

Number 599

March
2015

The MICROMETER

AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED

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REGISTERED NEW ZEALAND PUBLICATION

For the Big Train buffs:

The recently restored NZR Ab608 "Passchendaele" seen double-heading a mixed goods with GVR Ww644, Labour Weekend 2014.

(Picture by Grant Anderson)





Train Roster

| Date | Electric Driver | Electric Driver | Steam Driver | Train Controller | Station / Guard | Station / Guard | Station / Guard |
|---|-----------------|-----------------|--------------|--------------------------|-------------------|-------------------|-----------------|
| 1-Mar-15 | R Reichardt | P Woodford | Voluntary | <u>T Robinson</u> | D Addis | J Burnett* | R Copeland |
| 8-Mar-15 am | B Aickin | I Ashley | Voluntary | <u>G Anderson</u> | J Clarke | R Crook* | J Davies |
| 8-Mar-15 pm | A Bailey | G Beazley | Voluntary | <u>D Russell</u> | G Dickey* | G Healy | P Jones |
| 15-Mar-15 | D Booth | B Cotton | Voluntary | <u>G Wills</u> | D Leybourne | M Luxton* | H Martin |
| 22-Mar-15 | P Dowdeswell | M Granger | Voluntary | <u>T Lawrence</u> | C Mitchell | G Murray* | A Pritchard |
| 29-Mar-15 | M Hollis | D Housley | Voluntary | <u>S Meikle</u> | J Olsen* | M Richardson | R Stratton |
| 5-Apr-15 | J Lankow | D Moffatt | Voluntary | <u>T Lawrence</u> | R Street* | P Tomkies/D A | ddis/G Taylor |
| 12-Apr-15 | M Moore | P Moy | Voluntary | <u>T Robinson</u> | J Burnett* | J Clarke | R Copeland |
| 19-Apr-15 | M Plant | R Reichardt | Voluntary | <u>G Anderson</u> | R Crook* | J Davies | G Dickey |
| 26-Apr-15 | P Woodford | B Aickin | Voluntary | <u>D Russell</u> | G Healy | P Jones* | D Leybourne |
| Please Note: | | | | | | | |
| There are two rosters for the Panmure Basin Festival Day on the 8th March 2015. | | | | | | | |
| Morning shift is 11:00am through 2:00pm, Afternoon shift as usual 1:00pm through 4:00pm. | | | | | | | |
| (So there is a 1 hour cross over for members to arrange lunch breaks) | | | | | | | |

Bold and Underlined Name:

This is the designated **Train Controller**, i.e. the person in overall control of all operations for the day

Bold with Asterisked* Name:

This is the designated Stationmaster, i.e. the person responsible for activities in the station area.

The Stationmaster is also responsible to account for the day's takings.

Drivers: Please keep your eyes open for unusual or suspicious behaviour around the track which may affect the safety and/or smooth operation of our trains. Report such activity to the Train Controller.

Please Note:

If for some reason you are unable to attend on 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.

Also, please ensure the member you arrange a swap with is one who is rostered to undertake the same role to ensure we always have members with the appropriate training and experience on the day.

A Message from David Black

Some of our most treasured possessions at the Club are our brittle old copies of the *Model Engineer* dating back to Volume 1 in 1898. The Journal transports us back to the days of cycling home from work and after tea, uncovering the lathe, taking special care to avoid falling foul of the household authorities and there, using a minimum of tools, with scavenged materials, making miraculous models. Equipment was in short supply, often expensive and primitive. Money was a scarce resource too but spare time was abundant to the point of boredom for those without an absorbing hobby. Hard times had bred a culture of make-do and mend in which the model engineer was a champion. All this *Model Engineer* recorded in an eloquent fashion which we still enjoy. We treasure that heritage.

The work was both modelling and experimental, hence the earlier name of ASME "The Auckland Society of Model and Experimental Engineers". Much of the modelling was contemporary celebration of the great machines of the time, steam locomotives. Most model engineers were modelling the present, not the past even though modern workshop equipment was limited by availability and funds.

Much of this is different now. We are still experimental engineers, perhaps even more so, but we have mercifully shortened our cumbersome name. Modelling steam locomotives is no longer a celebration of the present but an exercise in celebrating and recording what has been and gone. In fact, some of the most enduring tributes to these magnificent machines in the long term will be the working models we and our friends have built. Disposable income for many is somewhat greater nowadays but for those still at work, which is most of us, the scarce resource is discretionary spare time. Equipment is for the most part much cheaper, better and readily available. A sound but primitive lathe capable of building a 5" gauge loco, at most, once cost the equivalent of a year's salary. Today a sophisticated machine capable of 7 ¼", with digital readout, suds, variable speed control and a set of accessories can be readily bought in Auckland for about a tenth of the average annual salary. The make-do and mend skills perfected by our fathers are ridiculed by the throw-away society, although not by us. Communication has undergone a stunning revolution largely as a result of the internet and the worldwide web. We seem to, as the saying goes, live in a different world.

But we still love our old machines and we often collect and trade in artefacts others might call junk. Some of us so much that we spend more time restoring and maintaining old machines than making models. Of course there's nothing wrong with that, it's our hobby and we should do what pleases us. But make no mistake, for newcomers to model engineering the fastest path to tangible results is modern equipment and techniques and it seems to me important not to get bogged down in past practices and techniques which although interesting have often been well and truly overtaken. Unless, of course it is your special interest to do so. There are some splendid new opportunities now. Drawing on computers (CAD) can make design easier and more secure. Recently, patternmaking has been potentially revolutionised by 3D printing well within the reach of model engineers, opening new opportunities for making castings.

The committee is listening carefully to the members' interests. At the last general meeting the suggestions for meeting entertainment provided important and valued guidance. We will be upgrading the library with some more modern books. Many of the old ones are rarely if ever used. Any disposals though will be the subject of careful member consultations. We will extend our books and journal subscriptions further into Asia and North America where "home shop machining" remains alive and well. We will upgrade our video projection facilities at the clubrooms to enhance our meetings. We will connect the clubrooms to the internet at high speed, hopefully by fibre.

Our meetings this year will try to address some of these opportunities we have now and the club will help our members realise them.

ASME remains proud of its heritage which we will protect and enhance. At the same time the committee is aware that in order to maintain relevance for future members we need to live in the present and think about the future. This year ASME begins that process of renewal. What a wonderful base and heritage we have to start from.

David Black

President

Track and Trolley Project

To mark the re-opening of the entire track for Sunday running and a huge milestone in the progress of Stage 1 of the track upgrade, Grant Anderson downed tools and celebrated with some circuits of the completed track behind his steamer "Hotpot". He sent in these photos and a brief explanation:

"As per our recent conversation, I attach some representative photos taken on Hotpot's first session of runs around the fully altered ASME mainline after work was completed on Saturday 31st January. I steamed up about 6.30pm and Jan & I made 8 runs around the full 650 metres using Greville's new 7.25g trolley (note the seat back-rest), the last after dinner being a twice-round non-stop run (1.2km) in the dark at 9.15pm - headlight (and cab-light) on as appropriate. It was most satisfying to be able to run on the whole track again from Waipuna Junction after a break of 15 months.

P.S. Also you may like to view this:

<https://www.youtube.com/watch?v=yWIUBshNJ-E&feature=youtu.be> "



Track and Trolley Project Update

On Sunday, February 1, Waipuna Station re-opened for public running after the major part of Stage 1 had been completed the day before. Not all of Stage 1 has been finished, but enough has been done to enable safe and smooth running on the whole layout to resume.



The EC loco, hauling new 7-1/4" gauge trolleys awaits the loading of passengers at Waipuna Station. At present, only one line exists - a new passing loop will be added later. Note the makeshift nature of the track supports in the foreground. This is where points will be installed to enable access to this end of the proposed additions.

A train-load of happy passengers passes under the rebuilt girder bridge and approaches the 3-way bridge. Murray Hollis driving, Tony Lawrence doing guard duty.



The train emerges from the long tunnel into a carpet of foliage fallen from nearby trees.

A guard's-eye view of the approach to the girder bridge. The camera exaggerates the sharpness of the curve leading onto the bridge.



Rounding Smokebox Corner. Tony takes a turn at the regulator.

Next General Meeting: Tuesday 3 March, 7.30pm.

For the entertainment David Black will show some vintage video from his collection.

Classified Ad

For Sale: Engineer's vice. 5-inch jaws. Unused.

Retail value \$180.

Best offer before March 31st 2015.

Phone Alan Pritchard, 09 5772013.

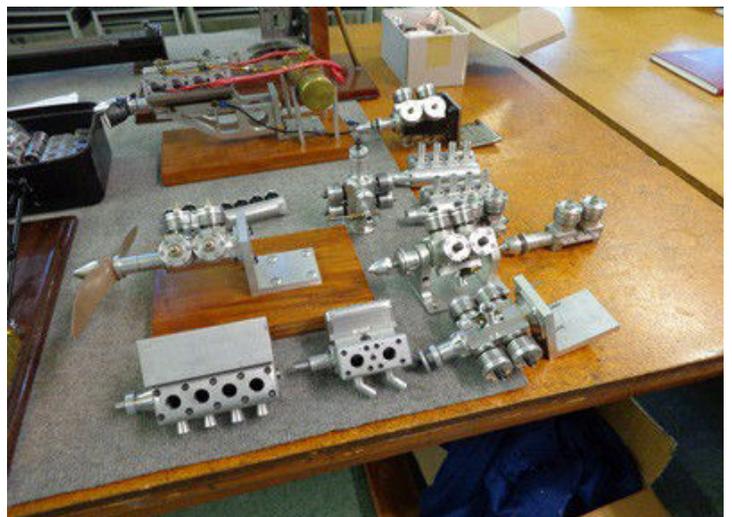
Bits and Pieces February 3 2015

Conducted by Gary Farquhar, photos by Greville Wills, report by Dave Housley.



A fixture brought in by Grant Anderson for the manufacture of springs on his lathe. He tempered them in the oven at 250 Degrees C, and also his leaf springs had the same treatment.

A visitor, Dean Clarke from Cambridge, brought in a wonderful array of engines and machined components all from his own designs, and taken only 3 years to reach this point. He says he will be back when the V12 is running!



One of three light gauge sheet metal folders that Graeme Murray is doing up for a friend. They are for sale. Anybody interested contact Graeme.



(What's left of) a piston from the drag car which now holds the NZ record for the standing quarter mile at 4.98 secs. This is what happens when the engine controls allow over revving!

Brought in by Pete Tomkies.

What is it? Brought in by John Olsen.

(Several suggestions were offered, but according to Google it is a Bonum2001 multi-purpose scraper).

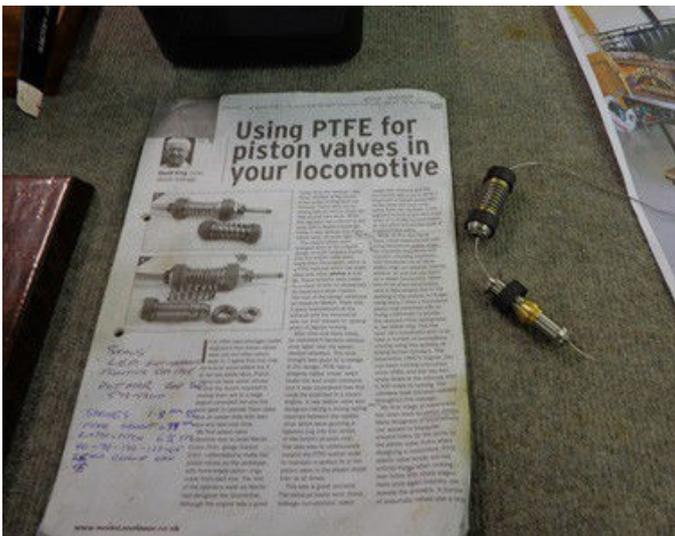
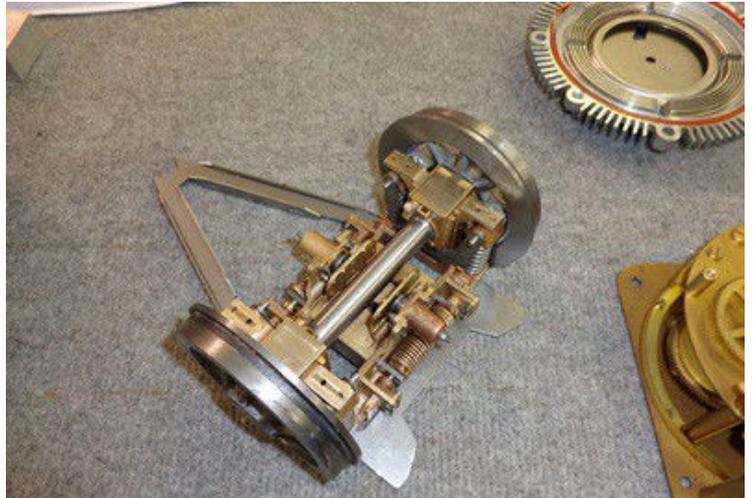


John also displayed an electro/mechanical time switch.



The stripped-out fluid coupling from the cooling fan of Greg Burrows's vehicle. It had done only 24000 km. The autopsy revealed a bearing cage collapse. Also from Greg, an aluminium fixture to hold components to be machined (not shown).

A front pony of one of the locos Mike Jack is building (when not overseas). All made to scale from works drawings and the lost wax patterns for the castings were printed up on his 3D printer.



PTFE piston valves made by Mike Banks. Trials were conducted to assess expansion rates of the plastic and working clearances. Now requires a steam test to prove the theory.

A two way load cell and read out unit which Greville is going to put on the dynamometer car.



Around The Clubs

March 2015

Reviewed by Tony Lawrence.

Please note that as most of these Newsletters arrive by email nowadays, there are an ever diminishing number of them being filed in the folders at the clubrooms. However a good portion of these letters are available in the Public Domain at the respective Club websites.

Slipstream, Auckland Model Aero Club – February 2015

Again, lots of good photos of models at Club night held in the ASME clubrooms. Reports on flying days at Aka Aka, and Hoteo. Results from recently held National Competition in which the Club ranked third overall, combined with an impressive list of individual achievements.

Big Wheels News, The Steam Locomotive Society of Victoria Inc. – January/February 2015

Clearing of vegetation over Christmas break to enable new track extension to proceed. Confirmation of deal with local school for another year to supply keen young gardeners to help maintain the Club track. Great photos of a nice looking 5" gauge Nigel Gresley G.N.R 2.8.0. loco, which won its owner the annual Marcus Traylen Trophy award. Other award photos as well. Article and photos of a recently held weekend Cub Scout camp at the Club track and grounds. Tents were pitched, food was cooked, a steam loco was fired and driven, and the 24 kids and 4 leaders did an hour of weeding as a thank you gesture!.

Northern Views, Whangarei Model Engineering Club Inc. – February 2015

A great turnout for their Anniversary weekend event. Dave Giles delivered his newly built petrol/electric loco for Club use. Dave spent the day teaching the proud new owners how to drive the aptly nicknamed "beast" At present this is a working chassis, the Club yet to decide a final body style. Interesting article about the "Breitspurbahn", a 3-metre gauge railway promoted by Hitler to connect the major cities of an expanded Germany. It was proposed to have Electric or Steam locomotives in the 15,000 to 25,000 horsepower range! Passenger trains were proposed to carry up to 4,000 passengers at 200 km/hr. on a concrete roadbed. However, those pesky Allies started to win the War, and ensured that this project, and other such proposals, never got off of the drawing board.

The Expansion Link, Hamilton Model Engineers Inc. – February 2015

President having a moan about members not turning up to help on public run days. Oh dear! Referral to an incident wherein a Guard was abused by a parent for stopping a train and chastising a child (who was dragging her feet on the track). The parent demanded an apology to the child! Makes me quite pleased that I have never had this happen at ASME in the last five years I have been attending our running days.

Nice colour photo of the new “Dog box/Tunnel, being constructed from a 40 foot sea container, with a well-constructed chalet style pitched timber framed roof taking shape. Photo also of the new club loco, a 7.25 inch gauge, ALCO PA1, in Santa Fe livery.

Blast Pipe, Hutt Valley M.E.S and Maidstone M.E.S – February 2015

Clubroom repairs are progressing well. Great photos of December Club meeting and the recent Waitangi Weekend Event, including a smart looking 3 inch scale Case traction engine driving an impressive working breakdown saw bench, a “Folio” clock made from Meccano parts and assorted gears from the junk bin, a newly completed Quorn tool grinder, and a solid works design for a simple horizontal steam engine Pictures and article about a unique portable steam engine found on D.O.C. land at Awaroa.

Eastern Bay of Plenty Model Engineers Inc., Whakatane – January/February 2015

Some great running days were recorded over the Christmas break, with a record 500 passengers on 28th of December. Great pics of locos and rolling stock, including an impressive, finely detailed 7.25 inch gauge U.P diesel, complete with working cooling fans. Also a passenger ride car that has been converted to a disability friendly carriage. A chain ratings and capacity chart is attached to this newsletter.

Sun City Express, Nelson Society of Modellers Inc. – January/February 2015

Two pages of photos of activity over the holiday period, with Club members and many out of town visitors attending with their engines. The Club appears to be having a weed problem in the boat pond, possibly from lack of use as the Council is considering the option of filling the pond in with dirt. Most of the weed was removed by a Council contractor, using hand rakes and shovels, about 1 tonne per Day. Then Envirowaste Ltd. loaned a big vacuum suction truck which removed 5 tonnes of weed in four hours! The club has obtained 10 First Aid Kits, and has decreed that one shall be carried on each train on running days.

More Common Tools Explained:

To the uninitiated, the workshop can be an intimidating place, full of tools you may not know what to do with. To help, here's a helpful explanation of common tools and their uses.

HACKSAW:

One of a family of cutting tools built on the Ouija board principle. It transforms human energy into a crooked, unpredictable motion, and the more you attempt to influence its course, the more dismal your future becomes.

WISE-GRIPS:

Generally used after pliers to completely round off bolt heads. If nothing else is available, they can also be used to transfer intense welding heat to the palm of your hand.

WELDING GLOVES:

Heavy duty leather gloves used to prolong the conduction of intense welding heat to the palm of your hand.

OXYACETYLENE TORCH:

Used almost entirely for setting various flammable objects in your workshop on fire. Also handy for igniting the grease inside the wheel hub you want the bearing race out of.