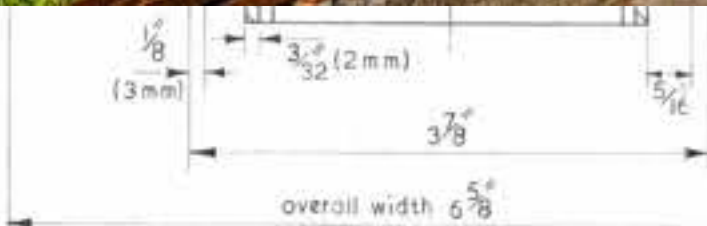


Wheels & Floats

June 2025



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
Bank Account 03-0435-0461711-000

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
7.00pm.

COMMITTEE

President: Warren Karlsson 027 5422863
Vice President:
Club Captain Ethan Bramley 022 0972 767
Secretary: Warren Karlsson 027 5422863
Treasurer: Jerry Payne 021 486 013
Committee: Russell Prout, Ethan Bramely,
Graeme Hanley, Brian Marriner,
Owen Bennett, David Ingley,
Ian Bain

Subs are now due
Ordinary member \$30.00
Country Member \$18.00
Junior Member \$6.00

**Bank details as above. Please put your
nae in the Particulars line and Subscrip-
tion or Sub in the Reference line.**

CONVENERS

Boiler Committee: Owen Bennett, Bruce
McKerras, Ash Thomas, Ross
Campbell.
Safety Committee:
Warren Karlsson, Bruce McKerras,
Russell Prout
Workshop: Ethan Bramley
Drivers Licencing : Bruce McKerras, Warren
Karlsson
Track: Russell Prout, Warren Karls-
son
Librarian: Chris Pattison
Rolling Stock:
Trach Managers :
Russell Prout
Website: Peter Davies
MEANZ rep Russell Prout
Editor: Roy Robinson 027 5491182
royrobkk@gmail.com

Cover photo : Ethan having a play on the June Play Day.

Presidents Report June 2025

The committee have just come through a busy two months attending to the business of the club in ensuring all signatories to both the banking and investment accounts were aligned with the minutes of the AGM.

I can now report that part is now all completed, and we have Raewyn returning as our Bookkeeper and are very fortunate to have Jerry as

our Treasurer as he has a wide experience in that and other roles on other committees – welcome to you both.

Because our first committee meeting followed so closely after the AGM I had to rely upon both Jason as past Treasurer and Sandra as our bookkeeper to cover off on the finances and bill payments until the process of changing signatories was completed – thank you to both for assisting with these important details

Along with completion of the annual reporting to the NZ Companies Office and attending to our annual renewal of our Insurance cover all add up to much leg work to be completed in preparation for our monthly meetings.

The rewrite of the Club's Constitution has been completed and passed by the committee to commend to a Special General Meeting of the Club at 1 p.m. on Saturday the 5th July, a Notice to this effect, along with a copy of the final draft of the constitution to be ratified at this meeting, has been emailed out to all existing club members.

If you find any shortcomings please advise the secretary in writing at least one week prior to the meeting.

The Incorporated Societies Act 2022 requires all societies to be reregistered prior to April 2026.

The present 1908 Act was well overdue for changes to be made and was also deficient in not having a Dispute Resolution Clause included.

The present Club Constitution was only promulgated in 2019 and I can only sympathise with those involved at the time in that rewrite, as it is no easy task requiring hours of commitment and focus to present a workable document.

For us we followed a template offered by the NZ Companies Office that ensured all the legal wording was in place.

Hopefully this revised Club Constitution will serve us for the foreseeable future.

A sub-committee consisting of Chris, Owen, Russell and myself took on the task of the rewrite and had the pleasure in having completing this so that the Executive could commend it to the Club as a whole.

I however suspect that the Club Rule Handbook will need a revisit so that it also remains relevant to our day to day operation and business of the club – volunteers?

Club membership renewal is in progress and with individual membership officially expiring at the end of this month a reminder to renew or advise otherwise would be appreciated, we have currently 56 financial members with just over half renewing to date.

Membership remains lower than previous years and we may have to consider a strategy for another membership drive to ensure we have a flourishing club.



I met with two prominent visitors during recent Sunday runs, with Tauranga City Councillor Rod Taylor and TECT Trustee Peter Blackwell, both congratulating the Club on the way we provide a well-run “amenity” within the park for the public to come and enjoy.

From this visit we can expect renewed consultation with the City Council in regard to the Memorial Park Redevelopment and a long term lease for the Club.

Our ageing Infrastructure is showing signs of needing attention and the committee have agreed that the lower bridge decking is to be replaced.

Recent slumping of cobble stones and ponding of water show that work is required to address these issues before they overtake us, I am sure the public would appreciate any improvements we make that should also appeal to the eye.

However our clubhouse also needs some attention and with the recent “windfall” of a \$2,500 gift card from Supercheap Auto, this may provide a catalyst to tidy up the workshop. As you should be aware Ethan has taken the task of becoming the resident Workshop Manager and is keen to see this area improve in all respects.

A “spring clean” of the club house, especially the ceiling space could also be a focus of a future working bee.

With the TV relocated to above the computer desk the general area could also be improved to give better utilisation and some warmth and comfort to the Ticket Seller during the colder months – to this end I have engaged Peter to use his magic to draw up some ideas for both the ticket and workshop spaces

I noted at a recent Tuesday night general engineering meeting how the network within the club allows members to not only draw on expertise but also to openly seek assistance to solve any of their individual model engineering problems. We have a very diverse range of skill and experience within our membership.

Graham for example gave an excellent insight into his career as a tool maker at the last meeting, and I am actively looking for anybody whom would like to be the guest speaker at any future Tuesday night meeting.

I met Graham while we were both attending Shane’s Private Railway opening day, earlier this year, and a discussion led to him into joining the club – thank you again Graham and welcome.

A recent safety concern was brought to my attention and I did not address this properly for which I have apologised to all the parties involved.

However it did highlight a problem in that if a unsafe action is noticed it should be addressed immediately before it becomes a further issue, and if any club member is unsure then they should seek advice or assistance from another member to ensure their safety and that of others is not compromised.

More importantly any ‘near misses’ should be at least noted to the duty operator so that it is recorded on the daily running sheet, and escalated, if required to a full report so that we can all learn a lesson.

As you are all aware TAMAR is currently out of service and with new water cocks and gauge glasses just fitted, we await the Surveyor’s presence to witness a full boiler test, so it can be again placed back into

Service. It is unlikely that this will be completed prior to Matariki so it looks as if we are to have our first night run without a steamer.

Russell has sought authorisation from the new committee to construct and demonstrate a working prototype of a self-raising platform for the Hoist/Turntable Pit, so it is not openly exposed when raised.

A time and date for a demonstration is to be advised.

Roy has undertaken the task to catalogue a wad of drawings that the late Peter Jones had accumulated, with some original blueprints included. The drawings were generously donated by Peter's wife Beverly and daughter Caroline.

For those whom don't know Caroline has been cleaning our clubrooms for many years and continues to do so as it gives her some affiliation with her father's long and enduring service to the club, as foundation, life member and President for 23 continuous years.

With an every growing collection of drawings the club may want to consider how we preserve these, as they do take a lot of space. Maybe digitisation should be considered. Making them available to all without the originals being damaged or at worst lost.

Matariki is early this year so by the time the newsletter is out we should have completed another, hopefully well supported, night run.

Our increase in ticket prices from the 1st August has been posted and the general reaction from the public is very supportive, as many are still surprised at the present low cost of a single ride.

The implementation of Paywave can be considered a success as we used to have many "punters" who could not, to our amusement, and their embarrassment, remember their PIN number and hence if busy the queue then backed up.

The associated costs are being absorbed by the club and are minimal in the whole context.

Regards

Warren Karlsson

P.S. Remember the night run when we lost power to the club! – we had a repeat last Sunday that fortuitously occurred while we were at the club, a call to the lines company had it repaired within the hour.

Phew! Disruption averted!



Humour :

Barb & I were at a College reunion recently and I kept staring at a drunken lady swigging her drink as she sat a nearby table.

"Do you know her?" Barb asked.

"Yes" I sighed "She's my old girlfriend. I understand she took to drinking right after we split up all those years ago and I hear she hasn't been sober since."

"Gosh" said Barb, "Who would think a person could go on celebrating that long!"



"THINK HE'LL HAVE IT DONE BEFORE
I'M TOO OLD TO **PLAY** WITH IT?"

first
credit union

Show and Tell

Joanne and Ethan

The club ran all 4 available Sundays in May with two slightly earlier finishes and one delayed start due to the weather, but this did not affect the number of fares collected being only 100 less than the same period last year.

We gave 160 appreciated Mum's a free ride on Mother's Day.



We have advertised an increase in ticket prices to take place on the 1st August and talking with the public the response is all positive, and makes us possibly still the "cheapest entertainment" in town.

The introduction of "PayWave" has certainly proven its worth in speeding up transactions where before forgotten or incorrect PIN numbers was a source of amusement.

The next event is the Matariki Night Run on 20th June. This is always a popular one with the public, if you are free to help please come down to the club and lend a hand. We will set up during the afternoon, tea pre-run and then trains running from 5:30pm-8:30pm. Warren K has sent out an email with the full details.

We have received an invite to Whakatane's open day and night run on Saturday 12th July, this is always a nice trip to make and we receive a warm welcome.

Cambridge club are celebrating their reopening by holding a night run on Saturday 26th July. There will be a group heading over to join in and help out, give me a message if you want to come along.

Thanks,

Joanne



MITRE 10

Show and Tell



Peter L hole centre finder



Graham P torque wrench made at Trade School gave him top marks and well deserved. Some of the wire cut parts he had designed and made.

Below : David I had to make a spanner to fit nuts which none of his expensive imported spanner sets he had purchased fitted!!!!



Imported sight glass fittings are required to get Tamar going again. I didn't dare ask what they cost!!!!!!!!!!!!

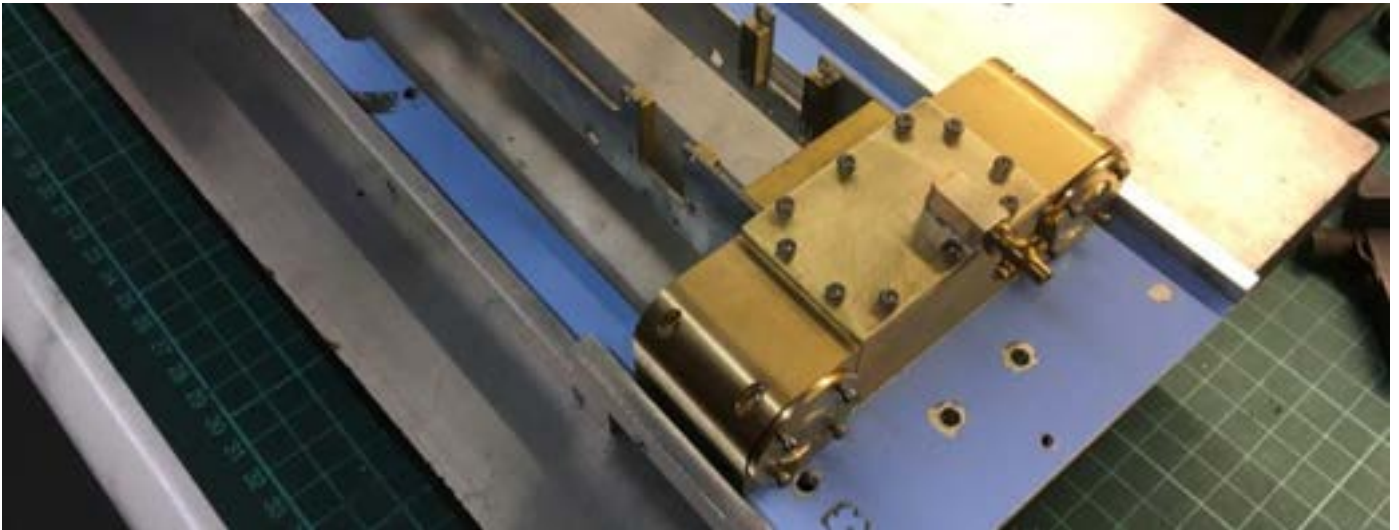


A new workshop project (part 2)

By Geoff Hallam

I started this project on the 1st August last year and I am writing this second article on the 18th March some 32 weeks later! As the saying goes, time fly's by when you are having fun. I am managing to stay focussed and I try and do a few hours nearly every day which means progress has been good. I have put in about 600 hours so far and if it could be charged out even at the minimum wage rate it makes Aster Steam locomotives look extremely cheap! Don't let anybody tell you they are too expensive to buy. If they do, they have never tried to build something themselves. Anyway, on to the project.

I felt that the valve chest needed some ability to drain condensate till the cylinders warm up, so a spare Stuart Turner drain cock has been added. It could be fun trying to work out a link to a lever in the cab with the ash pan being in the way. I will worry about that later. It will probably end up being a simple pull-out rod from under the front buffer be



The socket caps screws used in the construction are all stainless steel and vary from 1.6, 2.0, 2.5 and 3 mm diameter.



The cab is starting to take shape. I used heavier gauge brass than needed for the job but it was in the stock pile to be used.



Axle boxes and keep plates are installed along with the guide bar brackets. The guide bars are made from 1/8" square gauge steel and bolted in place with 1.6 mm socket cap screws.



The eccentrics were roughed out ready for finishing cuts and parting off. The bar had been drilled and bored 3 mm off centre in the 4 jaw chuck for the eccentric throw.



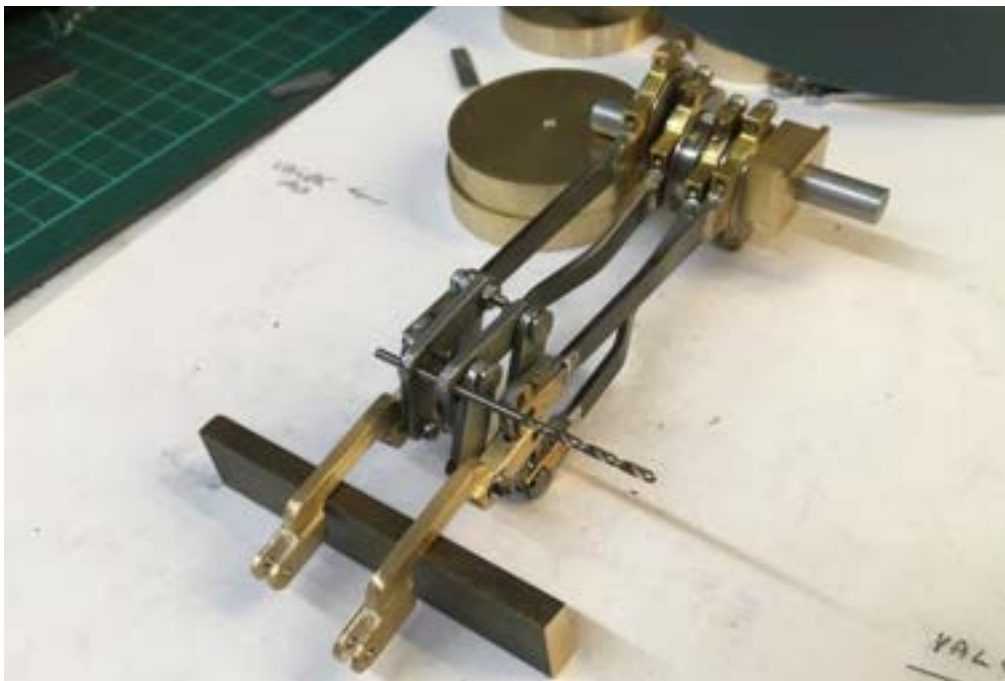
This shows the finished eccentrics mounted on 1/4inch axle material with 1.6mm grub screws. The centre eccentric is for the axle pump which is another item I found missing from the drawings. I think an axle pump should be mandatory on such a small coal fired boiler to be safe.



Valve gear eccentric sheaves ready to have their rods silver soldered on. The sheaves were cut out on the CNC machine from 3mm brass sheet.



Allen's straight link valve gear components





Crossheads and pistons ready for assembly



The wheels and axles were purchased from Walsall Model Industries in the UK. I took the option to have the drivers ready machined and quartered as it didn't cost too much more. This has been the most expensive part of the build but far better than trying to CNC them out of bronze blanks as was originally planned. I wasn't really looking forward to that challenge. It would have taken hours of work and then I would have had to turn steel tyres for them.



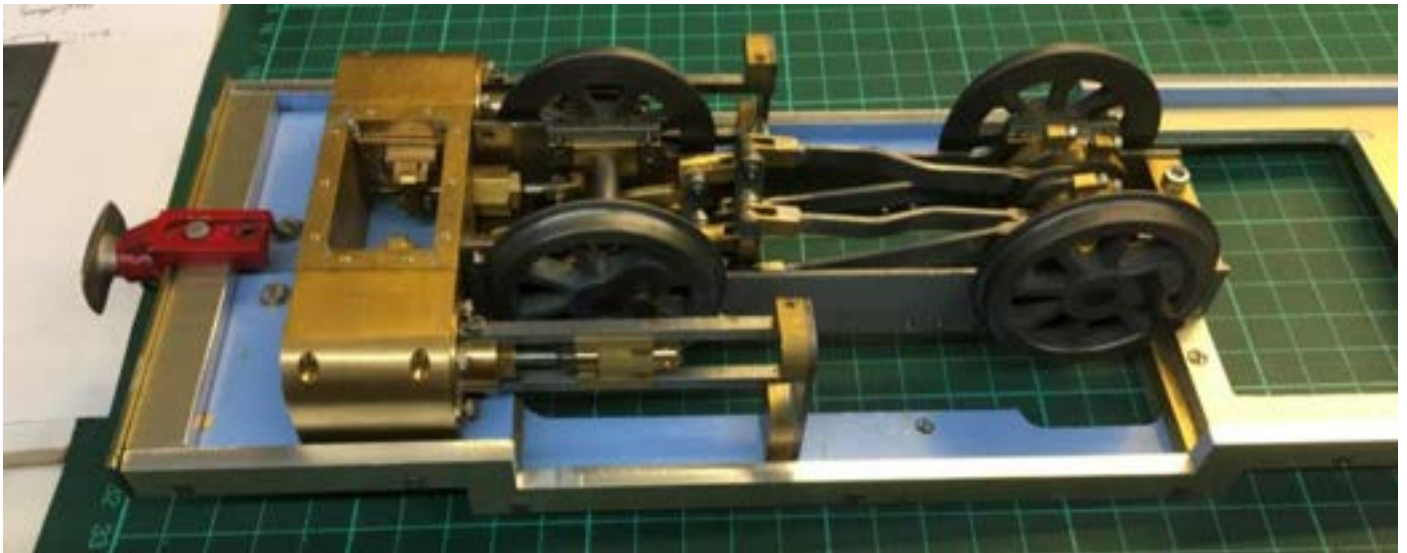
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The wheels mounted on their axles and valves installed in the steam chest



Valves and pushrod

The valves were machined from phosphor bronze and took far longer to produce than anticipated as virtually every dimension had to be thou. perfect. Not only that but it had to be repeated for the second valve. Any errors in dimensions would of course affect the valve timing accuracy and the whole heartbeat of the engine. I can see why Roundhouse opted for circular valves and drilled holes for ports!

The thread on the valve rod is 10 BA which should give nice fine adjustment of the valve position.



Disclaimer :

The views and opinions expressed in articles contained in this magazine are those of the author (s) and do not necessarily reflect the policy, position or opinion of the TMMEC or its officials.

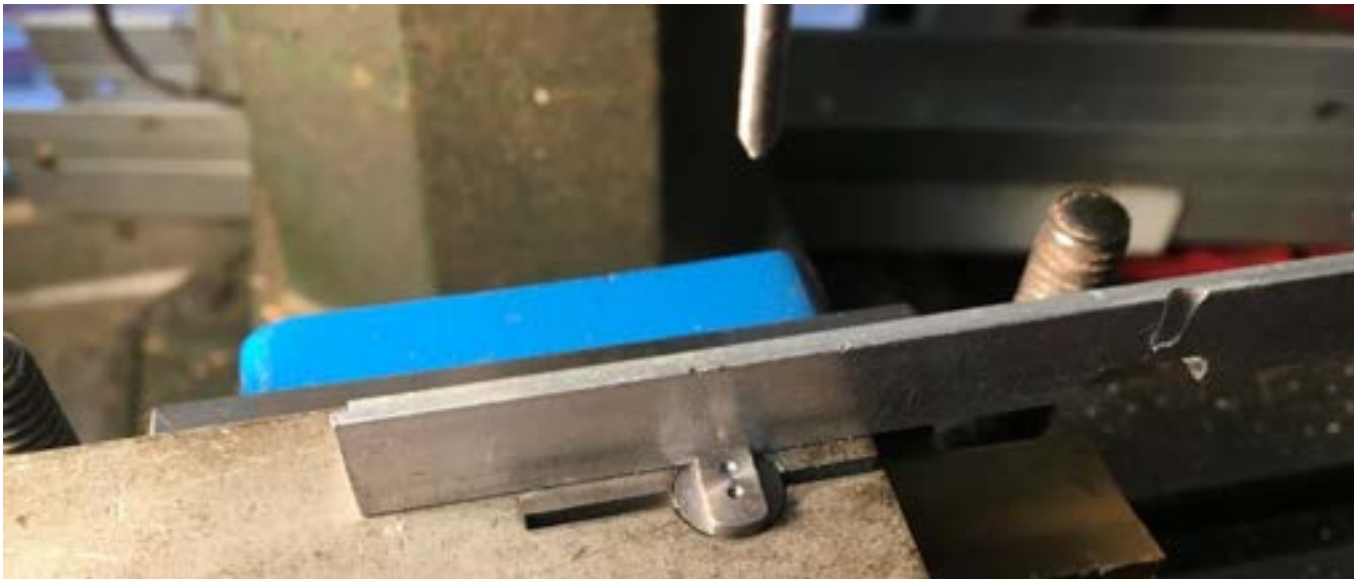


Boiler work has started and the steel formers are ready to get a good beating. Each copper plate took five annealing's to get them to shape. I used my *Great Granddads'* wooden mallet to do the job. I resisted using a steel hammer to the very last to save bruising the flanges. It was only really needed on the tight radius corners of the inner firebox wrappers. The smoke box tube plate only needed 15 thou skimmed off to be a good clean fit in the boiler shell.



Boiler plates formed and ready for drilling.

Smoke box door hinges and dart bar installed. The hinges had to be held square in a jig to silver solder them up. The extra work involved was well worth the effort as they fitted properly first time.



This shows the rivet press jig held in the machine vice for the straps across the saddle tank. The mill drill had the depth stop adjusted to just form a nice rivet head. I found that just the smallest amount of over pressure punched the head right through! The two flats either side of the rivet dimples set the rivet spacing. The punching was all done by feel and only a couple of mistakes were made by not paying enough attention. Or was it boredom from punching what seemed like endless numbers of rivets!



After the rivets were punched on one side the strip was turned around. Using the jig to line up the rivet in the second dimple guaranteed equal spacing from the edge of both lines of rivets. This was just a test strip to see if the theory worked. Eagle eyes will see a rivet missing from the nearest row, that is why it ended up a test strip. I put that down to the arrival of a much-needed cup of coffee and losing my trend of thought.

The rivets on the tank wrapper and tank front panel were done in a similar way. A single rivet die was installed the same jig as shown above. Great care was taken as I only had the one sheet of brass to do the tank. There were no interruptions during the process, thank goodness! There looks nothing worse than a wobbly line of rivets with uneven spacing.

The tank was soft soldered together using the 1000-watt resistance soldering unit. I probably had the control set at about $\frac{3}{4}$ so at least 750 watts made short change of the job. I should have used my green tinted brazing goggles because all I could see were bright yellow blobs before my eyes afterwards. The only reason I didn't use them was because I haven't seen the goggles since we moved from Tirau 4 years ago! Two lengths of $\frac{1}{2}$ inch brass angle were soldered behind the lowest row of rivets to allow the tank to be fastened to the chassis.



This shows the saddle tank riveted and the handrails on. The double riveted straps down the centre of the tank were soldered onto the tank with 138-deg C ready mixed solder paste from China. It was clamped in place and a hot air gun used to melt the solder. It worked brilliantly so I can recommend it for detail that you don't want to apply a soldering iron to. The smoke box door hand wheel was a fiddly bit to make but it had to look right being so prominent on the front of the loco. The square hole in the dart handle was filed with needle files.



Oops!! Well, that wasn't what was really said when it happened!

I found that the Sievert blow torch that was bought in an auction about 30 years ago gave a much hotter flame than my old Bullfinch system bought in the late 70's!! I was silver soldering the chimney saddle and didn't realise the flame was roaring up the chimney. The chimney top must have been in the hottest part of the flame (930-degC) to melt the brass!! Luckily, I managed to mount the chimney in the lathe again and turn off the melted chimney cap. I wasn't game to solder another one on so I made it a press fit and swaged the top with a No2 Morse taper. I will treat the Sievert burner with a lot more respect when I start work on the boiler next week!



Steel Fabrication & Engineering Specialists www.morgansteel.co.nz

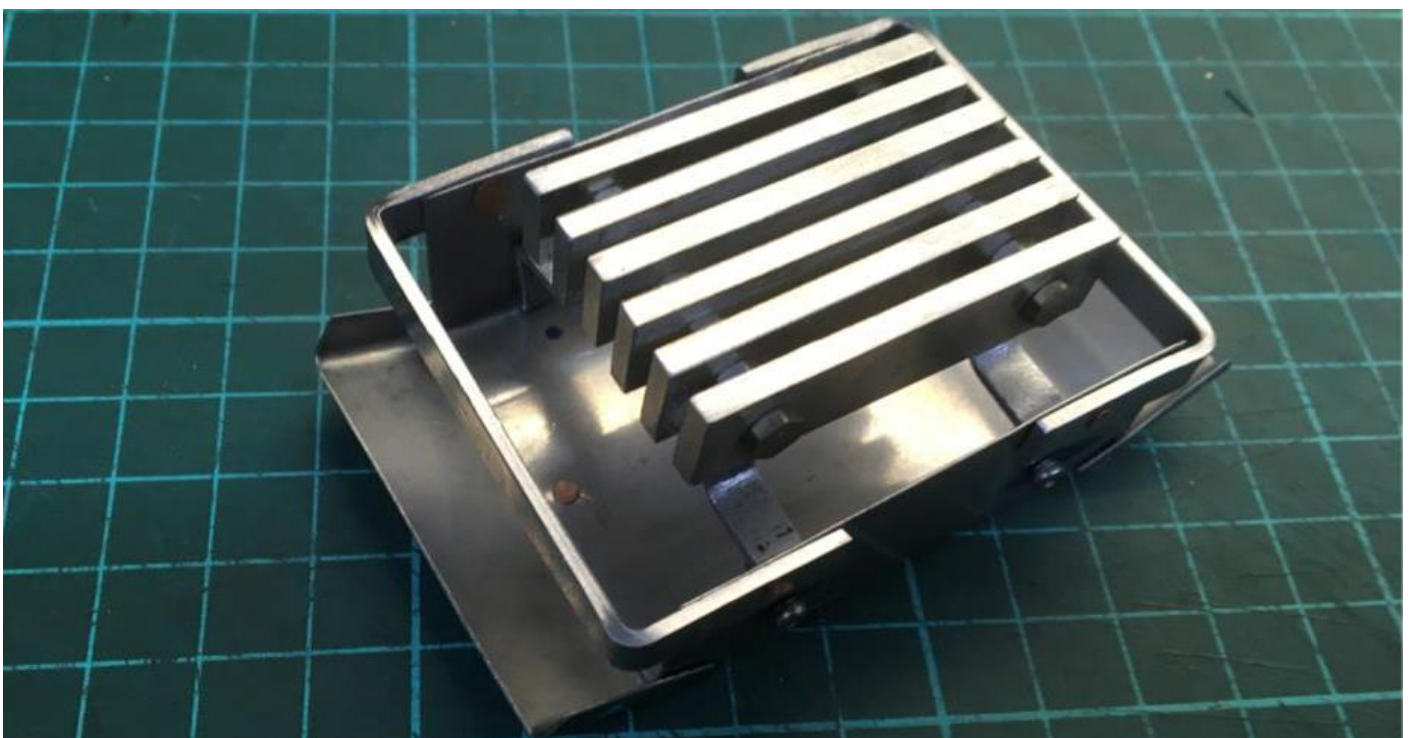


LIZ VAN WELIE
AQUATICS

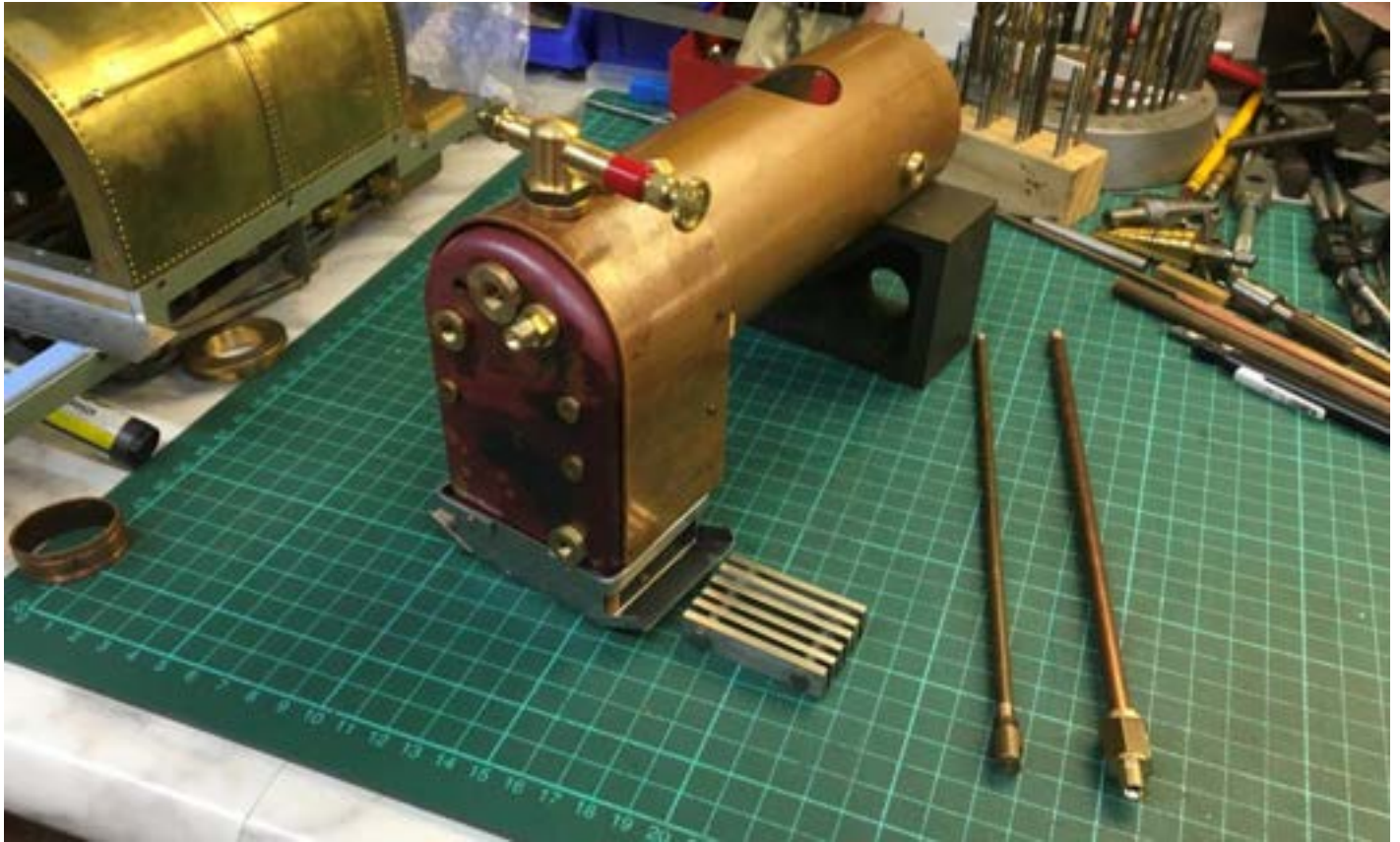
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This shows the firebox tube plate pilot drilled and the fire hole ring formed. I also decided to install a blow down valve. The bush for it can be seen at the lower right of the back head. The three smaller bushes are for the fire hole door hinge and latch. The back head will be the last part to be attached to the boiler. That is because the fire hole can only be cut after the firebox and crown stays are soldered to the boiler shell.



Stainless steel was used for the construction of the grate and ash pan. There were no drawings for these items, so I had to make something up. The ash pan openings are to the side of the boiler to make it easier to clean the pan out. It made no sense to have the opening to the rear under the footplate where access would be near impossible. Another plus might be that hot cinders will not fall on the sleepers, I hope!



This is how the boiler sits on the ash pan and the grate goes across the firebox. The two longitudinal stays to the right, one is solid the other is a thick walled copper tube for the steam feed to the cylinders from the oil tank. It will give me the option of installing a super heater if it is needed. The drawings don't show one but it really depends how it performs on wet steam.

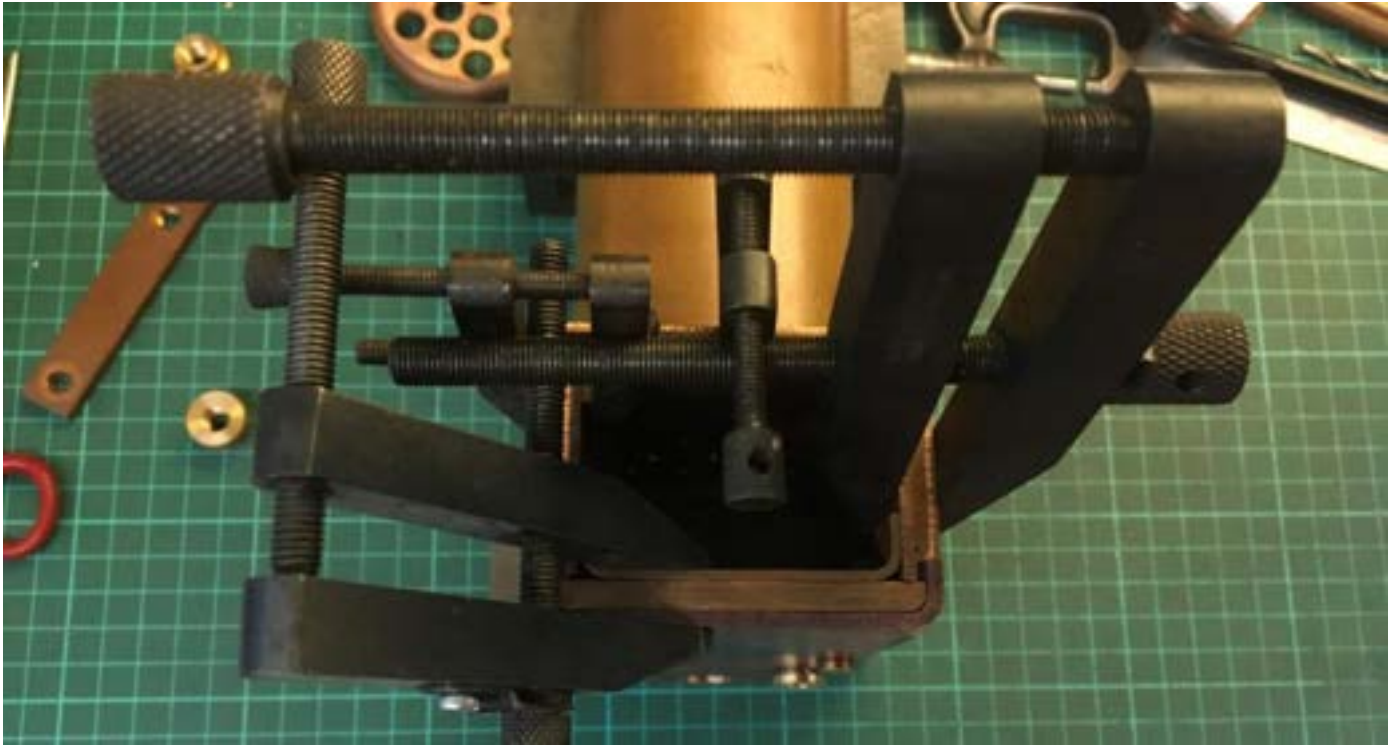
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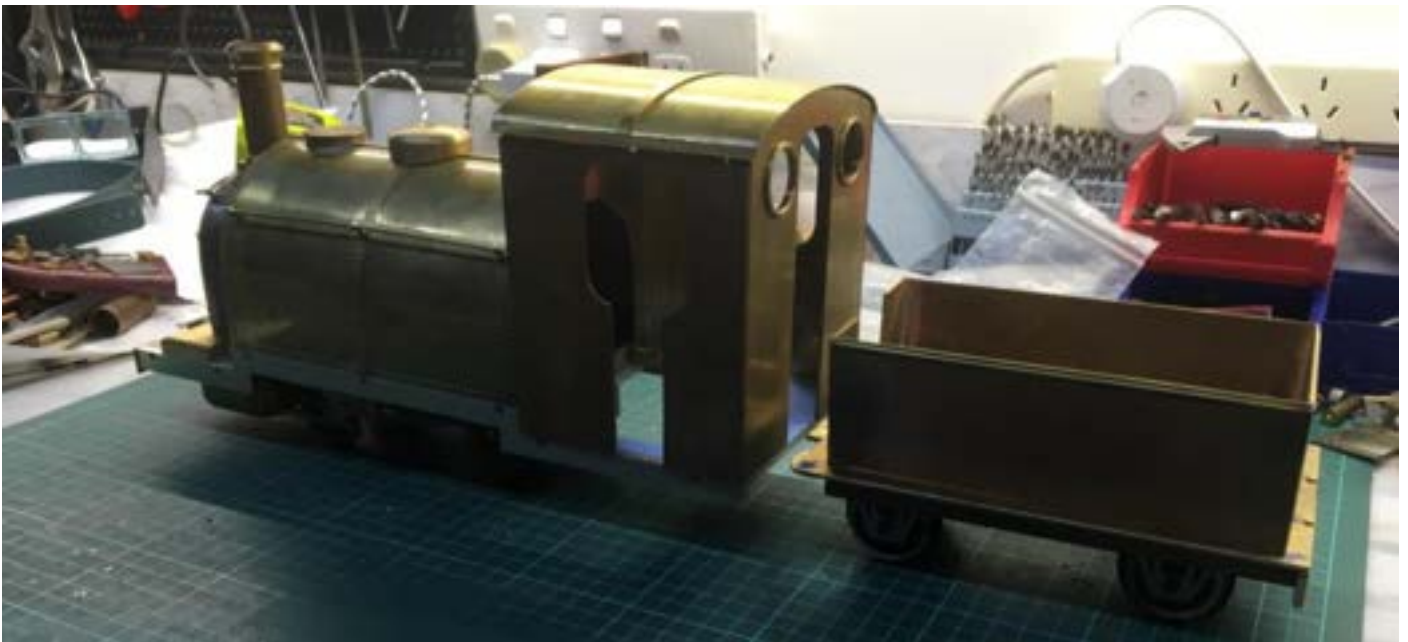
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I didn't have enough fingers to hold everything in place, thank goodness for engineer's clamps. The foundation ring was made a good fit but for the small gaps in the corners of the plates. Small pieces of copper will be beaten to size and shape and pressed in so I don't lose all the silver solder inside the boiler.



The Tender is starting to take shape. The recess on the top of the tender sides is for the curved edging to be added. I need to try and cut a length of brass tube into quarters using a slitting saw in the mill. I am hoping to solder the tube to a length of brass angle and mount it in the vice and run the slitting saw along the full length. Fingers crossed it is going to work and it should if I can keep the feed nice and slow.

If not, I just hope I can duck quickly enough!!



Here is one I made earlier in 16 mm scale from a *Garden Rail Specialists* kit. It shows the difference in size to the new engine.

That is the progress to date, more in the next newsletter. I hope it will be a steam report and running trials. I have been drawing up the rolling stock in 7/8ths scale to give me something else to work on over the winter months.

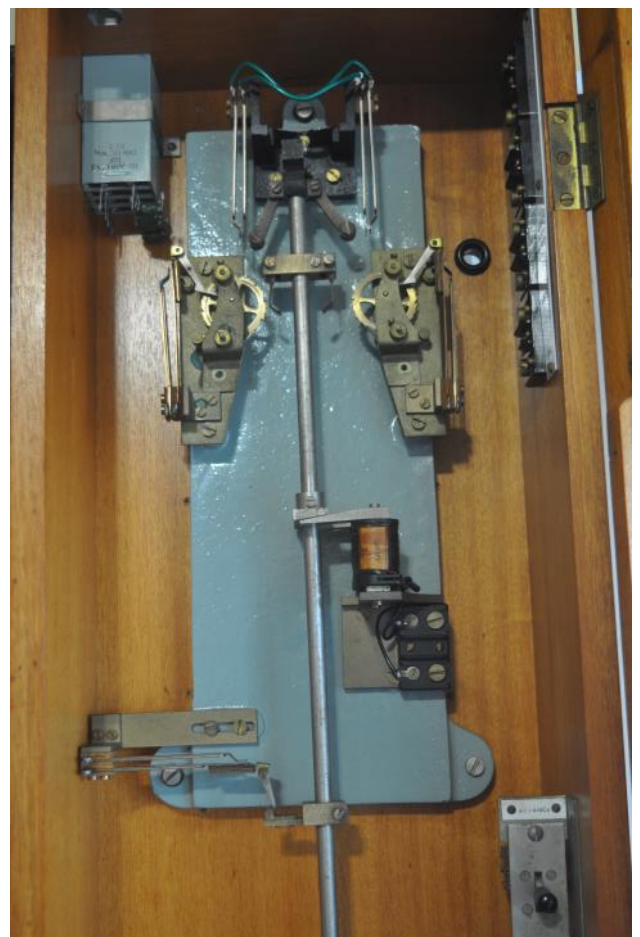
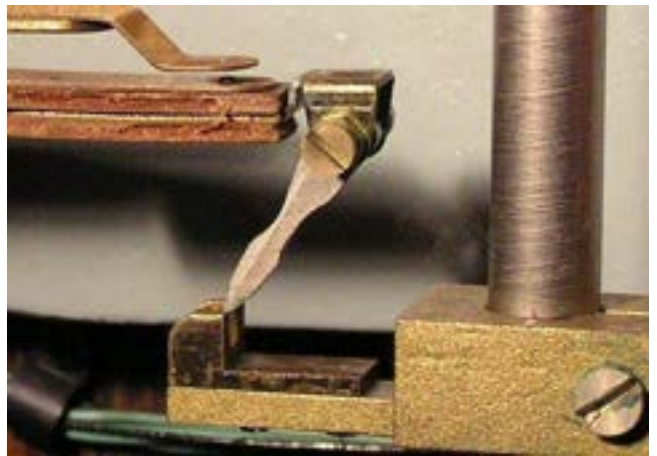
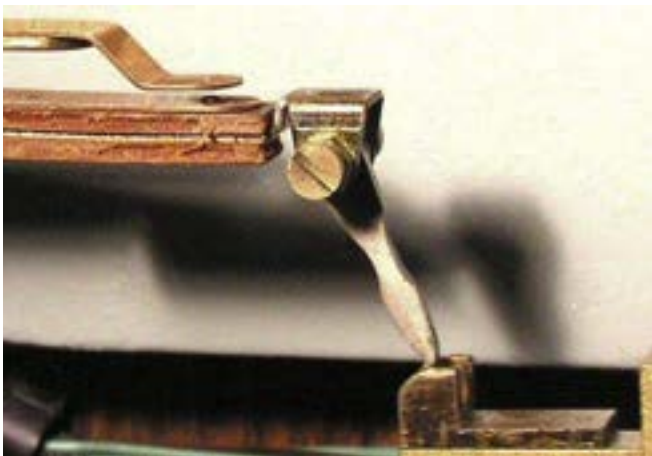
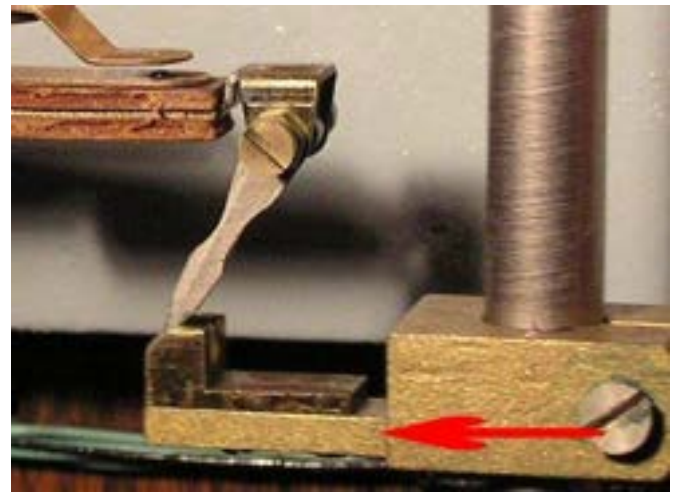
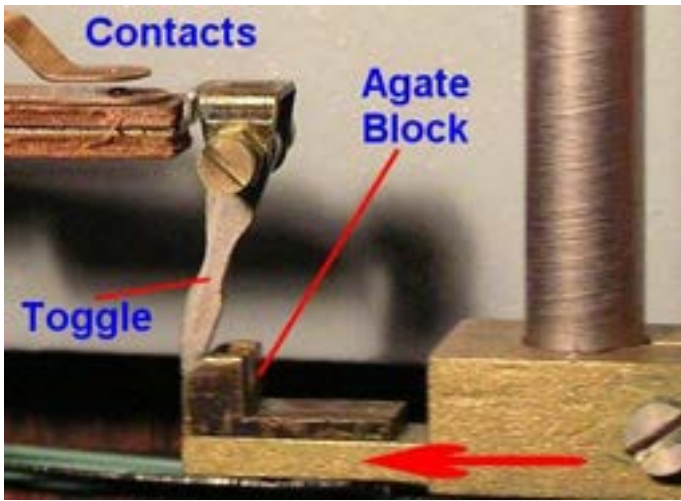
Hipp Toggle Mechanical Action

My interest in clocks specifically Master Clocks never fails to bring to my attention a new to me mechanical mechanism. Hipp Toggle was devised by a Mr Matthaus Hipp of Neuchatel, Switzerland. He dreamed up the action in 1834 but didn't introduce it into a clock till 1842.

For many years I have watched "Hit and Miss" stationary engines but never understood just how the magic of the engine running with only intermittent firing of the spark effectively controlling the speed of the engine, more load (slowing down) more firing strokes to bring the speed back up to the required rev's. This too is another use of the Hipp Toggle action.

In the GPO36 Master Clock the loose toggle (arm) hangs down and the V block on the pendulum rod knocks the toggle arm as it swings left and right. As the pendulum rod slows down it gets to a stage where the toggle jams in the v block, the toggle and the mount it is on is forced up and a set of contacts close making a circuit which powers a coil inducing a magnetic field to increase the swing of the pendulum rod and the cycle starts again.

This mechanism which is the heart of the GPO 36 Master Clock is very accurate and the GPO 36 was used in all of NZ Post Offices up until the late 1970's.



Above :The Hipp Toggle action

The GPO 36 Master Clock (photo on right). Toward the bottom left, one can see the toggle. Mid right is the coil which is powered from the toggle to encourage the pendulum rod to increase its swing. Left wheel just above centre is the 6 second wheel ie it provides a pulse every 6 seconds. Right side wheel, provides a 30 second pulse and runs the external slaves plus the one on the master clock. The diagonal bars Just above the wheels, both sides provide a one second pulse. In this master clock only the 30 second pulse was used

Play Day 7th June



Top left and bottom : Peter L on his Simplex previously owned by Ted Sisley

Top right : I understand Owen B had a great day .



Left : Ethan B carries out some running repairs.



TAURANGA MODEL MARINE and ENGINEERING CLUB INC. - DUTY OPERATORS ROSTER END 2025

	1st June 2025	Bruce McKerras	King's Birthday 2nd June
Saturday	7th June 2025	tba	PLAY DAY
	8th June 2025	Russell Prout	
	15th June 2025	Stewart Walker	
Friday	20th June 2025	tba	Matariki Friday Night Run
	22nd June 2025	*Ian Bain	
	29th June 2025	Bruce Bocock	
Saturday	5th July 2025	tba	PLAY DAY
	6th July 2025	*Ethan Bramley	
	13th July 2025	Bryan Fitzpatrick	
	20th July 2025	Jason Flannery	
	27th July 2025	Warren Karlsson	
Saturday	2nd August 2025	tba	PLAY DAY
	3rd August 2025	Joanne Knights	
	10th August 2025	*Steve Mannington	
	17th August 2025	Bruce McKerras	
	24th August 2025	Russell Prout	
	31st August 2025	Stewart Walker	
Saturday	6th September 2025	tba	PLAY DAY
	7th September 2025	*Ian Bain	Father's Day
	14th September 2025	Bruce Bocock	
	21st September 2025	*Ethan Bramley	
	28th September 2025	Bryan Fitzpatrick	Daylight Saving starts
Saturday	4th October 2025	tba	PLAY DAY
	5th October 2025	Jason Flannery	
	12th October 2025	Warren Karlsson	
	19th October 2025	Joanne Knights	
	26th October 2025	*Steve Mannington	Labour Day Monday 27th October
Friday	31st October 2025	tba	Halloween Friday Night Run.
	2nd November 2025	Bruce McKerras	
Saturday	8th November 2025	tba	Open Weekend
Sunday	9th November 2025	Russell Prout	Open Weekend
	16th November 2025	Stewart Walker	
	23rd November 2025	*Ian Bain	
	30th November 2025	Bruce Bocock	
Saturday	6th December 2025	tba	PLAY DAY * Operator in Training
	7th December 2025	*Ethan Bramley	Holiday weekends
	14th December 2025	Bryan Fitzpatrick	tba = to be announced
	21st December 2025	Jason Flannery	To ensure cover, any changes to the roster are be made directly between affected individual Operators.
	28th December 2025	No Run	

Denotes School Holidays

Nostalgia



William Williams sharpening the teeth of a circular saw blade with a file, Kakahi, Ruapehu District. cir 1930

MP James Carrol and party on a bush railway at Waipaoa, Gisborne. 1905

