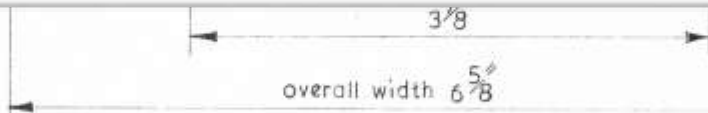


Wheels & Floats

July 2024



Tauranga Model Marine and Engineering Club Inc.

TAURANGA MODEL MARINE AND ENGINEERING CLUB INC.

The Secretary
PO Box 15589
Tauranga 3112

Miniature Railway Memorial Park
Open to Public, weather permitting
Sundays : 10am to 3pm approximately

Palmerville Station Phone 578 7293

Website: www.tmmec.org.nz
Facebook: Memorial Park Railway Tauranga

MEETINGS

General Members Meeting every first Tuesday
7pm.
Committee Meeting every second Thursday at
7pm.
Maintenance Tuesday mornings from 9am.
Engineering discussions Tuesday evenings
7.30pm.

COMMITTEE

President: Bruce McKarres 022 0455154
Vice President: Regan Olivecrona 02102325554
Club Captain Joanne Knights 020 41909567
Secretary: Warren Karlsson 025 5422863
Treasurer: Jason Flannery 021 629038
Committee: Russell Prout, Bruce Bocock,
Warren Belk, Bruce Harvey,
Owen Bennett

Club subs are now due.

Full member \$30.00

Country \$18.00

Junior \$6.00

Westpac 03-0435-0461711-00

Please ensure your name is in the refer-
ence line and the word subs(cription).

CONVENERS

Boiler Committee: Owen Bennett, Bruce
McKerras, Ash Thomas, Regan Olivecrona,
Ross Campbell.

Safety Committee:

Warren Karlsson, Bruce Harvey,
Bruce McKerras, Russell Prout

Workshop: Regan Olivecrona, Owen
Bennett, Brian Marriner

Drivers Licencing : Bruce McKerras

Track: Bruce Harvey, John Stent,
Russell Prout

Librarian: Chris Pattison

Rolling Stock: Bruce Harvey

Track Managers : Bruce Harvey, John Stent,
Russell Prout

Website: Chris Pattison, Peter Davies

MEANZ rep Russell Prout

Editor: Roy Robinson 07 5491182
royrobkk@gmail.com

Cover photo : Trent driving Bruce's "Bellfield" loco out of the tunnel.



Presidents Report July 2024

This month's report is somewhat different than in the past, I went walkabout to the South Island, and unfortunately, my notes also went on their own walkabout... So, a rather brief report this month. Of course, the standout event of the month was our Matariki Night Run, busy, busy – our lights looked great!

Thank you to all who helped setting up and with the running of the evening.

From the Committee Meeting:

We have just paid the \$2,600 to the council for our new lease agreement. Much discussion as to what area we are actually paying for, there is a definite feeling that this just isn't worth the grief querying. (Clearly, this isn't what was discussed at all the council meetings we had).

We have two new members this month, David Ingley and Bernie Pollard (my dentist). Welcome to the team, I know you will fit in, and to all our members, please make these guys feel welcome.

Jason put forward a new track concept, which got approved and will be a real improvement to our track layout, sooooo, team... Next working bee will be **Saturday 3rd August** – free up your calendar. A bit of pressure here as we will need to get the track back operational for the Sunday running (2x sets of points to shift)

An idea was floated to invite all convention attendees to our track on the Wednesday after the convention – basically a play day with no public running. Joanne has emailed Keith Betts who is running the convention, and he is going to put the word out and advertise this in the convention newsletter.

Jason has decided to sell his trailer.. This is currently our club's mobile coal storage facility. Anyone interested in buying this trailer, see Jason. Basically, it is a nice, fully galvanised, high-sided, small trailer.

As we mentioned in last month's newsletter, we are soon to lose Regan O, who is off to sunny Fielding. If you have a gap at lunchtime on Sunday 21st July, come down and share some pizza lunch at the clubrooms.

That's about from me for this month. I would like to give a big thanks to all the team who kept the place running while I was away.

Cheers, Bruce



An advertisement for Gamman's Garden Supplies. It features a large orange and red flower on the left. The text includes the website www.gamman's.co.nz, the brand name Gamman's in large green letters, and the slogan 'Gets you growing'. It lists various products like Premium Garden Supplies, Pressure Washing, Quality Compost, Superior Garden Mix, Bark Mulch, Round Pot, Decorative Rocks, and Canterbury. It also mentions 'Available Bulk & Bagged' and 'Bulk Deliveries Available'. On the right, there is an orange box with the text 'OPEN! Saturday 10am-3pm Monday to Friday 6am-3pm'.



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Captain's Report – May 2024

Captain's Report

Hi Team,

Firstly, a huge thank you to everyone who came and supported the setting up and running of the Matariki Night Run. It was incredibly busy with 1200 rides in the 3-hour running window. Thank you for everyone's help, it is greatly appreciated.

Upcoming Events:

Saturday 3rd August is working bee day, we have some track work that needs to be completed. We will return to play days in September.

Club Trip Porirua/Wairarapa – we have a total of 22 people signed up. We have had the OK for up to 35 so if you want to come along, please email me or Jason. Thanks 😊.

Hamilton Convention – Steam & Steel 2025

The convention is being held in Hamilton 9th – 14th January 2025. I have attached the link to the webpage and registration form below. If you have not been before, it is a great trip and there are model engineers and their toys/projects from all over New Zealand.

If anyone wants paper copies of the registration form, let me know and I will print some out at the clubrooms.

<https://www.hme.co.nz/steam-n-steel-2025/>

https://www.hme.co.nz/site_files/1113/upload_files/Steam%20N%E2%80%99%20Steel%202025%20International%20Convention%20Registration%20Form.pdf?dl=1



Bob P leads the way.



Stewart concentrating on the job.



Who wouldn't be scared of those two!!!!



The workers ????????????????????



Caution, Lady driver.

Humour :

An 80 year old woman was arrested for shoplifting. When she went before the Judge he asked her what she stole.

“A can of peaches,” she replied.

The Judge then asked her why did she stole them and she replied that she was hungry.

The Judge then asked her how many peaches were in the can and she replied that there were 6.

“Alright then, I’ll sentence you to 6 days in jail.” said the Judge.

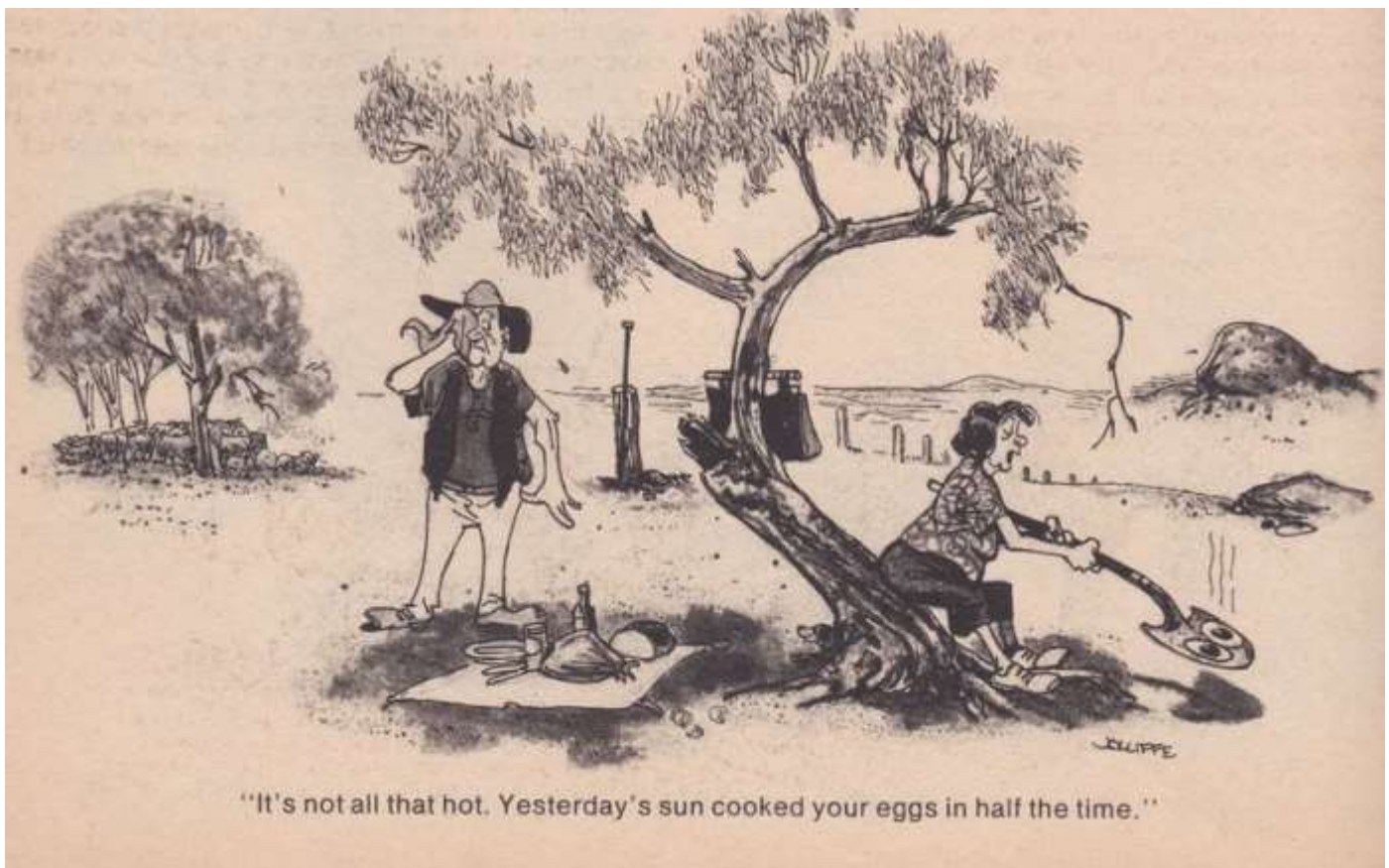
Before the Judge could pronounce the punishment her husband stood up and asked if he could say something.

“Certainly,” said the Judge. “What would you like to say.”

The old man shuffled up to the dock and said to the Judge, “She also stole a can of peas.”

DOCTOR, “HOW MANY DRINKS DO YOU HAVE IN A WEEK”?

ME, “I DON’T KNOW, I’M AN ALCOHOLIC, NOT A FRIGGEN ACCOUNTANT”!



FOWLER MODEL SHOWMAN'S ENGINE

I recently travelled to Auckland to catch up with a cousin at Waitakare Gardens Retirement Village. It was only when saying our goodbyes whilst standing in the foyer that I noticed a model traction engine on a plinth. With thoughts on other things I completely overlooked the opportunity to take some pics with my phone. I dropped an email to the facility who passed the message on to the owner who kindly replied. In conversation with owner Graeme Quayle I learnt a little of his history and he provided me with pics and the information panel which is adjacent to the model. Following is that info panel and pics of the model.

This model is based on a Fowler Showman's road locomotive called 'Kitchener'. It was later renamed 'The Iron Maiden' for the film of that name. 'Kitchener' was converted to a showman's engine and was originally a class R3 compound road locomotive No. 15657 delivered on the 8th of September 1920 to the Portland Stone Quarries, to haul stone to the Weymouth docks. She was purchased by the prominent showwoman Mrs. H. Oadley and 'Kitchener' was returned to Fowler's for overhaul and conversion to Showman's Road Locomotive and remained with that family until the early 50's. She was capable of towing 24 to 30 tons and developed around 87 to 95 B.H.P. at 200 R.P.M. This model is in 2" scale, 1/6th full size, and is a Plastow design named 'Princess'. There are larger versions in 3" and 4" scale in the Plastow range. The master agents for the castings and drawings for these models is now Bridport Foundry Ltd. Grove Works, West Road, Bridport, Dorset, UK.

This model was started by two engineers in South Africa and was brought into this country by Steve Day when he emigrated here from South Africa. Graeme Quayle bought the engine from Steve in around 2012 and commenced working on it in 2016, finally finishing it in 2019. The boiler has been steamed during the build and the engine has been run on compressed air since completion. However, it has not been steamed since completion. It is now displayed on its own table with a plastic cover to protect it.

Specifications;

Overall length; 44in. (1118 mm),

Overall width; 15 in. (381 mm),

Height; 22 ½ in. (572 mm),

Weight; 224 lb. (102 kg.),

H.P. Cylinder Bore; 1 3/8 in. (34.9 mm), L.P. Cylinder Bore; 2 in. (50.8 mm),

Cylinder Stroke; 2 in. (50.8 mm),

Flywheel Diameter; 9 in. (229 mm)

Scale 2" (1/6 full size)

The engine has compound (twin) cylinders, three speed transmission, differential gear, winch drum, sprung front axle, fitted with a generator and full canopy. It has an axle driven water feed pump as well as an injector, is fitted with a governor and whistle. It has a simpling valve to aid starting.





Graeme Quayle is quite an interesting guy. He is Editor of the Auckland Steam Engine Society and publishes 3 X 60 page magazines a year. He is also involved with a loose group (Model and Experimental Engineers Auckland) who meet occasionally and live without any formal structure. At the Waitakere Gardens where he lives he has engineering equipment in their "Men's Shed" and is currently building 2 Southworth 12" boiler feed pumps. A recently completed project Twin Compound Winding Engine is soon to be published in the "Model Engineer".





Some pics for the Matariki Run. Great night, enjoyed by all. Excellent support from Club members. I didn't come across **ONE** grumpy person!





Trent lost in a cloud of steam!!!!!!



Warren B



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BEFORE THE LOGGING TRUCKS.....

After the horse drawn log carriages and before the logging trucks came quite a range of steam engine, gear drive "Bush Locos".

Easily the most interesting were the 16-wheelers that were built by J. Johnston & Sons in Invercargill (2nd photo) and by A & G Price at Thames (top photo).

The Johnston D Type was the earliest, made in 1910 and 16 of these were built between 1910 and 1937. Powered by a 2-cylinder steam engine mounted vertically behind the cab, they weighed 16.25 tons, so a little over 1 ton per axle.

Designed to operate on timber tracks in the bush but were also used in saw mill timber yards and other locations as required.

All 16 wheels on 4 bogies were driven by a central shaft with universals at each bogie.

The universals in the driveline allowed the Johnston and Price locos to negotiate curves and undulations in the track.

Drive from the engine crankshaft was to a large exposed spur gear mounted behind the boiler and drive to all 4 bogies were by sets of exposed bevel gears off the central shaft.

Quite advanced engineering for 1910, although without gear cases, oiling and greasing the exposed gears, bearings and bushes would have been a daily exercise.

There were brake blocks on all wheels suggesting they worked in steep terrain with heavy loads.

The average life span of the Johnston Bush Locos was 23 years more or less and none of the Johnston D Type Bush Locos survive.

The A & G Price 16-wheelers were a similar design to the Johnston D Type design, but were heavier at 36 tons.

Four A & G Price 16-wheelers were made with the first one being commissioned in 1921.

This loco remained in service for 30 years (until 1951) - easily proving the engineering quality that A & G Price were famous for.

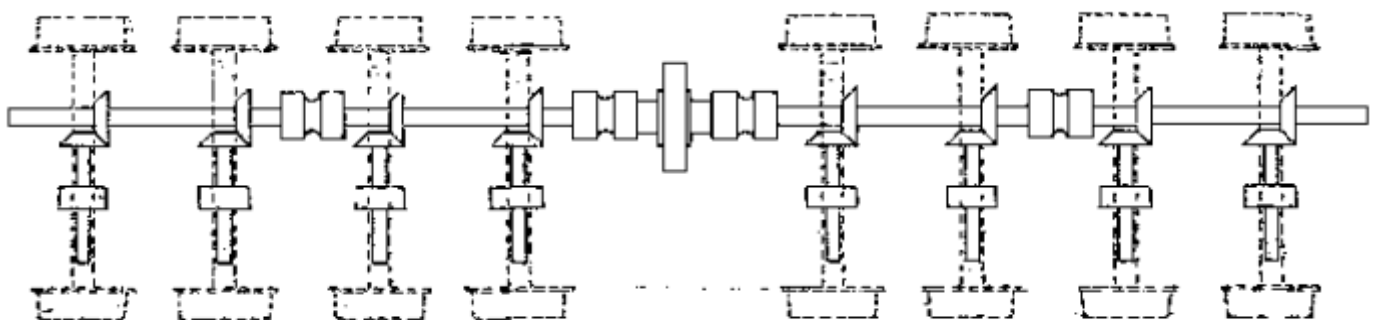
With the type of gear reduction used, both the Johnston and the Price locos were not fast, but their 16-wheel drive and weight distribution let them do a magnificent job on "bush branch trackage".

There must have been accidental derailments on the uneven timber tracks in the bush and I have no idea how the Bushmen put them back on the tracks at 16 and 36 tons respectively.

A & G Price made 10 different models of steam engine powered, gear drive Bush Locos from 1885 to 1943 with their 16-wheeler being the largest.

It appears none of the Price 16-wheelers survived either.

Below : The drive train layout of the Johnston Bush loco





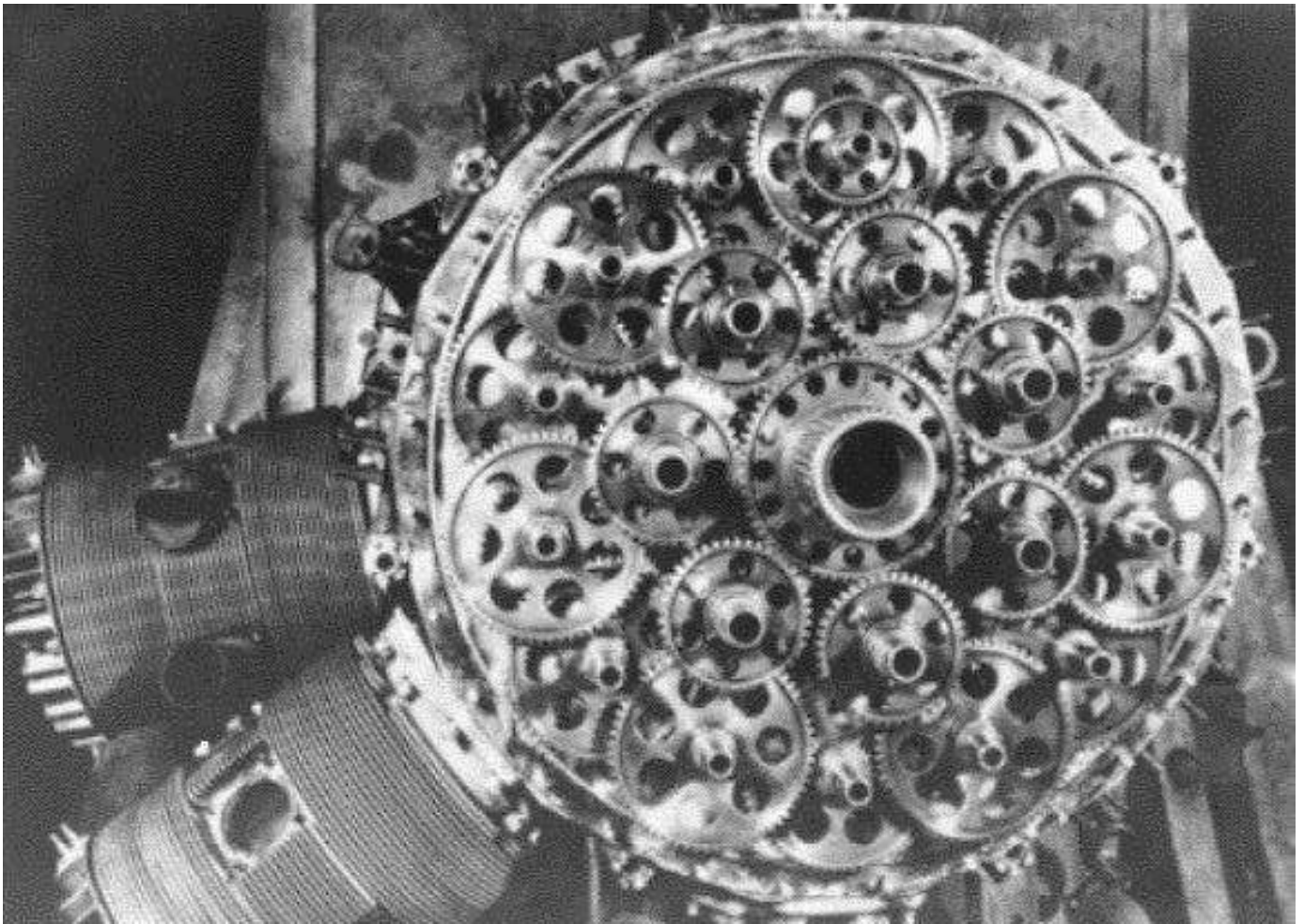
Above : The A & G Price 16 wheeler logging loco.

Below : The Johnstone 16 wheeler



MORGANSTEEL

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Above

Couldn't resist this one. A Bristol sleeve valve radial motor. Just imagine getting all those PCD and centers correct! These Bristol Hercules 14 cylinder 2 row radial motors with bore of 5.75" stroke 6.5". Designed by Sir Roy Fedden and produced by Bristol Engine Co saw the light of day in 1939 and in various model went up from 1150hp to 2080hp. Some 57,400 were made and used in WW2 in Bristol's Beaufighter Fighter planes, Lancaster and Wellington Bombers. In civi street they were installed in Handley Page Hastings and Bristol's own Bristol Freighter. Being sleeve valve they were a very quiet smooth motor despite that massive gear train!

Left

Ash and Francine are nearly at the end of the OE in the UK. A great pic I thought. Taken at Beaulieu Museum..



Show and Tell

Proposed Sculptural Panels Project for Wellington Waterfront.

Ashley Grant

This sculptural project is to be submitted as an invited “expression of interest”. In other words your project is certainly not guaranteed to go ahead, but as I had been one of four shortlisted a few years previously, I felt like another crack at it. These creative ideas are like an itch – you cannot help but scratch it.

So..... the project involves a design for four items of sculpture to be presented on four separate plinths (each a two metre cube), situated between Te Papa Plaza and the waterfront.

With this sort of exposure, the sculptures must stand up to the notorious Wellington weather conditions, including hurricane force winds. This design consideration can be a bit of a damper on your creativity as it can be very difficult to quantify the structural integrity of sculptural works in terms of engineering. A structural engineer is required to sign off on your final design. Too bad if you do a heap of work only to find it has to be revamped for some structural alterations. I have chosen to design four individual panels cut out of 8 or 10mm thick aluminium sheets with laminated additions as stiffeners, and to add to a 3D effect. I have also added cut panels either side as “buttresses” in order to restrain the panels.

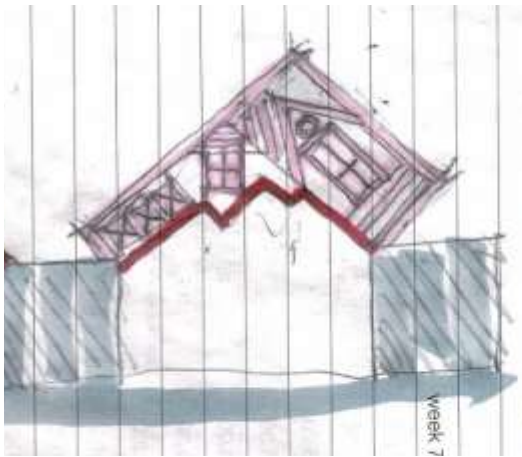
I have two choices for cutting the aluminium sheets, with some design considerations.

If I use **laser cutting**, I am restricted to 8mm thick sheets. Aluminium has a heat absorbing quality which can cause melting problems if the laser cannot cut through the material fast enough. Hence the thicker the material the more problems could arise, especially on the burn exit side. There may be considerable cleaning or deburring of the molten edges. So 8mm sheet is recommended.

If I use **waterjet cutting**, I can go to 10mm thick sheet (the thickest standard aluminium sheet). Given the wind forces acting upon the panels, I would prefer to go with the thicker sheets, but of course there is a cost implication. I am also hoping that waterjet cutting is a lot cleaner with less deburring on the exit side of the sheet.

I have yet to have cost comparisons come in for the two processes. It may be interesting for those who have similar work to be cut. I will pass on this information as it comes to hand.

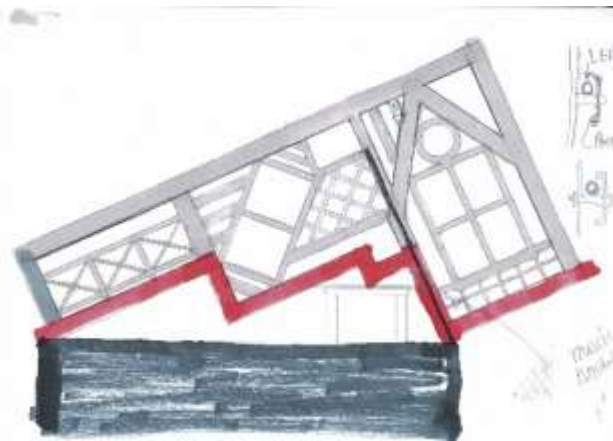
I have illustrated my design process for just the one panel, with the other three still work-in-progress. The finish is simply a natural aluminium finish, not highly polished. Regan has recommended a coating of a product called Nyalic clear coating which is used to protect aluminium boats. Costs in the ballpark of around \$500 to cover 5 square metres. His aluminium boat still looks pristine after ten years of exposure. Pretty impressive stuff.



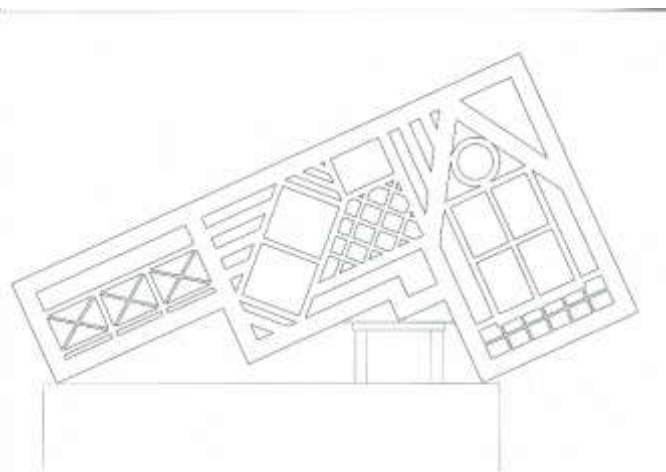
Initial rough concept sketch



Refining Ideas and relating to scale



Modifying sketch ready for CAD



CAD drawing



Laser Cutting

More Show and Tell

Unfortunately I was crook and did not attend July's Show and Tell meeting but Jerry P kindly took some pics for me. Chris P brought along a Vernier which he had acquired in South Africa. It is unusual on a couple of fronts. 1 : the frame is of round section material as opposed to the usual flat bar. 2 : It has the capacity to take some 5 different axis measurements as opposed to the usual 3.



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TAURANGA MODEL MARINE ENGINEERING CLUB



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TMMEC CLUB CALENDAR 2024

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| JULY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | | | | |
| AUG | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | | |
| SEP | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
| OCT | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | | | | |
| NOV | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | |
| DEC | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

- Sunday Running 10am - 3pm
- Club Play Day
- General Meeting 7pm
- Engineering Tuesday 7:30pm
- Open Weekend
- AGM
- Committee Meeting 7pm

- Christmas Party
- Matariki Night Run 28th June
- Halloween Night Run 2 November
- CLOSED/CANCELLED

- Hamilton Open Weekend 16-17 March
- Manukau Open Weekend 1-3 June
- Keirunga Park Open Weekend 25-28 October
- EBOP (Whakatane) TBC
- Mana Ariki TBC