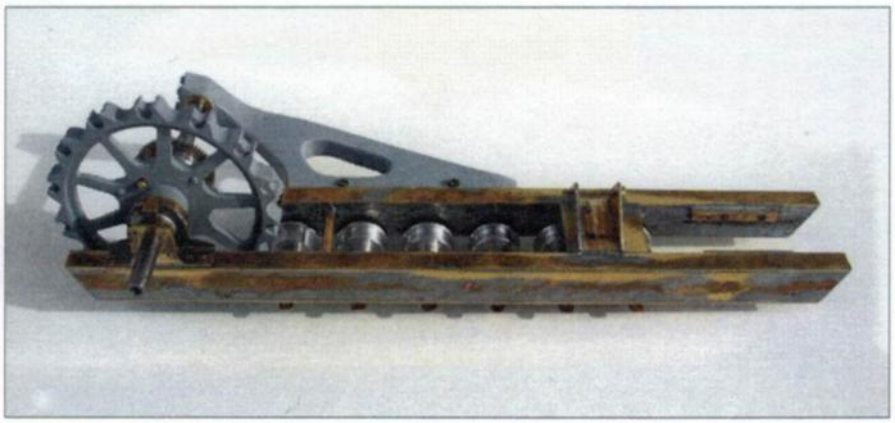
I decided to build the track frames next and these have a lot of small pieces to them. 0.8mm brass sheet was cut to make up the channel sections for each frame. Spacers were made to fit inside the channel sections and the frames were soft soldered together. Brass rod was used to space the inner and outer channel sections.



Track frames during construction

Temporary Wheel centres were made up and a track fitted to see how the frames would fit. Track rollers were machined from aluminium with four brass components making up each bearing. Each track roller is secured to the track frame with four 10 BA bolts. The rear driving sprockets were cut from a billets of aluminium with the teeth cut in the mill. The braces for the track frames were fabricated from tinplate and soft soldered. Each brace is held to the track frames by two bolts.



Partly constructed track roller frame

The final drive covers were made from tinplate with dummy bolt heads soldered in as required. These were cut in half for easy removal and fitting and are held on with two screws. A puller was made to remove the half shafts allowing the complete track frame to be removed.

Part 3 of the D8 series - TBC