

# The MICROMETER

AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED

PO Box 14570, Panmure, Auckland 1072, NEW ZEALAND

Club House: Peterson Reserve, off Peterson Road, Mt Wellington, Auckland 1060

Number 671

September  
2021

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Timothy completed the jig for the safety fence at the smokebox corner, and welded up the first two panels with material that Allan Bailey and Grant had prepared over the last few Saturday working bees. The posts for these panels are completed, they have had a successful trial fitting, ready to be sent to the galvaniser. Eventually another 20 similar panels will need

# ***President's Report***

***September 2021***

Hi to you all, and I trust life is treating you well. Here we are in lockdown again, and once again it may be some time before we can get back into regular club activities. The committee have been using Zoom meetings on a regular basis during the past year and this has proved satisfactory as far as saving time, reducing carbon emissions, and enabling meetings during restrictions. We are now considering using this format for General Meetings while covid restrictions are in place so watch for developments shortly.

Murray Granger has recently suffered a brain bleed and is currently in hospital (according to Jill the food is still not recommended by Murray), so we wish him all the best with his recovery, though these things can take some time.

For now though, like me, I am sure most of you will have plenty of projects to keep us busy, even if the weather doesn't encourage time spent in a cold workshop. Keep at it, and feel free to send photos of things you are doing, along with any interesting/strange things you see going on, to David Black for the newsletter. I have just read the latest Killimarrsh Eyestrain newsletter which has a photo of a blackboard outside a shop reading;

Note: some of our books have been moved. Travel is now under Fantasy, Sci-Fi is under Current Affairs, and Epidemiology is now under Self Help.

Maintaining a sense of humour is essential at the moment though it can be difficult to express a smile when you are wearing a mask!

Do your best, and we will meet up again soon, one way or another,

Cheers,

Mike Moore.

President Mike is recommending that all members read the MEANZ update sent as a separate attachment in May. ASME is an active member of MEANZ, members should keep a lookout on the website too <http://www.pnmec.org.nz/meanz.php>, a good place to find other clubs when you are travelling. Just like us, our friends nationwide always welcome visitors.

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## **AUGUST CALENDAR** **(Subject to COVID levels)**

- Tuesday September 7th, 7.30 pm** - General Meeting ZOOM TRIAL  
**Tuesday September 14th, 7.30 pm** - Workshop Night, TBA  
**Tuesday September 21st, 7.30 pm** - Committee Meeting, TBA



# Train Roster

## ASME

## DUTY ROSTER

Date	Electric Driver	Electric Driver	Steam Driver	Train Controller	Station / Guard	Station / Guard
5-Sep-21	B Matchett	M Hollis	Voluntary	<u>D Russell</u>	D Beecher*	J Anderson
12-Sep-21	K Ryan	D Housley	Voluntary	<u>G Wills</u>	D Wilson*	A van Zon
19-Sep-21	M Moore	M Plant	Voluntary	<u>B Aickin</u>	L Brown*	R Shearer
26-Sep-21	J Lankow	R Reichardt	Voluntary	<u>P Dowdeswell</u>	R Crook*	M Vickers
3-Oct-21	A Shirley	P Woodford	Voluntary	<u>T Lawrence</u>	M Luxton*	D Beecher
10-Oct-21	I Ashley	A Bailey	Voluntary	<u>D Black</u>	B Matchett*	A van Zon
17-Oct-21	G Beazley	M Hollis	Voluntary	<u>S Meikle</u>	A Stratton*	R Shearer
24-Oct-21	D Housley	J Lankow	Voluntary	<u>T Robinson</u>	D Wilson*	J Anderson
31-Oct-21	M Moore	R Reichardt	Voluntary	<u>D Russell</u>	M Vickers*	K Ryan

**Bold and Underlined** Name = **Train Controller**, i.e. the person in overall control of all operations for the day

**Bold with Asterisked\*** Name = **Stationmaster**, i.e. the person responsible for activities in the station area and for the day's takings.

**At the date of publishing Auckland is still at COVID Alert Level 4  
Track running will not resume until Level One**

### 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. **Note: the Train Controllers for both affected days must be informed of the swap in advance. It is the responsibility of the person who initiated the swap to do this.** Also advise Bob Aickin who is keeping track of the number of duties each of us perform during the year.

The details of the swap should be noted in the Run Book.

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.

# Club Notices

## **Help Wanted**

Greville has been busy converting A&G Price 5" gauge trolleys to run on our 7-1/4" gauge track and has now finished the second one. But there are still 2 more to do, and he would like some assistance with these.

is quite involved, but Greville has produced all the parts required in the form of a kit, along with a comprehensive set of instructions, to make the job as easy as possible. If any member can help with this work, please contact Greville.

## **Missing Magazines**

Model Engineer – Vol 216 No 4529, 4530; Vol 218 4562; Vol 222 4609; Vol 224 No 4636.

Model Engineer Workshop – No 240 April 2016 Live Steam – Vol 51 No 1, 2, 3 (2017)

Mike Jack is organising scanning & printing of the missing magazines so that the (currently) incomplete volumes will soon be able to be bound and available to members.

## **Beejax Patterns**

The Beejax (an improved Ajax) was designed by ASME member the late Geth Creagh.

**They have been found in the ASME basement—contact Mike Banks!**

## Bits and Pieces – 6th July 2021 and 3<sup>rd</sup> August 2021

### Photos and report by Dave Russell.

*Due to my moving house and my PC, Camera and notes being packed in one of the many boxes I did not have a report last month. So here is a double dose of goodies.*

First off **in July** we had a visitor **Geoff Brewer** who collects scale model roading equipment, Geoff has scratch built the model scraper from scratch and a fine model it is. He also has a Stuart Turner Triple Expansion kit that he would like to build, he has had it for years. Welcome Geoff, we look forward to seeing the parts of the S.T. as it progresses.



**Dave Housley** has made some progress on his 0-6-0 version of a Beejax 5" loco, with frames, stretchers and axle boxes all assembled.



This item that looks like a small air drill is actually a valve lapping tool as used by **Mike Banks** in the Aircraft Industry (a flash version of a sucker on a stick). Mike also brought in a knife looking tool that was used for cutting out sections of alloy to repair or patch areas on aircraft. These were items used by Mike in his career as an Aircraft Engineer.



**Grant Anderson** showed us some pieces under construction for the new safety fence being built by club works group. The fence will run round the curve on the downward section of track from the pedestrian underpass, past the Smokebox and Loading area, a job that has been in the planning for quite a while.



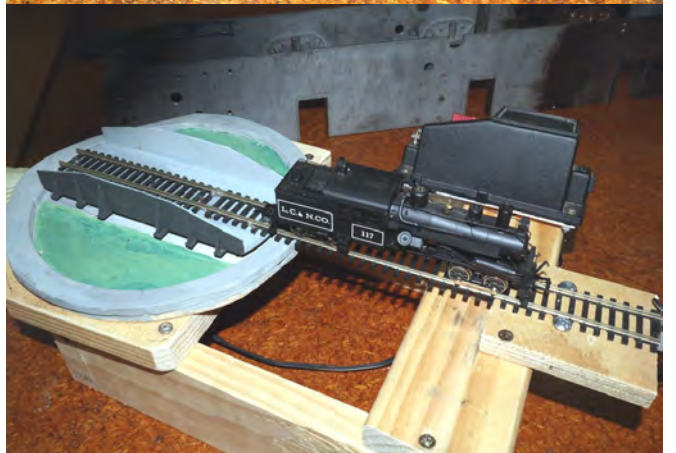
**Mike Jack** needed some 1/12<sup>th</sup> scale Admiralty Pattern treadplate, and for Mike who has a CNC machining centre and the knowledge to use it to its limits just milled some up on some brass plate. The cutter used was a .5mm Ball Nose, the oblongs on the are only .2mm deep.



This small boiler and fittings are being made for a little, freelance, garden railway, Baldwin Style locomotive that **Murray Hollis** is building, a nice job and we look forward to seeing more parts as this project progresses.



**Bob Aiken** has done some more work on his HO railway turntable and was showing off how when the table turns a series of brushes and brass contacts reverse the polarity of the track so that the locomotive can move in the desired direction once turned around.



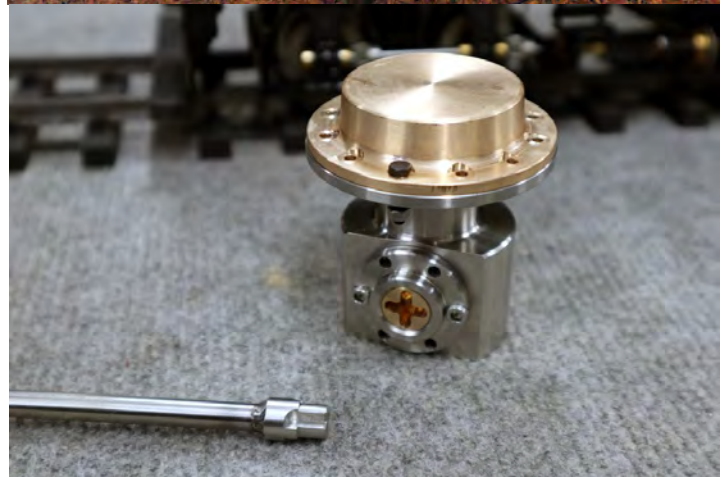
This job that **Mike Jack** was contracted to produce is a 1/24<sup>th</sup> scale, J-Stone brand steam generator, Mike has had this investment cast using the silicone mould shown to produce the wax pattern.



The last item for July is a flat plate machined on one side by **Mike Jack** using the old shaper that he restored to better than new condition, the finish is very good indeed and we know Mike will find many uses for the shaper.



The first item on the table at the **August meeting** was a rather fine Steam Regulator for a Rebuilt Royal Scott locomotive in 5" gauge. The locomotive is being built by **Les Brown**, great piece of work Les.



**Peter Woodford** is a bit of a collet guru and he brought along a range of different types to show and explain the advantages and disadvantages of various types. There was the 5C and it is very fussy about holding the correct size material with very little tolerance. There was an “emergency” collet that could be bored to a particular size in situ. The chunky Bernard style was fine as long as it was holding a piece as long as the gripping part, Peter said you would want at least  $\frac{3}{4}$ ” of the material in the collet or it could work its way out. Last but not least was an ER32 holder with a Square backing to it allowing set up in the four jaw chuck.



This Cylinder casting is the reason **Mike Jack** initially purchased his 3D wax printer, although Mike has produced many items using wax’s from the printer, cost of medium and volume are making the viability harder. Still Mike continues to produce many castings for clients all over the world such as the bronze name plates shown for a man who has completely rebuilt an RF30 type mill in Australia.

**Grant Anderson** has been working on his on his fleet of cars firstly with a jig he made to fit some Honda CRV suspension bushes (unfortunately car was written off before the job was done). Secondly are some fixtures Grant has made to modern seals and hub bearings to his beloved Ford Zephyrs.





This Grate in 316 stainless from **Mike Bank's** 5" King locomotive has been badly burnt away from the heat of the fire. Mike is making a new "Rosebud" type grate to replace it.



**Michael Cryns** brought along this clock purchased from ebay as a derelict. The clock is French and dates from 1780, Michael has put the clock back together, he says it is quite noisy and is of a basic construction. Still a nice piece of history.



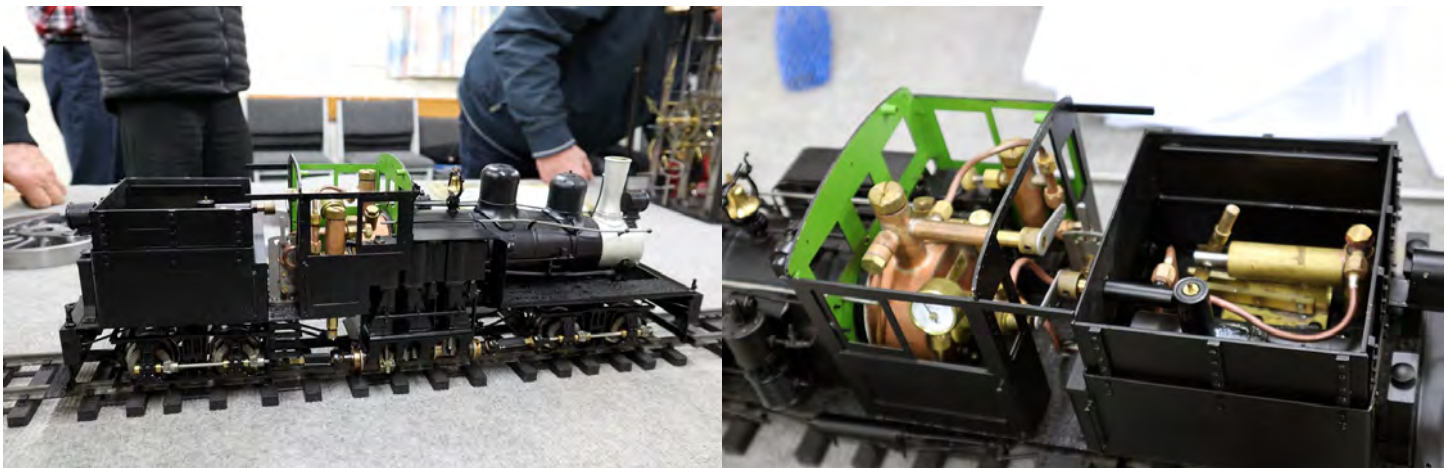
One of our long-time members **David Watt** is making a two complete sets of driving wheels to suit NZ Railways WF locomotives, the wheel centres are made from SG cast iron and the rim tyres are turned from heavy walled 750 steel tubing. The tyres will be shrunk onto the centres.



**Greg Burrows** brought in a couple of 3D printed test pieces from work, he explained the difference between different machines and materials, this is a field that is changing rapidly and they have trouble keeping up with advancement of the machines.



Lastly tonight we had **Greg** show us his fine Garden Railway scale Shay Locomotive, Greg had purchased it online from the US, unfortunately it came in a wooden box with no packing inside, just the loco. Then the sender very carefully wrapped the box up in bubble wrap and cardboard and sent it. When it was delivered in NZ and opened the engine had sustained a lot of damage and Greg has spent a lot of time repairing the damage and getting the engine running. It runs nicely, not fast but very authentic looking on Greg's "garden railway".



## Could Grandma Choose the Colour of the Curtains in her New Electric Ute?

(First Published in the Breeze, Waiuku, in August)

David Black

*In the absence of anything more about model engineering this month, we tiptoe into the debate about the unpopular Ute tax, a story about a grand old lady and two great men*

It is well known that Donald Duck's grandmother, Elvera Coot, drove an electric car. Elvira's car was a 1914 Detroit Electric, with a tall brougham body and curtains on all the windows. Both the bonnet and boot space were used to store batteries. In 1900, 40% of American cars on the road were powered by steam, and only 22% by early gasoline engines. They were dirty, noisy, and often difficult to start. Midwestern ladies of the day found these little electric Broughams ideal for city use, they were clean and quiet, perfect for social events such as parties and theatre visits.

Around the turn of the century, Henry Ford had been an employee of Detroit Edison, and was just as interested in electric cars as those driven by gasoline. Ford founded his own company in 1903 while Edison pursued his interest in electric cars replacing the heavy lead-acid battery with a more efficient nickel-iron version then converted four touring cars from gasoline to electricity. Edison and Ford became great friends and by 1914 were rumoured to be working together on an electric car which would have a range of about 100 miles. The limitation was the internal resistance of Edison's nickel-iron battery which could not provide enough current reserve when it was needed. Without reference to Ford, Edison substituted a lead iron battery to the prototype which turned out to be too heavy – Ford was rumoured to be furious. So ended the working relationship between these two great men. Ford turned all his efforts to his extraordinarily successful Model T. Electric cars gradually faded from the cities of America as gasoline took over.

The next 60 years is well known history, until the signs that oil reserves might run out, in the Middle East crisis of the 1970s. All of the major manufacturers renewed their interest in electric cars, but the limitations remained, the weight and comparatively short range of the batteries. None became a commercial reality and interest faded until the next crisis when atmospheric discharges of internal combustion engines became implicated in climate change. Now there was a new initiative, the potential for leveraging the viability of electric vehicles against subsidies and taxation. Elon Musk, fresh from founding PayPal took on the high-end of the market with his successful Tesla electric car. Mainstream manufacturers renewed their interest and compensated for the problem of range by using hybrid technology. In an environment where the majority of the cost of gasoline is taxation and pollution free vehicles attract subsidies, end user savings can be realised. However, in a true contest not confounded by taxation and subsidies, the true benefits are still harder to realise. Of course if the true cost of environmental damage is costed in it's not that simple.

Nevertheless, New Zealand seems to have, surprisingly, landed on an option for fleet electrification which hardly exists past the drawing board – the popular and versatile light trucks we know and love as "utes". Furthermore, New Zealand's problem with our aging motor vehicle fleet, and still with no requirement for regular monitoring of emissions, is undoubtedly made more challenging by importing large numbers of used vehicles made affordable for city commuters to compensate for the failure our public transport systems. It is hard to fathom why the popular utes, used increasingly by tradesmen and farmers, are being discouraged. These are invariably bought new, have sophisticated fuel economy and emission control systems which are locally supported and have long lives. If the incentive is to buy electric utes, the problem is that are none to buy on the horizon, let alone the market, and the barriers of battery weight and range still persist.

Grandma Duck had no such difficulties, she was able to buy her Detroit Priscilla off the floor once she had chosen the colour of the curtains The limited range of 80 miles didn't worry her at all.

