

# The MICROMETER

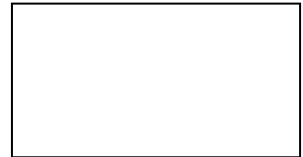
THE AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED  
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**Number 535**  
**May 2009**



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REGISTERED NEW ZEALAND PUBLICATION

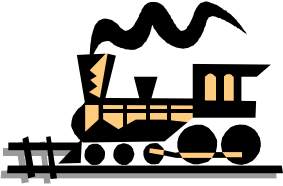


**Notice of  
Special General Meeting  
June 2009**

RETURN ADDRESS  
ASME  
PO BOX 14570  
PANMURE  
AUCKLAND 1741



**Restored Tram at MOTAT**



# Train Roster

Date	<u>Electric</u>	<u>Electric</u>	<u>Steam</u>	<u>Steam</u>	<u>Station</u>	<u>Station</u>	<u>Station</u>	<u>Extra Guard</u>
3-May-09	D Housley	S Locke	<b><u>G Anderson</u></b>	Vol	D Hamp	R Hannah	<b>G Healy*</b>	I Hansen
10-May-09	J McManus	P Moy	<b><u>G Wills</u></b>	--	<b>M Hollis*</b>	P Jones	T Lawrence	P Dowdeswell
17-May-09	M Plant	T Robinson	<b><u>G Bell</u></b>	--	D Leybourne	W Lord	<b>I Lyons*</b>	
24-May-09	J W-Buys	J Yearn	<b><u>L Farquhar</u></b>	--	H Martin	S Meikle	<b>G Murray</b>	
31-May-09	D Black	D Booth	<b><u>A Gasteen</u></b>	--	E North	<b>J Olsen*</b>	W Parker	
7-Jun-09	A Cotton	R Craig	<b><u>B Piggot</u></b>	Vol	<b>G Quayle*</b>	R Reichardt	M Richardson	
14-Jun-09	T Crane	P Eaton	<b><u>A Pritchard</u></b>	--	A Roberts	<b>K Ryan*</b>	A Shirley	
21-Jun-09	M Granger	J Harrison	<b><u>D Russel</u></b>	--	R Stratton	<b>R Street*</b>	T Taylor	
28-Jun-09	D Housley	J McManus	<b><u>R Van Ryn</u></b>	--	<b>A Watson*</b>	A Whillans	I Ashley	K Toyoda

**Bold and Underlined** name – is the designated **Train Controller**, i.e. the person in overall control of all operations for the day. If you are the **Train Controller** you should phone around the others rostered for that day to make sure they remember to turn up.

**Bold with Asterisked\*** name – is the designated **Stationmaster**, i.e. the person responsible for activities in the station area for the day. The Stationmaster is also responsible to account for the day's takings. **Please Note**, there is no expiry period or date on train ride tickets previously sold.

The Sunday running day at Easter to raise funds for the Foundation for the Blind Guide Dog raised a total of \$450. This will be donated to aid with the training of a suitable dog.

## Club Calendar May 2009

May 5 <sup>th</sup>	Monthly General Meeting
May 9 <sup>th</sup>	Working Bee at Track / Clubrooms
May 12 <sup>th</sup>	Committee Meeting
May 19 <sup>th</sup>	Beginners Night at Graeme Murray's, 41 Beechdale Cres, Pakuranga

## Obituary, Derek Simons

I got to know Derick when he first joined the club in 1988, it was always a pleasure to be in his company, he had a great sense of humour and not short of a conversational topic, I used to look forward to meeting him when visiting other clubs and having chats and discussions with members of other clubs, and afterwards members would say how enjoyable his company was.

He was an invaluable guy at our monthly meetings when he did Bits & Pieces on countless occasions, he would get the most out of members who contributed to the Bits Pieces on their projects.

Derick had a tremendous wealth of knowledge on numerous subjects and not shy in talking about his experiences in his working environment. His workmanship was outstanding and he had many unusual projects which turned out to be very interesting. I am sure club members will miss his advice and expertise

Alan Gasteen

## Presidents Report

Not a lot for me to report this month. We had a working bee on the 18<sup>TH</sup> April which was attended by Tim Robinson, Trevor Taylor, Isaac Hansen, Kent Toyoda, Grant Anderson, Graham Bell, Dave Russell and Tony Lawrence, good to see some of our newer members attending Thanks guys for your help. We plan to have several more in the next couple of months and encourage you to come and help at least one of these.

Elsewhere in the newsletter is a notice of a special general meeting that we plan to have at the beginning of the June club meeting. The purpose of this is to amend some of the clubs rules / constitution mainly

brought about by our having made application to become a registered charity under the Charities Act, and their requirements for us make our application successful. Plus tidy up some anomalies that we have noticed since we last reviewed the rules in 2006.

I hope that in the coming winter months you are all in the workshops working and tidying up your potential exhibits for our exhibition. Hugh Martin has produced an information leaflet inserted in this newsletter updating you on the exhibition and general related information. This includes a request for likely exhibits to allow us to start planning space allocation. This is not the final exhibit application. And you should include items that are not yet complete as we want to show partly constructed exhibits so as to demonstrate what is involved in making models. We would still like to hear of any suggestions for a guest speaker at the dinner. Any suggestions please advise Hugh Martin or me.

Putting on my other hat as storeman, we have had two new titles in the Workshop Practice Series of books added to the inventory. Book 39 Model Engineers Workshop Projects. There are 18 projects described, including, distance and height gauges, collets, lathe backstop, face and angle plate clamps, tailstock die holders and more Book 43 The Mini Lathe introduces the lathes and advice on setting up the lathe plus making some attachments and improvements. Both are available from me at \$20 per book. We still have some other new titles on backorder and I will advise when they are to hand.

*Gary Farquhar*

## **Notice of Special General Meeting**

Pursuant to Rule 15, of the clubs constitution (2006). Notice is hereby given that a Special General meeting is to be held at the Society's Club rooms, Peterson Road Panmure, on Tuesday 2nd June 2009 at 7.30 pm.

The purpose of this meeting is to recommend the following notices of motion in respect to changing certain rules in the clubs constitution.

### Notice of motion No 1

That Rule 20.2 (The assets of The Society will be disposed of by that meeting in any way the members think fit provided that the decision made will benefit model engineering in general) be changed to:

20.2 If there are any remaining assets after winding up and dissolution and settlement of all the organizations debts & liabilities, then the residual property must be given or transferred to another organization that is registered under the charities act as a Charitable organization and has purposes similar to Model Engineering.

### Notice of motion 2

That Rule 17.1 (Rules may be altered, added to or rescinded at any Annual or Special General Meeting by a show of hands indicating a clear majority, with the exception of Rules 10, 13, 17 and 18, which may not undergo any alteration, addition, or rescission without prior consent of the INLAND REVENUE DEPARTMENT.) be amended to

17.1 Rules may be altered, added to or rescinded at any Annual or Special General Meeting by a show of hands indicating a clear majority of two-thirds of the members present.

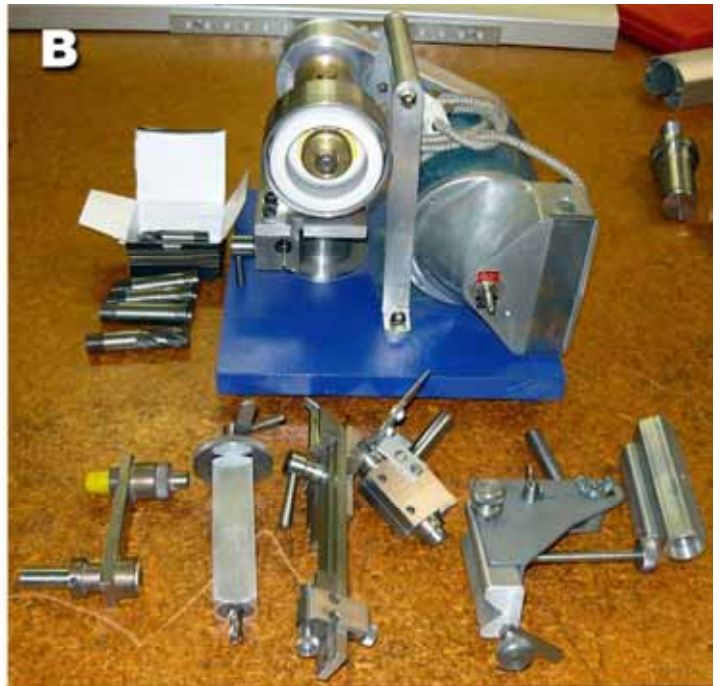
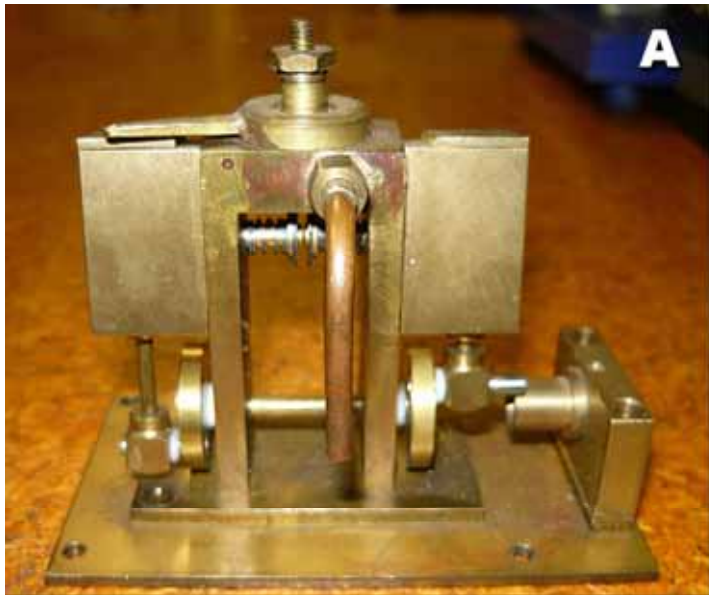
### Notice of motion 3

That rule 17.3 (A majority of two-thirds of the members attending is required to alter any rules.) be deleted.

The reason for these proposed amendments is that the club has made application to become a registered charity under the Charities Act and the Charities Commission have recommended we make the above rule amendments to enable our application to be successful.

There may also be some other minor changes, to be notified on the night of the meeting.

Brian Cotton  
Secretary





## Bits & Pieces, General meeting 7<sup>th</sup> April 09

First up was a fine brass twin cylinder oscillating engine. Murray Lane made this for radio control model boats. A neat design. **Photo A**

Graham Quayle has been completing his tool and cutter grinder and making it more useful. Adapting the holder to accept collets allows various drills and mills to be held securely. The compound table accepts different holders. Graeme has redrawn the plans from the original ME Workshop article, if anyone wants to make a similar set-up. It sure looks like it will do a multitude of useful sharpening. **Photo B**

On the table were some LARGE pipe couplings with square tapered threads, for full-size drilling operations. The drill pipes on oil rigs are similarly coupled to form a "string". They take just 60 seconds to make on CNC equipment! These were brought in by Ray Brown to illustrate how "the other half" lives with large CNC capacity. **Photo C**

I have to make an addendum here to correct my understanding of Graeme Bells hose holders, mentioned last month. The metal used is Zintec and Graeme gas welded it with Oxy-Acetylene using no flux, just a very neutral flame and plain wire. No Spattering happened and the weld isn't rusting. I hear zinc migrates to cover un-protected areas, at least till it runs out.

Mike Banks brought in his own tool and cutter sharpening kit, which looks very comprehensive and well made. It was made from Harold Halls book on "Milling, a complete course", which is #25 in the workshop series. Mike has also spent a lot of effort making all the holders and jigs necessary. **Photo D**

Paul Eaton sourced a few Glass drip lubricator suppliers. One from England wanted \$1100 for a manifold with four glasses. This bargain was passed in. Paul found a local supplier of well (enough) made lubricators which Paul will modify to suit. These look slightly more "beefy" than the ones available from Chevpac. **Photo E**

Some very good looking TS3 model Commer side casings and sump by Allan Foster are well on the way to being assembled. These were well cast in aluminium by Surecast in Hamilton for a reasonable figure. A lot of work must have gone into the patterns though. **Photo F**

Mark Richardson brought a shaft from a machine which is expensive to replace. I found it interesting that he was advised metal spraying or welding build up would not take the wear of roller bearings. Mark was advised to try grinding back and using larger rollers. **Photo G**

Back to the "Graemes". Graeme Murray is adapting a defunct hand-cranked electronic component lead former/trimmer to deal to the concession tickets. This promises to help with the upgrading of the tickets to the new \$2.00 pricing. The rolls should appear soon, and tickets will be \$10.00 for 6 rides. We will honour the old rates if people still present the old \$10.00 for 12 rides. **Photo H**  
Graeme also had his newly completed variable strength electro magnetic drill press stand. **Photo I**

Graeme Bell presented some large traction engine type wheels which will allow his roller to change roles. Some excellent large metal work. **Photo J**

Gary Farquhar presented a "what is it" which turned out to be a screw driver attachment to tighten wing nuts.... The first one a few people had seen.

Dr. David Black showed us the entertaining second half of the amateur 8mm films made of the Dunedin cable trolleys. This was an eye opener as the trolleys plummeted over the edge of the hills and disappeared from view! This must have been hell on a full stomach. They were however very successful and ran for nearly 50 years, in all kinds of weather that even modern day diesel busses can't cope with. People hanging off any available hand hold and kids sitting on the pram platforms, with nary an incident in sight. People seemed to have more gumption in those days and most didn't need a multitude of laws to protect them from themselves. The cable cars had to make way for the obnoxious assault by motor cars in the long run. A very precious historic record from the Otago Cine Club, thanks David.

## Upcoming Model Engineering & Associated Events

2-4 October 2009      A.S.M.E. 50th Jubilee Exhibition

5-11 Jan 2010      Nelson Society of Modelers Inc., Steam and Cinders 2010 International Live  
Steam Convention [www.nelsonmodellors.org.nz](http://www.nelsonmodellors.org.nz)

## Classifieds

### For Sale

Matakana Country Express

This is a 5" gauge electric locomotive with two passenger trolleys, built by Steve James of the Tauranga club, and approx 180 meters of track is for negotiation, sited at "Matakana Country Park". For further information contact Ken 09 425 4082    mob 021 040 3461

## Around the Clubs, reviewed by Alan Emerson

### Sun City Express, Nelson, Summer 09

Good coloured photos of the members in action, plus a reminder about Steam and Cinders next year.

### Northern Views, Whangarei, March 09

Good article on the quest for speed. Special run in aid of the Aussie Bushfire appeal. Photo of a very strange looking commercially built traction engine. An old photo of J1250 on it's way north. Some 'Bits and Pieces' under construction.

### Blowdown, Kapiti, Autumn 09

Nice pictures of their track in action, shows the new signals and the two Welsh 0-4-0 twins. Also on the track are locos no 24 and no 500. A good view of the line up at the station and the new water tank.

### The Keirunga Park Platform, Havelock North, Autumn 09

Visits to Rotorua, Whangarei and Kapiti. The history and a model of NZR-E1. A battery powered shunting and repair loco for use in the Otira Tunnel.

### The Adelaide Miniature Railway Society, April, May and June 09

Great cover photo of a model Garrett. A neat idea to have model structures around the track including a mine poppet head and other mining features. A good article on trams. Some had vertical boilers with Field

tubes where the water goes in and out of the top of the tube. Apparently very efficient. Good Club photos of their locos at work.

### **Southern Rails n Sails, Invercargill, April and May 09**

Photos and story of May King`s model of Volk`s Daddy Long Legs. The Volk`s Pioneer is covered on the website [www.volkselectricrailway.co.uk](http://www.volkselectricrailway.co.uk) An article on the new Tornado and a couple of other useful websites. [www.tesn.net:80/charlied/](http://www.tesn.net:80/charlied/) all about valve gear and [www.homemodelenginemachinist.com](http://www.homemodelenginemachinist.com)

### **Blast Pipe, Hutt Valley and Maidstone ME, April 09**

Several photos of the track in action, liked the jigger for the kids to exhaust themselves on. More on gear cutting. Major work underway reconstructing the raised track. Major auction to take place on the 16<sup>th</sup> May. The article says that postal bids will be accepted up `til the 22 May, I wonder if this is a misprint? Anyway the list of the lots is on show in the Clubhouse.

### **Con Rod, Otago, March 09**

Club news, photos of the boat pond with a submarine about to dive. Good article on GM versus MicroSoft. Recipe for Jean`s meat loaf, went down well at the Festival Exhibition by all accounts.

### **Mailship, Scale Marine, Auckland, March 09**

Useful hints on motor mounting and how to mark the waterline. New pond at Cambridge a great success. Good day at the Panmure Basin Festival.

### **Engine Booster, Los Angeles, March 09**

Photos of the trackside improvements. New Insurance rules say that passengers must be more than 34" tall, not expecting or weigh more than 350 lbs to ride on their trains.

### **Wheels and Floats, Tauranga , March 09**

A great Kids Day Run. Good article on Rolls Royce engines. A useful list of material suppliers and a working bee. Also mention of Thames Small Gauge Railway`s Weekend 17<sup>th</sup> to 18<sup>th</sup> May. And Manukau`s Mid Winter Meet May 30<sup>th</sup> and 31<sup>st</sup> and June 1<sup>st</sup>.

### **Boilers, Rotorua, April 09**

A very interesting visit to a gear cutting shop. Big repairs planned for the traverser.

### **Steamers and Dreamers, Manukau, March 09**

Visit to Mana Ariki, looks like a great track. Visit also to Hamilton for the Valerie Clark Hospice run. Alan E

## **The Latest in Engineering**

An extract from the "Queries and Replies" section of a 1909 issue of *The Model Engineer and Electrician*

### **Steam Bicycle; Flapping Flying Machines.**

P.B.P. (New Zealand) writes:

(1) Could any of your readers design a steam engine attachment for an ordinary roadster bicycle? Do you think it would be cheaper and easier to build for an engine of about 1  $\frac{3}{4}$  h.-p. than an oil engine as present day?

(2) How is it that inventors do not try their hand at wing-flapping flying machines?

Surely they can copy the motion of a bird`s wing, and I think it would require less power to drive along.

(1) This is by no means a novel suggestion. It has often been made, and has even been carried into effect, but the great bulk and weight of the steam plant required, together with difficulties in placing the firing apparatus conveniently, and in boiler feeding, etc., are found to render this method of driving quite impracticable for two-wheel propulsion. But for cars having more than two wheels, a steam drive is, of course, quite commonly employed. There are steam cars of some makes, the "White," for example, which compare not unfavourably with the best petrol motor-cars, and are by some people preferred to the latter.

(2) They do. You will find a little interesting matter about this type of flying machine in "Flying Machines, Past, Present, and Future," price 1s. 2d., post free, from our publishing office.

*Continued over...*

***And from a later issue:***

To The Editor of The Model Engineer.

Dear Sir

I notice P.B.P. (New Zealand) writes asking if any reader could give him a design for a steam cycle. I am myself building one, and if you will put me in touch with "P.B.P." I shall be glad to let him have details (and results when things have reached that stage).

The design is a combination of the semi-White generator, modified White control, and a single-acting engine, as the Serpollet. This would not be so heavy as a 1 ½ h.-p. internal combustion set, and, with a flash generator, no trouble *re* feed-water is experienced.

I have had some experience of the White cars, especially the earlier models with the more primitive control as would be used on the cycle, and also with experimental flash generators, and have some reason to ask you not to discourage amateurs in attempts to construct steam bicycles.

Yours faithfully, F. Roebuck.

[NOTE.- We received the above communication with interest, and gladly give it publicity. Our columns are open for reports of practical results achieved on the lines indicated by our correspondent, and we shall welcome news of success.

In the meantime, however, we hold to the opinion expressed in our Query columns that driving for bicycles is – as a successful commercial project, and still more as the object of amateur constructive ingenuity – "quite impracticable." – ED., *M.E & E.*]

(It doesn't say where in NZ "P.B.P" comes from. He would have been a contemporary of Richard Pearse, but may or may not have had any idea about Pearse's efforts. He may even be a distant relative of one of our members.

Did he ever make a steam bicycle? Did he try to make any flying machines? What other projects was he working on in his shed, 100 years ago?

I would be very interested to see a copy of the "Flying Machines, Past, Present, and Future" booklet.

Those predicting the future of flying machines in 1909 could not possibly have dreamed about the advancements we all now take for granted, but their ideas would no doubt have been thought of as highly far-fetched at the time.

It brings to mind the pictures from Meccano Magazines of the 1930s where it was envisaged that high-speed streamlined monorails would be the main means of public transport in the 1980s, whizzing in and out of Picadilly Circus...)

Brian Cotton

## Library

Did you know that our Library has a full set of the workshop practice series of books, you could borrow any of them to see that it has what you need to know before buying a copy from the club stores who carry a full range of these at very competitive prices.

## [www.kiwisat.org.nz](http://www.kiwisat.org.nz)

You may remember Fred Kennedy, Model Engineer from the UK and enthusiastic Amateur Radio enthusiast. Well some may know that Fred is deeply involved in the design, development and production of New Zealand's first communication satellite "KiwiSAT". Fred is working in conjunction with Massey University and recently Mike Jack has been machining some large special alloy components that form the main chassis and structure of the satellite. Some may remember that Fred has been to the club as a guest speaker in the past. Please take the time to have a look at the official website for the project, with a link to a youtube video of Mike Jack and his CNC machining centre in action.

The web address is [www.kiwisat.org.nz](http://www.kiwisat.org.nz)

## Supplier

Recently I discovered that you can buy drawn Phosphor Bronze rod and hollow rod suitable for bushings and fittings from Auckland Bearings, 56B Diana Drive, Glenfield. Sizes start from about 5/8", they also stock a full range of bearings in all sizes and types.