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# The MICROMETER

AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED

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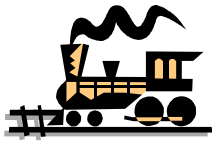
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REGISTERED NEW ZEALAND PUBLICATION

## How's Your Spanner Collection?

Tool board at GVR's Pukeoware workshop (May 2010).





# Train Roster

Date	Electric Driver	Electric Driver	Steam Driver	Train Controller	Station / Guard	Station / Guard	
2-Jul-17	M Granger	D Housley	Voluntary	<b><u>T Lawrence</u></b>	<b>B Matchett*</b>	D Wilson	
9-Jul-17	J Lankow	D Moffat	Voluntary	<b><u>S Meikle</u></b>	<b>M Richardson*</b>	T Sharp	
16-Jul-17	M Moore	P Moy	Voluntary	<b><u>T Robinson</u></b>	<b>B Cooper*</b>	D Beecher	
23-Jul-17	R Reichardt	P Woodford	Voluntary	<b><u>G Anderson</u></b>	<b>J Service*</b>	M Vickers	
30-Jul-17	M Plant	A Shirley	Voluntary	<b><u>D Russell</u></b>	<b>K Ryan*</b>	Voluntary	
6-Aug-17	P Woodford	I Ashley	Voluntary	<b><u>G Wills</u></b>	<b>P Tomkies*</b>	T Sharp	
13-Aug-17	G Beazley	M Granger	Voluntary	<b><u>B Aickin</u></b>	<b>D Wilson*</b>	D Beecher	
20-Aug-17	M Hollis	D Housley	Voluntary	<b><u>P Dowdeswell</u></b>	<b>B Cooper*</b>	M Vickers	
27-Aug-17	J Lankow	D Moffat	Voluntary	<b><u>T Lawrence</u></b>	<b>R Crook*</b>	R Copeland	

## **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.

## **Attention Drivers: - New Battery Charger Operation**

We have a new Smart Charger (20A capacity) that should keep the new set of batteries in great condition.

However it would seem it is not that "smart", as it seems to remember where it was at when it was disconnected! To force it to do fresh sensing of the state of the batteries being connected, please follow the procedure below:

1. Always switch the power to the charger **OFF**, before unplugging from the Ec Loco.
2. When returning the EC to the dogbox at the end of running, plug the charging cord (fat Red & Black leads) into the loco **before** switching the mains power to the charger back **ON**.

Thank you for your attention.

With the above we should get many trouble free years of service.

Greville Wills

# President's Report

ASME recently received five nice models from late member Peter Fisher's daughter which will add to our Clubhouse Museum display. Some have suffered a little surface corrosion over the last 30-odd years since Peter passed on and it would be nice if a member or two could help by cleaning them up for display. Please let me know if you can help. Peter was the Myford agent in Auckland.

Worksafe issued the renewed ADR registration certificate on 31 May and ASME received it on 13th June - it expires on 8 April 2019. We immediately applied to Auckland Council for a new Permit to Operate and the WMR was inspected on 25th June and a Permit to 24 June 2018 was issued. The Council advise that while Worksafe might well issue 2 year registrations, Council's policy is for a maximum of 1 year. Anyway the key thing is that ASME's miniature railway is all currently in accordance with the law!

Four new batteries (cost \$1360) have been fitted in the Ec loco and hopefully will last longer than the last ones - they are USA made and of higher amp-hour capacity. Greville recently sent out an email regarding the correct procedure for plugging the chargers in - please make sure you follow this. See the procedure on Page 2, above.

The small ASME committee struggles each month to come up with an interesting programme for the general meeting. You as members have a part to play here - surely **You** can offer to speak, present something or host a relevant speaker for the entertainment slot at the meeting. It only needs to fill a 20 to 40min space after Bits & Pieces. Please let me know what You can do for the Club here. And while we are on Members contributing, the Editor would also like you to pass on items of interest for publication in the Micrometer. Lets all help keep it interesting!

Timothy Robinson

*President*

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## JULY CALENDAR

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

**Tuesday July 18th, 7.30pm** - Committee Meeting.



## Bits and Pieces 6th June 2017

Conducted by Ron Copeland, Report by Grant Anderson. Photos by the editor.



**Timothy Robinson** brought in the electric motor for Dave Russell's bandsaw which has been repaired – Timothy found some of the varnish originally sprayed onto the coils was fairly sparse and as such some had short circuited and overheated – hence the smoke Dave reported last month. Timothy wound and fitted some new coils, so the motor is now back to working properly as designed.



**Grant Anderson** made a new arch for his Phantom loco's firebox from 3mm SS. The old one, somewhat burnt away after many years' use, was used as a pattern. Grant reported the arch appears to reduce the amount of Welsh coal residue drawn through to the smokebox (*sample provided in the accompanying tomato sauce tin!*) compared to operating without one. The Rosebud type grate used was also discussed – after discussion with fellow member David Watt at the MLS Open Weekend, it is thought that some of the clinker problem might come from ash retained on the grate, so Grant is going to build a standard type bar grate for comparative trials.



This firebox for **Murray Granger's** stationary vertical boiler looked nicely made, with detailed fixtures and a bar grate.



From **Peter Woodford**: A device for rolling threads on bike spokes – Pete said the instructions for use included doing each thread twice to ensure a perfect thread due to the springy nature of spoke material.





The tender frame for **Mike Banks's** mighty GWR King was on show. Mike explained that he had started and done a few weeks' work before he discovered that the plans he had for the loco included the wrong (smaller 3500 gal) tender. So he had to start again to model the correct 4000 gal unit. The horns and frames showed the care with which rivets had been used to secure the parts together. Mike also mentioned a problem he had experienced with getting the loco unit to sit correctly when running. After a trial adjustment which led to derailments during testing, Mike finally established that a critical pin was shown on the plans at the wrong length. Mike also brought along a range of holders machined from metric capscrews which he uses to make BA nuts to the right length – evidently the BA nuts fit the metric hex in the capscrew perfectly.



New member **David Wilson** showed a simple device he has made for setting the correct spacings for geared wheels when making clocks, etc.





A very useful tool, this. **Pete Woodford's** special-version tee nut for a milling table. Designed so that it can be inserted into the slot from above between conventional tee nuts that are already in place that you don't want to shift.



As with past meetings, **Mike Jack** had a range of intricate patterns and castings on show. A couple of valve rocking levers for a 5" g GWR Castle nicely finished, a rapid prototype ultra-violet resin pattern for a BR tender water scoop incorporating fins to redirect spray back to the trough as per the original, axle boxes for a pony truck, and crossheads in 4130 which Mike reports casts well as quite fluid. Also on show were wheel centres for a Victorian Railways 5" g loco which Mike saw in Melbourne last month – he redesigned the pattern and had the finished articles in cast iron to show full details as per original.





A towing bracket supplied as part of the steam lorry kit **Greg Burrows** is assembling broke off while being tied down in his van. Examination showed that both threaded extensions had been poorly silver-soldered on to the base. It was fortunate indeed that they had not given way earlier as Greg had just finished towing the tractor up his driveway by car and then eased down onto ramps to load into the van. Had they have given way while being towed, Greg reckoned the lorry (at about 400kg) would have taken off and gone straight through his house!



Finally, we had on the table the two 1/12th scale NZR locos made by the late **Basil Wilson**, described in the *June Micrometer*. On the left is Ab 660 while on the right is Ww 480. In between is a photo of the master builder himself with his Ab 660 model.



## The Story Behind Basil Wilson's Loco Models

*Following the Bits and Pieces session at the ASME general meeting on June 6th, Grant Anderson read out an item he had prepared to introduce the two outstanding models by the late Basil Wilson which have been loaned to the club recently as display pieces. Grant has now made this presentation script available to the Micrometer for publication:-*

### **General Meeting 6 June 2017 - Basil Wilson & Ab660 / Ww480**

Basil was a foundation member (in 1959) of ASME and was elected a life member in 1963. He was also a foundation member of MLS when that Club was formed in the early 1980s. He built the two locos on show at the meeting as well as a 3.5" g NZR Beyer-Garratt G98 – the G is currently in Australia. He also completed a partly-built Tich and built numerous Stuart models. Basil passed on in December 1986. All Basil's NZR models were faithful miniatures of the full size prototypes -- a bit of background may be of some interest:

**Ab Class:** This was the fourth version of the Pacific (4-6-2) wheel arrangement locomotive on NZR and was introduced in 1915. Many train buffs associate the first version (the 13 strong 1901 Baldwin built Q class) as the first multiple-build Pacific type in the world. The NZR's second version was the 57 strong A class built from 1906 initially as a 4 cylinder de Glehn compound locomotive by NZR Christchurch Addington Workshops and at A & G Price in Thames (some initially as Ad class). An additional A class loco was built as a two cylinder simple engine and this, after comparative tests with the others, and addition of superheaters, formed the basis of the simple cylindered Ab class. However in between the A & Ab came the 10 strong class of Aa (NZR's third version of a Pacific) built overseas as NZR workshops lacked capacity at the time - Baldwin demonstrated the efficiency of the US manufacturing industry over 100 years ago by completing all 10 locos in Jan 1915 - less than 60 days from receipt of order!



Two Ab locomotives, Ab773 and Ab703, taking water at Waihi, May 14th 1966.

The Ab class was NZR's most numerous class, with 143 examples built by Addington and A & G Price as well as by North British Locomotive Co in Glasgow – two of those built by NBL were lost in transit in the wreck of the Wiltshire on Great Barrier Island in 1922. A further 8 Abs were converted from Wab class 4-6-4 tank engines in 1947-48 and 3 more in the late 1950s.

The Ab class was distinctive in appearance due to its Vanderbilt type tender. They have been likened to the British Black 5 as a "go anywhere, do anything" type of loco. The fleet was certainly spread far and wide in NZ, at first running most of the key mainline expresses until the advent of the K class in 1932 in the North Island and the J class from 1939 in the South Island. It is believed that the Ab class were the first loco world-wide to develop 1 hp for every 100lb of engine weight. After the end of steam in 1971, 2 Ab locos became well known as part of the NZR's heritage service – the Kingston Flyer.



Now why did Basil model No 660? Was it because that loco was the first to haul a railfan trip in NZ? It seems likely that Basil would have been aboard this South Auckland Rail Tour trip on 27/02/1954 as he was a keen railway enthusiast – Ab660 was a Frankton engine at the time, but was later sent south to Dunedin as diesels made inroads in the North Island. It was written off & scrapped in 1968.

**Ww Class:** Actually Ww480 was built in 1910 at NZR Dunedin Hillside Workshops as one of 20 Wg class locos and followed a long line of “W” prefixed tank locos, improving on the previous Wf version. As a low-boilered loco (same as the sectioned Ww example at MOTAT), it operated most of its life in the North Island including being modified for use and operated on the Rimutaka Incline during WW1. Converted to Ww class in 1951, it received the high mounted boiler (in which form Basil modeled it), as well as larger cylinders. It spent time in Auckland before being sent to the West Coast in the early 1960s. There it worked trains on most branch lines including the Rewanui Incline with its raised centre rail as it had before on the Rimutakas. Part of the last batch of steam locos in use on the Coast in 1969, it was acquired by the Railway Enthusiasts Society and driven back to Auckland hauling service wagons and 3 carriages for overhaul at the old Papakura engine shed after which it started its preservation use at Glenbrook Vintage Railway in 1976. It is currently undergoing a major overhaul at GVR including being fitted with a newly manufactured welded boiler built in Dannevirke.



Ww480 pictured at Ross on the West Coast on April 10th 1966.

Now why did Basil assign his model with No 480? By the time Basil started building this loco, Ww 480 was back in Auckland being overhauled at Papakura. This, plus the fact it had been an Auckland loco during the early 1960s during which time it was used on three RES railfan trips would seem good enough reasons for Basil to have chosen No 480 for his model.

*An obituary to Basil, written by past member Graeme Wilkinson, that was printed in the ASME newsletter in January 1987 was read to the meeting. After discussion, some photos (taken by Grant) of the prototypes in action in various places in NZ were shown. And finally the video by NZBC titled “The Ride of Ww480” was played, covering Ww480’s return to Auckland from Greymouth in 1969.*

*After the presentation, members then had a chance to have a close up look at these great models on the table, rather than through their perspex display case cover.*

