

# The Generator

Issue 442  
March 2018

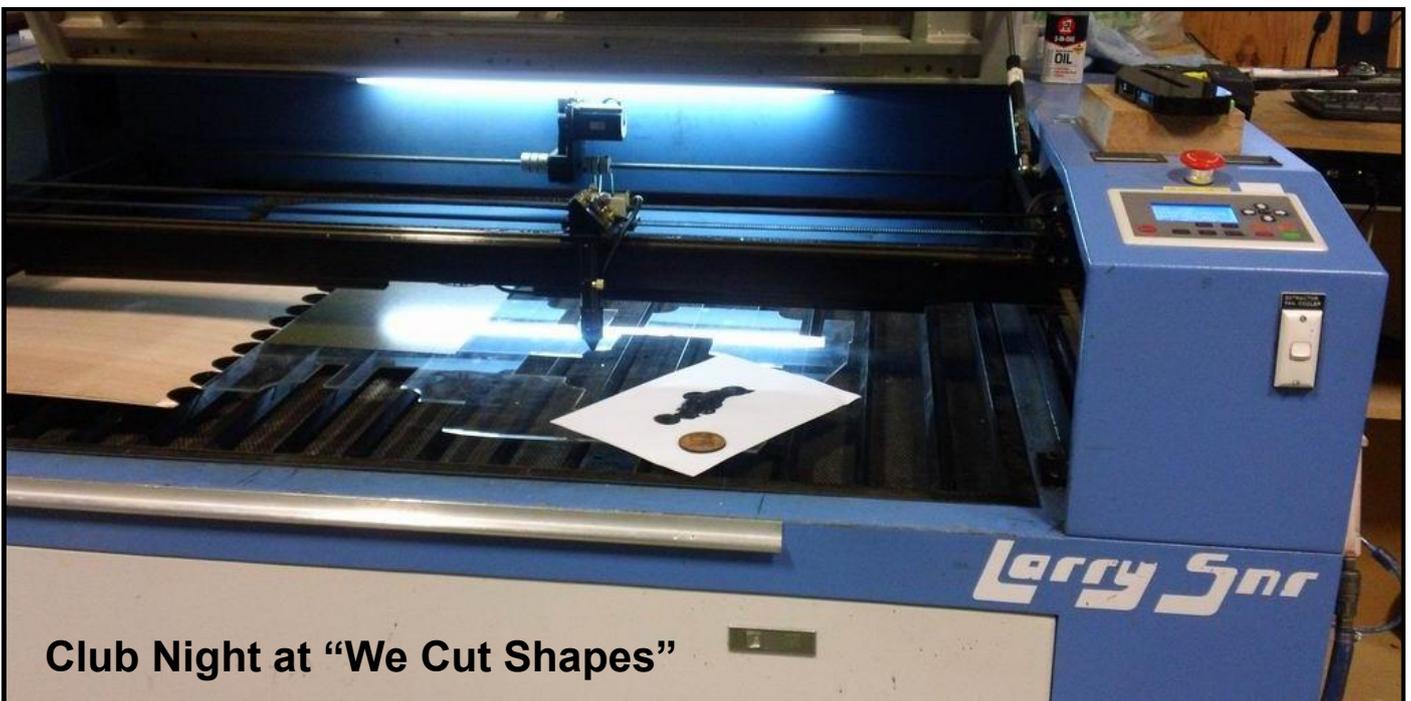


**Palmerston Model Engineering Club**  
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Managers of the Marriner Reserve Railway - Marriner Street - Palmerston North  
PO Box 4132 - Manawatu Mail Centre - Palmerston North 4442



Locomotion 2018



Club Night at "We Cut Shapes"

# What's on this month and in the future PNMEC Club Calendar

## Track running at Marriner Reserve Railway

March	18 <sup>th</sup>	1pm - 4pm
April	1 <sup>st</sup>	1pm - 3pm
April	15 <sup>th</sup>	1pm - 3pm
May	6 <sup>th</sup>	1pm - 3pm
May	20 <sup>th</sup>	1pm - 3pm

## March Club Night

7:30pm, Thursday 22 March 2018  
Hearing Association Rooms  
435 Church Street, Palmerston North

We are all in need of a little levity so the theme this month is:

### **Stuff-ups and Cock-ups.**

We are interested in seeing the things that did not go right the first time that you attempted them. By all means also bring along a finished version if you wish.

We will also have **Bits and Pieces.**

## The Palmerston North Model Engineering Club

**Annual General Meeting is to be held at 7.30pm on 26 April 2018.**  
at the **Hearing Association Rooms**, 435 Church St, Palmerston North.

### **Report on March Club Meeting at “We Cut Shapes”** by John Tweedie

The March meeting was an “away” event held at the workshop of Julian Hardy at Raukawa Road. A group of about 20 members assembled at 7.00 pm to be informed and entertained by Julian about the activities of his firm “We Cut Shapes”, and also of his passion for radio controlled 1/10 scale model vehicles.

We Cut Shapes is based around computer driven technology applied to a vertical milling machine and also to CNC laser machining. The CNC milling set up is used mainly to machine wood (usually NZ native timber) into pretty much anything the customer wants.

These are usually trophies of some kind and Julian uses his ingenuity to produce some quite complex and artistic objects.

The mill set up is also used to make objects in aluminium plate. Much of this work involves producing licence plates for vintage cars. Many of us

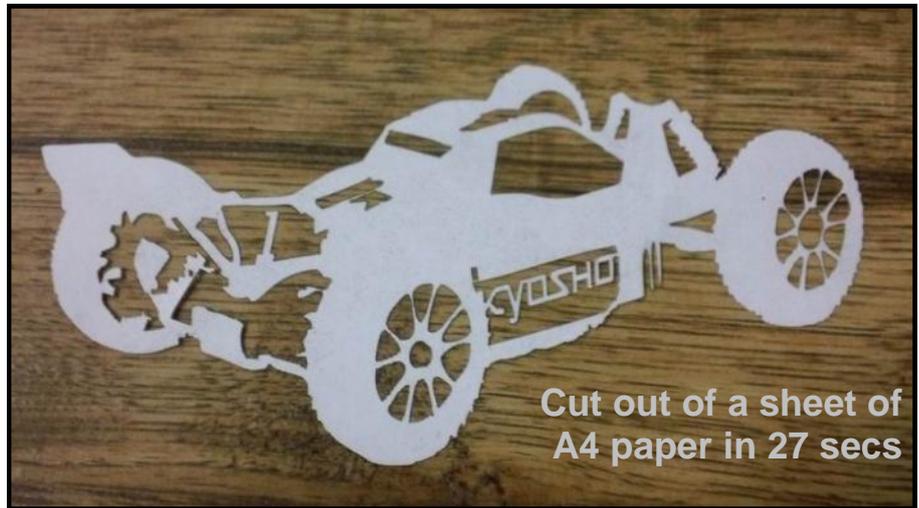


**2 Trophies**

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can remember these black plates with white letters and numbers. Julian assured us that he is careful to establish the bona fides of the customer before making the plates!

The other arm of the business is the use of high power UV lasers to etch and cut mainly plastic, wood and paper to produce plaques and trophies. He has two laser machines with computerised X/Y movement which can be



programmed to etch (high rates of travel), or to cut (low speeds). The versatility of this approach was shown when Julian produced two circular plaques, one in about 5mm ply wood and one in about the same thickness plastic. For both of these the machine was set to first etch the surface with the artwork that had been scanned into the computer. This was done at a fast traversing speed of the laser and then the circular plaque was cut out with the laser moving much more slowly. The versatility and delicacy of the technique was also shown when a pattern was burned into a piece of paper and the burned areas fell away leaving a template.

An impressive aspect of Julian's operation was his enthusiasm for what he was doing and his willingness to attempt to produce what the client wanted even if it involved quite a lot of development and experimentation.

Julian is also heavily involved in scale model radio control vehicles and has recently built an appropriate track behind his workshop. He encourages use of the track and is quite keen to offer an experience to teenagers (and others) that does not involve spending hours in front of a computer.

I was particularly impressed with the sophistication of the models available and also by the extent of the adjustments that can be made to the suspension and other aspects of the vehicles to enhance their performance.

Thanks to Julian for an interesting and entertaining couple of hours.

## Letter from England

By Stan Compton

When Britain and France decided to build "Concord" in 1962 no one knew how to design a supersonic passenger plane that was economical and reliable. It cost a fortune to carry such a small load. In its early life it was extended by 20 feet longer than the prototype doubling the design work. Then later it was found the tyres needed would not fit into the space provided so a bulge had to be fitted into the wing. The air resistance became greater, more fuel was needed requiring a heavier structure and an even larger wheel was needed. When complete Concord had a payload capacity of its take-off mass, 7% similar to a satellite launcher, instead of a normal airliner. It was designed to fly at Mach 2.2.

In the sixties Boeing tried to produce a new Mach 3 plane and ended up with nothing at all. The Russian Concorde only had the range to get half way across the Atlantic. Concord cost a fortune to carry such a small load, maintenance costs were very high. A marvel more than any rocket built in Europe. This was the European equivalent to the Apollo programme, But when a pilot and co-pilot were put in charge to recover some of its expenses they tried a new approach and it worked. Like someone who buys a Rolls-Royce just to show off they kept the fares higher than regular flights and provided special attention for Concord passengers.

Fred took a group of us to Statfold Barn Railway, two foot gauge, privately owned north of Birmingham. Access is by ticket only from the internet. Open three times annually and the

impressive workshops are open for inspection, used to restore narrow gauge locomotives and rolling stock to a very high standard. I think about twenty were in steam. Rides were available round the farm which is extensive. An American "Davenport" tender engine had arrived on site in a derelict state with a tree growing up through the outside motion. Now fully restored and in steam looking like new.

Examples of traction engine gears set up for machining, one was on a slotter built in 1923. I was able to show Fred how it worked. A 1924 dump truck with hydraulic and cable hoist of American make was having the cab rebuilt with ash timber, very professional. Of five ton capacity and of very heavy construction the four cylinder petrol engine was geared down to be able to pull that load out of a quarry. All solid tyres the driving wheels were about twelve inches wide and new with diagonal cuts as tread grooves.

Of interest to me were a selection of visitors vintage motorcycles, four Vincent-HRD, one 500cc, three 1000cc. Also one 1928 HRD Solo. This reminds me of how a young man from Cambridge University in the late thirties wanted to set up in business to produce a motorcycle to a very high standard. He enquired from "Torreng", the pen-name of a motorcycle journalist, how to go about this. His suggestion was to purchase a trade mark of a make of motorcycle adding his own name to it. He chose HRD. which stood for H.R. Davies who had built a good quality machine, going out of business in 1930. How Mr. Vincent funded his project I have no idea but he produced two models, a 500cc single cylinder and a 1000cc twin.

Seeing those machines brought back memories of my youth because Vincent designed his engines with valves operated halfway down the stem, I forget the correct term for this action. All wheels were quick-detachable, front forks were "Girdraulic" his term for a girder fork with hydraulic damping. I can't recall the swinging arm rear fork damping but the original machine was very sophisticated for its day and so expensive I could not afford one. By coincidence I saw a rider on a Vincent twin yesterday in Ledbury High Street. I had forgotten how thin our 3.50" tyres were, compared to modern Japanese makes.

## Display at Clareville Show grounds

Graeme and Janice Hall with Bruce Geange put on a display of models at the Wairarapa Vintage Harvest Rally in early February. We used tables provided for us and setup on Friday afternoon in the Stadium where a collection of vintage cars and horse drawn equipment were on display. Graeme had his collection of engines and other models and Bruce had Meccano and other models including the Black Five Locomotive and the Garrett Steam wagon. In between the two displays a 2" scale wooden model of a Durham and North Yorkshire traction engine sat on a revolving table. Items were demonstrated at



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various times during the two days. We had some rain on Saturday morning otherwise the week-end was fine with a lot of interest shown in our displays. Only a quick look around the displays outside and some items there were - McLaren Generator set, Foden C Type Steam Lorry, Aveling Barford Calf Dozer, Early Stanley Steam car and more.

## LOCOMOTION 2018 - March 3 and 4



1093 hasn't been out for a couple of years.

**There were** 5 x Electric, 1 x Petrol , 1 x Diesel , 7 x Steam models

**Engines Attending** 2 x 5" , 10 x 7.25" , 2 x 3" Traction Engines

**Attendees** 27 x PNMEC, 9 x Hutt Valley, 9 x Kapiti, 2 x Maidstone, 2 x Hawkes Bay, 2 x New Plymouth , 2 x Hamilton and 1 from the UK.



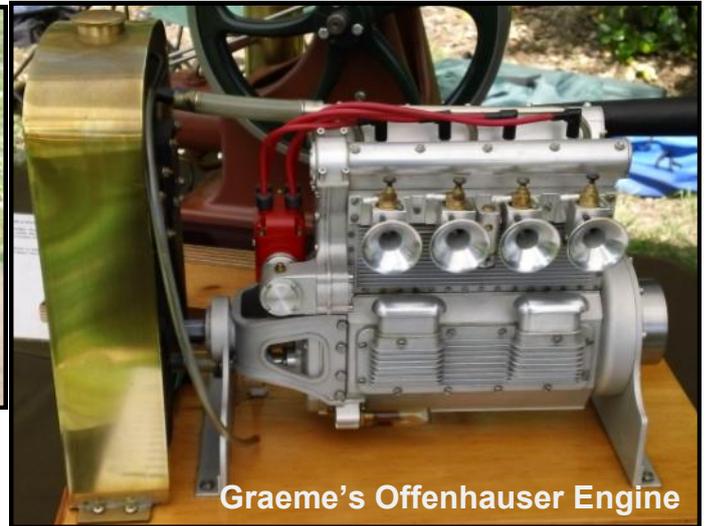
New PNMEC member Lyall Dawe and his Loco



Mike Hartle from Kapiti with EC11



Grant Alexander had this 3.5" gauge model for sale. It was sold to Barry O'Callaghan.



Graeme's Offenhauser Engine



Part of Graeme's display

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