The Generator

Issue 476
March 2021

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

The Palmerston North Model Engineering Club

Upcoming Club Events

Club Nights held at the Hearing Association Hall 435 Church Street, Palmerston North 7.30 pm

25 March

With the America's Cup Yacht racing haven taken place recently, no doubt you've become interested in things nautical so we're having a boat night. Details page 2 and 3

22 April

AGM
To be followed by a Mystery Object Quiz

Marriner Reserve Railway

4 April &18 April

Railway operations at the Mariner Reserve
Trains in operation from 1pm to 3pm
Weather permitting (Kerry Puklowski 06 353 6189)

Thursdays

Railway operations for club members
Subject to ongoing track maintenance and weather
Contact track manager (Richard Lockett 06 323 0948)

PRESIDENTS REPORT

Our March Club Meeting is now approaching and this will be our Model Boat Night. Accordingly, it is time to dust off those model boats that you have stored away, and get them ready to put them on display. We have issued an invitation to the local Model Boat Group and also members from the Boataneers, a model boat group within the PN Aeroneers Club (the local model aircraft club). Both these groups have indicated that they will have members present and will be bringing model boats to put on show.

If you have built a model boat, this is the night to bring it along and add it to the display.

If any club members are unsure of the strategy behind this joint meeting please refer back to the Presidents Reports in the September, and January Generators for background information.

A Sign of the Times

The Presidents Report in the November Generator contained a passage describing the trials of working in French Shipyards, their attitude towards long lunch breaks, and their tolerance towards drinking alcohol (wine) during working hours. Covid has now struck, and desperate times require desperate measures. This is an extract from an article published in a French Newspaper (published in English) late February:

> *"Many French workers can now eat at their desks without breaking the law.*
>
> *To help curb the spread of Covid-19, the country has suspended a longstanding prohibition on desk lunches, according to a government decree published Sunday.*
>
> *The lunch break, or "la pause déjeuner," has long been considered sacrosanct in France. Until now, French labour code forbade employers from allowing workers "to have their meals in the workplace," reflecting the importance of food and meals in national culture.*
>
> *Before the pandemic, French workers typically enjoyed a two or three course meal with colleagues at a nearby bistro. This temporary rule applies to workplaces with more than 50 employees and where the layout of the cafeteria does not allow for social distancing. People must be at least one meter apart when not wearing a face mask."*

I bet this went down like a lead balloon.

KEEP HEALTHY and KEEP BUILDING

David Bell

Report on the February Club Night

Robert Edwards delivered an interesting talk on why all electrical power tools need to have an up-to-date electrical inspection tag on everything used at Marriner Reserve, or an exhibition hall, or any other site we use.

Robert is studying towards being a registered electrical inspector and so was able to demonstrate the process of inspection of extension cords and other portable 240 volt appliances that were brought in by club members as worthy examples of dodgy gear. Visual inspection of the outer/primary insulation forms the largest part of obtaining a tag. Portable power tools, saws and grinders etc have a habit of biting into primary insulation. This is an instant fail - i.e. no tag. A visual inspection should be carried out by the user of such equipment before use, whether it is tagged or not!

Robert also demonstrated his test equipment which he uses to test RCD devises and the like. Portable electrical power tools etc are only brand new until we walk out of the shop where we have purchased them. Then, with use over time, they become a possible hazard. This is something that we as members of the club must collectively be on guard to prevent!

March Club Night

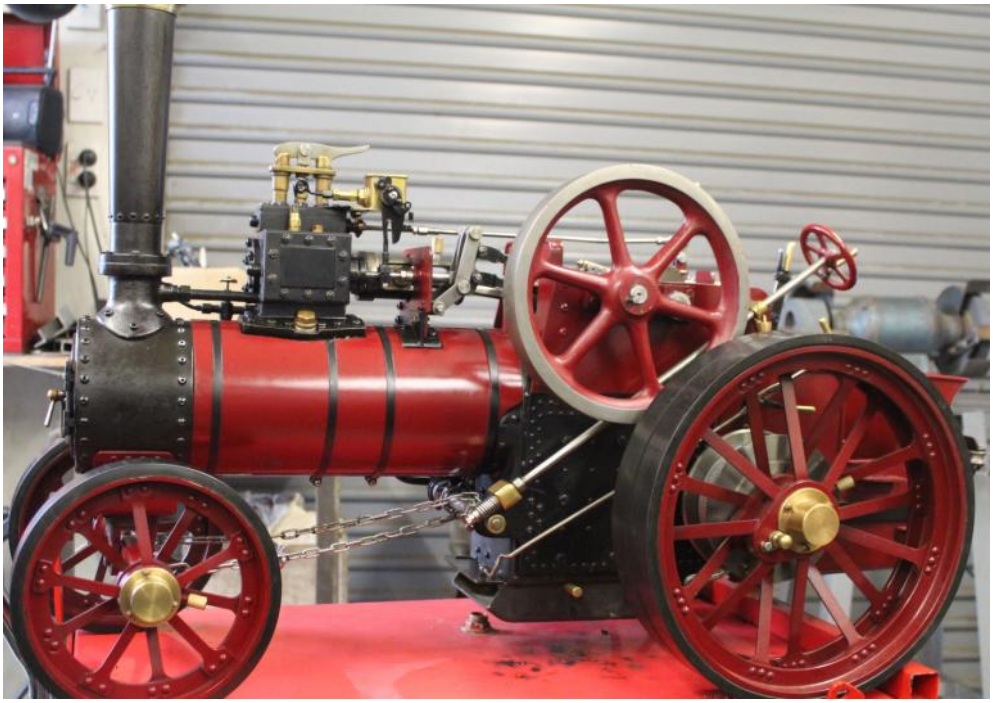
We have all had an interest in ships or boats at some stage in our lives. We may either have built models or perhaps had a full size pleasure craft. Maybe we even served in the Royal or Merchant Navy. We as a club, are maybe more interested in when they are powered by a triple expansion steam engine, or a large diesel engine-more so than a sail! So on the 25th of march let’s share our interest in matters nautical. Bring your boat along and tell its story!

MEMBERS PROJECT REPORT

Building machinery, making furniture, and restoring vintage cars, this is the story of an extremely talented club member. A shoe maker (Cobbler) by trade, Richard has no formal training in the activities in which he now excels, but the standard of the work he produces is second to none.

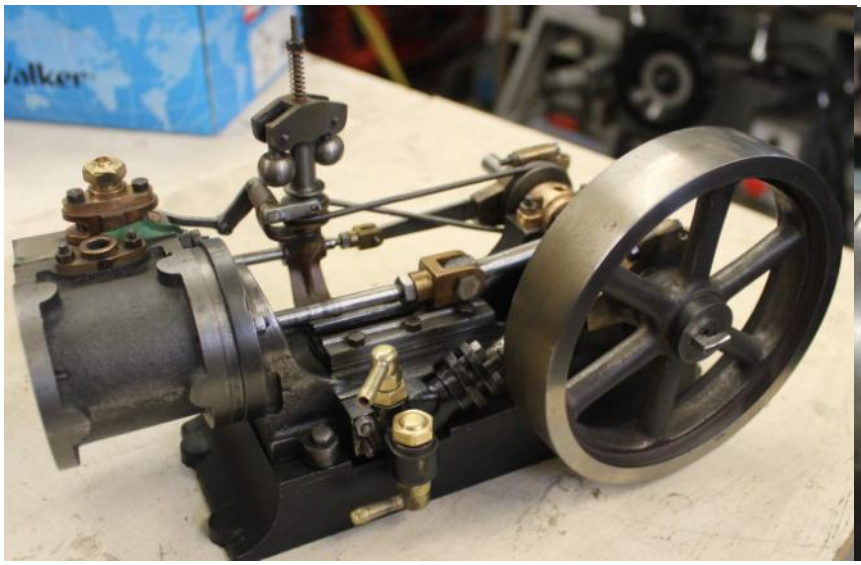
RICHARD STEVENS AND HIS TRACTION ENGINE

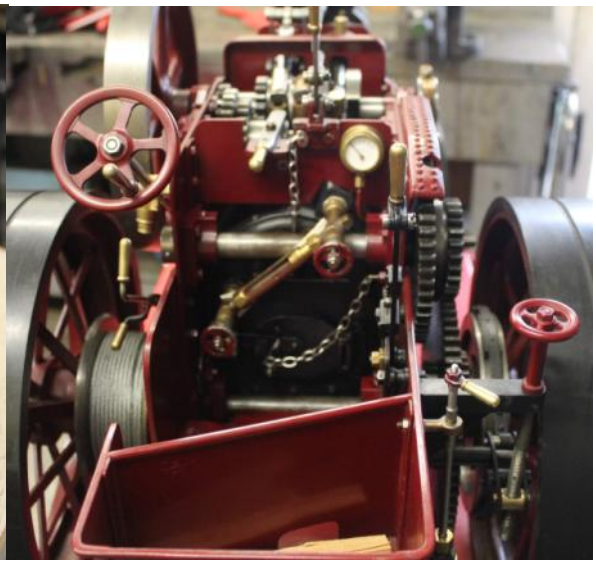
Richard started and completed his immaculate traction engine despite having no formal engineering training. When this project was started, Richard had a clear vision of what the end result would be, and also had a clear understanding that only the highest quality workmanship would produce that result. This clarity left no room for compromise, and this is why this model was built to such a high standard.



Skills were learned as the job progressed, and solutions to problems were devised as required. Richard started this project by building the boiler first, and working outwards from that core. This created some rather unique problems, and working in relative isolation Richard developed some equally innovative solutions. One problem was drilling the motion side plates to line up with the pre existing tapped holes in the boiler. Richard's solution was both innovative and simple. A template for each side plate was made out of Perspex, the holes were marked out to match the tapped holes (underneath the template), drilled, and after a trial fit the hole locations transferred to the metal final product.

The quality of the riveting on this construction is a feature that sets this traction engine apart from the rest. When I enquired about this, Richard directed me to a modified foot activated press salvaged from his footwear manufacturing business. Custom made forming dies were made and after some trial and error matching snap heads were produced on both sides of the riveted joint. This adds a look of authenticity to the wheels and the boiler assembly.





This traction engine is a “Minnie” produced in 2 inch scale, and was built in approximately four years. When photographed it was sitting on its hydraulic lifting stand in the middle of Richard’s workshop, but this traction engine is not the only example of his skills. Any visit to Richard’s home usually includes a visit to his cabinet making workshop, another of his passions. With machinery that is either made, re-built, or modified on site, Richard has made furniture for his home that would exceed the quality produced by many a cabinet maker.

As for his current projects Richard is building a stationary steam engine that is described as work in progress. And then there is the Sunbeam Alpine currently being restored. What was originally planned as an hour long visit turned into a thoroughly enjoyable afternoon. I would like to thank Richard, and Sally (and their dog) for their friendliness and their hospitality. Thank you very much.

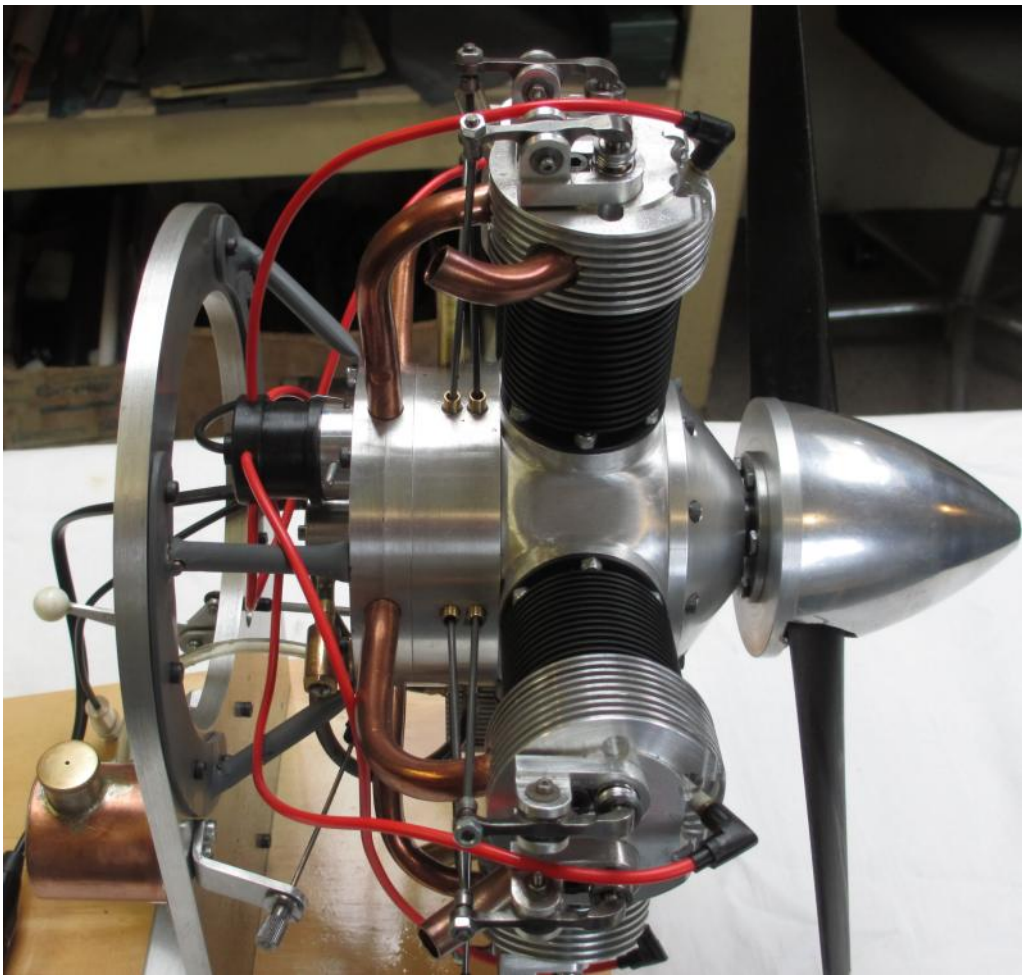
Article and photographs
David Bell

KINNER K5 – Part 5

With assembly completed and lubrication pump primed and tested, fuel tank filled – a starting was attempted. A few pops and bangs resulted. Hand starting with a sharp-edged propeller is fraught with danger to fingers – so something else had to be tried.
A propeller cone spinner obtained and modified to fit. With a cone driver on a battery drill – spun engine over for a start-up. A start-up with very uneven running – not improved by fuel mixture and ignition timing adjustments – ignition break down!!
The distributor was built to plan, but most USA model builders buy these parts ready-made. I decided to build a new distributor, to a previous successful plan, with a larger cap and more space between contacts to prevent cross firing.
Down scaling H.T. electricity poses problems. With a new distributor fitted and timed, a start-up was attempted in the workshop – raining outside!! Oil, smoke and noise – success!!
With more running compression improved and my 12v battery drill not powerful enough to rotate engine, a borrowed 18v drill just coped. About ½ hour running proved that the engine build was a successful. At 105cc – this is a powerful engine.

A clean-up and a place on the shelf – on with the next project!!

Graeme Hall



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