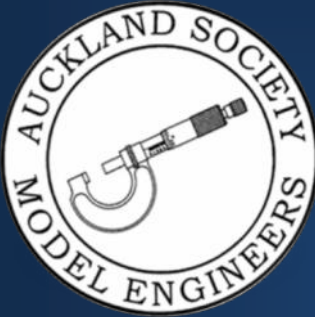


AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED

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THE MICROMETER

REGISTERED NEW ZEALAND PUBLICATION

In This Issue:

| | |
|-----------------|------------------------------|
| Page 2..... | Train Roster |
| Page 3..... | Club Calendar |
| Page 3-5..... | President's Report |
| Page 6..... | October AGM |
| Page 7..... | Notes From The Editor's Desk |
| Page 8..... | Working Bee |
| Page 9-10..... | Around The Clubs |
| Page 10-11..... | The Latest In Engineering |
| Page 11..... | October ASME Exhibition |
| Page 12-15..... | Bits & Pieces |
| Page 16..... | Model Engineering Exhibition |



USS Nimitz (CVN-68) - A USS Nimitz class aircraft super carrier. It is 333m long, has two nuclear reactors aboard with a maximum speed of over 30 knots (56 km/h) along with an unlimited range over 20 years.

Train Roster

| Date | Electric | Electric | Steam | Station | Station | Station | Extra Guard |
|----------------------------|------------|-------------------|-------------------|-------------------|------------------|-------------------|--------------|
| 2 nd October | M Hollis | D Housley | <u>G Anderson</u> | P Tomkies | S Weston* | D Addis | |
| 8 th October am | J McManus | P Moy | <u>G Bell</u> | P Boyes | R Brown | J Burnett* | |
| 8 th October pm | M Plant | T Robinson | <u>L Farguhar</u> | R Copeland | R Crook* | P Cunningham | J Cunningham |
| 8 th October pm | P Woodford | I Ashley | | | | | |
| 9 th October am | D Black | D Booth | <u>M Jack</u> | B Currie | G Dickey* | P Dowdeswell | |
| 9 th October pm | B Cotton | <u>T Lawrence</u> | | A Foster* | D Gulliver | D Hamp | |
| 9 th October pm | P Eaton | M Granger | | | | | |
| 16 th October | R Hannah | J Harrison | <u>M Orange</u> | G Healy* | P Jones | G Kemp | |
| 23 th October | P Haycock | M Hollis | <u>B Piggot</u> | J Lankow* | D Leybourne | M Luxton | |
| 30 th October | D Housley | J McManus | <u>G Wills</u> | I Lyons | H Martin* | S Meikle | |
| 6 th November | P Moy | T Robinson | <u>D Russell</u> | C Mitchell | D Moffatt | G Murray* | |
| 13 th November | P Woodford | D Black | <u>G Wills</u> | J Olsen* | W Parker | G Quayle | P Dowdeswell |
| 20 th November | I Ashley | D Booth | <u>G Anderson</u> | R Reichardt | M Richardson | K Ryan* | |
| 27 th November | B Cotton | P Eaton | <u>G Bell</u> | A Shirley* | R Smith | R Stratton | |

*Note - 1 change for 9th Oct from that previously published

- Two club loco' s crews are rostered for the afternoons of the exhibition weekend

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 | |
|--|---|
| 4 th October | General meeting - annual club auction - bring in your items for sale, always a great night. |
| 8 th - 9 th October | ASME annual exhibition and judging of exhibits, start getting your exhibits ready. Any queries, please contact Bill Parker or Hayden Purdy |
| 11 th October | Committee meeting |
| 18 th October | Workshop night at the clubrooms |
| 1 st November | General meeting & AGM |
| 8 th November | Committee |
| 10 th December | ASME annual dinner and awards presentation. |
| General Events | |
| 8 th & 9 th October | Puffing Billy Railway Gala, Victoria, Australia |
| 26 th November | Glenbrook Vintage Railway open invitation to like minded clubs, ride by donation, a great day for all. The day starts at 1pm at Glenbrook Station |
| 5 th - 9 th Jan 2012 | International Convention, Whangarei |

Presidents Report

October 2011

In this Micrometer you will see the notice of meeting for the AGM on 1st November and the special business that is intended to be discussed. This business includes the all important Track and Trolley matter which was the subject of a members survey undertaken earlier this year. It is proposed that two appropriately, yet simply worded resolutions reflecting the survey outcome, be put to the members at the AGM. In addition, two further resolutions are included in the notice to cover a scenario should either of the two prime motions be declared lost. It is intended that, as a result of any discussion and the putting of and voting on these motions, the club members present will determine a clear & unequivocal direction for the future of the miniature railway at ASME. Another matter of business is a proposed change to Rule 11.1 to provide more flexibil-

ity in the authority for withdrawals from the Club's bank account by being signed by any two of the four named positions – this flexibility will actually mean better security and allow the Club to move to internet banking.

Due to the move from this issue of emailing the Micrometer (as the default position) and the possibility that perhaps some members do not receive the AGM notice via this means, we are also placing a notice of meeting in the NZ Herald. In addition the notice of meeting will appear in the email itself as well as the Micrometer accessed through the link to the Club's website.

Of course a host of other normal business is undertaken at the AGM – one important element is the selection of the committee for the new Club year. We have received two early notices from guys who won't be able to offer themselves for re-election. David Russell who has done a sterling job for the past two years as Secretary (and for a while as the dual-role Editor) is finding it difficult with a young family and a full time job – also David Black who is involved with another like-interest club and is finding that time won't stretch around ASME as well for the time being. So, as members I challenge you and ask – will **you** put **your** hand up and be nominated for a role at ASME for this coming year? Without a full and effective committee, the organisation and smooth working of the Club could be at risk.

We had a good indication of support at the September general meeting for the two working bees on 17th and 24th September, so by the time you read this, the problems of the track undulations and negative camber on the smokebox corner will be history. I can confirm that we had 13 members turn out for the working bee on the 17th and a major amount of the realignment work was completed. The next working bee will most likely be in late October, when we have some quite major repairs to undertake to the boat pond. For those who may not be aware, the pond is indeed ASME property and while it is leased to the Scale Marine Modellers Society for their use, it is our responsibility to undertake major maintenance. Some of the pipework around the filtering plant is badly corroded and this will have to be repaired or replaced at the time SMM undertake their annual clean-up on the last weekend in October.

The Club fun run on 17th September saw 5 steamers up and running. We had to dodge a few showers, but it was an enjoyable afternoon anyway – and we got to be the first trains over the realigned smokebox corner trackage!

Auckland Moviemakers is a club whose hobby is, funnily enough, "making movies". They identified our club as providing an interesting past-time and subject matter. After several meetings with committee representatives, they have decided they will make a DVD for ASME's promotional use. They shot a fair amount of footage at the fun run day on 17th September and you will probably see them filming around the track and at the exhibition, so please assist them if requested – it will, after all, be for our Club's benefit.

A long-time member of the Club, Maurice Poletti has resigned. Maurice was very involved in model aero engines and has recently moved into Kolmar Lodge in Papatoetoe.

The September workshop session on the afternoon of Saturday 10th visiting Bill Parker

and Greg Burrows workshops at Waiuku was enjoyed by approximately 18 members. A few also visited Mark Richardson workshop while in the area. Many thanks to Bill, Greg & Mark for hosting this event. A special thanks to Janet and Greg for putting on a wonderful afternoon tea to ensure all the visitors were well refreshed before returning home.

There are a number of members to be thanked this month for work around the club premises. Firstly Graham Dickey for supplying the flashings for the verandah repairs, next Mike Banks for spraying 40 plus litres of Wet n Forget around the track and buildings and then Bruce Piggott for realigning the straight section of track down from the Council retaining wall. I'm sure these are not the only helpers, but they are the ones I have heard of, that have done something extra special around the Club, so thanks guys.

As mentioned at the last general meeting, the new Amusement Devices Regulation amendments have been gazetted and are now in force. We are awaiting a further document from MEANZ and the DOL which is expected to provide information on how these changes are to be interpreted and acted upon. In preparation for this we are expecting our next MEANZ audit of the railway in November.

Preparations for the ASME Annual Exhibition weekend to be held on Saturday 8th & Sunday 9th October are well in hand. Advertisements have been prepared by Hayden Purdy and will be placed in two newspapers which should reach over 100,000 homes. The Tuesday Club has been hard at work cleaning out the basement and engine shed in preparation for the display. Many members at the September general meeting committed to attend and undertake duties – see the roster lists elsewhere in this issue of Micrometer. **What we need now is your exhibit** (either work in progress or completed) to ensure we have a full house of interesting display items for the public – please either contact the Organiser, Bill Parker or fill in the form on the Club's website as explained by Hayden in the last Micrometer, or a paper copy – let's make this event a real success. Remember too that our Judges led by Murray Lane will be looking to see which awards (as listed last month) can be made.

I am pleased to report that some of the Tuesday Club "brains" have taken up the challenge to design and build ASME's entry for the Les Moore Challenge at the "Steam Up North" Convention to be held at Whangarei in January next year. From what I have seen we should have a good chance of being "in the money"!

As some of you will be aware, my partner Jan has not been too well this year and so I am taking her on a couple weeks holiday, but will be back just before the Exhibition weekend. Greville Wills, (our Vice President) will be in the chair for the October general meeting and is the person to contact if you have any issues while I am absent.

Looking forward to your commitment and input to make the Annual Exhibition a real success!

Grant Anderson

17th September 2011

November AGM

Notice of Annual General Meeting, Auckland Society of Model Engineers

To be held at the Clubrooms, Peterson Reserve, Panmure
Tuesday 1st November 2011, 7.30pm

Notice of Properly Proposed change to club rule 11.1 (Reason for change is to enable the club to conduct online banking)

Currently reads;

11.1 "The Society's funds will be deposited at whatever bank the Committee directs. All withdrawals will be signed by the Treasurer/Assistant Treasurer (co-opted) and one of the following officers: President, Secretary or the General Manager."

Proposed Change reads;

11.1 "The Society's funds will be deposited at whatever bank the Committee directs. All withdrawals will be signed by any two of the following officers: President, Secretary, Treasurer or the General Manager."

Moved : David Black, Seconded: Timothy Robinson

Notice of Resolutions to be put to the 2011 AGM for consideration

1. That the ASME miniature railway be altered to include 7 and a quarter inch gauge track
2. That the track be at a raised level

And if No 2 resolution is lost then:
That the track be at ground level

And if No 1 resolution is lost then:
That the track roadbed be substantially rebuilt and significantly upgraded

Notes From the Editor's Desk

Positions Available

The current Secretary and one member of the committee have indicated that they will be standing down at the AGM, so please give some thought to putting your name forward for either job.

Tuesday Club

The Tuesday Club are looking for a few more members who don't mind giving up a little bit of time on a Tuesday. A number of the regulars are getting a bit older and their abilities are not what they used to be. They tell me it is one of the most rewarding parts of being a member, *(can't wait 'till I retire - Dave)*. If you would like more information please contact Hugh Martin or just turn up on a Tuesday.

Boilers

Anybody who owns a boiler which is subject to club rules needs to contact the secretary stating that they still own/use that boiler. The reason behind this is the committee would like to cull the long list of boilers on its books - as many have now long gone, or even gone overseas.

Club Website

A handy digital version of the club calendar is kept on the club website here - <http://www.asme.org.nz/MemberArea/calender.aspx>. I regularly update the calendar, so if any events change, they will be updated here first.

For those that do not know the login details for the club website, or have trouble logging in, please email the editor at editor.asme@gmail.com.

Please note you are no longer required to login to download the newsletter, these are now in the public domain. Find them here: www.asme.org.nz/newsletter.aspx

You are most welcome to send the editor any content you think may be suitable for the club website (or magazine), such as photos etc, to the following email address:

editor.asme@gmail.com

Working Bee

There was a club working bee held recently on Saturday the 17th September to re-align the track around the smokebox curve. The member-only running day was held shortly after, and the improvements were greatly appreciated by all those who drove around the track. Members who took part in the working bee include; Ron Copeland, Peter Tomkies, Dave Russell, Gary Farquhar, Trevor Taylor, Bruce Piggott, Tony Lawrence, Timothy Robinson, Clyde Mitchell, John Lankow, Mike Jack, Ross Smith and Grant Anderson.



Around the Clubs

October 2011

Blast Pipe, Hutt Valley and Maidstone, September 2011

Great photos of locos, model and full size, in the snow, not a problem we encounter up here. The mould to form the raised track proving more difficult than first thought. Some threaded studs [8"x1/2"x13tpi threaded 3" both ends] complete with nuts are for sale. Some thoughts on loading systems including a photo of a curved section to use when you have 2 rails in the van. Photo of a railcar at Ferrymead which area seems not to have been damaged by the earthquakes, they operate weekends during the school holidays and run steam on the first Sunday of the month.

Wanganui Mixed Traffic and Railscene, August-October 2011

A number of interesting speakers and events. Visit to Palmerston North to see all the latest Kiwi Rail goodies, and a chance to look into the works. Great article on the re opening of the Castlecliff Branch line. Visit by one of the new Chinese DL class locos to check the track clearances. A useful list of websites is published starting with www.railwanganui.weebly.com.

Wheels and Floats, Tauranga, August-September 2011

Some comments on the speed at which the railway was repaired after the Napier earthquake. A Patrick Beck has started a website for the live steam community it is www.livesteamforums.com . Several very good funnies and photos of Club activities.

Con Rod , Otago , August 2011

Photos of members in their workshops, an explanation of the dc and dcc systems used on model railways and useful hints on building model boats.

Engine Booster, Los Angeles, July 2011

Story and pictures of the Pacific Coast Railroad, a privately owned 2 mile track. The Carolwood Combine and the Disney carriages were joined together for a great event. Fire ban in place due to the hot weather in LA.

Expansion Link , Hamilton , August 2011

Charity Run held on the 24th and 25th Sept, hope this went well. The Club to buy some debentures to support the new Cambridge/Rotorua Club.

The Generator, Palmerston North, July and August 2011

The Letters from England are always a good read. The cover photos are of a three cylinder radial engine and a sensitive drill, both well made. The replacement of a bridge over the NIMT in Fielding. An article on o rings, points out that imperial sizes are oversize to provide the deformation whereas the metric ones are not. The story of the use of 600mm gauge locos used in the first world war and what happened to them afterwards.

Steamers and Dreamers, Manukau, July/August 2011

Cover picture of Andy Rowe working on the trams to be used on the Wynyard Loop. Photos of the visit by ASME members. Also photos of Children from the local Marae and of locos in the snow. For sale a 7 1/4" gauge Ds shunter and part built 5" gauge tank engine

Mailship, Scale Marine Modellers, August 2011

Good write up on the development of the hovercraft. All about the Three Kings Islands and a trip to Taupo.

Northern Views, Whangarei, August 2011

Interesting article on rail grinding to reshape the rails. Stories on bureaucracy and Linotype machines. Photos from around the track. Website up and running
www.wmec.org.nz

Big Wheels, Victoria, July/August 2011

The visit to the Hot Pot run at Wollongong sounds like a lot of fun. Admission being two cans of soup which is consumed as needed. The track too sounds impressive with two signal boxes. Seems RDG have bought all the Myford stock, more on uk.rec.model.engineering For the ladies a recipe for chicken and mango curry.

Southern Rails, Invercargill, August/September 2011

Write up on Z gauge [6.5mm] model trains, very compact. The story of Peter Collins and his love affair with boats. Good story on the history of the Southland Pioneer Railways.

Model Torque, Napier, August 2011

Story and pictures of some boiler explosions. Photos and stories from around the track. Very mixed weather. Notice of the upcoming 50th reunion posted on the notice board.

Slipstream, Auckland Model Aero Club, September 2011

Some problems with planes being attacked by birds. All types of construction and propulsion seem to be available now, one even having a retractable undercarriage.

The Latest In Engineering

Extract from *The Model Engineer and Electrician* of September 21, 1911

A Miniature Electro-Motor

A miniature electro-motor recently constructed by M. G. Trevet, at Bellevue, France, works most satisfactorily, in spite of its marvellously small dimensions, and has, therefore, says *The Electrical Review*, been presented by M. Carpentier to the French Academy of Sciences. This motor is a shunt-excited machine, with Gramme ring, the height

of the field-magnet being 14.5 mm., width of base 14 mm., and length of shaft 15 mm. The field-magnet coil comprises 600 turns of wire, 0.05 mm. in thickness. The magnet iron is 15 mm. in cross-section and 33 mm. in average length. The armature, which is 6.2 mm. in diameter, has 12 teeth; its windings are subdivided into six sections, and, with 288 turns, have a useful length of 1.67 metres. The commutator comprises six plates, kept together by two ivory cones and insulated by six ebonite plates, the whole being screwed with a hexagonal nut on a brass tube forced upon the shaft. The leads are connected to minute terminals, the commutator diameter being only 2.8 mm. Each of the brushes consists of two plates kept together by three riveted cross stays and presses against the commutator by a ring, screw and spring. A piece of silver - in place of the carbon used in actual practise - serves to effect the contact. The brushes are 3 mm. long, 1 mm. wide, and 0.7 mm. thick. The brush-holders are adjustable, connection with them being made by perforated screws. The steel shaft is 0.8 mm. and the bearings only 0.4 mm. in diameter. The motor in full operation takes 0.2 ampere at 3.5 volts - that is, 0.7 watt. Its total weight is only 7 grammes. The over-all size of this diminutive motor, in English measurements, may be judged from the fact that 14 mm. are approximately equal to 9-16ths of an inch.

Extract from *The Model Engineer and Electrician* of September 28, 1911

Valves and small fittings made of iron well galvanised on the exterior may be homogeneously covered with lead in the workshop by any mechanic. The method (says *The Engineer*) consists in immersing the piece to be coated in water to which a few drops of sulphuric acid have been added. Then, while in the acid water, the piece is readily amalgamated in the usual way by squeezing mercury through close-woven cloth all over its surface and thoroughly rubbing it in. The excess mercury is rubbed off and the piece carefully dried without heat, and then immersed in a bath of lead, which should be well above its melting point. The casting may be withdrawn after about 20 seconds, and will be found to be homogeneously covered with lead. This method requires the piece to be galvanised before applying the lead.

October ASME Exhibition

The annual ASME exhibition is coming up on the 8th and 9th of October, and members are encouraged to register & bring along any model they think is suitable for display - this does not just include finished display models, but also works-in-progress or near completion models. We would like to show the public that lots of hard work and effort goes into building models, and that the models are not just brought at a retail store. Please note registering your model is mandatory - to register, fill out the sheet attached to this edition of *The Micrometer*, and follow the instructions, or register online at <http://www.asme.org.nz/MemberArea/exhibitioninfo.aspx>

There will be train rides running from 10am to 4pm on both days - have a look at the roster on page 2 to see if you are rostered on.

Bits & Pieces

General Meeting, 6th of September 2011

Presented by Mike Jack,
Reported by Roger van Ryn

First up a "Whatsit" from Peter Woodford, looked like an home-made experiment, but is a Helicoil gadget to try to follow the mangled thread in the aluminium head with the first bit, then put a Helicoil thread in for a spark plug with the second bit.... if you know what I mean?
Photo A



Mike Orange's new "spare Phantom" Super-heater "radiant elements" are made from In-caloy. These were tig-welded with special wire, from Kendle's. The header is "Easy flo'd" using the black flux. **Photo B**



Safety Valve by Bruce Piggot for his test boiler. A tip from Bruce, when making things that need a ball valve in 'em, make the seat part separate and accessible. Then put a newspaper on a flat board and lap (burnish?) the seat using its own ball. "It's an old wrangle from M.E." says Bruce.
Photo C



A box full of little bits and pieces is for a model Newcomen atmospheric engine with plans which Graeme Quayle bought from England. It's a "thinking out loud" exercise for a potential MO-TAT project. <http://www.sussexsteam.co.uk/>
Photo D



Alan Gasteen's large brass casting is a top for his vertical boiler. Alan somehow turned a box of swarf into a large lump of bronze. **Photo E**



Grant Anderson's eccentric rod jig was very useful for getting the centres correct while having fun re-bushing all the con-rod bearings on "Hot-Pot".

An article in M.E. By Nigel Thomson mentions the use of removable "buttons" for accomplishing this. **Photo F**



Murray Lane presented his Feintaster gauge. This is used by watch-makers to get the length between the shoulders correct on the "balance staff" which carry the hair springs in watches. (I hear?) **Photo G**



Graeme Murray's making loco Links? Naaah. It's a probe for measuring air flow, and on the end is a pitot head with conical sections. It's all so small, you have to take my word for it. Graeme made parts from 2mm hypodermic needles soldered together by means of his "Little Torch"!



Graeme Murray again with a jig made with welded on Ch...cheap vise grips. **Photo H**



Greville Wills has been finishing his home made dividing head and testing it with 1 gear 2 mandrels already complete. These will be change gears for his lathe. **Photo I**



Murray Lane had some heirlooms in the shape of a face plate for a round bed 1915 Drummond lathe which has been in Murray's family for 70 years. Also a big gear, and an unusual 2 jaw chuck. **Photo's J, K & L**



Greg Burrows awesome straking / tapping tool has a very smooth "feel", and should be very useful. **Photo M**



Greg Burrows helped a friend out with a problem and sparked the broken tap out of a brass cylinder. When the bits came out, one could see the cause was a blunt tap. Moral? DONT take the chance of using an old tap!

Photo N

Graeme Murray's "Swing-up threading tool" = it bobs up when you reverse the feed direction during thread cutting on the lathe. This means you dont loose the start of the cut or the depth, as you don't loosen the feed till the jobs done. I need one.

Top slide with round tool post. Graeme Murray's "Ver 2"

Quick change tool post and tool holder has an extra mini tool post on the tip, to reach that hard to get at spot. **Photo O**

Graeme's parting tool made from pieces of a large industrial hack-saw blade have hollows ground in the top edge by means of a Dremel and small carbide cutter. They work very well as evidenced by small boxes full of neat chips.

Mike Banks intricate bonnet cover for his GWR "King"

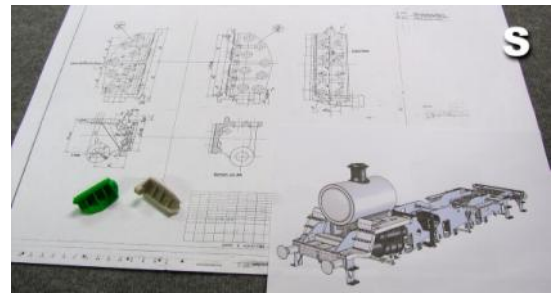
reveals scale safety and clacks. Made from a casting and solid bar in around 80 hrs! Awesome! **Photo P**

Ray Browns lovely draw knife. Home made from a file, makes one want to find a piece of wood ASAP! **Photo Q**

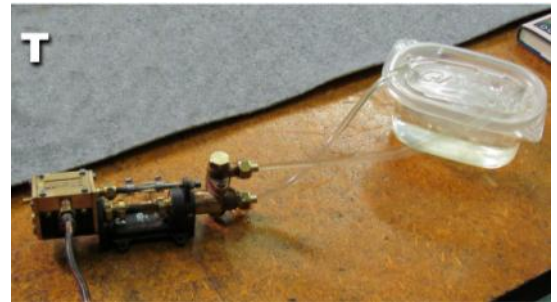
Alan Fosters "roots blower" impellors, final ver2, were made by Mike Jack on the CNC. They have a very fine finish obtained by using 0.25mm steps! **Photo R**



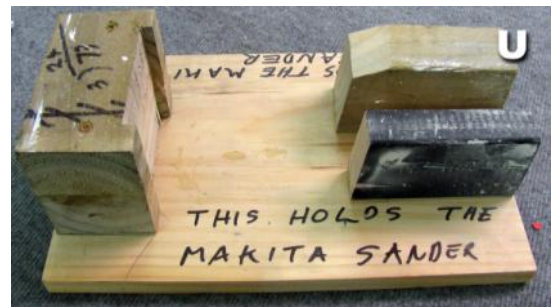
Mike Jacks been doing the drawings of a 2.6.2 British Standard Class 3MT Tank Loco in SolidWorks. He then had the same part made using two forms of "Rapid Prototyping". These have their own advantages. For more on the Loco go to <http://www.82045.org.uk/> to see what the Trust in the UK are up to. **Photo S**



Hugh Martin converted some Stuart castings into an horizontal weir pump, despite the appalling drawings and instructions. This is for the mini power station he is making with the Yarrow type boiler he designed. Hugh ran the pump after the meeting. It can go like the proverbial "clappers". **Photo T**



Trevor Taylor's wooden thing is a belt sander stand used to convert it into a linisher. Invert the sander and Bobs your auntie. **Photo U**



Trevor's in laws went on the Orient Express Pullman Service and saved the menu as a memento. Go to <http://www.Orient-Express.com> and drool. They brought a present for Trevor, an authentic Pullman badge, to be treasured for sure. **Photo V**



Graham Bell made some macrocarpa steps for his traction engine living van. Graham used 2mm lexan for the windows and whitewood for the window sashes, mortised cedar for the frames. Fred Dibnah would approve of the road train, I'm sure!

Photo W

Rog

The nights speaker was John McManus who stepped in at short notice, but still had some interesting articles to support his talk on Warm Fusion generation of steam. (Typically around 900°C

Check out <http://www.brillouinenergy.com/> for more details.



MODEL ENGINEERING EXHIBITION

AUCKLAND SOCIETY OF MODEL ENGINEERS INC

~ PAST & PRESENT ~



Featuring

Live Steam Locomotives

Traction Engines

Stationary & Marine Engines

Clocks

Tools & Workshop Equipment

General Engineering Models

Model Ships & Boats

Train Rides (Weather Permitting)



October 8th & 9th

*Train rides both days from
10am to 4pm*

Train Rides Admission Fees

\$2.00 Per Ride

\$10.00 Concession (6 Rides)

The Auckland Society of Model Engineers is located at:

Peterson Reserve, Panmure, Auckland

For more information visit

www.asme.org.nz