

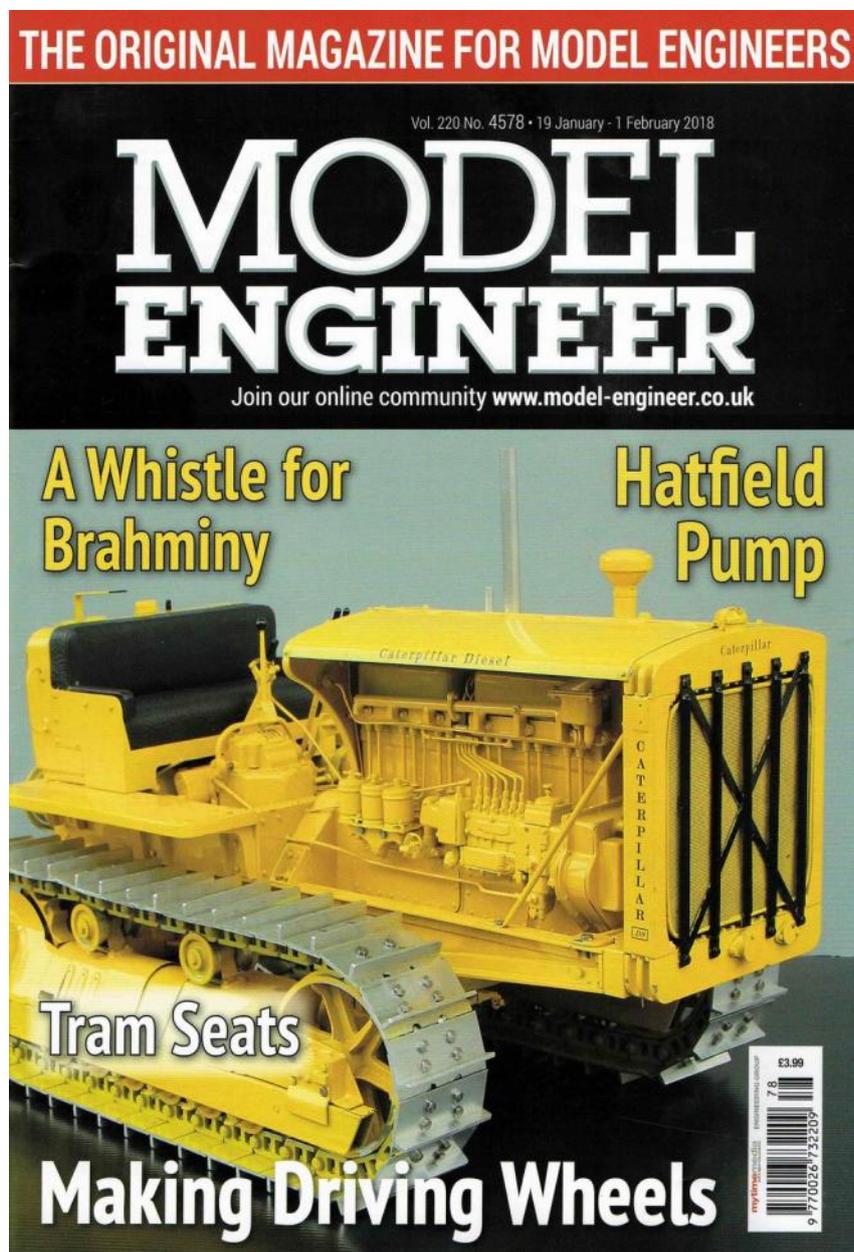
The Generator

Issue 445
June 2018



Palmerston Model Engineering Club
www.pnmec.org.nz - pnmec@trains.net.nz

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



Here is the front cover the January - February 2018 "Model Engineer". This is the model of the D8 Caterpillar bulldozer that Bruce Geange built. It was featured over quite a few months in our Generator.

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

The Palmerston North Model Engineering Club Club Night, Thursday 28 June 2018.

Chris Saunders *will be telling us about his recent holiday in Europe. It should be an informative evening.*

26 July Meeting - *Bring along a Document / Book / Object and be prepared to talk about it for 2-3 minutes.*

**Track running at
Marriner Reserve Railway**

Rail-X

Barber Hall Waldergrave St

July 1st 1 - 3pm

July 15th 1 - 3pm

July 7th + 8th 10am - 4pm

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.

If you would like to get the other club newsletters that are emailed to the PNMEC. Send an email to the address below with "**Other clubs Newsletters Please**" in the subject line to pnmec@trains.net.nz and we will add you to our Newsletters mailing list.

Alternatively, you can also check out club websites by going to the MEANZ page www.meanz.org click on "**The Affiliated NZ Clubs**" and find the club you are interested in reading about.

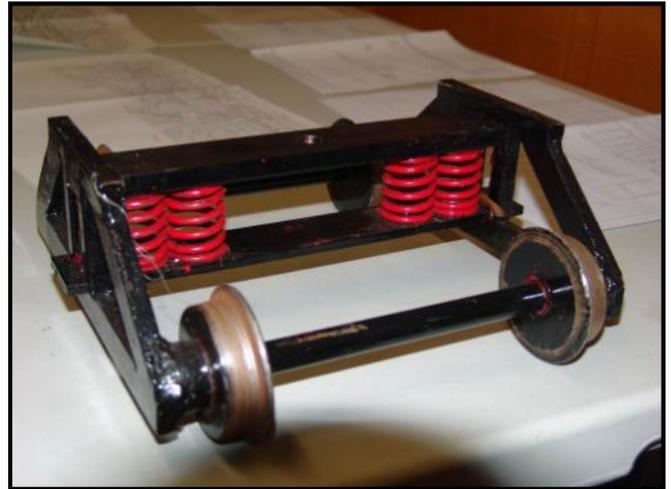
Inclement Weather on Run Days

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**

Report from the May Club Night.

Cynthia C advised the members that the PN Library is having a 60+ afternoon for clubs to let people know what activities are available in Palmerston North for the older person. This will be on 26th July between 2.00pm and 4.00pm. All members are welcome to attend.

Robert E has a friend with a medium lathe for sale and also an unfinished horse drawn fire engine. If you are interested please call Robert. He has also been making bogies for three passenger cars for his 7.25" railway at home.



Graeme H has finally got his Morton M5 running. It has been a bit of a saga to get it to go. He had to make some parts for it as they were either missing or machined incorrectly and couldn't be used. The piston ring tension was very critical.

See Part 1 of an article on page 5.

He was also given some copper busbars 4' long and 1 1/4" x 1/4" and 3" x 1/4".

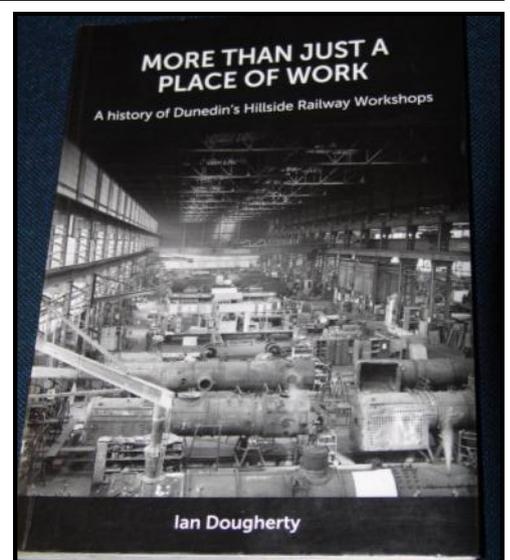
If you need some contact him and he will chop some off for you.



Bruce G had made a miniature Grand Piano. It is a fine scale model with strings and a music book on a pop up stand. It was made from Mahogany. No nails or screws, just glued together. Laurie Perkins wife, Pat, has a passion for 1:12 scale Dolls houses and needed a grand piano in one of the rooms.

Chris M gave a quick customer review of a LED light torch he had obtained. He also had a book "**More than just a place of work**", which is all about the Hillside Railway Workshops in Dunedin.

Edit: Chris has offered to do a review on this book.



Fin Mason was our guest speaker for the evening. He was the drainage engineer for many years for PNCC. Fin gave us an overview of the problems the PNCC had over the years, draining the many water courses through the city as it expanded, and how they were overcome by piping and the use of open culverts. He describe how rainfall modelling had enabled them to determine where flooding would occur and what sized pipes or culverts were required to minimize the flood risk in the city.

Letter from England.

Stan Compton

Recently I read an item of interest about workers on an American airbase located just outside this small town. A boy aged about fourteen was employed to help the kitchen staff, a willing lad, they called him "Tiger". One night working in the mobile canteen he turned out four thousand doughnuts, by machine of course. All boys in those days collected anything involved from that conflict. One night a light bomber crashed near the base so next day the local boys helped themselves to anything they could carry. The Airforce got onto the local police who sent a constable to the local school. He told the boys they were to return what they had taken or he would put them in prison. The next day the playground was covered with a variety of aircraft parts. This included a landing wheel the same height as the boy who took it!

Years ago I was in charge of a faculty workshop at Massey University when we got a drawing to build a raft to be used in a sewage pond, part of a research project dealing with animal waste. A technician was to use the raft to take samples from a deep anaerobic pond. If he fell in the contents could kill him. My orders were to get the raft built and into use with no delay. The engineer in charge was away on leave. I felt the design was unsafe being a polystyrene slab eight foot square by one and a half foot deep. It could have been two foot, memory fails me. My thoughts were confirmed by another staff member so I went ahead and had the slab cut into four, ordered timber to build a cross-frame with plywood bolted on each corner to be glued to each polystyrene float. Added an eight foot square plywood platform with handrails which gave some stability. No comment was made after the raft was put into use.

Have you ever wondered why steam ships used to have such tall funnels? The ones on the Titanic were 19' x 24" oval and 70' long to obtain a good draught on the boilers. Modern vessels, if steam powered, use forced-draught but the late Dom Young always stated that the old way was better and he was a draftsman at a shipyard on the Isle of Wight.

Someone has loaned me a copy of R.M.S. Titanic Owners Workshop Manual by Haynes containing many facts, figures and photographs of its construction. An example are the working conditions in the stoke holds, for the twenty four double ended boilers that required 48 stokers and 20 trimmers for each four hour shift firing best Welsh steam coal about the size of a melon. Just imagine firing that coal at chest height a long way into the furnace. Each side in turn one side would have the clinker dowsed with water to help break it up with an iron pricker that weighed forty pounds. Firing had to be done at the sound of a gong from the Kelroy firing regulator, from every nine minutes to every half hour depending on

the steaming rate. This gave a regular rate but was known to drive the stokers to commit suicide.

The Titanic would consume 750 ton of coal daily creating 100 ton of ash and clinker. How would this be got rid of? An ash ejector was fed by a trimmer from his wheel-barrow. Imagine a heavy-duty flush toilet with a clamped down lid working at 150psi discharging overboard above the water line.

The Trimmer also moved the coal from the bunkers to the foot-plate by the firing door. It was common with fresh coal for combustion to take place in the bunkers. This occurred on Titanic due to obtaining a mixture of coal from other sister ships because of a coal shortage. When she was due to sail a fire was discovered while docked in Southampton. Rather than delay the sailing it was decided to deal with the fire at sea. Trimmers were paid extra to move the burning coal to the boilers. This could have been the reason Titanic was at full speed in an ice field. It could also mean to reach New York with no delay to obtain help to extinguish the bunker fire. We shall never know.



M5 MORTON MODEL AERO ENGINE (Part 1)

Graeme Hall

History:

This engine was designed by Glen Morton of Morton Aviation in the 1940's and was sold both as a production running engine and a kit.

Later versions were made from original parts by the Burgess Battery Corporation as the 'Burgess Morton M5' and others. The engine was designed to be built as an educational project for aeronautical engineers and home shop enthusiasts.

Castings for various parts of this engine were produced by several people in the United States up until 2005. These engines, in running condition, are prized by model engine collectors. Recently an unrun example, still boxed, sold for US\$ 6,000 on EBay. The Morton M5 is a four-stroke spark ignition cylinder radial engine, using the usual master, slave rod arrangement based on the full sized Le Blond radial engine of 1928.

Specifications:

Type:	4-stroke spark ignition 5 cylinder radial
Bore:	625 in
Stroke:	6 in
Capacity:	94 cu in – 15cc

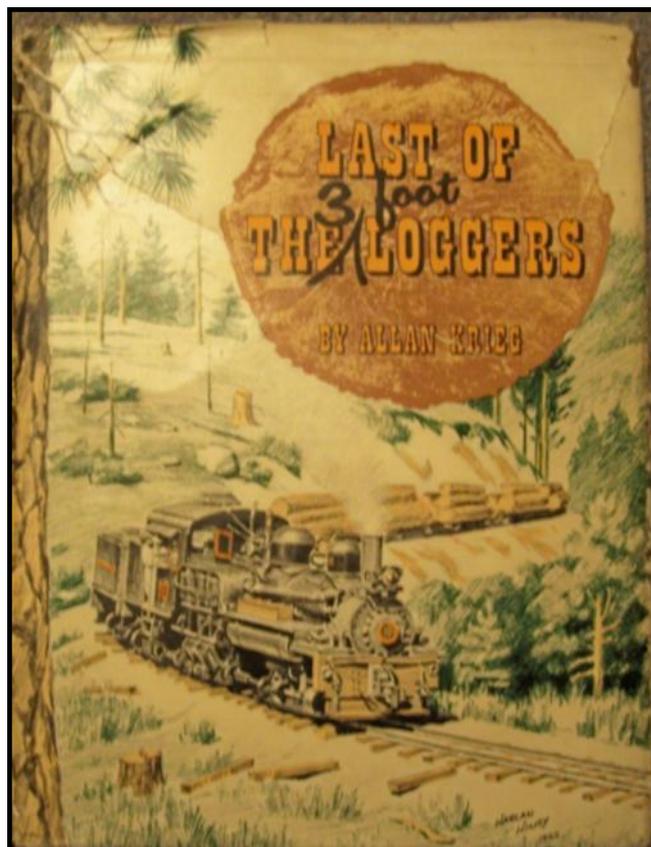
Fuel: petrol/oil mix
Propeller size: 15in diameter x 6in pitch – overall diameter 5 3/8”
Max Speed: 4,000 RPM

Original Production numbers – approx. 1,440
Country of Origin – USA
Original year of Manufacture – 1940s

Part 2 – Building the engine and getting it working properly! Coming soon

Book Review:- Merv George Last Of The 3 Foot Loggers

California’s erstwhile “Hetch, Hetchy and Yosemite Valley Railroad”, latterly known as “West Side Lumber Company’s logging railroad”, was nearly overlooked by rail buffs and generally disregarded by iron horse historians. When they did descend with tape recorder and camera upon secluded tracks that wound high out of the Sierra foothills at Tuolumne, they were almost too late. By 1960, West Side’s curious, side-winding Shay locomotives had ceased their ratchety echoing among the sugar pines.



In its last dear days it was unique. It was the remaining narrow gauge logging railroad west of the Rockies. And it had the largest stable of steam engines still running in the state. When it was a-building at the turn of the century, there were great hopes the HH&YV would be heavily patronized by travelers to the sights of Yosemite-rivaling Hetch Hetchy valley and Calaveras Big Trees.

Some said it would be an important ore hauler in the East Belt of the Mother Lode. Some foresaw its becoming a link in a narrow gauge system spanning the West. But, aside from carrying occasional company picnic parties, it never moved more than logs. For all the dreamers' disappointments, it was a lot of railroad. In its half-century-plus, within a 12-by 18-mile area, the geared engines clattered up and down and around on a 70-mile main line and felt their way over 250 mile of unsure, pick-me-up-and-lay-and-me-down spur tracks.

Last Of The 3 Foot Loggers is a comprehensive account of this nearly neglected little railroad, its good times and bad, its engines and engineers, accidents and anecdotes. The entertaining text is backed up with a splendid selection of pictures and a spy-in-the-sky map of its main line and all the spurs that scabbled into rugged country to tap the timber wealth.

If you would like to be notified when this newsletter is published, send us an email with your **Name, Club** and **Email** address to pnmec@trains.org.nz with “**Generator Please**” in the subject line.



Manawatu, Taranaki, Whanganui-Ruapehu Police

22 hrs · @

Between the 17th of May and 3rd of June this year the Tokomaru Steam Museum has been burgled and a rare model locomotive has been stolen.

This locomotive "BRITANNIA LOCO" weighs approximately 100 kilos so stolen for a purpose but seems an odd thing to steal.

Police are very keen to recover the locomotive and return it to its place within the Tokomaru Steam Museum.

Any information which can help recover this rare item can be passed to your local police station or anonymously to the Crime Stoppers on 0800 555 111.



For Sale

1093 an outline F40 PH "7 1/4" gauge locomotive.

Model has

4 x 250 Watt motors

2 x 80 Ah Batteries

Electronic sound system

Remote cable controller

Lights controlled by micro Controller

Comes with

Loco

Bobber Caboose

Drivers Truck

2m Flat deck bogie wagon

If you are interested contact

Murray Bold

Ph 06 326 9665

Or 022 102 9989

Price negotiable

