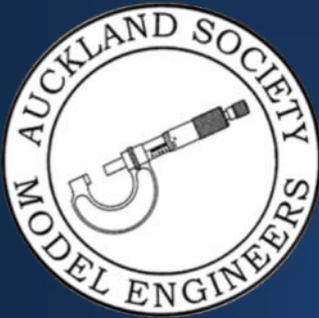


# AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED

PETERSON RESERVE, PANMURE, AUCKLAND  
PO BOX 14570, PANMURE, AUCKLAND 1741, NEW ZEALAND



Club House Telephone  
(09) 570 5286

Club Web Site  
[www.asme.org.nz](http://www.asme.org.nz)

President  
*Grant Anderson*  
*Phone: 09 576 8330*  
*E-mail address [president@asme.org.nz](mailto:president@asme.org.nz)*

Secretary  
*Ross Smith*  
*Phone: 09 818 4933*  
*E-mail address [info@asme.org.nz](mailto:info@asme.org.nz)*

Editor  
*Hayden Purdy*  
*Email addresses*  
*[editor.asme@gmail.com](mailto:editor.asme@gmail.com)*  
*[editor@asme.org.nz](mailto:editor@asme.org.nz)*

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# THE MICROMETER

REGISTERED NEW ZEALAND PUBLICATION

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A British Rail Class 222 having its wheels machined by a in-floor wheel lathe in Derby, England.

# Train Roster

Date	Electric	Electric	Steam	Station	Station	Station	Extra Guard
4 <sup>th</sup> March	I Ashley	D Black	<b><u>M Orange</u></b>	R Smith	<b>R Stratton*</b>	R Street	
11 <sup>th</sup> March	D Booth	B Cotton	<b><u>B Piggott</u></b>	<b>T Taylor*</b>	P Tomkies	S Weston	
18 <sup>th</sup> March	P Eaton	M Granger	<b><u>D Russell</u></b>	D Addis	<b>P Boyes*</b>	R Brown	
25 <sup>th</sup> March	R Hannah	J Harrison	<b><u>G Wills</u></b>	J Burnett	<b>R Crook*</b>	P Cunningham	J Cunningham
1 <sup>st</sup> April	P Haycock	M Hollis	<b><u>G Anderson</u></b>	B Currie	<b>G Dickey*</b>	A Foster	
8 <sup>th</sup> April	D Housley	P Moy	<b><u>G Bell</u></b>	D Gulliver	<b>D Hamp*</b>	G Healy	
15 <sup>th</sup> April	M Plant	<b><u>T Robinson</u></b>	L Farquhar	<b>P Jones*</b>	G Kemp	J Lankow	
22 <sup>nd</sup> April	P Woodford	I Ashley	<b><u>T Lawrence</u></b>	D Leybourne	M Luxton	<b>I Lyons*</b>	
29 <sup>th</sup> April	D Black	D Booth	<b><u>M Orange</u></b>	<b>H Martin*</b>	S Meikle	C Mitchell	

## **Bold and Underlined name:**

This 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 :**

This 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.

## **Please Note:**

On your rostered day you should arrive by 12.45pm to get prepared for the days running. If for some reason you are unable to fill your rostered date, you are respectfully reminded that it is your responsibility to find a replacement member to fill the gap - please don't let the rest of the team for the day be left "short-handed".

# Club Calendar

ASME Events	
6 <sup>th</sup> March	General Meeting, Hugh Martin will show a video on the Port of London
13 <sup>th</sup> March	Committee Meeting
17 <sup>th</sup> March	Club Members Fun Run with some competitions and BBQ included from 1.00pm
20 <sup>th</sup> March	Workshop Night at Greville Wills home workshop.
General Events	
3 <sup>rd</sup> - 4 <sup>th</sup> March	Palmerston North ME. "Locomotion 2012" Open Weekend.
24 <sup>th</sup> - 25 <sup>th</sup> March	"Great Manawatu Steam Fair".
6 <sup>th</sup> - 9 <sup>th</sup> April	Havelock North 20th Anniversary & Open Weekend
21 <sup>st</sup> - 22 <sup>nd</sup> April	Canterbury Steam Preservation Society, "Steam Extravaganza".
19 <sup>th</sup> - 20 <sup>th</sup> May	Thames Small Gauge Railway Open Weekend.

## March Fun-Run

The proposed programme for the March 17<sup>th</sup> members fun run is:

1.00 to 1.30pm	Steam-up time & Normal Running
1.30 to 2.15pm	Normal Running continued
2.15pm to 3.15pm	Competition time
3.15pm to 3.45pm	Club train set full-load control tests
3.45pm to 4.45pm	Reverse running
5pm	BBQ - the Club will supply meat and bread – BYO salads and any other items you need.

The Club train set full-load control test will require us to have a full load of members (15 ish) so that we can make sure that ASME train sets can't have a runaway as happened elsewhere recently.

# Presidents Report

## March 2012

I would like to welcome two new members to ASME. Firstly, Bob Aickin has rejoined the Club after many years in Whangarei. Secondly, Mike Moore's application for membership was approved at the last committee meeting and he has already completed several turns of duty on Sunday running! Please make these two men welcome at our meetings and other Club activities. The resignation of Daniel Yu, a junior member who joined last year, has been accepted.

As reported last month, certain members have been invited to work on the sub-committees set up to investigate and plan for the Track & Trolley project. It has now been necessary to split the "track" group up into two sections – one to look after the current as-built civil engineering features and another to focus on the new "rail" requirements (i.e. how best to add 7.25g and put it all on the ground). I am pleased to advise that David Black has agreed to look after consents, a group consisting of Hugh Martin, Dave Hamp, Graham Bell and Lex Farquhar have agreed to look after the "as-built" civil engineering issues and Dave Russell and Timothy Robinson have agreed to research the best trolley design. We are still looking for a team to research the "rail" items. The matter of costings, funding and timetables are to be given more consideration at a future committee meeting. I will continue to keep you up to date on progress as we move through all stages of this project.

An important focus at present is to remedy the outstanding issues from the MEANZ audit last November. The target continues to have matters remedied by the time the safety auditors make another visit in April. Then ASME's application for registration under the Amusement Device Regulations can be made.

The entertainment slot at our February meeting was filled by a past member, Jack Creber of NZR railway photography fame. Jack showed a selection of slides taken in the early 1970's and this was quite nostalgic as those present identified "this person" and "that engine" in the slides. Clearly evident was how our miniature railway has developed and the vegetation matured over time with the result of the great facility we have today. A special thanks, on behalf of the Club, goes to Greg Burrows who set this up for us as he had to collect and later return Jack to Swanson before he could then drive home to Waiuku – thanks Greg.

Good progress was made at the working bee on 11th February at Tony Lawrence's yard in New Lynn. While the rain at first threatened to stop progress, the team (Mark Luxton, Dave Russell, Timothy Robinson, Tony and myself) nevertheless made two strong work tables and two formworks capable of producing 54 of the long "crib wall" sections

at each pour for the smokebox curve wall rebuild. There will be at least three working bees at Tony's yard needed to pour and break-out the products. This also includes the T-bone sections, the formwork of which will be cut from polystyrene. If you can help out with any of this work, please give Tony or myself a call or email so we can plan resources and workdays over the next month or so, accordingly.

The Panmure Basin Festival on Sunday 12<sup>th</sup> February was a busy day and I am grateful to the members who turned out. It was much appreciated that some of the rostered members either came earlier or stayed on after their shift to help further and that these were augmented by a number of other non rostered members who came along to help. As such, we had a good muster of staff at all times while we were running. Mike Orange and Bill Parker ran Speedy 0-6-0 steamers for most of the day and along with the two club train sets, this helped move the crowds along without undue delay. Unfortunately we had two incidents in the afternoon which are being investigated by the Safety Committee; neither of these were serious, but we are keen to establish the reasons so that such events can be avoided in the future. As a precautionary measure, the Tuesday Club have sidelined the A & G Price trolleys for modifications and/or repairs, so please don't use these for public running until they are cleared as fit for reuse.

At very short notice, the Scale Marine Modellers decided to hold an exhibition in ASME's basement area over the Sunday & Monday of Waitangi Day Weekend. I must say they put together an impressive display of 63 boats, 11 steam items, 24 plastic kitsets and related material – there is a good report and photos in the latest issue of "Mailship" magazine.

No doubt many of you spend some time looking at interesting "YouTube" videos on the web. Some that are related to our Club interest that are worth a look at in my opinion are those by "mrpete222" (Tubal Cain engineering machinery operations) and "trainman 4602" (live steam model construction and operations). A recent related event which is worth a search is "Cabin Fever 2012" (see <http://www.youtube.com/watch?v=ZjarJCbgmxc> for starters). Enjoy, but I guess one can spend too much time looking and not enough in the workshop, so like everything in life, some balance is needed! Don't forget that the next members "fun run" will be on 17<sup>th</sup> March from 1pm. We plan to have some competition running, an hour or so of reverse track running and a light BBQ – the intended programme is shown on page 3. So come along and join in the fun.

Keep up your model engineering activity,

*Grant Anderson*

*(21<sup>st</sup> February 2012)*

# Steam Up North (SUN) 2012 Convention

On Thursday 5<sup>th</sup> January, I packed HotPot into Jan's Honda 4 x 4 and with her aboard, we headed north in good road and weather conditions to the "SUN" Convention of Model Engineers, hosted by the Whangarei Model Engineers Club at their site at Heritage Park, Maunu. We arrived late afternoon, just in time for a safety walk around of drivers, intended to familiarize all with track and operating arrangements for the Convention. It was clear that a lot of work had been done by the local club in preparation for this event, with many new facilities including a loco unloading device, steaming bays, turntable and a number of additional points and trackage (which enabled a "twice around the mountain" ride as part of the standard run) as well as a shed and water facilities at the far end by the tunnel loop. There were already a large number of engines and trolleys on site as the day had been Day 1 – an opportunity for those who arrived early to have a play and get used to this unassuming yet somewhat mysterious track. I say mysterious because one has to drive the track a few times to get a feel for where the grades are and with the new points and diamond (etc), how the "twice around the mountain" addition was to work. That night a wine and cheese get together gave the opportunity to meet new people and renew acquaintances. Jan and I met John Moran and his wife Catherine from the New Plymouth ME who were regular attendees at ASME's Easter open weekends in the 1970s.

Next day dawned fine and we steamed up ready for the official opening by the Mayor at 11am. Most of the 50 odd other locomotives registered seemed to be on track too, so you can imagine it was very congested. The fine day had brought the public out in droves, so there were plenty of passengers to fill the trains, but quite a logistics problem to get them around the track (especially with two diamond crossovers to traverse) – it was very much a stop/go drive, something of course that we Aucklanders are well used to on our motorways! Greville Wills had Smokey on the track as well and it seemed to go well all day hauling a borrowed 7.25g trolley around this 1.2km track.

There were a wide range of locomotives to view, so I banked up the fire on Hotpot and took a break for several hours to view and take photographs at various points around the circuit. Some of the locos which particularly took my eye and which I have not seen before included: Brent Coburn from Picton with a nicely restored 5" NZR Super Q **(Photo A)**, originally built in 1977 by Bill Jackson of Canterbury. Two new Phantoms arrived mid afternoon and were on the track before close of day. One of these by Owen Bennett of Tauranga ME took my eye as it had been cleverly cosmetically built to resem-

ble an NZR locomotive from the late 19<sup>th</sup> century (something like a Ua - albeit of slightly different wheel arrangement) and was painted in an attractive light green colour. Also noteworthy for a lot more than its sheer size was John Heard's new 0-4-0 Darjeeling Himalayan type loco – this is modeled on a narrow gauge loco and was very substantial and well equipped. At the other end of the scale was a diminutive 5" gauge Shay by Lex Mooney of Whangarei ME and this was running around the track like the proverbial "sewing machine" and looked and sounded great!



After the track closed for public running, the Les Moore Challenge was held – this is a regular part of these bi-annual conventions and takes the form of an engineering challenge set by the host club and issued to participants some months earlier. In this case the requirement was to build an engine powered by a 1.5 litre plastic drink bottle pressurized to 100psi, the winner being the builder of the engine which would travel the furthest on the track. Alan Gasteen and Hugh Martin had arrived at the convention in the afternoon with the two entries from ASME and joined the other four entries (from Nelson, Hamilton, Palmerston North and Whangarei ME Clubs). This challenge proved to be a real draw card for the assembled registrants and held their



attention for about an hour while the entries were set up and run. Bruce Piggott was there to watch, having used the occasion for a nice bike ride up from home. Most en-



C

tries were very lightweight and visually appeared not that sophisticated, yet all ran quite some distance. By comparison the ASME entries were large and quite imposing. Alan's entry (**Photo B**) looked very complicated and surprised the watching crowd by backing up a fair way after making its first run! Hugh's entry (**Photo C**) ran further but was stymied by a short sharp upgrade near the tunnel – probably a run though of some 400 meters which put it in

3<sup>rd</sup> place. The Nelson ME entry (**Photo D**) was interesting in that it used two smaller bottles, one of which was charged with water; the air forced the water as a spray onto a small turbine and this powered the entry just slightly further than Hugh's entry. But the winner was declared the Palmerston North ME entry (**Photo E**) which although extremely tiny, but just seemed to go on and on, even climbing much of the grade back to the station from where it had been launched before becoming exhausted. It did come off the track twice, so lost some energy before it was put back on again to continue and complete about 700 meters. Quite what was powered this remained a



D



E

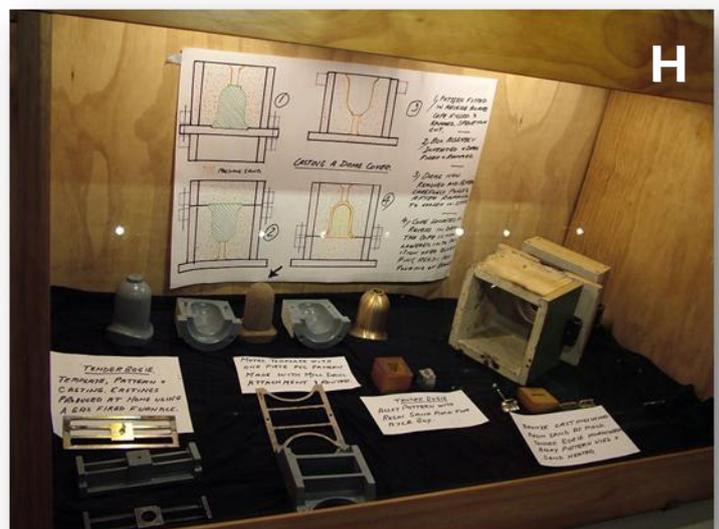
mystery, as it appeared to be all contained within a small block of aluminum!

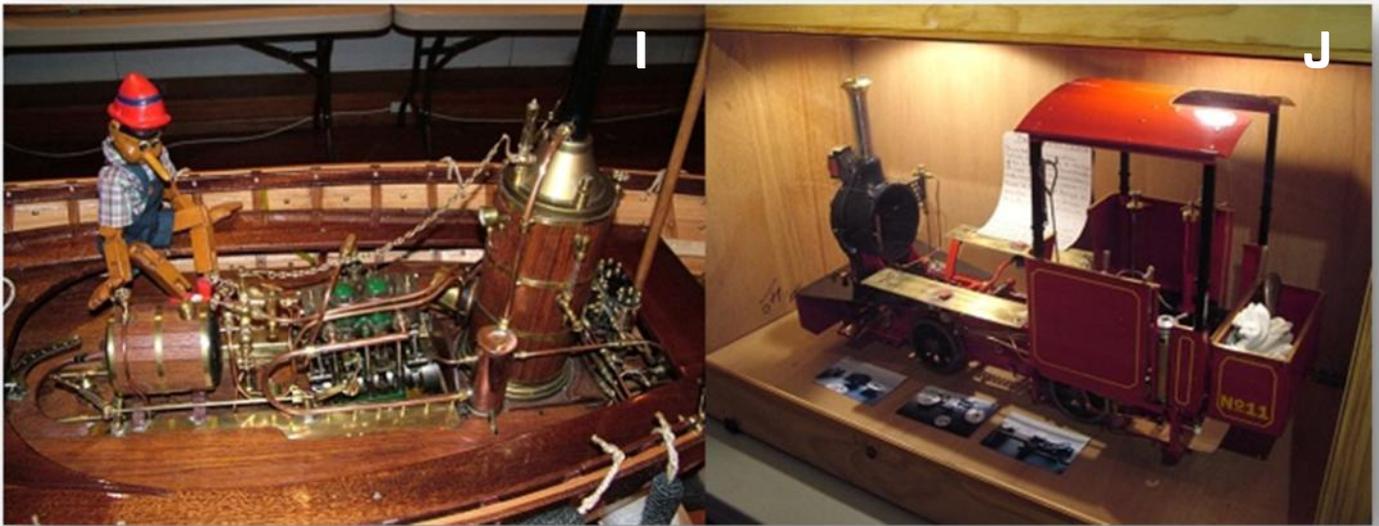
That night Jan and I joined the catered dinner put on by the hosts – again a chance to mix and mingle with people from other ME clubs. After a very hot day, we were both quite tired by the time we relaxed back at the unit. Over-

night, the skies opened.....

Next morning, the weather had really closed in – low cloud and constant rain, at times very heavy. The MEANZ Bi-annual meeting was held from 9.15am and went to midday – a lot to discuss evidently and as there was no running possible in the constant rain, most people seemed happy to attend. Hugh attended this meeting as ASME's appointed representative. After visiting the track in the morning to wrap up my trolley with a tarpaulin, I spent some time with Jan at the shops in the CBD and had a nice lunch at Café Mozart (recommended as something different). That night (Saturday) was the Convention dinner. As with the previous night this was held at the Vintage Car Club rooms on the same Museum site grounds as the Whangarei ME club's facilities, with refreshments by the host club and an outside caterer providing a buffet style meal. Many more people were in attendance though and almost overflowed the rooms – at the formalities it was announced that 195 people had registered to attend this ME Conference including 3 from UK, 3 from USA, 1 from Canada and about 20 from Australia. Several awards were handed out, including recognition certificates to the MEANZ executive who have worked tirelessly over the past 10 years with Government to get the ADR rules into a form which ME clubs can comply with. Although the day had been wet, it had proved to be a useful rest day and a good opportunity to socialise with other ME people and to attend to the MEANZ business without the pressure of running trains for the public.

The next day was unfortunately again





marred by wet weather albeit not as bad as Saturday, mainly misty light rain, on and off all day. It was surprising that this didn't seem to deter the public who turned out to ride the trains; to a level I was told, similar to the nice sunny Friday. There were plenty of trains on the track to move the riders, so I spent some time looking at the inside exhibition area which housed some clocks (Skeleton and Grasshopper) by John Moran (**Photo F**), a display of jigs and tools for making a stationary boiler/engine setup (**Photo G**), a mill/drill attachment for making wooden patterns for wheels and chassis castings including a description of use and examples (**Photo H**), a 1/8<sup>th</sup> Sopwith Camel biplane built from a museum quality kit, a 9 cylinder radial engine by Allan Fillery for a 1/9<sup>th</sup> scale Fairy Swordfish (of Bismarck fame), a beautiful steam boat named Charlotte (**Photo I**), a 5' gauge turbine-powered loco built on a Sweet Pea chassis (**Photo J**), a Foden steam truck and a variety of other items (kitset brass Gauge 1 locos & wagons, Basset Lowke traction engine, hot air engine, etc.) It was a small, but well set out display which assisted to identify to the viewing public the breadth of model engineering interests.

I spent some time talking with the builder of the experimental turbine powered locomotive (Ken McIntyre of Blenheim). He really has put some thought into adapting the Tesla disc turbine for loco use. It is about 65mm in diameter and fits neatly under the smoke-box where the cylinder saddle might otherwise reside. The drive is through a gearbox with a 50:1 reduction via chain drive to the wheels, therefore there is no need for side rods. I also spoke with the President of the Palmerston North Club about their winning Les Moore Challenge entry. Seems the heart of the engine was a decompression valve and a small (10mm) plastic piston and ball inlet valve (0.5mm lift) with metal conrod/crankshaft from a toy model car – they also by accident found that if you left the plastic bottle in a warm car for a few hours before use, it would hold a greater volume of air when pumped up to 100psi!!!

Also on the Museum site was a Gauge 00 and 1 large elevated oval circuit which past

ASME member Geoff Hallam was operating with colleagues – I understand they operated more than 30 different locomotives over the convention.

I did fire up Hotpot and do a couple of hours running in the afternoon, but it was not too pleasant in the weather conditions that prevailed. That night, Jan and I had dinner away with some local friends, so missed the convention meal. I was told it was a similar night as Friday, and that a number of loco awards were made. These were:

**Most popular 7.25g loco** – Bill Krippner for his superb NZR “Ab”

**Most popular 5g loco** – Brent Coburn of Picton for his restored NZR “Super Q”

**Most popular non-steam loco** – John Romanes for his attractive 7.25g Swiss “Crocodile-type” electric

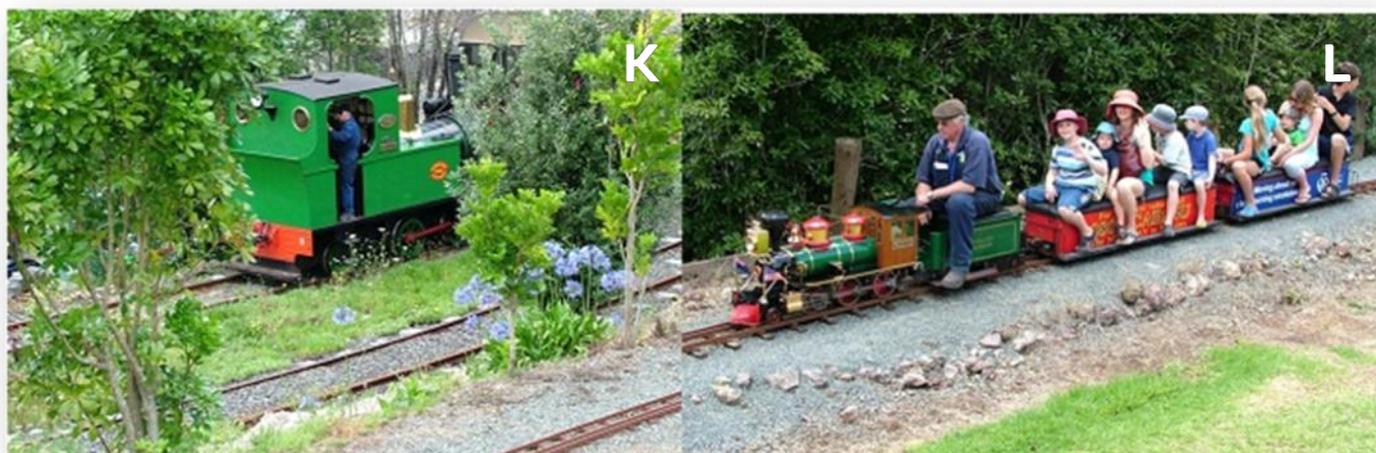
**Best new Phantom (7.25g) loco** – Owen Bennett of Tauranga

**Best First Effort** – Lex Mooney of Whangarei for his Shay

**Best Locomotive** – John Heald of Rotorua/Tauranga for his huge 7.25g 0-4-0 “Darjeeling Himalayan” type

The final day (Monday) looked much better weather wise so I fired up Hotpot again and today used a loan 7.25g trolley from MLS – they had brought about 20 of their carriages north for use by visitors at the convention which meant there was no shortage of trolleys. Unfortunately being a Monday, there were not that many of the public seeking a ride but it was a relaxing day running on the extended Whangarei track. Mid afternoon, the rain returned with a very heavy downpour, so Jan & I packed up and headed for home.

Over much of the convention period, the Whangarei Steam and Model Railway Club were running their restored Peckett steamer. Their track runs parallel in places with the model engineers track ([Photo K](#)), so it was quite something at times to be steaming alongside a 3' 6" gauge full size railway! They are in the process of extending the track-



age around towards the Kiwi House, so this will be a useful addition to their current limited running area, expected to be completed later in the year.

It was unfortunate that the weather was so inclement over most of the Convention, but while a nuisance on one hand, it did provide for a relaxed environment to talk with other model engineers (including those from overseas) while providing an opportunity to see and marvel at some of the ME work done by others from around the country. I felt our entries from Hugh and Alan in the Les Moore Challenge acquitted our Club well and were of real interest to the onlookers at that event. It was great to have their company as well of that of Greville & Janet together with our dual members at MLS (Mike Orange, Bill Parker [Photo L](#) and Greg & Janet Burrows) at the Convention. I trust this report will give those of you who couldn't make it along an idea of what took place over the five day event.

The next Model Engineering Convention is to be hosted by the Canterbury Society of Model & Experimental Engineers Club at their Christchurch site 2<sup>nd</sup> to 6th January 2014. This site is at Halswell Domain some 8km south of Christchurch CBD (so has not suffered from the earthquakes) and has ground level and raised tracks, a boat pond and new Clubrooms added last year. The convention (to be called "Canmod 2014") will include a display of models & equipment – maybe now is a good time to start planning to go!

*Grant Anderson*

*11<sup>th</sup> January 2012.*

# Bits & Pieces

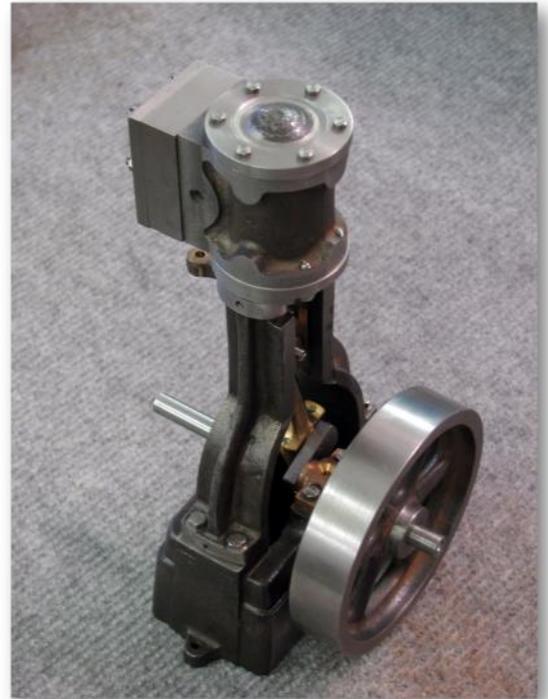
## February 2012

Hosted by Mike Banks

Reported by Roger van Ryn

*This report is slightly more "brief" than usual so please read this slowly as I am typing it slowly with one finger!*

Graeme Quayle has found another vintage Stuart Turner engine to build, this time a "Stuart 7". If anyone has a catalogue from "before the (last) world war", would you consider loaning it to Graeme as it seems to be from that era, having design differences from the later "7"s. He would like to "do it right".

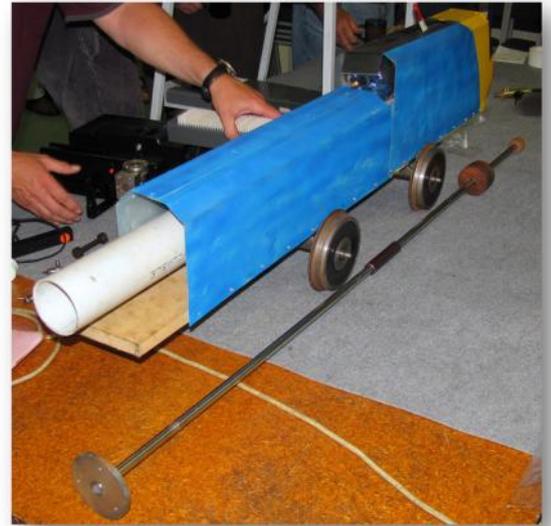


Greg Burrows has made a wooden pattern for the trunk guide of the vertical engine he is designing/building. Made from some "Armour Board" which is/was a form of MDF.

Chris Ratcliffe found a suitable bunker water filter, with a variety of filter grades as inserts. South Auckland Irrigation is the place to get 'em.



Hugh Martin gave us a short description of the development of the Tuesday Clubs entry to the "Les Moore Challenge" this year. After launching Alan Gasteen's ride-on trolley into the air and realising that a plastic bottle of air at 100PSI has potential, they refined the design into the fine engine on show now. It has two-stage rocket propulsion and made 3rd place and 150m in the competition! A round of applause from all at the meeting saluted their effort.



Some full size splined shafts with helical gears turned out to be for our Presidents "EnFo". A Zephyr MkI and II Spigot shaft. Grant's rebuilding them, doing a bit of "full size" engineering to boot!

Some piston valves are for Graham Bells steam roller/tractor after the existing ones suffered a little "wear", shall we say?





Allan Fosters governor block for his Commer engine and multiple injectors, being tuned for the correct amount of "puff".

Hugh Martins steam separator for his stationary steam plant. It works on a cyclonic action to separate the oily water from the steam exhaust, before it goes up the chimney, keeping the operator clean(er).



Correctly termed a "submarine boat", one of them lost some glassware. The pyramidal one being from the viewer head of a periscope, and the cylindrical one being a water pressure stop in case the periscope gets "broke". Chris Ratcliffe brought them in.

Murray Lanes large "steady" for his Hardinge lathe looks fairly complete, but as Murray explained it is a pity it is the mirror image of what it should be, "back to the drawing board".



Murray also brought in a nice looking, but not too well made, er... "eastern" copy of a "Dekel" tool grinding rest. Even though it was a good price and looks the part, things don't run too true, and have slack in the wrong places. Murray plans to do some re-machining to make the parts bet-

Look out for our own Pete Woodford in "The Shed" this month!

"Milling 101" hits the (bigger) time!

A jolly good "retro" slide show presented by Jack Creber of pictures taken by him in the 1970's was enjoyed by all.

Along with a general commentary and identifications by Murray, Greg and others, was very informative for newbie's like me and oldies alike. Amazing memories these guys! The safety apparel of the era and "side burns" were very revealing.

Lots of fun, thanks;

*Rog.*

# Around the Clubs

## March 2012

### Northern Views Whangarei Feb 2012

Preview and review of the Convention with good photos of the site and the participating models. A great event despite the weather not being kind at times.

### Engine Booster Los Angeles Dec 2011

Annual equipment inspection time again. Visit by a 1906 Stanley Steamer the boiler of which runs at 300psi and the car will do 90mph.

### The Narrow Gauge Adelaide Miniature Steam Railway Jan/Feb/March 2012

A visit to the UK and onto Rio de Janeiro to see the 2' gauge locos there with a photo of a Baldwin 2-4-0. Several Club and Charity runs plus a grant to improve the passenger loading area. Work progressing to put various pieces of legislation into practice including something called the Child Protection Act. Great photos of various models under construction including a 7 1/4" model of a 2' gauge Hunslet 4-6-2t.

*Alan E*

## Notes From the Editor's Desk

### Be Identified with Club Apparel

ASME dress shirts one available size large, long sleeve for \$59.00. Others available by order only. Club embroidered 60mm dia. sew on badges. Ideal for your driving overalls at \$10.00

Contact Hugh Martin; Phone (09) 536 4544

### Train Drivers

A reminder that all drivers on the ASME track need to remain vigilant while driving on the track - remember, "SAFTEY IS NO ACCIDENT"!

*Hayden Purdy*

Editor