

# *The MICROMETER*

THE AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED

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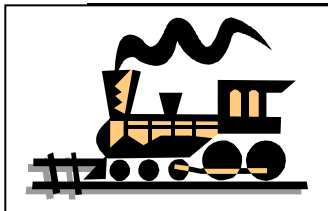
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ASME  
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NZR, Ba552 locomotive awaiting restoration, Mainline Steam  
Auckland, New Zealand



# 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>
04-May-08	M Granger	J Harrison	L Farquhar	<b><u>A Gasteen</u></b>	A Roberts	<b>K Ryan*</b>	A Shirley	
11-May-08	D Housley	S Locke	J Gladwin	<b><u>G Wills</u></b>	R Stratton	<b>R Street*</b>	A Watson	
18-May-08	J McManus	M Plant	M Orange	<b><u>B Piggott</u></b>	<b>T Taylor*</b>	A Whillans	A Yang	E Anderson
25-May-08	T Robinson	D Simons	A Pritchard	<b><u>D Russell</u></b>	<b>I Ashley*</b>	P Boyes	R Brown	
01-Jun-08	P Swager	J W-Buys	R VanRyn	<b><u>G Wills</u></b>	J Burnett	R Crook	P Cunningham	J Cunningham
08-Jun-08	P Woodford	J Yearn	<b><u>G Anderson</u></b>	G Bell	B Currie	G Dickey	<b>G Farquhar*</b>	
15-Jun-08	<b><u>D Black</u></b>	D Booth	E Burns	L Farquhar	A Foster	W Green	<b>D Hamp*</b>	
22-Jun-08	B Cotton	R Craig	<b><u>A Gasteen</u></b>	J Gladwin	M Hollis	<b>P Jones*</b>	K Knight	
29-Jun-08	T Crake	<b><u>P Eaton</u></b>	<b><u>M Jack</u></b>	M Orange	D Leybourne	I Lyons	<b>H Martin*</b>	

**Bold and Underlined** name – is the designated **Train Controller**, i.e. the person in overall control of all operations for the day.

**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.

## Safety note for club electric loco drivers

Due to the recent fortunately NON-Injury accident on one of the club electric locos the track General Manager Greville Wills has conducted a safety audit of the track and running. If you are an electric loco driver you will have received a letter from Greville directing that all drivers of the club electric locos reduce speed on the downward part of the track after exiting the second small tunnel.

More accurate and matching speedos will be fitted to the electric locos, they will be set to match scale speed and speed restriction signs will be placed where required around the track. The club is always concerned about safety matters and takes these issues very seriously, full co operation from all drivers is expected.

Additional work is aslo being investigated to modify the fixing of the track to the concrete blocks that it sits on.

## From the Editor

### May Calendar

May 6 <sup>th</sup>	Monthly Club Meeting, John Olsen will give a talk on his visit to Switzerland including some photos
May 13 <sup>th</sup>	Committee meeting
May 20 <sup>th</sup>	Beginners night
Every Tuesday	Tuesday Club

# The Latest in Engineering

Extracts from *The Model Engineer and Electrician* of April 30, 1908

An automatic water finder recently produced is a scientific development of the divining-rod. The new appliance is stated, as the result of several tests in the hands of well-known engineers, to be infallible in its action. The device comprises a small magnetic needle, similar to that of the mariner's compass, mounted in a small box which is carried on a tripod. When it is put in operation, the presence of subterranean sources of water is immediately betrayed by the violent agitation of the needle, the oscillation in some cases being as much as 150 degs. Unlike the old-fashioned divining-rod, the appliance is not affected by other influences than those of water, which consequently renders it absolutely reliable in its action. Should no water be existent the needle remains absolutely stationary.

Alzen is the name given to a new metal, which is composed of two parts aluminium and one part of zinc. It is said to be equal to cast iron in strength, but it is much more elastic. Alzen is superior because it does not rust, and takes a high polish.

The Italian State Railway, after experiments, has decided to employ sleepers of reinforced concrete, and a first lot of 300,000 of such sleepers has been ordered.

From time to time one hears of curious causes for the stoppage of motors. An addition to the list is contributed by Mr. Stephen Cliff, of Leeds, to the *Auto-motor Journal*, who relates a strange experience which occurred while driving his six-cylinder Napier last autumn. Suddenly, whilst going at full speed, the petrol supply failed, and on investigating it was found that an ant had by some means got into the petrol, been carried along the pipes, and eventually stuck fast in the spray nipple. Mr. Cliff thinks that the fact that it stopped a 40 h.-p. Napier proves that the ant is the strongest animal in the world for its size.

## Bits and Pieces Table April 2008

Conducted on the night by **John Olsen**

**See Photos page 4 & 5**

Dave Russell brought along some drawings for a filing rest and some parts made from them. He had scanned the drawings from a book and laminated them to protect the originals from all the grease that always seems to be around workshops. A suggestion was made that plastic filing envelopes could be used instead of laminating. That way the copy could still be written on when modifications are made. **Photos A & B**

Christopher Ratcliffe had some more wartime equipment. This time it was 3D widely spaced binoculars used by artillery and others. It looked like a range finder, but apparently was not. They were known as Donkeys Ears by the troops. Christopher also had a very interesting book on the Forth Bridge. **Photos C, D & E**

Bill Parker showed a very nice lubricator which are available from MBM in various sizes. **Photo F**

Greg Burrows brought along the two rather large cylinder covers for his boat engine. **Photo G**

Hugh Martin had a photo of the piston valve out of the Bellis and Morecombe engine that went to Fiji. Unusual in that one valve worked both the high and low pressure cylinders, also no rings were fitted, the combination resulted in a very inefficient and steam hungry engine. **Photo H**

Warren Green had a milling cutter that he wanted info on. **Photo I**

Murray Lane had a chuck that had never worked properly from new. After replacing it with a new one attempted repairs to the old one were not too successful either. **Photo J**

**Alan Emerson**





## Vice Presidents Report April 2008

All ASME members are conscious of our collective responsibility for safe running on the track. So, when we had a significant derailment during public running last month the matter was taken very seriously. The committee asked Greville Wills to convene an investigation. The group has reported back with recommendations to the committee and these have already been put in place. Although this derailment had no serious consequences, it is from incidents like this that we can learn to avoid worse accidents. This one happened despite the fact that the train was being operated according to the rules and so a series of actions are proposed and in the meantime a speed restriction has been placed on the section of track concerned which will continue at least until the other contributory factors are resolved.

There's more to model engineering than making models. Our society was once called the Auckland Society of Model and Experimental Engineering. We took experimental out of the name, but we didn't take it out of the members. Virtually every month in our bits and pieces we see some work, which goes far further than simply making a small copy of a full-size prototype. Our members think up and pursue ideas and techniques of their own. This is always been a particular feature of the Auckland Society, and long may it continue. A newer interest in some of our members is to tackle the restoration of full-size old machinery. There are very few projects which are as full-size or as old as the beam engine at the former Western Springs water pumping station, which was the original reason for putting MOTAT there. A strong contingent from ASME together with our good friends from the Auckland Steam Engine Society have worked together to restore this ancient engine to running under steam for the first time in living memory. We have been fortunate at our monthly meetings to see some of the work going into this project on the table and the splendour of the total finished result will have been shared with and opened by our Prime Minister by the time you read this.

These are interesting times for the mechanically minded in Auckland and New Zealand in general. As production line manufacturing appears to be less and less economic in New Zealand innovation and prototyping seems to be more central to our future. This is our domain, model engineers are generally better making one of something rather than five, if you don't count the other four they had to make to get one that was any good. The skills of the type we have in the society are in demand again even if, when it comes to making the finished product in mass the work has to go offshore. Skills in railway engineering are in demand again in New Zealand too. Remember in the 1970s and 80s when important people in high places seriously talked of cutting back our railway system or even demolishing it altogether. How times have changed, with the future of petroleum driven road vehicles now on borrowed time as we slide down the slippery slope past peak oil, we are discovering our railways again and are about to electrify the Auckland system. This will be one of the biggest engineering projects seen in this part of the world for a very long time.

To be fair, to the public of Auckland, they never really stopped liking trains, especially ours judging by the queues, we continue to attract at Waipuna Junction every Sunday afternoon.

**David Black**  
Vice President

## For Sale

### Beejax for sale

Castings, Frames, Stretchers and Buffers machined, also includes Wheels machined, Axle Boxes, Horn Plates, Pumps and Pump Eccentrics, Cylinders, Valve Chests, Pistons and End Caps, D Valves, Drawings and Copper for boiler.

Lots of machined parts, a good project for the winter

\$1200 or near offer. Contact Bill Parker, ph 09 235 2018

# Committee Meeting Notes 8th April 2008

**Matters Arising:** It was decided that Dave Russell would take over the issues surrounding the website and arrange for a new host.

**Correspondence:**

IN – Auckland City Council

OUT – Nil

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

**Sub Committees:**

Boilers: Nil

Works: Work on three-way bridge under way. Some damaged trolleys repaired.

Stores: Nil

Safety: An investigation is being carried out by the Safety Committee into the accident some weeks earlier.

**General Business:**

The Society has been presented with the original patterns and drawings for the Beejax.

Another working bee was held with some success.

There will be a train running from 1200 on 27 April for children from the Heart Kids charity to have a ride.

Grant Anderson will deliver the safety chat at the next general meeting. This will be concerned with the gradients of the track and braking on corners/downhill slopes etc.

## Nostalgia back on track with the first new steam engine in 50 years

From The Telegraph newspaper 7/4/08

It will be a sight to quicken the pulse of every grown-up schoolboy. The first steam engine to be built in Britain for more than half a century is about to take to the tracks.

The 60163 Tornado, a replica of the last steam locomotive on the East Coast Main Line, between London and Scotland, will be fired up in the next few weeks and taken on the first of a series of test runs before making its commercial debut in the autumn.

Producing 2,500hp, the engine will be capable of up to 60mph. However, its first outing will be a few yards from inside the shed where it is being assembled, at the Darlington Locomotive Works.

The £3 million project is the fruit of 18 years of fund-raising and craftsmanship. The engine has been built to plans for the A1 class, drawn up after the Second World War by Arthur Peppercorn, of the London & North Eastern Railway. Then the age of steam began to wane and the last A1 - 60145 Saint Mungo - was scrapped in 1966.

Mark Allatt, chairman of The A1 Steam Locomotive Trust, said the locomotive would be fitted with additional water capacity and the latest safety electronics. "Tornado will be fully equipped for today's main line railway," he said.

It is hoped that the Tornado will be chartered by companies such as the Orient Express. For further information, visit [www.a1steam.com](http://www.a1steam.com)

Please note that the phrase "up to 60mph" refers to *Tornado's* testing on the Great Central Railway. It is still the Trust's intention to operate *Tornado* at 90mph on the main line where permitted.

**OBITUARY     Douglas Wood. 29 Jan 1913 -- 15 Jan 2008.**

*A man of huge personality; great sense of humour and boundless charm.*

Doug was very well known and respected in the motor industry and the aeronautical world. He began his working life as a junior with John W Andrew, Ford dealers in Auckland. His career was cut short by the lay offs that occurred in the 30's depression and after a period out of work he was advised to go out to Mangere aerodrome and talk to the Auckland Aero club regarding aircraft maintenance work. His visit was successful and he, in due course, qualified as an aircraft ground engineer and also learned to fly. In 1935 he left the Aero Club and joined Austin agents Seabrook Fowlds in their spares dept.. It was here that he met his wife to be, Miss Betty Seabrook whom he married in 1938. On the outbreak of war he became conscript no. 31 by the RNZAF and served as a ground engineer both in NZ and overseas, rising to the rank of Flying Officer.

At the end of hostilities, Doug rejoined Seabrook's and became manager of their Austin assembly plant in Epsom. He later succeeded in acquiring the Austin Agency for the Franklin district where he conducted a very successful business for many years.

In his retirement, Doug owned a 1912 Austin 10/12 Tourer; a 1924 Austin 12/4 Tourer; a 1928 Austin 16/6 Tourer and an Austin Chummy. All these cars were maintained in excellent original condition.

On the formation of the HCCA 40 years ago, Doug attended all the early directors meetings and was a highly respected member of the formative group. The 1912 Austin became a familiar sight on our early runs.

Another of Doug's great interests was model engineering and he built some superb model steam locos. He was a long time and very active member of the Auckland Society of model Engineers.

Doug died on the 15<sup>th</sup>.of January and predeceased his wife of 69 years by just 17 hours. They will both be very sadly missed.

John Stewart.