

# The Generator

Issue 446  
July 2018



**Palmerston Model Engineering Club**  
[www.pnmecc.org.nz](http://www.pnmecc.org.nz) - [pnmecc@trains.net.nz](mailto:pnmecc@trains.net.nz)

Managers of the Marriner Reserve Railway - Marriner Street - Palmerston North  
PO Box 4132 - Manawatu Mail Centre - Palmerston North 4442



Liam Puklowski drove "Robyn" most of the weekend, saving the 'backs' of the older driver members. See inside for more reports from the Rail-X weekend.

## What's happening this month and in the future, Check out the PNMEC Club [Calendar](#)

### Track running at Marriner Reserve Railway

August 5 <sup>th</sup>	1pm - 3pm
August 19 <sup>th</sup>	1pm - 3pm
September 2 <sup>nd</sup>	1pm - 3pm
September 16 <sup>th</sup>	1pm - 3pm

## The Palmerston North Model Engineering Club Upcoming Club Nights

### 26 July 2018

Members will each give a 2-5 minute talk about a document, or book, or photography, or other printed item they find particularly interesting to them.

### 23 August 2018

The Alexander Turnbull Library holds an amazing variety of historic documents. A club member will give a presentation based around their photos with an engineering theme.

### 27 September 2018

A club member will demonstrate 3D Printing and Laser Engraving.

These meetings are all to be held at 7.30pm in the  
Hearing Association Hall, 435 Church Street, Palmerston North

It's time to pay your annual sub. This is **\$30** for Members and Family's  
Please send your cheque to The Treasurer at the address below, deliver it to him on club night or by using Internet Banking

**The Treasurer**  
**PN Model Engineering Club**  
**PO Box 4132**  
**Manawatu Mail Centre**  
**Palmerston North 4442**

For Internet banking  
The club Bank account number is  
**06-0996-0831663-00**  
Make sure your name is on the  
transfer so we know who to credit.

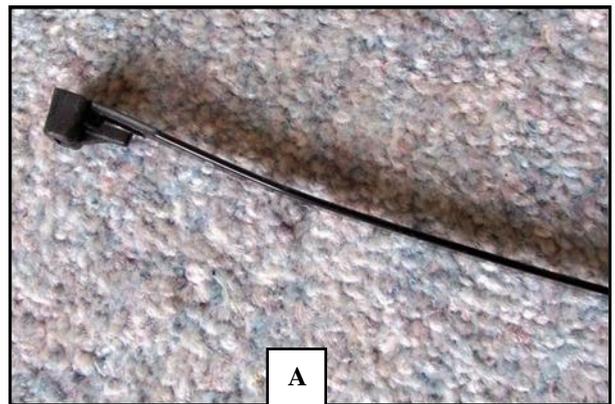
## **Inclement Weather on Run Days**

If the weather looks a bit rough, squally, wet, wild or just iffy on the morning of a regular Sunday Run Day and you are wondering if trains will be running; then phone **Kerry Puklowski** and he will let you know if running is going ahead or has been cancelled. **Kerry 027-445-5487 or (06) 353-6189**

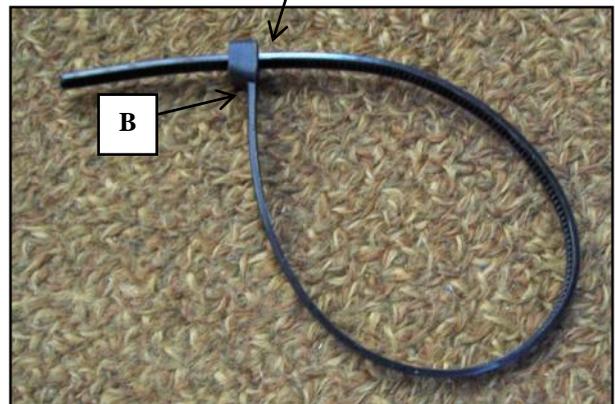
## Tip of the Month

Tie wraps are a great invention but here are 2 ways you can do even more with them:-

Did you know you can get reusable tie wraps? They have a little lever and when this is pushed into the strap the latch releases allowing the tie wrap to be removed and used again. I have found these great for all sorts of uses including temporarily holding things (i.e. wiring) in place until the final requirements are determined and holding parts during gluing.



Did you know you can reuse standard tie wraps? A lot of people consider them a “use once” item but in this age of recycling (and thriftiness) a little thought is all that is required. Instead of cutting the tie wrap at “B” cut it at “A” – it may be a little shorter but it can be reused!  
Merv George



### **RAIL-X 2018**

Rail-X - most of the usual crims turned up on Saturday and Sunday to run the portable track and Robyn to amuse the kiddies of all ages, and fleece the wallets of some of them. Saturday was a very swift pack-up when the drizzle started and threatened much worse. Sunday was better weather but less punters about, and the treasurer had a slight smile on his face at the finish.

Chris Morton

### **RAIL-X 2018**

Once again the PNMEC were invited back to participate in this biennial exhibition of the smaller cousins to our ride on railways. PNMEC are able to provide a suitable ambience to this occasion in the form of a resplendent live steam locomotive in operation complete with a tired and grubby operating crew wearing dirty overalls and with blackened faces. Our station staff were dressed for the weather, which on this occasion was kind to them with a brisk breeze blowing from the north ensuring a warmish day for this time of year with the rain falling during the hours of darkness unlike on other occasions when the crew were tired, grubby, cold and wet!



The Smiling Treasurer

With this ambience in place a steady stream of customers flowed through the turnstiles to view the many differing railway layouts offered by our smaller cousins and to purchase new and secondhand additions to their own miniature layouts.

Thanks must go to the Mason family for making the locomotive formerly known as "ROBYN" available, to Karen Pukowski for providing lunches for the "crew" and to the PNMEC members who made up the "crew".  
Richard Lockett

### **More from Rail-X**

The usual gang turned out to ran the clubs portable track at the Biennial Rail-X Exhibition in Palmerston North on 7-8 July. The weather forecast had not been good leading up to the event, but thankfully we only had a few light showers on Saturday; although the wind made it quite cold on both days. The public attendance was good with a steady stream of customers on the first day. By the middle of Sunday afternoon this had become a trickle.

Inside the hall there was a good mix of layouts and trade stands. Over the years there has been a shift in the types of things people are building. In the past this exhibition has consisted of a number of large club layouts interspersed with small personal railways. We now have a smaller number of the larger types with a significant number of individual ones of medium design and size. These made the exhibition quite varied and more interesting for the public.

Cynthia Cooper

## **MORTON M5 MODEL AERO ENGINE – Part 2 – Graeme Hall** **Building the Engine**

This project started with a phone call from an old friend – "I am having a clean out after 40 years - do you want the old radial engine castings?"

The parts were duly delivered, a box filled with many parts, including 2 sets of drawings from 1940 to 1968 – too good to resist!!

An inspection revealed many finished (factory) parts, including crankshaft, crankcase, valve gear, cam and some gears. The five cylinders, bare castings from later manufacture, possibly 1980's. No pistons, carburettor castings or ignition distributor.

The rear gear case casting had been partially machined by a previous enthusiast and required some difficult rectification – I wish they had left it alone as replacements are like rocking horse poo!!

Many jigs and fixtures were built to hold and machine cylinders, steel sleeves, valve seats, guides and ports machined. A distributor built and a model Aero Carburettor modified to fit.

Another batch of spark plugs made with a few spares.

Five pistons and rings made (the smallest I have made), two timing gears and mounting frame.

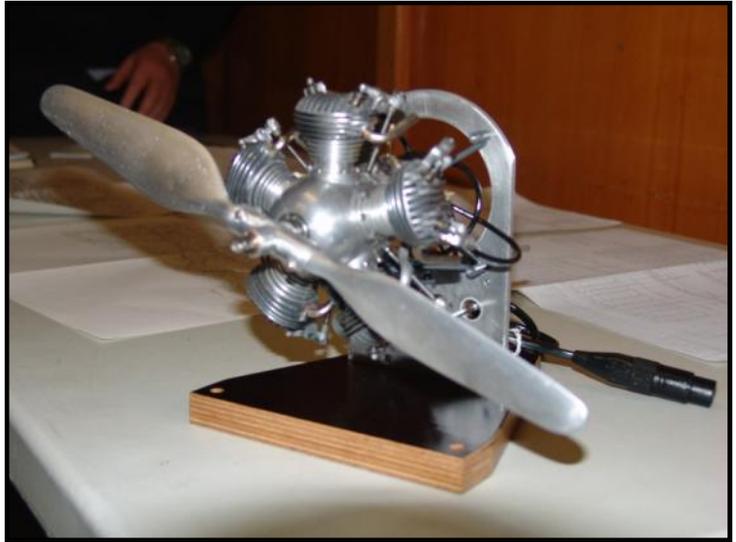
## Assembly Began

Very fiddley with 50 odd 2-56 US gauge screws – some in difficult to reach places.

Fitting induction pipes and adjusting valve and ignition timing gears – just as difficult.

The first attempt at starting produced nothing!

An electric starter next tried - a few weak back fires!



A check showed problem with distributor cap. Down scaling High Tension electricity is difficult. A new distributor was made with more insulation.

More starting attempts – weak firing.

Desperation – patience!! Not enough compression.

Cylinders and pistons removed – new deeper section rings made and piston ring grooves deepened for more bore tension.

Re-assemble and run-in on lathe for 2 hours.

Finally start and run, but little throttle control. Carburettor removed and bore sleeved to smaller diameter. Better control with longer runs.

After six months work and with a little help from the Internet and Specsavers

**SUCCESS.**

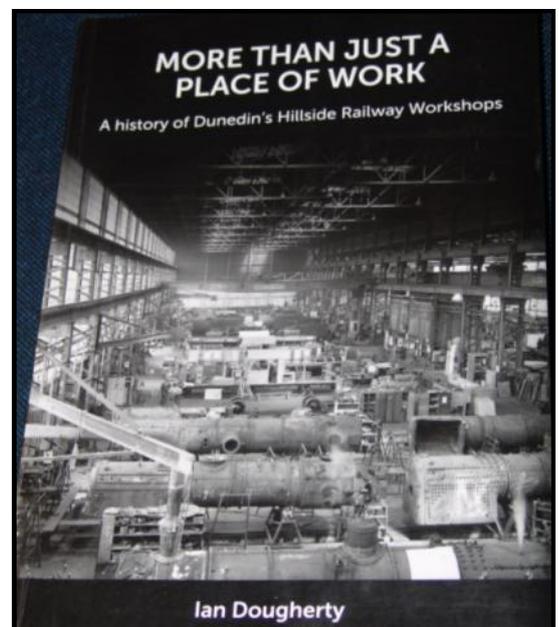
## Book Review **More Than Just A Place Of Work** *Chris Morton*

Murray told me I have to do this - so here you go - one book review of

“ More Than Just A Place Of Work “ - a history of Dunedin`s Hillside Railway Workshops written by Ian Dougherty in 2015 and published by the New Zealand Railway and Locomotive Society.

I found this book by sheer chance in the Feilding Library, and have enjoyed it so much that serious consideration is being given to owning my own copy. The contents consist of fifteen chapters, all well illustrated and overall what I enjoyed was the strong human/personal aspect throughout the book. The chapters in order are:

‘[Repairing-shops at Hillside](#)’, which explains the origins of the works.



'Firing up the workshops' 1875-1897, a bit of expansion becomes necessary.

'Full steam ahead' 1897-1918 with the workshop getting into locomotive manufacture, incredibly the first made in Hillside, Wa 165 is still alive over in Gisborne and is the second oldest Railways Department-made engine. This is the largest chapter and quite diverse in its content.

'The fighting spirit' 1875-1918 covers some of the work's staff participation in the wars during this period.

'Playing and praying' 1875-1918, covers the social and religious aspects.

'Little Glasgow' 1924-1929 is the modernization of the works despite the politics of the various governments of the time.

'Production between the wars' 1918-1939 is about construction of all sorts from a 210 foot transmitter tower to Wab 794, and one of the photographs includes the photographer himself, Percy Godber.

'World War Two' 1939-1945, the contributions of men, munitions and machines from Hillside to the war effort.

'The social welfare needs of the employees' 1918-1945 mentions building a new social hall and dining room and the exploits of various clubs and sports teams.

'Running out of steam' 1945-1956 is the end of building steam locomotives by the Railways Department and Ja 1274 is the last built by the Dept, the last for the Dept, and the last to enter service with the dept. There is also coverage of several fatal accidents.

'Hearing the diesels humming' 1956-1982 goes into the decline in numbers of the workforce, and constructing Dsc shunting diesels as well as Tr tractors along with container wagons. Two nice poems in this chapter.

'Corporatization' 1982-1993 is about how politics put Railways into the commercial world, further reducing the workforce against the background of decreasing Railways revenue and income.

'Privatization' 1993-2008 was much upheaval over who owned what and who paid who, but Hillside somehow kept going doing carriage rebuilds along with container wagon construction, with many redundancies among the workers.

'Good clean entertainment and fun' 1945-2012 is about the workforce being able to return to much more normal life and social activities following World War Two, and shows some of the human side of life as they saw it.

'The end of the line' 2008-2015 saw KiwiRail come into existence and Hillside built 17 really state of the art carriages for the South Island tourist trains along with track service wagons, then the politicians got well and truly involved, and as this chapter puts it, Hillside workshops were done away with, rightly or wrongly as the reader decides.

All chapters are well illustrated with a mixture of black/white and colour pictures, Overall a very human book.

## Letter from England

By Stan Compton

Having just returned from a short coach holiday in the Yorkshire Dales the highlight was to go to Settle Station for a trip on the main line over the Ribblehead Viaduct, just a glimpse of which was visible pointed out by our escort, a member of the Settle and Carlisle Society. Previously just by coincidence we were able to witness a steam excursion train hauled by a Class 8 freight loco, on full throttle, going through Settle Station. What a sight and sound to remember, even my wife was impressed.



The next day was to visit Skipton Market and a canal boat trip, in the town hall is a small museum worth visiting. An old wood lathe with a hand driven wheel about the size of a cart wheel, must have been hard work. Next to it was a stone crusher with a similar drive wheel. This would need two men to power it. Labour was cheap in those days.

Many of us have heard of the Bronte sisters, writers of Victorian novels. We were able to visit the village of Haworth, the parsonage where they lived is located on top of a steep hill paved with stone-setts about 150mm square. It must have been hard going for the horses hauling a loaded waggon. Quite a pretty place, loaded with tourists though, I wondered why some visitors in the car park were putting on walking boots. Then I noticed an original photographing a sign that read "To the moor". Could this be the moor from 'Wuthering Heights' when the heroine is found in trouble in the rain by the hero? A group of Japanese men were being photographed in front of the old parsonage, hard to believe they would be interested.

While we leaned on the old churchyard wall I heard a cock crow, a sound rarely heard these days. I thought there should be a hen around somewhere, then became aware of a contented clucking sound, on looking over the wall there was a hen with a clutch of four healthy chicks eager for any food uncovered by Mum scratching among the old grave stones. What a pretty sight and I had left my camera in the hotel. The last time I was in Haworth was in 1976 taking my Father on a trip on the Keighley and Worth Valley Railway. The station is located at the bottom of the hill. He found it amusing that such railway restoration had taken place. Just by chance his doctor was involved at Carnforth and we found the Flying Scotsman out in the yard. My photograph of Dad standing by one of the driving wheels got lost, such a pity. How times have changed up North, almost all the mills have gone from mill towns yet all those terraced cottages lining the valleys look neat and tidy.

Fred, a Hereford member, acquired a "Simplex" locomotive and brought it out to replace his "Hunslet" that developed a leak in the smokebox due to a leaking fire-tube. I have repaired such a leak many times with taper-drift smeared with grease and a sharp rap with a hammer. Once Fred got the idea that his new engine would steam well with a shallow fire he would arrive back into the station with the safety valve blowing off!

Last Sunday we had two visitors from Worcester bringing a "Simplex" loco. This one also ran very well, but would drop hot ashes due to its sloping ash pan, quite a good idea, but this ignited dead grass under the track, soon extinguished with a watering can.

We find often that our young passengers are intrigued by the clickety-click of four-rail-joints as the wheels pass over - of course many youngsters have never travelled on a mainline train, but if they do it could be on modern track with quarter-mile rail joints.

## Report on June Club Meeting

The meeting opened with our President Robert Edwards reporting on the June committee meeting. The committee has considered changes to the format of our “Locomotion” weekend in view of the reduction in support from other clubs, particularly on the Sunday. The committee has recommended that we have a single day event on the last Saturday in January. Comments and suggestions from club members on this topic will be welcomed.

The club has been invited to participate in a “60+ Clubs Day” to be held in the Palmerston North Library from 2-4 pm on Thursday 26<sup>th</sup> July. We will have a table for display and this will be manned by a couple of club members.



The main part of the meeting was a continuation of the talk by Chris Saunders of his visit to the Harz Narrow Gauge (1 Meter) Railway in the former East Germany. The highlight of this part of his trip was a steam hauled trip to the top of the Brocken, a 1,142 m high peak on the border between the former East and West Germany. The summit is crowned by a number of buildings which once housed radio surveillance equipment for the former East German government. One, which is topped by a radar dome, is known as the “Brocken Mosque”. The mountain was closed to the public during the East German regime.

The trains to the Brocken are hauled by 2-10-2 tank locomotives which were built in East Germany during the 1950's. The carriages used are also of this vintage. The summit of the Brocken is cloud bound for over 300 days a year and the wind has been known to reach over 260 km/hr.

The meeting closed after a short “bits and pieces” session.

Graeme Hall advised that a friend of his was selling a 5 inch gauge locomotive powered by a four cylinder petrol engine as well as some engineering tools including an 8 inch Box-Ford shaper.

Richard Lockett discussed his problems with replacing the pads on the calliper disc brakes on his bicycles. A sliding wedge of an appropriate angle does the trick.

Robert Edwards demonstrated a High Voltage “Jacob’s Ladder”

### ***Ask an Engineer***

We are starting a new feature in which members ask questions and we will endeavour to answer them. Watch this space...

Send your questions to [pnmec@trains.net.nz](mailto:pnmec@trains.net.nz)