

The MICROMETER

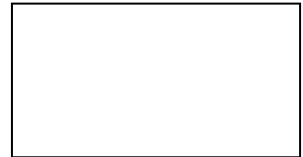
THE AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED
Peterson Rd Reserve, Panmure, Auckland
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July 2009



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REGISTERED NEW ZEALAND PUBLICATION

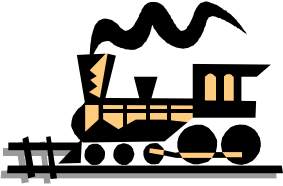


Register NOW!
Exhibits for Jubilee Exhibition
and also for the Jubilee Dinner
www.asme.org.nz

RETURN ADDRESS
ASME
PO BOX 14570
PANMURE
AUCKLAND 1741



**Engine # 6 "Padarn" works a 1 in 5 gradient
on the Mt Snowdon rack railway , North Wales**



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>
5-Jul-09	T Robinson	J W-Buys	<u>G Anderson</u>	--	P Boyes	G Briggs	R Brown*	
12-Jul-09	P Woodford	J Yearn	<u>G Wills</u>	--	J Burnett	R Crook*	G Dickey	P Dowdeswell
19-Jul-09	D Black	D Booth	<u>G Bell</u>	--	P Cunningham	A Foster	W Green*	J Cunningham
26-Jul-09	A Cotton	R Craig	<u>L Farquhar</u>	--	D Hamp*	R Hannah	G Healy	I Hansen
2-Aug-09	T Crake	P Eaton	<u>A Gasteen</u>	--	M Hollis*	P Jones	T Lawrence	
9-Aug-09	M Granger	J Harrison	<u>B Piggot</u>	--	D Leybourne	W Lord	I Lyons*	
16-Aug-09	D Housley	J McManus	<u>A Pritchard</u>	--	H Martin*	S Meikle	A Murley	
23-Aug-09	M Plant	T Robinson	<u>D Russell</u>	--	G Murray	E North	J Olsen*	
30-Aug-09	J W-Buys	P Woodford	<u>R Van Ryn</u>	--	W Parker	G Quayle*	R Reichardt	

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.

Club Calendar July 2009

July 7 th	Monthly General Meeting / Special General Meeting Guest Speaker, Stan Locke on Nail Making, part 2
July 11 th	Working Bee at club track, bring spade, wheelbarrows, hammer. We will be building up the base around the track, start 8.30am
July 14 th	Committee Meeting
July 21 st	Workshop Night this month at the Clubrooms, Peterson Rd Reserve, Panmure

Presidents Report

The planning for the upcoming exhibition and celebration dinner is well in hand and a lot of work is going on behind the scenes with the preparations. Thank you to all those who entered their name as a volunteer against one of the "jobs" however, we still need more and trust that all members will volunteer to assist in some way to lighten the load for everyone.

Most important is for you to remember that **the 7th July (next club meeting)** is the time that we require full payment for the dinner bookings. We have had a good response for the dinner but I suspect there are a few of you hanging out to the last moment. The last moment is now. Bookings after the 7th July will be at the full price of \$140 double or \$70 single and not the club subsidised price. Payment can be made on the night of the 7th or if you wish you can forward your payment to me at my postal box PO Box 51277, Pakuranga, Manukau 2140. I will record your payment and send out your dinner ticket/s. Please make cheques payable to ASME.

Likewise, we have had a good response to exhibits register but there is still space available. Again, don't leave it until the last minute (the last minute is now.) You may remember the last public exhibition we held for our fortieth, that we were inundated with unregistered exhibits while we were setting up the exhibition. We had to turn people away, causing a few upset people. A lot of preparation work has to go into arranging the placement of exhibits by Allan Gasteen and his team and your assistance in advising of your exhibits now is requested.

In respect to enquiries we have had regarding insurance cover, the club is taking out extra insurance cover for the exhibits on exhibition, as some household contents policies don't cover models while on

exhibition. However, it is your responsibility to ensure that your private insurance policy covers models while being taken to and from the venue.

At our last club meeting a presentation was made to the members present of a revised budget for the exhibition. The committee is aware that last year the members accepted an initial budget, which included our anticipation of receiving some financial assistance from organisations like the ASB Trust. The change in the world economic climate since then has seen most of or applications to these organisations declined. Greville however is still pursuing other options and we are awaiting answers on these. Because this is an important matter, there is a notice of motion included in this newsletter that will be raised and discussed at the next meeting.

Updating the situation with our application to the ACC for the granting of a new lease on the property, we have had a reply from the Council advising that they are recommending to the Community Board, to establish a lease for a period of just less than two years. This is to coincide with the expiration of the other lease we have with Transpower. At this point we will then have to negotiate a new longer term lease with both parties.

As a result of the recent amendment to our constitution, we have now been accepted and registered by the Charities Commission as a charitable entity.

We recently had an incident with the club loco being derailed on its first trip of the day. The cause was a large rock being jammed between the rails and not spotted by the driver. An investigation into the incident found that proper procedures had not been followed, in that there had been no pre-inspection of the track before the days running commenced. This would have discovered the problem before a train load of passengers became involved. It is compulsory for someone to inspect the track before the days running and to give the all clear to the person in charge before passengers are taken.

Another couple of matters to draw to your attention; when running please ensure that the engine shed doors are shut when no members are in the vicinity. We have had a few instances recently of the public in the engine shed and it becomes a potential security problem with people's tools and belongings stored there. Please also remember to put the sign out on the Waipuna Road as we get a lot of rides from people driving by and seeing the sign.

Gary Farquhar

Jubilee Exhibition / Dinner Update

Thanks you to all those members who have sent in their Exhibit and dinner booking forms.

Response to the dinner event in particular has been very strong, the confirmation and the distribution of the dinner tickets is now being made upon payment.

Your dinner ticket will be required for entry and also includes a lucky number for a draw.

At time of writing there are still a handful of tickets remaining, so to avoid disappointment please don't delay in contacting either myself or Gary to book your seat.

Our exhibition team are now allotting space and the confirmation of your registration along with your model ID number. These will start to be sent out this month.

The letter accompanying this information includes a comment on insurance. Please note, if your models has been included on your home contents insurance policy then we recommend you clarify the situation with your insurer as the club cannot be held responsible nor accept any liability for loss or damage prior to, after, or during the exhibition.

Our club will be supplying the normal safety wire for those areas where small models are displayed. You will be free to attach your model to this.

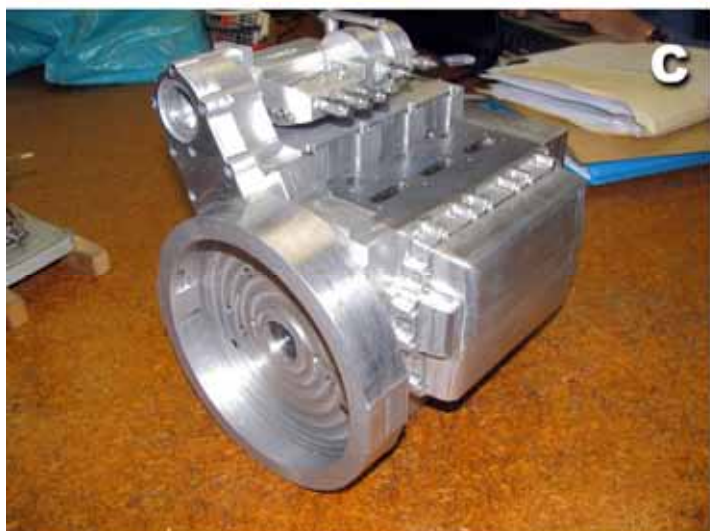


The exhibition hall is secured as part of the normal hotel complex but in addition to this the club will be fitting an electronic alarm to be used outside of exhibition hours.

Please do not delay in sending in all your exhibit registration forms, there are plenty of addition copies available at the club or just ring Alan Gasteen or Murray Lane for further copies.

That's all for this month, **Hugh Martin - Jubilee Convener**

Bits & Pieces, General meeting 2nd June 2009



A very accurately made vertical boiler about 6 inches in diameter was presented by Ron Copeland. This was beautifully made by a ship's engineer from scrap materials. The fit of all the tubes and foundation ring etc, is superb, and should **not** take a lot of silver solder to hold it together! Ron also showed a very nice vertical twin Warrior Mk2 engine, which may be destined for use on this boiler?

Photos A & B

The TS3 Commer Engine by Alan Foster has taken some huge leaps in construction over the past month, with the crankcase and covers all together. The injectors with variable cut off are in place, all looking very good. I'm glad Alan knows what goes where, as it's all a complicated mystery to me!

Photos C & D

Peter Woodford brought in a tale of 2stroke woe, but it turned out for the good as a few seconds later the melted piston of his RG250 could have caused a spot of bother in the corner. As Peter said, with high performance two strokes, one always drives with two fingers on the clutch lever. Having had this happen to me on the motorway at 110 kph, a seizure can be spectacular. But then, there is something magic about a well turned 2stroke at peak revs? All those horses out a small engine..... a symphony of pistons?

Photo E

Doug brought in a LOVLEY knife which was a present to him. These knives have a pedigree and a search on the internet shows some interesting facts. Before you read these excerpts, practice saying "La-yool" where you read "Laguiole". **Photo F**

Quote from Wikipedia..... (EVERYthings on Wiki!)

"The design dates from the early 19th century with a farmer's knife from the Laguiole village. The knife was first designed in 1829 and became the pattern for this style, its forged bee being its distinctive mark.

Such knives are produced by a number of unrelated companies in southern France, some 70% of production coming from Thiers, a long-established centre of the cutlery industry. Thanks to their elegant and distinctive lines, as well as fine craftsmanship and expensive materials, they have achieved the status of a design classic and are sold for high prices, sometimes running into hundreds of dollars. (Les French use them at table!? Whole families a have one each!? "Formidable")

As Laguiole designates a type of knife and is not a brand or trade name, Laguiole knives are manufactured globally. This has caused the market to be flooded with inexpensive knives made in Asia. These knives are of much lesser quality than the handmade knives from traditional manufacturers in the Laguiole region as well as from Thiers." (sic)

A foot-note about *another* French knife, though very useful, is not quite in the same league as the Laguiole, viz the Opinel. My son and I have shortened versions to carve chains out of wood when on holiday. It's useful as the blade can be locked in the open and closed position and has a comfortable, wooden (warm) handle.

"The Opinel knife was invented by Joseph Opinel in about 1895. By the start of World War II as many as 20 million had been sold. The company is still run by the Opinel family. There is an Opinel Museum (*Le Musée de l'Opinel*) at Saint-Jean-de-Maurienne.." ref: Wiki again.

"In 1985 the Victoria and Albert Museum in London published it's "Good Design Guide", a collection of the "100 most beautiful products in the world". One of those honored products was the Opinel knife." Yeesh! I wouldn't go that far, but if one sees beauty in function, then maybe?! (Like windmills?)

Bill Parker brought in the optic innards of a photocopier, to show the elegant simplicity in use these days. Like printers, the parts are small, cheap, but VERY accurate. Mass produced optics are an art and any minor imperfection would be magnified over the distance of the optical path. High speed electronics coupled with synchronized motor driven mirrors make it all possible. It seems a shame to biff the lot in the landfill, but what does one do with the parts? Lots of tinkerers on the E'net make the lasers work etc, but the ones in scanners are rated to be modulated at a high frequency and not run continuously, like the self exploding \$2 pointers. These only work because the cells in them cannot supply a high enough current to burn them out. A good design needs Voltage and Current regulation. Even a good heat sink doesn't always help as the local heat on the substrate can burn the laser out before the heat reaches the sink. (But at \$2 a pop, it's inexpensive fun!).

Committee Meeting notes – 9th June 2009

Auckland Society of Model Engineers Committee Notes 9 June 2009

The minutes of the previous meeting were read and confirmed as a true record.

Matters Arising: Gary has located some rollers which may be suitable for carrying out the smokebox maintenance.

We will continue to pursue the signal system and have it working by the Jubilee.

Correspondence:

IN – Royal NZ Foundation of the Blind.

OUT – Gary Briggs, Lion Foundation, Trillion Trust, Returned Services Association.

Finance: Statement of accounts, plus payments for approval, read and approved.

Sub Committees:

Boilers: Nil tested.

Works: Routine maintenance ongoing. Problems have been reported with the controller on the new engine. More details about forthcoming working bees will be announced at the general meeting preceding the working bee, and in the Micrometer.

Library: Nil.

Safety: There is a requirement to have a test drive around the track before the first passenger run on Sunday. (Refer clause 3.3.1 in the Operating Code)

Stores: Cadmium bearing silver solder now in stock.

New members: Andrew Murley, Ron Copeland.

General Business:

The engine shed is to be closed and secured during Sunday operating hours, as are the clubhouse and gate.

There are still ongoing issues with the lock at the main gate to the reserve.

A reply has still not been received from the council regarding the lease.

Grant is in communication with the badge company regarding faulty pins on the badges.

Forms for the Charities Commission and Companies Office were signed by some of the committee members.

In addition some applications for funding grants were signed.

It was agreed to replace the faulty lock on the ladies toilet.

Further discussion about insurance cover at the exhibition.

Notice to be given in Newsletter regarding new budget for the Jubilee

Classifieds

Wanted

I am in the process of looking for a steam engine to drive a 20 to 25 foot stern wheel paddle steamer. Would it be possible for you to either ask your members or place a note in your monthly newsletter asking if anyone has one for sale?

Stuart models England, have one the size that I am looking for which has the following specifications:

Bore 2 ½" & 4", Stroke 3"

Output 4BHP at 750 rpm, Working pressure 120 psi

I would prefer to, as the saying goes "shake our tree first" to see if anybody has one here in NZ that they would like to sell.

My email address is: river.cottage@xtra.co.nz

Kind regards
Leighton Collins

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

Around the Clubs, reviewed by Alan Emerson

Durban Society of Model Engineers, May / June 09

Interesting electric loco being built by one of the members, looks and sounds like a diesel but is powered by a car generator. Kits may be available in the future. Photos of some big hard drives. Article on opposed piston engines and a photo of a large ship's engine being transported on a truck. Write up on the Paton Express, sounds like a great project. More on the wooden windmill gears.

Steamers and Dreamers, Manukau Live Steamers, April / May 09

Very good photos and write up on the trip to Australia by some of the members. Good information on Duplex 2205 steel alloy and it's uses in boilers. Visit to Havelock North by Robert Patterson and his Hunslet. Photos and comments on the ASME visit to run smaller engines on the MLS track.

Mailship, May 09

Plenty of Club news and photos and an article on a tiki tour by one of the members.

Wheels and Floats, Tauranga, May 09

The life of Tony Ray who, sadly, passed away recently. More on Duplex 2005 alloy. Photos of the new trackwork using a concrete laying machine.

Southern Rails and Sails, Invercargill, Jun / July 09

A very ingenious jig to assemble model propeller blades using split pins. A tug that looks more like a flying saucer. Photo of the Dunedin Gas Works beam engine. Their Secretary is in the UK making great use of Britrail and other travel passes. Some serious model planes and track work at Signal Hill.

Mixed Traffic, Wanganui, May / July 09

The big show at the racecourse a great success. Good photos of various layouts and collections.

Sun City Express, Nelson, Autumn 09

Cover photos of night running and the restoration of an Avro Anson Mk 1.

Expansion Link, Hamilton, May 09

Club news and a proposal to hold a night run on the Sat 26th September 09.

Model Torque, Hawke's Bay, May 09

Good Club news and a great photo of Claire on her jigger.

The Keirunga Park Platform, Havelock North, Winter 09

Treatise on battery electric locos. A great model of a 1910 Mercer, two articles on 7 ¼" locos and thoughts on where have all the Model Engineers gone. Update on MEANZ.

Northern Views, Whangarei, May 09

Big cleanup around the track. An explanation of the Baldwin Class system. Visit to Motat. Article on the reinstated Welsh Railway.

Conrod, Otago, May 09

Cleaning and repairs to the boat pond going well. Cunning R/C model Tiger tank able to take pot shots at the local fauna. Great new Shay in 71/4' gauge up and running. Myford ML5 lathe for sale. The Great Little Train Show is to be held on the 29th and the 30th August.

Engine Booster, Los Angeles, May 09

Judging by the photos the City of Hope cancer Survivors Run was a great success. Coming up is the LALS Spring Meet with all manner of steam gear.

Blast Pipe, Hutt Valley and Maidstone, June 09

Cover photo of two traction engines going well, one complete with scale oiler upper. Happy people at the auction held recently. Photo of Murray Lane driving his Poem in 2008. Seems it has been sold and now sports a green livery.

Incredible Engineering: The Millau Bridge, Southern France

The Millau Bridge is in southern France and crosses the River Tarn in the Massif Central mountains. It was designed by the British architect Lord Foster and at 300m (984 feet) it is the highest road bridge in the world, weighing 36,000 tonnes. The central pillar is higher than the famous French icon, the Eiffel Tower. The Bridge opened in December 2004 and is possibly one of the most breath taking bridges ever built.



The bridge towers above the Tarn Valley and the

aim of Lord Foster was to design a bridge with the 'delicacy of a butter fly'. Lord Foster designed a bridge that enhances the natural beauty of the valley, with the environment dominating the scene rather than the bridge. The bridge appears to float on the clouds despite the fact that it has seven pillars and a roadway of 1½ miles in length. On first sight, the impression is of boats sailing on a sea of mist. The roadway threads through the seven pillars like thread through the eye of a needle.

The bridge was opened by President Jacques Chirac. In his speech he praised the design saying that it was a 'monument to French engineering genius' and 'a miracle of equilibrium'.

The bridge was entirely privately financed and cost 394 million euros (272 million pounds, 524 million dollars). The aim is to cut the travelling time to southern France, removing the bottle neck at Millau, through the completion of the motorway between Paris and the Mediterranean.

The bridge took only three years to complete with new engineering techniques being employed. The traditional method of building a cable stay bridge involves building sections of the deck (roadway) and using cranes to put them in position. Because of its height, 900 feet above the valley floor, a new technique had to be developed.

First, the towers were built in the usual way, with steel reinforced concrete.

The road way was built on either side of the valley and rolled into position, until it met with precision in the centre. This technique had never been tried before and it carried engineering risks. However, it proved to be an efficient method of deploying the roadway.