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The MICROMETER

AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED

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REGISTERED NEW ZEALAND PUBLICATION

Ex ASME diesel loco spotted at MLS

Photo of old ASME diesel loco Grant Anderson took at MLS earlier this year - owner Colin Batt (that's him driving). His Dad & Mum were ASME members years ago and responsible for many of the plantings around the site





Train Roster

Date	Electric Driver	Electric Driver	Steam Driver	Train Controller	Station / Guard	Station / Guard	Station / Guard	Station / Guard
2-Aug-15	P Moy	R Reichardt	Voluntary	<u>T Lawrence</u>	G Healy	P Jones	M Luxton*	
9-Aug-15	P Woodford	B Aickin	Voluntary	<u>D Black</u>	H Martin	C Mitchell*	G Murray	
16-Aug-15	I Ashley	A Bailey	Voluntary	<u>S Meikle</u>	A Pritchard	K Ryan*	A Shirley	
23-Aug-15	G Beazley	D Booth	Voluntary	<u>G Wills</u>	M Richardson*	R Stratton	R Street	
30-Aug-15	B Cotton	P Dowdeswell	Voluntary	<u>T Robinson</u>	G Taylor	P Tomkies*	D Addis	
6-Sep-15	M Granger	M Hollis	Voluntary	<u>D Russell</u>	R Copeland	R Crook*	J Davies	J Burnett
13-Sep-15	D Housley	J Lankow	Voluntary	<u>T Lawrence</u>	G Healy	P Jones	M Luxton*	G Dickey
20-Sep-15	P Moy	D Moffatt	Voluntary	<u>S Meikle</u>	C Mitchell	G Murray*	A Pritchard	H Martin
27-Sep-15	M Moore	M Plant	Voluntary	<u>G Anderson</u>	M Richardson	K Ryan*	A Shirley	R Street

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 Asterisk* 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.

President's Report

At last month's special general meeting the resolution was passed which enables the committee to get on with completing the track and trolley project as quickly as possible. The sum of money authorised by the members can only be available if it is raised from external sources and the committee is mindful of the need for the club to retain substantial cash reserves at all times. As this work proceeds full details of both proposals for work, application for funding and accrued expenditure will be available to the members at every general meeting.

Many members have reported frequent requests from our passengers for a return of more steam locomotives on the railway. Several meetings ago, I raised the possibility of the club eventually purchasing a 7 ¼ inch gauge locomotive. There has been a lot of interest in and positive feedback about this idea so we have progressed it a little further. We have established that it would be possible for the club to buy the suitable engine at a price which could be sustained by a syndicate of members investing a few thousand dollars each (by a few I mean up to six or seven!). The idea would be that the engine would be owned by this group and leased to the club on a peppercorn basis for a few years until the club might be in a position to purchase the engine. It may be early days with regard to this idea but suitable engines are available now and if there is enough interest we could progress it at any time.

Attendance at Sunday running has improved markedly but there are still significant absences by people who according to our records should still be on the roster. This is extremely difficult for those who attend to run the railway and we have to do something about it. We are only saved by the persistent presence of several members who turn up regularly without being rostered. Of course we could limit the roster to those who actually turn up but that is contrary to the principle of the club membership which depends on participating in the railway running which pays the bills. Various strategies have been floated including charging high subscriptions with remission for attendance or service to the club such as operation of the railway or membership of the committee. Greville has run the figures for this and the result is a bit alarming; we will probably have to make the base membership several hundred dollars per annum! There are a few other possibilities such as naming and shaming in the newsletter but that's hardly the way we want to treat our friends, surely there must be a better way to solve the problem. We need to talk about this because there will have to be some solution put forward to this year's annual general meeting in December and it obviously should be one which has a reasonable level of support before going to the meeting.

Now that our audit is complete our rulebook has been reprinted and is available to members who operate the railway on request. Remember that this is now an Internet-based living document so that any copy, including those that the club distributes are only up-to-date at the time of printing. This is a standard way of doing things these days however any changes will always be notified at general meetings and in the newsletter.

There have been a few concerns about safety and the station and a bit of misunderstanding about the rules for responsibility for trains in the station area and regarding dispatching. That will be discussed at the August meeting. I look forward to seeing you there.

David Black

President

CLUB NEWS

Many thanks to those members who turned up for the working bee on July 11th. A lot of cleaning-up was achieved and the clubhouse area looks a lot tidier once again.

Special thanks to **Tony Lawrence** who hauled away three trailer-loads of concrete rubble for recycling, and special thanks also to **GREEN VISION RECYCLING** for waiving the tipping fee when Tony told them the concrete came from the club!

Much tidying of shrubbery, especially under the trestle bridge near the clubhouse was done by **Mike Banks**.

AUGUST CALENDAR

Tuesday August 4th, 7.30pm - General Meeting, ASME clubrooms.

- At tonight's meeting our member Greg Burrows will present an illustrated talk on his recent visits to Los Angeles Live Steamers, the Rocky Mountaineer and the White Pass and Yukon Railway.

- And in **Bits and Pieces** Mike Banks will be showing (and running) his nearly-completed Great Western King-class locomotive in 5" gauge. This is a great opportunity for a close-up look at this meticulously crafted 4-cylinder loco.

(Here is a sneak preview, taken in Mike's workshop while running on compressed air:)



Saturday August 8th, 9am - General working bee at the track

Tuesday August 18th, 7.30pm - Committee Meeting

Coming up - Club fun-run day on Saturday October 10th.

- Big Boys Toys exhibition, October 30th—November 1st. We need contributors to display their work, people to man our display in The Shed pavilion, and someone to take charge of organising all of the above. This is a great opportunity to show the world what ASME and Model Engineering in general is all about. Please indicate your willingness to take part to a member of the committee as soon as possible. There is a lot of work to be done to get this show on the road!

Bits and Pieces July 7 2015

Conducted by Peter Woodford, with photos by Greville Wills and reports by the Editor.



Mike Banks brought along a souvenir of his years as an aircraft engineer. It is a (used) turbine blade from a Rolls-Royce RB211 jet engine. Made from a cobalt-nickel alloy it is hollow to allow cooling air to flow through from end to end while hurtling around at 20,000rpm.

These red disks were made by Dave Housley on a 3D printer. They are made of PLA (polylactic acid) which is a biodegradable thermoplastic .



Bob Aickin presented some railway spikes and a small anvil made from a piece of rail.

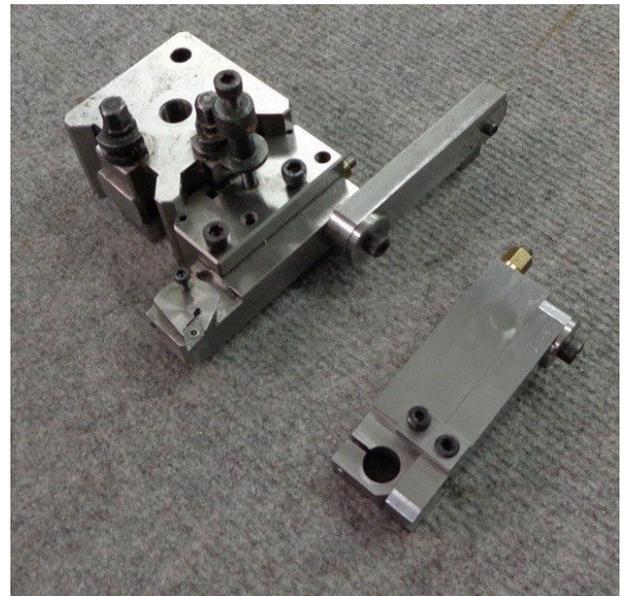


Now that he has finished his loco, Greg Burrows has started building a 4 1/2" Foden steam truck. These are some parts of the steering linkage that he has made.



Peter Tomkies was looking for something in a drawer (as you do) and came across these Trans Australian Railway brochures, souvenirs from his and his wife's honeymoon many years ago. This was back in the time just before standard gauge railway was laid all the way to Perth, and so it was necessary to change trains four times during the journey from Melbourne to Perth because of the different gauges encountered on the way. The breakfast menus looked inviting!

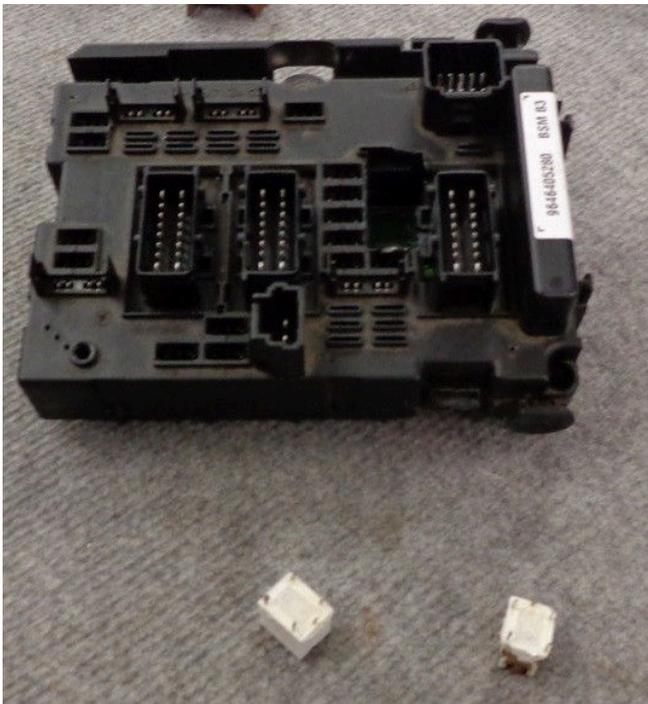
Graeme Murray, inventor of many things, brought in a number of bits and pieces this month. First, a lathe tool holder with a unique method of altering the angle of the cutter without disturbing the rest of the set-up so that a number of different cuts can be made in quick succession. The cutter is mounted on a small vertical spindle which is retained in place by a long grub screw from the back of the tool holder.



Next, Graeme showed how he increased the usefulness of his watchmaker's lathe by removing its head stock and mounting it on a bracket to enable it to be used as part of his regular lathe. A small motor was added, which is powered by a separate supply/ speed control. The set-up allows Graeme to cut small things while using the DROs attached to the bigger lathe.

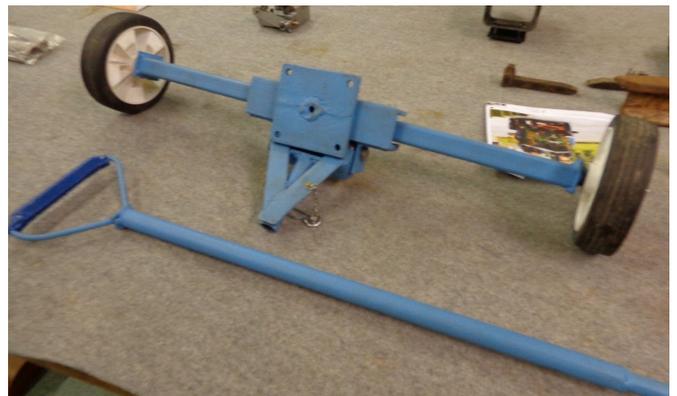


Finally, although Graeme has built many things, he has not yet built a steam engine. But he is in the process of rectifying this situation by building a model of Rocket. He was given these Tich boiler parts by a friend some time ago and intends to use them to help learn the art of silver soldering.



Timothy Robinson brought in this base of a fusebox out of a Peugeot 406. It was (apparently) made by mounting all the fuse connectors etc on a printed circuit board after which the plastic was moulded onto the top. It was not designed to be repaired! However, there are a couple of tiny relays in the middle of the board which control the headlights, and these had died. What to do? Pay \$800+ for a whole new assembly? Or what Tim did - he made a cutting tool out of a hacksaw blade and heated it up with a gas torch in order to melt/cut a hole through the plastic to access the relays, after which it was a relatively simple matter to unsolder the relays from the circuit board and replace them.

Last month Greville Wills showed us a set of back wheels he made for a cheap (wheelless) portable generator his son had bought. Tonight he showed us the "front suspension" he has just completed for the same unit. And very classy it looks, too!



Heaps of Rubbers

Wot are you talking about??? Well, for the Track & Trolley Project, ASME needed heaps of rubbers – rubber “insulators” that is! About 3,770 in number (give or take a few). Cut to 300 x 30mm in size with half having a 14mm hole. These were made to go under the steel sleepers, sitting on the concrete base and are intended to reduce noise.

Well, getting the rubber sheet material was easy enough – with information from Paul Newton of the Cambridge Club, an approach to Paykels produced a long length of used conveyor belting. In addition, Greville Wills lined up a section of rubber belting courtesy of ex-member Steve Day. These had to be cleaned – towards the end we found waterblasting the rubber before it was cut was easiest - then cut to sizes that could be manhandled - about 610mm long by the width of the roll (about 900mm). Then these pieces could be cut to the final sleeper size.

Several members had a go – at first, a Stanley knife worked but was extremely hard on the hands and very, very slow. Then two members worked out that it could be cut on a saw bench. Graeme Murray, our experimental and inventor extraordinaire, put a lot of time and fine tuning into a system to ultimately produce about 90% of the insulators in his home workshop.



The photos show cutting in progress on Graeme's saw bench ...

and his refinements designed to (1) hold the rubber down on the table and (2) hold the rubber apart while cutting was in progress. Dust and a rubber odour were an unfortunate by-product of the cutting process. Eventually, Graeme set up his vac system (not included in these photos) to control the worst effects of these nuisances, much to Jocelyn's glee!



The conveyor belting varied in thickness from about 4 to 9mm depending on the amount of wear on the belting, naturally thinner in the middle of the belt. Cutting length-wise was important so a uniform thickness would result for each individual insulator. Then these all had to be graded by thickness so that they could be used in common thickness batches on each section of rebuilt track.

An interesting addition was a spring-loaded ball inserted “up the spout”. Graeme cut the holes with this tool chucked in the drill press and turning at about 400rpm and then “drilling” through the insulator – initially a few drops of water were used as a lubricant, but latterly this was found unnecessary so long as the tool edge was kept keen. As the tool cut through, the sprung loaded ball then ejected the rubber “plug” through the centre hole in the table and into the waste bin below – each hole was cut in less than 10 seconds.



So join me in expressing ASME's gratitude to Graeme on coming up with a really workable solution to a difficult problem. And also to cutting and drilling the bulk of the insulators required.

Grant Anderson – 23 June 2015.

From the Old Photo department.



This photo came from Grant Anderson, who says it was sent in by a passenger a few weeks ago - "He had his son down for a ride and showed me a photo taken when his dad had him down for a ride in 1982 - one can see the changes made by the club over the past 30 years! Some member may be able to identify the driver/loco? [The passenger] writes:

"My dad and I are on the train and my brother is in the pushchair. I bring my children now and they are as excited by the railway as I was. The back of the photo is dated February 1982 - Tom Parker."

Presumably, that is the driver in the overalls standing by the track, possibly trying to get a ciinder out of his eye. (No, he is NOT using a mobile phone! (In 1982??)).

Grant continues, "The photo is taken at the (old) station looking back to the passenger unloading area and the 3 way bridge (then less than 4 years old) behind. Beyond that (on the left) is the grade up to the long tunnel. Note this is before the extension with its timber viaducts. I'm glad he scanned and sent it to me - great to have this bit of history."

FOR SALE

230v Single-phase motor, 1.85 kW. (2.5hp)

This is a lot of grunt for a single-phase motor!

It was bought for a particular job, but was never used, so is effectively as-new.

Price \$250.

Phone Mike Banks, 537 3484.



FOR SALE

The old overhead projector from the clubhouse. Still goes well, but recently replaced by a more up-to-date model.

Anyone interested, talk to David Black.

FOR SALE

Castings, frame/buffer steel and drawings for "Jubilee" 2-6-4T locomotive 3-1/2" gauge
Design by Martin Evans.

Castings by Reeves.

\$600.00. Offers considered

Contact Ian Davis

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