

THE MICROMETER

REGISTERED NEW ZEALAND PUBLICATION OF THE
AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED



JUNE 2013
NUMBER 580

AUCKLAND SOCIETY OF MODEL ENGINEERS INCORPORATED
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Cut off date for the July issue : 18th June 2013

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Train Roster

Date	Electric Driver	Electric Driver	Train Controller	Station / Guard	Station / Guard	Station / Guard
June 2013						
2nd	B Cotton	P Dowdeswell	<u>G Wills</u>	P Tomkies	D Addis	P Boyes*
9th	M Granger	M Hollis	<u>B Piggott</u>	R Brown*	J Burnett	J Clarke
16th	D Housley	S Meikle	<u>D Russell</u>	R Crook*	B Currie	J Davies
23th	D Moffatt	M Moore	<u>M Orange</u>	G Dickey*	A Foster	D Gulliver
30th	P Moy	M Plant	<u>G Anderson</u>	G Healy	P Jones	J Lankow*
July 2013						
7th	A Pritchard	P Woodford	<u>M Jack</u>	D Leybourne	M Luxton*	I Lyons
14th	B Aickin	I Ashley	<u>T Lawrence</u>	H Martin	B McLaren	C Mitchell*
21st	D Black	D Booth	<u>T Robinson</u>	G Murray	J Olsen*	W Parker
28th	B Cotton	P Dowdeswell	<u>B Piggott</u>	M Richardson	K Ryan*	A Shirley

Please Note:

We have reduced the number of Station people to three, but do need more Train Controllers. Please see appeal elsewhere in this newsletter

Bold and Underlined Name:

This is the designated **Train Controller**, i.e. the person in overall control of all operations for the day. If you are the **Train Controller** you should phone around the others rostered for that day to make sure they remember to turn up.

Bold with Asterisk* Name :

This 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.

Please Note, there is no expiry period or date on train ride tickets previously sold.

Please Note:

On your rostered day you should arrive by **12.30 pm** to get prepared for the days running. If for some reason you are unable to fill 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.

Please ensure you arrange the replacement member with one rostered to undertake the **same** role, to ensure we always have members with the appropriate training and experience on the day

Club Calendar

ASME Events	
4 th June	General Meeting
8 th June	Working Bee
11 th June	Committee Meeting
18 st June	Workshop night at the clubrooms. Members interested in the Track & Trolley Project, please come along to see where you can assist.
13 th July	Club Fun Run & BBQ

President's Report

June 2013

At the working bee on 11th May were, Tony Lawrence, Trevor Taylor, John Lankow, Timothy Robinson, & Ron Copeland. Tackling the cleanup round the track.

Please note the Club Fun Run day & BBQ on the 13th JULY

We are in need of more Train Controllers for the Roster Anyone interested please contact Greville or me.

If anyone is willing to host a workshop visit for workshop night on a 3rd Tuesday please contact myself or the committee.

For General meetings we are in need of people to present a talk on subjects our members would be interested in if you would like to or know of someone or suggestions of subjects. Please contact myself or the committee.

Timothy Robinson

President

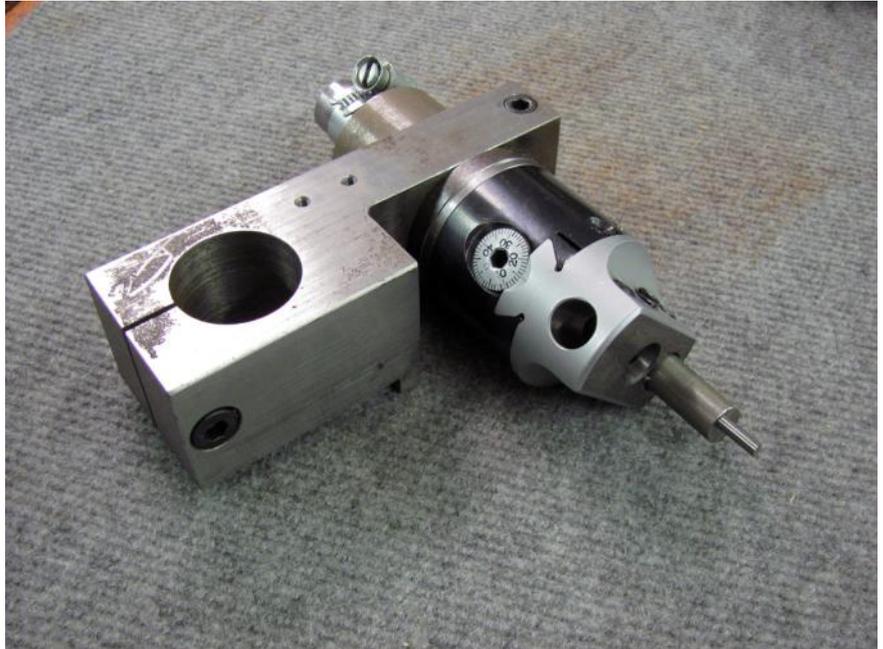
21st May 2013

Bits & Pieces

7th May 2013

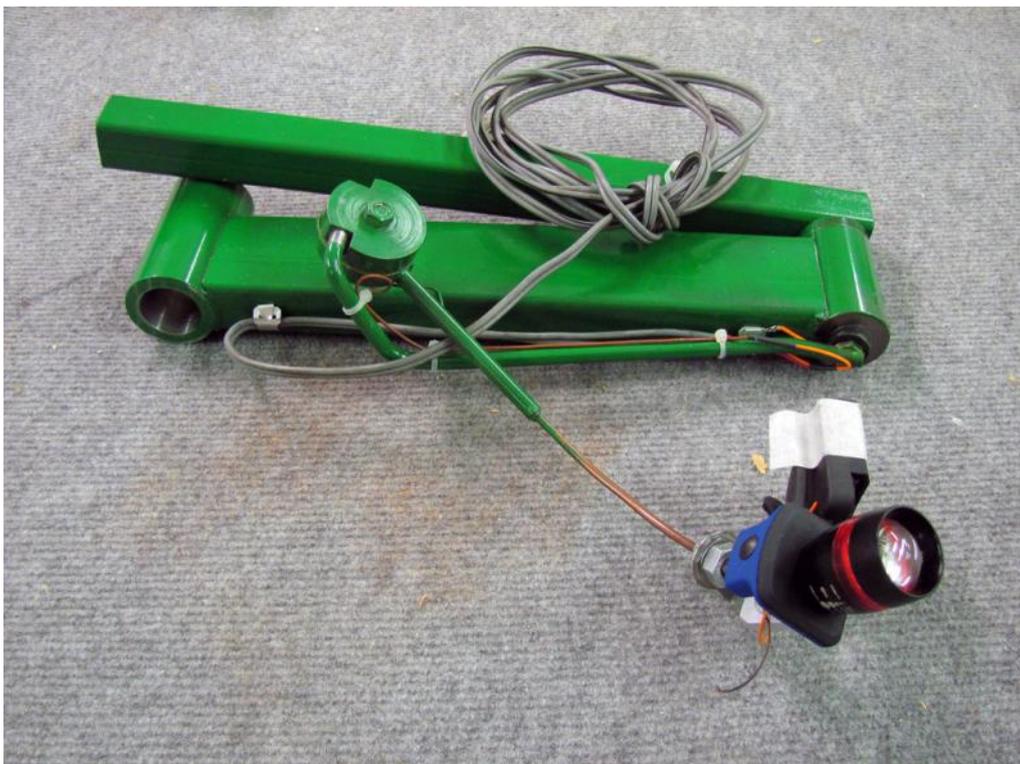
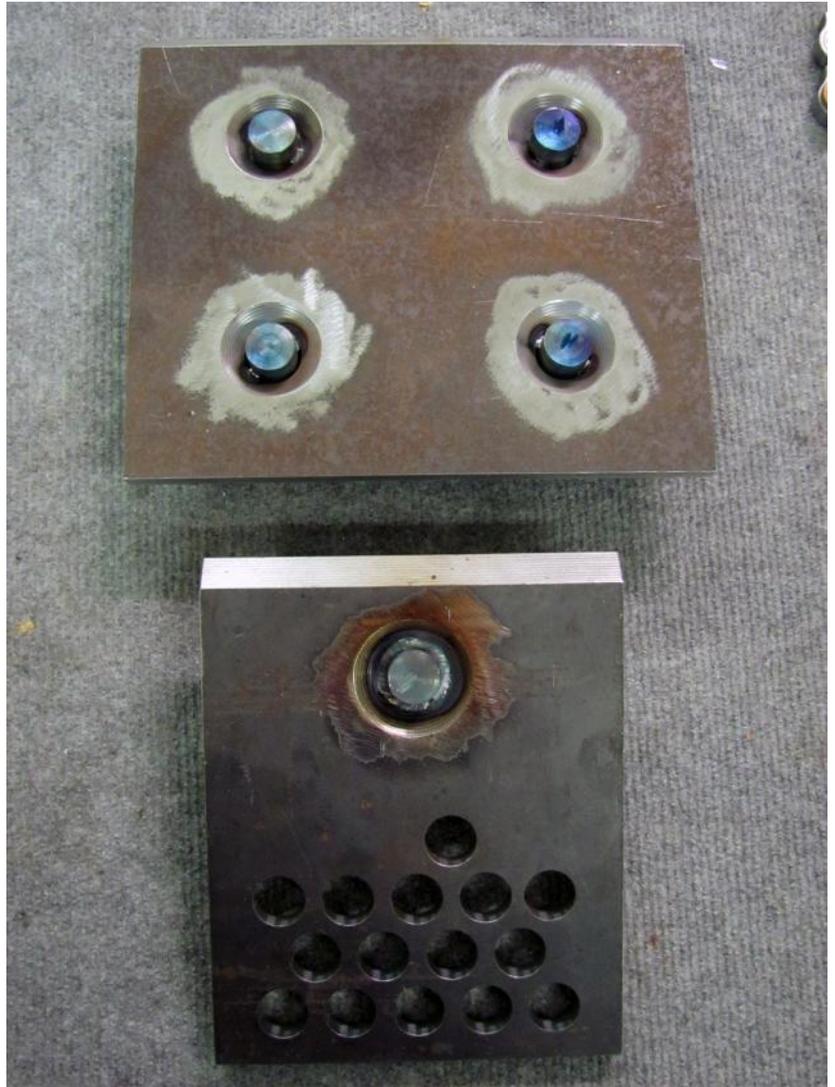
Conducted by David Black, Reported by Dave Russell

Item one tonight was Graeme Murray's version of the ball turning attachment made from a small boring head, you might remember that last month we had a similar item to look at made by Mark Luxton.



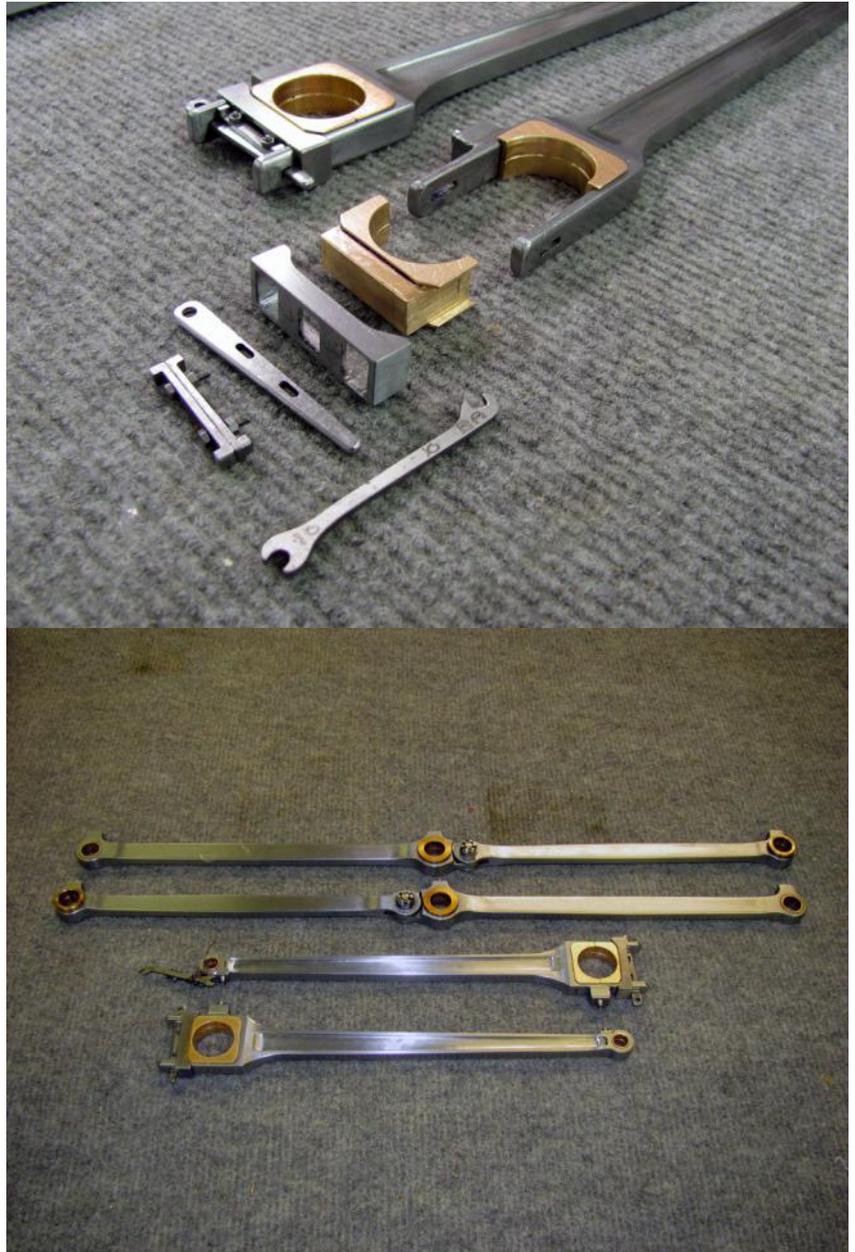
Ron Copeland has been busy working on his yacht. The prop drive shaft had to be removed and the tube that it runs in bored out of the hull and replaced with one that had a bearing in the middle. Ron had made a series of boring tools one was some carbide tips attached to a piece of tube that slipped nicely over the prop shaft tube this facilitated removal of the old tube, a second one was made from a hole saw that had a piece of tools steel welded through the side of the saw cup to break up the core piece.

Some heavy steel boiler plates with stays tack welded in place ready to be sent off and finish welded by a certified welder were brought in by Greg Burrows



A focusing lamp made from a “head lamp” that had been adapted by Graeme Murray is attached to an arm that can be positioned to shine on to work pieces in the lathe.

Mike Banks has been busy on his Bridgeport Mill producing a fine set of coupling and inside connecting Rods for his 5" gauge GWR King. The pair of connecting rods took approx 85 hours to make. Mike has deviated from the drawings to produce the rods as per the full size with split bearing and tapered key and lock plates. Mike has even made a 10 BA spanner to tighten the bolts on the lock plates.



The boiler that was rigged up for hydraulic testing was Grant Anderson's from his Beejax. The wooden frame allows the boiler to be worked on without damaging anything, it can be turned on its side or end as required to access areas with out the risk of it falling over.

Bill Parker brought in a couple of safety valves for a 7-1/4" gauge locomotive, one had new internals made after the originals disappeared into orbit when the lock nut came loose while under pressure.



Lastly Greg Burrows had brought in one of his Radio Controlled model helicopters, this one has four channel radio control and removable batteries, Greg also has a battery powered indoor suitable radio controlled spitfire that he is working on.

The Queen Mary 2

BUILT BY: ALSTOM Chantiers de l'Atlantique, St Nazaire, France

COST: £550 million

PORT OF REGISTRY: Southampton

GUEST CAPACITY:

Lower berth 2,620

Maximum 3,090

Crew: 1,238

DECKS:

Total 17

Guest 14

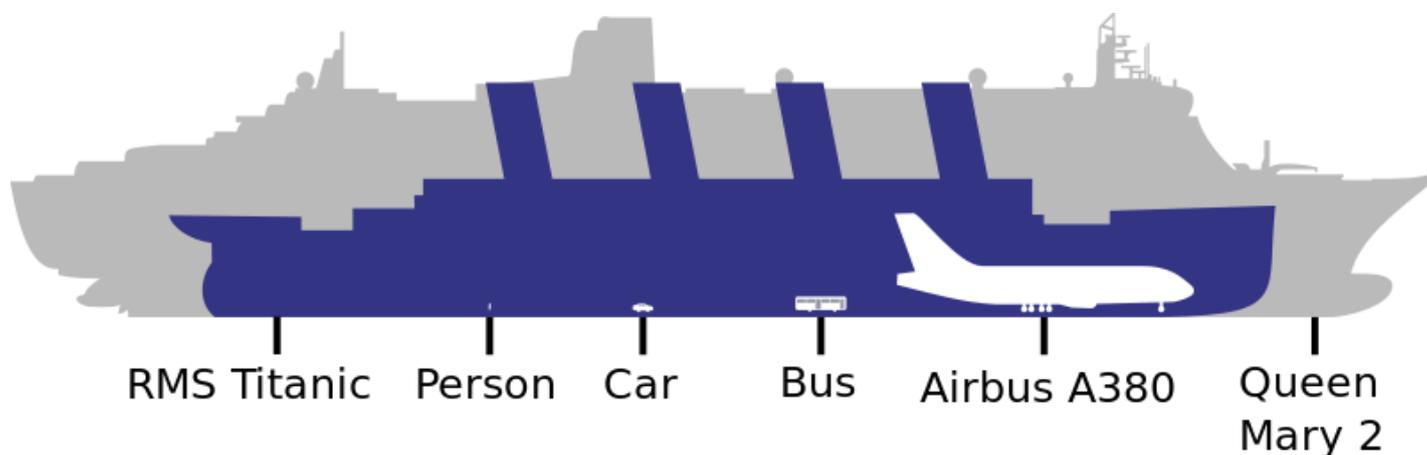
LIFTS:

Guest 22

There are four guest stair towers arranged along the length of the ship. The forward and aft stairs have three lifts arranged across the beam of the ship within the stair tower. These lifts are sized for 21 persons and are grouped for triplex operation. The two remaining stair towers each have six 12 person lifts arranged in triples. Four panoramic lifts are arranged on board, two within the Grand Lobby (capacity of 11 persons) and two (capacity of 16 persons) running up the outside of the forward superstructure.

Crew 9

Service 6



Mechanical Details

In order to propel Queen Mary 2 at speeds of up to 30 knots (34 miles per hour), a great deal of power and technology is needed. The ship is powered by an advanced environmentally-friendly plant with electricity generated by four diesel engines and two gas turbines.

Gas Turbines:

These are situated below and behind the funnel because of their requirement for large air intake. Such a location reduces the need for space being taken up by ducting. The two General Electric LM2500+ gas turbines will generate 25MW of electricity each, which is equivalent to 81,000 shp. They run at 3,600 rpm and turn a generator through a reduction gearbox. The turbines burn marine gas fuel oil and are generally only run when the ship needs to achieve higher speeds.

Diesel Engines:

The four diesel engines generate electricity and are located low down in the ship due to their size and weight. Each engine is 12.5 metres long, 4.4 metres wide, 5.5 metres high and weighs 217 tonnes. The diesel engines were built by Wartsila and are V engines with 16 cylinders. They have a bore of 460mm and a stroke of 580 mm. Each engine runs at 514 rpm and produce 16.8 MW of power. They run on conventional heavy fuel oil.

The engines are of the enviroengine design that uses commonrail technology utilising water injection into the chambers to reduce noxious emissions.

Mermaid Pods:

Queen Mary 2 features four Mermaid pods built by Rolls Royce owned Kamewa and Alstom Powers Motors. She is the first passenger ship to be driven by four pods. The forward two pods are fixed in place while the aft two are able to turn through 360-degrees to steer and manoeuvre the ship. Each of the pods weighs 250 tons – the largest and most powerful ever made at 21.5 MW each. This gives a total propulsion power of 86 MW. The pods are individually hydrodynamically shaped to help attain the speeds required of Queen Mary 2. Unusually the propellers themselves are stainless steel and have a highly skewed fixed pitch.

Thrusters:

Queen Mary 2 has three thrusters of 3.2 MW each allowing the ship to turn in her own length in port without the use of tugs. These operate with a fingertip touch by an officer on the Bridge. The total plant is capable of producing nearly 118MW of electricity - that is about twice the power of a 100,000-ton conventional cruise ship.

Speed:

Normal cruising speed: between 24 and 26 knots (approximately 30 mph); with the power being obtained from the four diesels.

Maximum speed: approximately 30+ knots (34.5 mph) which is obtained from both the diesels and gas turbines.

Stabilisers:

Queen Mary 2 has four 'VM Series' folding fin stabilisers built by Brown Brothers of Edinburgh. There are one piece, passive type design (which means they don't have flaps) and when combined reduce the ship's roll by 90%.

Each stabiliser:

- weighs approximately 70 tonnes
- is 2.5 metres wide
- extends beyond the ship's side by 6.25 metres
- has a surface area of 15.63 square metres
- provides 1070 kN lift
- takes approximately 30 seconds to extend or house

Anchors:

There are three 23 tonne anchors provided, two working and one spare – the latter mounted on top of the forward end of the breakwater. The 3 anchor chains are collectively 770 metres long, each 114mm cross section weighs 273 tonnes and has a breaking strain of 9300kN.

Dynamic Positioning:

Queen Mary 2 is the most technically advanced ship with regard to manoeuvre control ever built. She is capable of being manoeuvred by a single joystick on the Bridge that can move the ship sideways or at an angle or even keep station over a fixed spot on the earth by use of satellite and wind gauges. The system involves the pods at the rear of the ship and the thrusters at the forward end.

The Bridge:

The Bridge of Queen Mary 2 is huge and, again, utilises the latest technology. It is almost 50 metres wide with a layout designed to take into account today's philosophy of Safe Bridge Team Management, but using a new idea of presenting information to Bridge Officers for them to manage the ship's systems. Equipment was provided by Kelvin Hughes. Flat screens are used to show radar, navigation displays, safety management systems, manoeuvring systems, power management displays, water consumption, ballast transfer and weather systems. All the same screens can be interswitched at the operators' discretion. Close circuit camera pictures show in the corner of the screens a picture similar to a picture in picture television that is becoming more common in homes today.

Bunkering

Bunker Capacities

Heavy Fuel 5,350 tonnes

Marine Gas Oil 3,885 tonnes

Fuel Tanks

Heavy Fuel 9

Marine Gas Oil 13

Fuel Consumption

- The diesel engines burn approximately 3 tonnes per hour each
 - The gas turbines burn approximately 6 tonnes per hour each
- Queen Mary 2 uses grade IFO 380 and marine gas oil.

Stats

- 2,500 kilometres of electric cable
- 310 miles (500 kilometres) of ducts, mains and pipes
- 2,000 bathrooms
- 80,000 lighting points
- 280,000 square yards (250,000 square metres) of fitted carpets
- 144,000 square yards (120,000 square metres) of insulating material
- 3,800 square yards (3,200 square metres) of galleys
- 3,000 telephones
- 8,800 loudspeakers
- 5,000 stairs
- 5,000 fire detectors
- 1,100 fire doors
- 8,350 automatic extinguishers

