

2 4 6 8 10 12 14 16 18 — BINGO!!!



After 18 years from plan-purchase, Rankin has now completed this magnificent locomotive based on a Lima Mogul design with a stunning colour scheme. The Cheshire cat smile tells everything. Helping him with the test-run is John Wright (ex Havelock North).

## ***CLUB NOTICES***

3rd Sunday Running — Dec 16, 2018 and Jan, 2019 10 am till 3 pm.  
Mid-week Workdays — Mostly Every Wednesday, 10 am — 3 pm.

**Extra Running Days This Month:**

**SEE INSIDE**

THESE WORK IN WITH  
MUSEUM "LIVE" DAYS AND OTHER  
EVENTS WHEN HELD

## QUIZ – What is it?

See Page 4.



**Merry Christmas and A Happy New Year  
From  
The Committee and Editor of the Heritage Park Miniature  
Railway**

### FUNCTION BOOKINGS FOR THE RAILWAY

CREWS WILL BE REQUIRED FOR THE FOLLOWING BOOKINGS

**New Zealand Refining Company:** Staff Picnic: Saturday, December 1, 2018, 10 am — 2 pm.

**Hora Hora School:** Wednesday, December 12, 2018, 10 am — noon.

**HIRE:** Wednesday, December 12, 2018, 12.30 pm — 1.30 pm.

**If Available Please Ring Rodney**

### Other Club's Events:

**Cambridge Night Market:** Saturday, 8 Dec 3-8 pm & Sunday, Dec 9, Run Day 10-3 pm 2018.

**Palmerston North (Locomotion):** Saturday, January 26, 2019.

**Maidstone (Hutt Valley):** February 23-24, 2019.

**Hamilton Model Engineers:** Open Weekend, March 16-17, 2019.

Views expressed in this newsletter are not necessarily the views of the editor or of the Whangarei Model Engineering Club

## LIST OF MAIN CLUB OFFICERS

**President:** Rodney White. Telephone (09) 436 1185. E-mail; [rtw@slingshot.co.nz](mailto:rtw@slingshot.co.nz)

**Vice President:** Rankin Kennedy. Telephone (09) 430 8328. E-mail; [jenandrankin@gmail.com](mailto:jenandrankin@gmail.com)

**Secretary:** Brian Mould. Telephone (09) 434 6188. E-mail; [thewinkles7749@gmail.com](mailto:thewinkles7749@gmail.com)

**Treasurer:** Bruno Petersen. Telephone (09) 438 7600. E-mail; [brunopetersen@xtra.co.nz](mailto:brunopetersen@xtra.co.nz)

**Committee Members —** Colin Smith, Ian Mison, John Wright, Lloyd Cross.

**Newsletter Editor —** Ian Mison. Telephone (09) 434 3125. E-mail; [julianm@xtra.co.nz](mailto:julianm@xtra.co.nz)

**Charters and Bookings —** Rodney White. Telephone (09) 436 1185.

**Postal Address:** Whangarei Model Engineering Club (Inc), P.O. Box 10233, Te Mai, Whangarei 0143.

**Club Telephone:** (09) 438 9520 (Available Work and Running Days Only).

# Group of Americans Plan to New-build T1 5550

A non-profit group known as *The T1 Trust* plans to build an all-new, fully operational T1 using the original plans with subtle performance improvements where necessary. The T1 Trust's goal is to provide mainline excursion service and to set the world speed record for a steam locomotive currently held by the LNER Class A4 4468 Mallard at 126 mph. It is worth mentioning the original T1s were reported to have broken *Mallard's* speed record as far back as 1948, but these claims have never been officially confirmed. The T1 Trust's cost estimate to build T1 number 5550 is \$10 million with an expected completion date of 2030. The construction of 5550 is also following construction and financing methods pioneered by the LNER Peppercorn Class A1 60163 Tornado project. The first piece of the locomotive, the keystone shaped number plate, was cast in April 2014, followed by the first minor component, a driving spring link pin, in October 2014. The headlamp was constructed and given to The T1 Trust by a donor in mid 2015. On February 26, 2016 the first driving wheel for 5550 was cast. The massive and complex Boxpox driver weighs 2500 pounds. In October 2016, construction began on the iconic prow of the locomotive using aircraft grade aluminium framework and plating. On January 18, 2017, the first frames for the cab of 5550 were cut and prepared for assembly. Similar to the prow, the cab frames are made of aircraft grade aluminum. The second Boxpox driver, originally ordered on December 9, 2016, was delivered to the Trust on March 15, 2017. The prow and cab were the next items to be completed in May and July 2017 respectively. A Coast-to-Coast tender from a former M1 Class Mountain 4-8-2 was bought in August 2017. As of May 4th, 2018, some progress has been made on the tube sheet and 3 boiler courses are on order.



## Wednesday Workdays:

By the Editor



We are still trying to get the better of the plumbing system in the clubrooms.

Two of our more nimble members have been clamouring around in the roof trying to sort out the low pressure from the mains pressure. When fixed this should give us an equal flow all round. The "Fix-it" team, Colin and Rankin have been struggling to fix the unequal pressure in the two systems. I think they have spent about three days on this problem so far. But as of today (21/11/18) ...

IT'S FIXED!!!!

Our Treasurer, Bruno, in between visiting the West Island and shifting house, has given some of the trackside trees a haircut.

Tony has been out in all weathers doing repairs to the signals around the tunnel area.

A truck load of rubbish was taken to the tip, and there is more in the way of scrap metal to follow.

A start has also been made on the numbering of all the points on our system. This to make the job of identifying a maybe faulty point a little easier.



**THE CUT-OFF DATE FOR NUMBERS FOR THE CLUB LUNCHEON IS**

**DECEMBER 6th**

**PEOPLE WITH INTENTIONS OF ATTENDING THIS FUNCTION SEEM TO BE A BIT THIN ON THE GROUND  
(ALL THE MORE FOR THOSE ATTENDING)**

**IF YOU ARE ATTENDING PLEASE PHONE THE EDITOR ON 4343-125**

# ANSWER TO QUIZ ON PAGE 2:

## *Parcel Tram ex Wellington City Corporation Tramways.*

Most tramways in New Zealand had one or two vehicles of this nature.

As the name implied they did a roaring trade in the early 1900's — that is until the advent of better roads and more reliable motor lorries and consequently they fell out of favour in the mid-twenties. The one pictured (301) was one of a pair that the WCCT had. The other (302) was dismantled and the truck and other bits and pieces were used elsewhere. No 301 was later converted to a rail scrubber and is still in that form today but a large DC welder has been added to the on-board equipment.

The fleet numbers were changed to the present ones as they were originally 201 and 202. This came about because the fleet numbers of the passenger trams overtook those of the service stock.

The Auckland system also had similar vehicles. One was a "revenue car" which went to each depot daily to uplift the cash deposited there from the previous day and this was taken to head office downtown. The other was a bogie tram (304) that had a crane mounted on it so that it could be used to take rail and sleepers to various points of the system for repair work.

This vehicle's other purpose was picking up the remains of the concrete abutments that were on the ends of the safety zones erected at some tram stops for the protection of prospective passengers. These had been wrecked by drunken motorists on a Friday and Saturday evening. The bones of this tram were for many years on the side of the road out Kaipara way.

Tram 304 was also experimental in testing a new type of self-lapping brake to replace the manual-lap brake that the rest of the fleet had. The tests were successful but World War II put the skids under the implementation of that scheme.

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# Third Sunday Running



The November running day was a great success with a really good turnout of members plus a prospective new member (we need more).

The public riders were steady most of the day and we had just a small shower of rain right on closing time.

There were three steamers in action including Rankin's new Mogul which drew quite a few ooo's and aahr's, and the club's petrol locomotives.

There appeared to be an unusual interest in "things trains" whereby about two of our patrons indicated to me that they were close to retiring in other parts of the country and were contemplating moving to the "winterless north" and had engineering backgrounds. One already had a loco in operable condition and the other was obviously smitten by Rankin's latest build.

The banger department was in full swing. I think that repeat visitors to our site now seem to expect that there will be some kind of nourishment available.



Tony and Brian's "Scotty" ready for another trip



Rankin's passengers disembarking at station

# Setting the timing on A3 triple cylinder Steam Engine

By Tony Tanner ... Revised August 7<sup>th</sup> 2017 and 6-3-2018

Each of the three cylinders have 2" diameter cast iron pistons each with three cast iron rings running in cast iron bores. Similarly the three valves are cast iron running in sleeves that are fitted to a cast iron chest. There are no rings on the valves.

The cylinder end plates are fabricated from 1/2" bronze plate and are silver soldered to form the complete endplate, including the exhaust and steam ways. The steam ways are formed in these plates, milled out 7mm deep and fitted with a 3mm copper plate silver soldered in place. The exhaust ways are fabricated in a similar manner. These assemblies and parts are shown on fabrication and assembly photos attached. The end plates are easily sighted to see the steam ports.

The pistons are attached to 1/2" stainless rods and double bolted to the x-slides. The centre cylinder is angled at 8 deg. The centre cylinder valve is also angled at 8 deg. And this involves a valve cross slide arrangement not shown on the original drawings.

Each valve 'assembly' consists of a 250mm long 6mm diameter stainless steel rod on to which parts are fitted. The rear valve x-head guides are attached by four off 4mm socket stainless screws that have the heads thinned down to fit the valve guide assembly. There is no need to undo these fittings to adjust the timing. The right and left hand cylinder rear valve rod is secured into the x-head via a 1/8" reamed hole into which a bolt is fitted. These can be tapped out by careful positioning of the combination lever. Releasing these two fitted bolts frees the valve gear for removal from the front of the engine.

On to each of the 6mm valve rods is fitted a 1/4" bore 3/8" OD stainless pipe a little longer than the valve spools. These are threaded at each end for about 20mm at 3/8" x 40 tpi. 10mm nuts are bored and threaded accordingly to fit this pipe. The pipe is positioned on the valve rod. Two knurled sections on the valve rod ensure concentricity of rod and valve spool carrier. This pipe is then drilled through in three places and a 2.5mm stainless pin is lightly riveted and smoothed. The valve spool is then fitted and there are two special made up sockets to tighten the end nuts to hold the spool in its required position.

The front end of the three valve assemblies are pass through the valve x-head guide glands and are pinned to the valve rod. Thus the valve spool can be moved along the valve rod by appropriate movement of the two end nuts to position it as required for timing. The valve rod is thus fixed and the valve spool position only is adjustable. Having adjusted the three valve spools, the three assemblies are offered into the valve sleeves and the front end guides bolted up.

The 2:1 gear can now be re-assembled. The left and right hand cylinders should move the valve rods by approximately 23mm maximum (=VT). Clearly this depends on the valve gear being set. It has been measured that the practical valve movement will be around 24mm. At the time of writing and initial assembly, all three valve can move just over 25mm in the valve guides without hitting the ends.

The setting of the centre valve spool is different. In order to get to the three front ends of the valves, it will be necessary to dismantle a number of items, including the two side deck front ends. It is not necessary to remove the full side decks. The plate below the smoke box front needs to be removed as well as the cover plate for the 2:1 carrier box.

The two side cylinder valves can be removed forward by disassembling the 2:1 gear completely. Remove the fitted bolt at the combination lever x-head end. The front x-head guides can now be released (four cap head stainless 4mm screws). The whole assembly consisting of the valve spindle, valve spool, front x-head guide and the front union to the 2:1 gear, can now be removed forward. The valve spools can then be adjusted on the valve spindle toward the front or rear. In full forward gear, the admission point of steam at BDC is then set and the valve rod, etc, re-assembled. Having done this on both sides, check the admission points by introducing very low pressure air into the appropriate valve steam chest with the cylinder relief valve spring and ball removed and moving the frames forward to BDC and beyond. Ensure that the two outside cylinders have the same VT and then box them up.

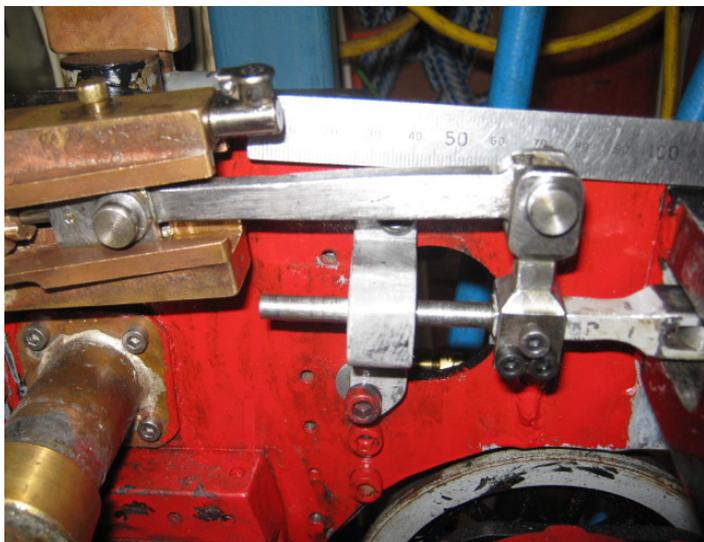
The centre cylinder is of the same build except that there is no rear x-head. The valve spindle is guided in a bronze tubular assembly. The internal valve spool is adjusted in the same manner. The whole assembly can be withdrawn to the front in the same manner as the outside cylinder valve assemblies. However an added aid to valve setting is built in for this valve, not shown on the original drawings. This is a double ended link with eyes at around 100mm that fit the 2:1 gear and the valve x-head. This link is made from hex steel and threaded internally 5/16" x 40 tpi. The rear end is a male threaded extension and thus an adjustment by this alone can move the valve spindle 0.0125" by a half turn and re tightening the lock nut. This facility to assist with this valve adjustment at a later stage.

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## FROM PREVIOUS PAGE

Presently the adjustment is set for correct admission at BDC of the centre con rod. The action of the two outside valves through the 2:1 moves the centre valve to open the steam ports at each end of the stroke, but is slightly late in the admission point from FDC. Thinking about this.

Some photos in explanation are attached. No reason has been found to upgrade the above as at March 2018. Very considerable progress has been made on the overall assembly. But there are always problems to overcome. More later!



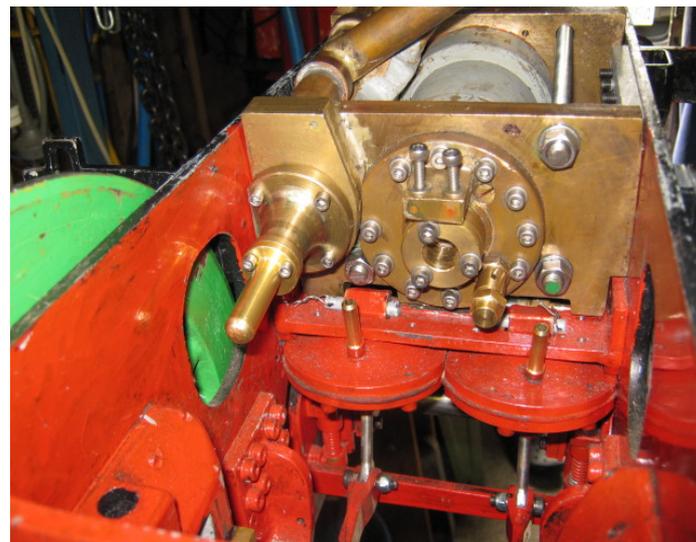
ABOVE: Centre cylinder X-head guide.



ABOVE: Left Hand cylinder front view.



ABOVE: Valve assembly showing timing adjusters.



ABOVE: Centre cylinder rear view.

## FOR SALE



New Zealand & South Seas Exhibition Souvenir Booklet. Circa 1925

16 pages, each with multiple sepia-tone pictures  
Only colour photo is on the front cover  
Booklet is 25 mm x 183 mm in size  
Condition is very good

**\$20** OR MAKE AN OFFER

Contact the Editor on 09 434-3125 or  
e-mail [julianm@xtra.co.nz](mailto:julianm@xtra.co.nz)



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Whangarei Model Engineering Club Inc,  
P.O. Box 10233, Te Mai, Whangarei 0143.

