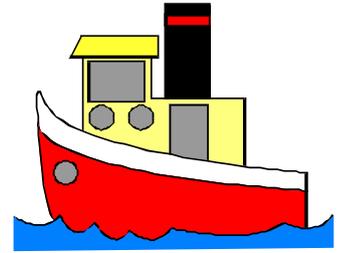


Wheels and Floats



Newsletter April 2020

TAURANGA MODEL MARINE AND ENGINEERING CLUB INC.

The Secretary
PO Box 15589
Tauranga 3112

Palmerville Station Phone 578 7293

Miniature Railway Memorial Park
Open to Public, weather permitting
Sundays in Summer: 10am to 4pm approximately
Winter: 10am to 3pm approximately

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: Russell Prout 548 2881
Vice President:
Club Captain Bruce McKerras 577 0134
Secretary: Jason Flannery 572 1165
Treasurer: Owen Bennett 544 9807
Committee: Ash Thomas, Max Donnelly,
Joanne Knights, Bruce Harvey
Brian Fitzpatrick.
Boiler Committee: Peter Jones, Bruce McKerras,
John Heald.
Safety Committee: Chris Pattison (Chair), Peter
Jones.
Editor: Roy Robinson 07 5491182
royrobkk@gmail.com

CONVENERS

Workshop: John Nicol
Track : Bruce Harvey, John Stent.
Librarian: Chris Pattison
Rolling Stock: Bruce Harvey
Website: Murray de Lues

OPERATORS 2019

22 March W Karlsson
29 March B McKerras
5 April N Bush
12 April M De Lues
19 April B Fitzpatrick
26 April J Flannery
3 May B Harvey
10 May P Jones
17 May W Karlsson
24 May B McKerras
31 May N Bush
7 June M De Lues
14 June B Fitzpatrick
21 June J Flannery
28 June B Harvey
5 July P Jones

President's Report

Just when you think all is progressing well with the track, rolling stock, locomotives and preparation for the annual ADR audit the unexpected effects of Covid-19 brings a reality check to us all.

We decided to call a halt to our Sunday public running ahead of the lockdown as we felt there was a considerable amount of preparation to be done to protect our members and the public from opportunity transfers of the virus. At the time we had little info and no knowledge of a lockdown situation that would stop all club activities.

Now, one week into the lockdown, it is easy to see that our decisions were the right ones to make.

For quite some time I have been encouraging our members to write stories and present pictures of their shed projects and it is easy to respond I will soon when I have something to show. Well I am pleased to say that many of our members are now doing just that. It appears there are more projects progressing (maybe faster now than ever before) in the proverbial shed than could have been imagined. From single cyl petrol engines to yachts to improving the shed layout with tooling racks, jigs, tool adaptors and many more.

Please don't let the virus be the only reason for progress and certainly don't let the end of the virus be the end of your return to the shed.

I have seen many posts from modellers around the world celebrating their very significant projects and sharing them with like minded enthusiasts around the globe. What a wonderful gift for anyone looking for a pick me up. Keep those wheels turning, steam generating and polishing going and maybe our celebration at the end of this virus is a massive (virtual) show of creativity for all to enjoy.

Time for a small challenge:

1 : Please post or send to the secretary a picture and story of the longest work in progress you have still to complete.

2 : Please post a picture or story of the most significant obstacle you have overcome in your modelling career.

I will start the ball rolling in a separate article elsewhere in this issue.

Please be patient and observe all the recommended government initiatives to prevent the spread of this virus and let's ensure we can all celebrate its demise together.

Russell Prout President.

A&G Price Locomotive No.149

In 1944 A&G Price manufactured four locomotives numbered 149 to 152 for the RNZAF

This locomotive (No.149) probably started its life at the RNZAF stores depot in Te Awamutu. It was then transferred to the NZ Army where it was allocated the fleet number NZ 28892. It served at Hopuhopu Military Camp, Ngaruawahia until the camp closed in 1979.

It finished its working life shunting coal wagons in Waiouru before being parked up behind the Army Museum workshops where it sat for ten years before being 'discovered' by railway enthusiasts from Wanganui in 1996.

The loco is powered by an 87hp Chevrolet petrol engine driving a four speed manual gearbox. It was capable of moving three loaded "La" wagons (about 50 tons). It has had several interesting modifications in its long working life i.e. it now has a 20-litre jerry can as the fuel tank, the headlight is off a WW2 Bren gun carrier, and the horn is off a WW2 CMP (Canadian Military Pattern) truck.

The loco was moved to Wanganui in March 1998 on a long term loan to the Wanganui Steam Rail Preservation Group.



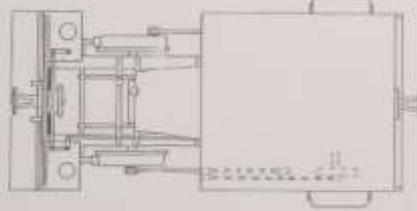
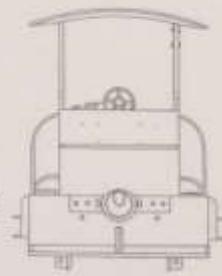
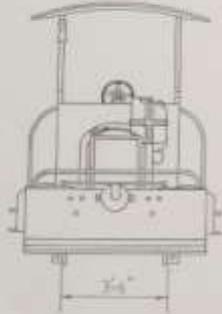
PLAN PAGE

A&G Price Shunting Tractor

Scale: 9mm = 1ft

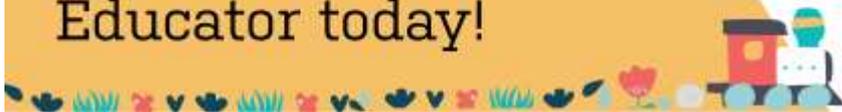


Crank Detail



Thanks to Grant Hays : Curator of Vehicles, Artillery and Technology,
National Army Museum, Waiouru.

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Engineering

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The following article came from an old Historical Journal. Sorry the clarity isn't great.

A TRACTION ENGINE IN THE BAY OF PLENTY

by A.C. Bellamy

Although well over 1000 steam traction engines and road rollers were imported into New Zealand, only very few ever ventured into the Bay of Plenty, probably because of the steep terrain, and the state of the road and bridges, and the County by-laws (see Appendix 2). In January 1891 the first mention was made of any traction engine being proposed for use in the Tauranga-Te Puke area. At that time the residents of Te Puke were in a state of excitement about the new engine that was going to work on the road between Tauranga and Te Puke. The residents feared that they would not be able to drive their buggies and conveyances to town for fear of the horses taking fright of it, should they suddenly come upon it coming around one of the numerous bends on the road. (1) (It should be noted that this was 12 years before the first motor car appeared on the Bay of Plenty roads).

By the middle of February the traction engine, imported by Mr George Gardiner, had been landed on the town wharf at Tauranga. Many people visited the wharf to see this (2) innovation for the town. Mr Gardiner soon set to work assembling the engine on the wharf. Apart from the flywheel, which was broken, the rest of the machine was in good order. (3) By the middle of February it was reported that the traction engine was now ready for work and that as soon as the flywheel arrived from Auckland, steam would be got up. In the meantime, however, the engine was removed from the wharf and parked opposite Mr Bodell's store. (4) On Saturday 21 February 1891 the new flywheel had arrived from Auckland and Mr Gardiner soon had the engine completed. (5)

At 5.30 p.m. the fire was started in the firebox and from that time until about 11.00 p.m. it was a source of great attraction. In fact The Strand was almost entirely deserted except for the corner of Wharf Street, where the engine was parked. At about 7.30 p.m. a sufficient head of steam had been raised and the engine, followed by a crowd of criticising spectators, was driven around to the town pump in Spring Street, where a fresh supply of water was taken on. The engine was easily turned on the roadway in front of the brewery which was on the corner of Willow and Spring Streets where the National Bank now stands. For some time the engine did not work well owing, no doubt, to the fact that everything was new, but after a little while the machinery worked splendidly. A number of people climbed on board filling the coal bin, standing on the steps and hanging on behind as the machine went up Wharf Street, round First Avenue, down Devonport Road and along The Strand, and back up Spring Street, finally stopping at the back of Bennett and Spence's Store. The engine's speed was described as being a fast walking pace and it travelled nearly as fast going up hill as down. The engine came in for some criticism, although it was said that the critics were mainly persons who knew nothing at all about the matter. The main drawback was expected to be the shortage of work for it.

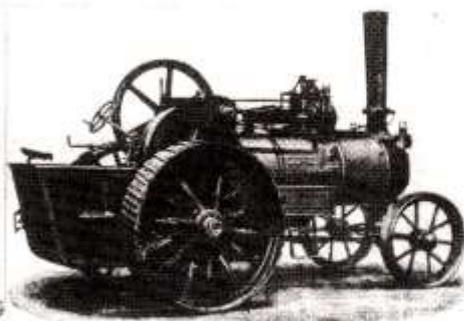
On the Tuesday morning steam was again raised and a start was made from Messrs Bennett and Spence's yard at noon, the threshing machine being attached. Some difficulty was experienced in getting over the heaps of shell in McLean Street, but after a few attempts The Strand was reached and the machine brought along and up Harington Street. The steep grade in this street was tackled with ease. On Cameron Road being reached, a halt was made

THRESHING SEASON, 1891.

I am now prepared to book orders for steam threshing at cheap rates.



Will visit Te Puke soon



G. GARDINER,
AGENT TAURANGA

This advertisement is taken from the "Bay of Plenty Times".

* * * * *

and the quick speed gear attached to the engine. Once it commenced to roll again it travelled along at the rate of four miles and hour. A crowd followed this innovation for the Bay of Plenty area for a considerable distance. The first stack to be threshed was at Mr Bennett's farm near Hairini. When this was finished the machine was to proceed to Judea to thresh Mr Hamilton's grain.

This engine had been made in England by Messrs Ransomes, Sims and Jefferies at their works in Ipswich. Every traction engine when built carried a brass plate on which was engraved the maker's name, its works number and date of construction. This particular engine carried the maker's number 8319 of 1890.

In March it was reported (6) that the traction engine and threshing machine had been doing good work and in two weeks it had threshed nearly 10,000 bushels, principally oats, the average being 30 bushels to the acre. Mr Gardiner stated he was well pleased with his machine and that some of the grades of the cuttings he had been obliged to travel over had been one in five. When the threshing season was over he intended using the machine for ploughing and he expected to haul three sets of double furrow ploughs and do 10 acres per day.

The engine continued to work in the western Bay of Plenty much to the concern of the Tauranga County Council. It is known to have broken a bridge on the Te Puke road and also damaged the Judea Bridge. The County passed by-laws for the operation of traction engines on the roadway, which were particularly severe. (See Appendix 2)

In May 1896 the following advertisement appeared in the *Bay of Plenty Times*:

"AUCTION SALE

"The undersigned has received instructions from the Public Trustee to sell by public auction on Saturday 30 May 1896 at 11 o'clock in the estate of George Gardiner deceased, Steam Traction Engine and Threshing Machine in complete working order, Ploughs etc.

"D. Lundon, Auctioneer." (7)

This engine was not sold at the auction, but was later disposed of at a

satisfactory price to the Waihi Goldmining Company. (8) Two months later the engine had shaken the dust and mud of the Tauranga roads from its wheels, and had started for Waihi having been purchased by Mr Barry, Manager of the Waihi Mine. It was suggested at the time that the clock of progress had been put back five years, and that it would probably be a long time before anyone would be rash enough to again brave the prohibitive County by-laws, for no engine of practical value for haulage or even for machinery could be found to come within the present limit. (9) This prophecy was correct as it was not until 1909 before another traction engine was purchased by Mr Pinker for use in the Bay of Plenty.

The engine apparently did not progress very far as in October 1896 it had only arrived at Katikati under the control of Mr Bainbridge who had been employed by the Waihi Goldmining Company to take it to Waihi. He was accompanied by Mr E. Daines who was described as a general mechanic. It was intended to take a big cylinder which had been lying at Bowentown for the past few months to Waihi. (10) This task was safely completed (see Appendix 1).

In November the engine was being used to drive a ten head stamper at the mines (11) although by December it was idle at Waihi as it had been taken from the battery to do some hauling on the road, but the County Council would not allow it to be used. (12) It was, however, later allowed on the roads, as in October 1903 mention is made of a ponderous piece of pumping machinery weighing 24 tons being on its way from the Thames to Waihi, and that the Waihi Goldmining Company's traction engine, formerly well known on the Tauranga roads, proved unequal to the task and had come to a stop at Mackaytown. (13) It was necessary to borrow a traction engine owned by the Ohinemuri County Council to assist in this haul, and it was completed by the two engines.

The Waihi Goldmining Company used the engine until 1912 when it was sold to the Public Works Department who used it for haulage in the Hinuera-Horo Horo area.

APPENDIX 1

"Letter to Editor.

"Sir,

"My many regretful friends in Tauranga will no doubt be glad to hear that I have made a good start in taking the Waihi Company's cylinder to its home, a task which has, of course, been too much for the meat horse and cow power hitherto applied to it. I arrived alongside it about a week ago, and thought it rather large to tackle, but my friends took off the wooden clothes that were on it and then I decided to go for it on Thursday at 2 p.m. I got a fair grip after my regular feed of coal (which I recommend to all readers as most strengthening and warming in cold weather by personal experience). We went along comfortably at about 1½ miles per hour, this is not a Maud 8 pace, but Maund 8, nor any other horse ever drew a twelve ton cylinder and wagon as I did with comfort and safety. In fact I snorted and reared at a heap of planks by the first bridge in the racehorse style to show I was good for as much or more. I know how the horses do it, having watched them when we meet unexpectedly. About six I crossed a floating bridge the local body had placed over a swamp; of course I crossed it with the greatest of ease myself but the stupid wagon behind put its forefoot through a bundle of scrub spanning a bottomless swamp. I went on myself a little way and waited while my companions dug out the wagon (which was only up to the girth in the roadway). After a good sleep and feed of coal for breakfast they planked a

road for my follower and we migrated about 10.00 a.m. on Friday. By three thirty I was halfway through the gorge (as they said, though I was still as eager for my coal as at starting) where I dictated this letter, having er... er... rheumatism in my right arm today and went on at a two mile gait to make up for lost time. I hope to get to Waihi on Friday night, and will let you know in case the local bodies lay more pitfalls for me. Though I have had much experience with them since I caused the repairs to be made to the Judea Bridge I assure you I will be delighted to fill any extraordinary vacancies I may leave in the road with their members.

In great haste,

The Traction Engine. Her /// Mark
(which no one who has felt will ever forget).

vide Bay of Plenty Times

27 January 1897.

APPENDIX 2

WHAKATANE COUNTY COUNCIL BY-LAWS 1918

The following are the 1918 Whakatane County Council's by-laws relating to the use of traction engines on its roads. The 1918 by-laws do not differ from the earlier 1911 by-laws and are probably similar to the by-laws in force in the Tauranga County at the time the traction engine was operating.

ED.

PART III.

12. Traction engines may pass along the roads within the County subject to the following conditions:—

- (1) Whenever any traction engine shall pass along any road, the driver thereof shall allow as much space as possible for other vehicles, and for all persons using the said road, and for all horses, cattle, and sheep passing along the said road.
- (2) (a) No driver or person in charge of any traction engine other than a motor waggon shall drive or cause the same to be driven along any road at a speed exceeding five miles an hour, or across any bridge or culvert at a rate of speed exceeding two miles an hour. (b) No driver or person in charge of any traction engine which is a motor waggon shall drive or cause the same to be driven on any road at a speed exceeding ten miles an hour.
- (3) No driver or person in charge of any traction engine shall cause or permit the same to come upon or pass along any bridge on any road at any time while any person with a horse or vehicle drawn by a horse, or any stock, is on or about to come upon such bridge.
- (4) No driver or person in charge of any traction engine or any waggon or portable mill attached thereto, shall cause or permit such engine, waggon, or portable mill to stop on any bridge or culvert on any County road for the purpose of drawing water from any water-race, river, stream, or ditch passing under or through such bridge or culvert, or for any other purpose whatever, except for the safety or convenience of other traffic.
- (5) No driver or person in charge of any traction engine shall cause or permit any ashes or refuse from the furnace thereof to be discharged upon a bridge or culvert on any County road, or upon any wooden structure appertaining to any such road, or upon a County road within one chain of a bridge, or culvert, or wooden structure as aforesaid, or to be left in a heap on a road, but shall immediately upon such ashes or refuse being discharged from any engine cause the same to be thoroughly soaked with water and spread evenly on the road.
- (6) It shall not be lawful to carry on any combine or waggon attached to or drawn by a traction engine on a County road any greater weight (over and above the weight of the combine or waggon) than four tons, unless the tyres thereof are at least five inches wide, and no combine or waggon drawn by any traction engine shall carry more than six tons weight over and above the weight of any such combine or waggon.
- (7) No person shall, upon any County road which is metalled or gravelled, use any grippers or similar appliance, or any appliance whatever, on any traction engine, whether attached to the wheels of such engine or not, whereby the said road may be cut up or damaged.

- (8) When any damage or injury is done by any traction engine, or waggon attached thereto, to any County road, fence, bridge, culvert, drain, or side ditch, or to any other thing appertaining thereto the person in charge of such engine shall at once give notice in writing to the County Engineer, the County Inspector, or the County Clerk, and also to the Surfaceman in charge of the road to or in connection with which the damage or injury has been done, of the nature of such damage or injury, and of the place or locality where, and the time when, the same happened; and, if such damage or injury has rendered the road or its appurtenances dangerous for ordinary traffic or to public safety, the owner or person in charge of such engine shall, in addition to giving such notice as aforesaid, at once place at or near the place where such damage or injury has happened, and shall maintain for such time as the County Engineer, the County Inspector or the Surfaceman shall direct, such signals as shall be sufficient to give warning to all persons using such road by day or by night of the existence of such danger.
- (9) Any damage caused by the use of any traction engine or waggon attached thereto to any County road, or to any bridge thereon, or to any walls, rails, buttresses, or supports to such bridge erected or carried across any river, stream or water-race, shall be forthwith repaired and made good by or at the expense of the owner or person having charge of such engine.
- (10) When any traction engine shall cross any bridge or culvert within the County with a truck or waggon attached to such traction engine, a sufficient distance shall be kept between such engine and such truck or waggon to ensure that there shall not at any time be upon any one span or upon any culvert a greater weight than 14 tons.
- (11) Planks not less than 12 inches wide and three inches thick and of sufficient length shall be placed longitudinally under the wheels of traction engines when crossing bridges and culverts.
- (12) No traction engine which, together with the maximum weight of coal and water which such engine is constructed to carry for its propulsion, weighs more than 14 tons, and no agricultural or other machine of any kind drawn thereby which weighs more than 10 tons, shall be taken on to or over any bridge or culvert on any County road without a special permit signed by the County Engineer.
- (13) Whenever the driver or person in charge of any traction engine travelling on any road shall approach, meet, or overtake any horse then being led, ridden, or driven, or any cattle then being driven or in charge of any person, or shall from any cause whatever be unable to have a clear and uninterrupted view of the said road, or of the traffic thereon, for at least 50 yards ahead of such engine, the said driver or person in charge of such engine shall stop, and before proceeding further shall cause a man to go in advance of the said engine at a distance of not less than 50 yards therefrom to warn all riders, or drivers, or persons in charge of cattle of the proximity of the engine, and, if required so to do, to assist such riders, or drivers or persons in charge of cattle, and the driver of the engine, whenever required by any rider, or driver, or person in charge of cattle, shall stop the engine at some suitable point or place so as to allow such rider, or driver, or person to pass with such horses or cattle.
- (14) Whenever a traction engine shall be on or be propelled upon or along any road between sunset and sunrise the driver or person in charge of such engine shall provide and maintain two efficient lights, to be affixed conspicuously one on each side, on the front of the same, and one efficient tail light in the rear of the same; or when waggons or carriages are being drawn by such engine, then in the rear of the last waggon or carriage drawn by such engine.
- (15) The driver or person in charge of any traction engine on any road while employed as such driver or in charge as aforesaid shall have in his possession a printed copy of this By-law, and also a license for such engine issued thereunder, and shall exhibit the same on demand being made by the County Engineer or County Clerk, or by any person authorised in that behalf under the seal of the Council.
- (16) Nothing herein contained shall be held to relieve owners or employers of traction engines from liability in respect of injury done and damage sustained by the traction of any excessive weight or extraordinary traffic over any County road.
- (17) All licenses issued under Part V. of this By-law in respect of traction engines shall be and be deemed to be issued subject to the provisions of this Part of this By-law.

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Now I'm confined to Barracks I need to find jobs to do that does not intrude on the domestic scene. I came across a couple of articles in an old 1954 Model Engineer mag which I had obtained at the Rotary Book Fair (see you should have gone!) With the knowledge that something is not quite right with my Burnerd chuck on my Myford I hope this article will be able to enlighten me on the construction.

THE BURNERD "GRIPTRU" SELF-CENTRING CHUCK

THE range of lathe chucks, including both self-centring and independent jaw types, produced by Messrs. F. Burnerd & Co. Ltd., is well known to our readers, and the reputation held by these chucks for robustness, accuracy and durability is very high. In the case of self-centring chucks in particular, the Burnerd products have set up entirely new standards of accuracy, and have very considerably influenced the quality of work produced on small lathes.

This has been done by concentrating on the methods of production, materials and machining limits, in conjunction with close control in testing and inspection of finished products. In the matter of design, it is generally considered that the conventional 3-jaw geared scroll chuck has long reached finality, and that little could possibly be done to improve upon it.

Although the best examples of self-centring chucks of the scroll type are manufactured to very close limits of precision in their component parts, the smallest errors become cumulative on assembly, or as the result of normal wear, and in practice they are not usually found suitable for holding work to exact concentric limits. Concentric accuracy to within 0.003 in. at an overhang of 1 in., under the conditions of normal usage, is generally considered to be a fairly high standard for these chucks.

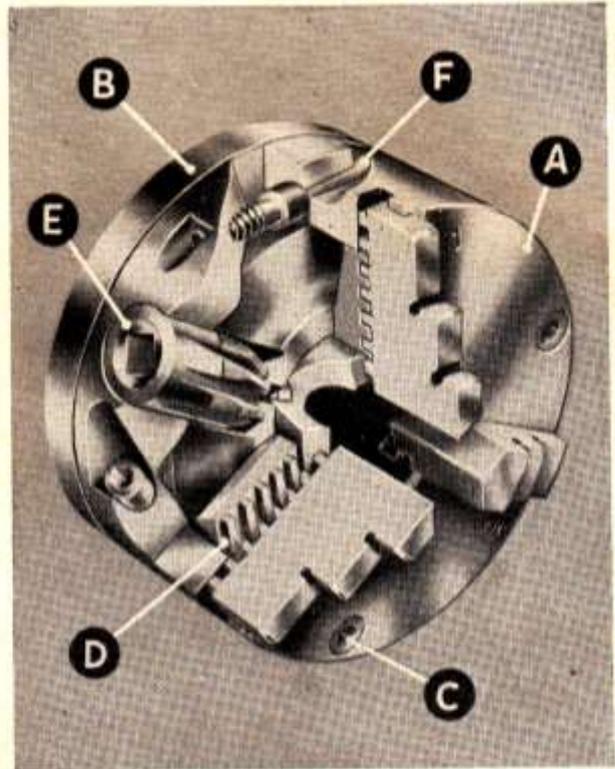
The latest development in Burnerd chucks, however, introduces a feature of design which not only enables it to be initially set to hitherto unattainable limits of precision but also to be corrected if and when inaccuracy occurs due to fair wear and tear, so long as the scroll or other working parts have not been damaged by overstrain.

Constructional Features

Briefly, it may be said that the "Griptru" chuck consists of a normal geared scroll chuck, with the addition of a means of adjusting the concentric location of the

complete chuck unit in relation to its mounting on the lathe mandrel. This in itself is not a new idea, and attempts at providing a rough-and-ready adjustment of this nature have been made both by chuck manufacturers and users. The exclusive feature of the "Griptru" chuck, however, is the patent method of adjustment by means of conical wedges which enable it to be set to microscopic limits.

Referring to the sectional illustration of the chuck, it will be seen that the main components are essentially the same as those of the conventional geared scroll type, including the front section of the body, A, the scroll D for simultaneous operation of the three jaws, and the operating pinions E, which mesh with the bevel crown wheel integral with the scroll D. Instead of this assembly being rigidly fixed to, and concentrically located with, the rear part of the body, B, the register spigot of the latter has a few thousandths of an in. diametrical clearance and three equidistant tangential grooves of circular form milled in it. These form bearing surfaces for the micro-adjustment screws F, which are fitted to holes drilled tangentially in the front section of the body A, and have conical shanks, so that when screwed inwards they displace this section relative to the rear part B. It is, of course, necessary to slacken off the tie-bolts C when making this adjustment, and also to balance the adjustment of the three adjusting screws so as to avoid excess bursting pressure on the body. Both the tie-bolts and the adjusting-screws



have hexagonal socket heads which can be operated by a key formed integral with the crosshandle of the chuck key. Owing to the very gradual movement produced by the wedging action of the tapered screws, the increments of adjustment are extremely fine, and under complete control.

Sizes and Fittings

The "Griptru" chuck is at present produced in the following sizes: 3½ in., 4 in., 5 in. and 6 in., and the range will be extended as the circumstances permit. It is normally made to be mounted on a backplate or adaptor, but the 4 in. size can be obtained for direct mounting on the Myford "ML7" or "Super 7" lathes, and other special fittings are available or can be made to order. This chuck does not supersede the present range of Burnerd geared scroll chucks, which will continue to be produced to the present specification; it is necessarily more expensive, but can be recommended wherever work of high precision is called for.

Burnerd chucks are manufactured by Messrs F. Burnerd & Co. Ltd., Government Buildings, Kidbrooke, London S.E.3, and obtainable from all tool dealers.

Part 1 : Why are there so many ***** wheels?

He says to himself whilst making part number who knows what.

So why did I decided to build an engine with 26 wheels? Well having no machining experience at all the decision certainly had nothing to do with how to perfect ones skills by sheer volume.

So it all started with this “little” engine, 19D 2685, young and keen we helped clean and paint anything we could to get those glorious invites to the footplate. The offer of helping the fireman to shovel coal was the Holy Grail. 19D 2685 was, and still is, the mainstay locomotive of Umgeni Steam Railway. These branch line 4-8-2's where a common sight on SAR, working just about everywhere in the country with 268 built.

Add to that the 19, 19A, 19B, 19C, 104No built before, there where a lot of these to be seen.



USR's 19D 2685 still fitted with her original authentic torpedo tender, stands ready for another Durban Easter Harbour Wanderer in the early 80's.
Shades of Dante Kruger, Gordon Lumsden, Ashley Peter and co. Peter Sinclair

The year 2020 and she is still going strong, USR have done a superb job of maintaining her all these years. Brothers Simon and Brendan Anderson were teens when I still lived in SA and now they are the drivers of this engine, I take my hat off to them on how far they have come. Note the two differing types of tender, first batch 19D's had the small one, latter with larger Vanderbilt torpedo tender and Buckeye bogies.

Pic USR Facebook page



Some members may even recognize the 19D from when Tony McKay's 5" gauge model used to visit the Tauranga track. I did attempt to buy this locomotive but it was already off to the UK. That sale fell through, and I'd started the 23 then, so it then went to Dandenong Australia and is now owned by Peter Jenkinson.

Pic Hamilton Model Engineers



For those builders who are feeling brave, a 10.75" gauge model of a 19D built by the apprentices in Bloemfontein, 100% scale, in fact too close to scale. The tubes are too small, fire grate gap too little so it won't actually steam.

Pic unknown



Pic Charles Wright

Simon Andersons 71/4" version all done by CNC.

It helps when you're a machinist and have the real thing to look at. The detail is superb even down to CNC diamond floor pattern.

Pic PMB Model Engineers



But that's enough about 19D's, I like them but they are not my favorite. So in the days at USR there were several steam locomotives in various conditions. Rarely used because of her size was 15F 3149, also a 4-8-2. Two hundred and fifty five of these were built and they operated all over the SAR network.



The background engine is one of Ian Welch's 25NC's stored by USR patiently waiting to go to New Zealand some +/- 24 years ago. There were four engines stored for Ian, 2 x 25NC, a GMAM and 24 which is now in Geelong Australia

The 15F was used by USR to run Durban to Kelso / Port Shepstone specials on the Natal South Coast line.

Pic Paul Evans

The original 15F's only had a 4 axle tender. When the 23's were scrapped their 6 axle tenders were given to the 15F's which gave a more proportioned look to the stumpy originals.

Engine weight of 114t plus tender. With 23 tender the total was 224t vs the original 181t



Pic Paul Evans



Original 15F, the first batch was hand fired, no mechanical stokers as in the latter 15F's, 23's and 25's.

14.2t of coal by hand vs the 18.3 t of the 23 by mechanical stoker.

Pic Bob Adams

So now we all know the engine that started this mess. Riding the footplate on 3149, slogging up Umbogintwini bank with a full consist of coaches, the cylinder motion was rocking the whole engine side to side, barking for all she was worth, me wide eyed "Is it supposed to be doing this?" Ill never forget that moment for the rest of my life.

That was it, 4-8-2 with long tender was what it was going to be. The 15F and 23 look "identical" same layout, same boiler, same size cylinders, it is very difficult to spot them apart. But there are a number of differences and these just gave the 23 that little bit more. With the 23's drivers at 63in compared to the 15F 60in, the 3in extra gives that little higher running board, slightly longer loco, I was sold. The 23 was originally going to be a 66in driver but issues with curves saw them reduced. This longer engine needed a new boiler to the 15F, World War 2 was looming so the SAR settled on the original 3B boiler with extended smokebox to do the job. All built in Germany by Henschel and Berliner the last being delivered in August 1939, one month before the war started. So 136 built and only 2 left in the world, 2556 and 3300.



Being such a large engine for 3'6" the front driver axle box is a sliding design moving up to 3" to help with curves. The front Coupled rod also had swiveling bearings to help with this.

23 class 3300, the only surviving "in service" of her type now resting in Bloemfontein. 2556 is plinth in a park in Touws River, the town that was once home to most of these engines.

Pic Peter Jenkinson

23 and 15F. The 23 is on the left with taller chimney.



Pic Unknown

23 No 2564

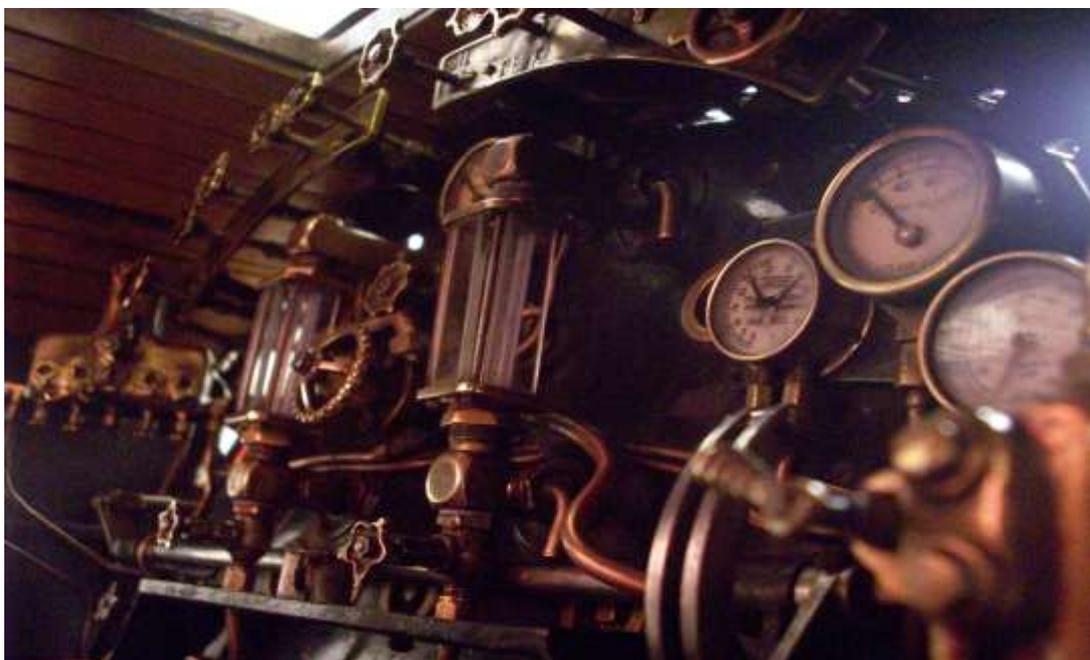
So the engine was sorted, it was to be a 23.5" so it could run on the ground level track, 71/4" would just be way too big. A lot of homework and searching, here are some of the models that inspired things.

Andrew Geffen's 15F in 1/8th scale on 5" gauge track.

The detail on this model is incredible.

No, mine will not look like this.

Pictures Andrew Giffen.



Driving Richard Niven's 1/8th scale 5"

23 in Edinburgh

Pic Jason Flannery



When you can, a 15F in 10.5" There are also two in 7 1/4", one in the UK and one in Brisbane

Pic unknown



And for the Garratt lovers, Swiss Vapeur SAR GMAM in 7 1/4"

Pic Andrew Giffen

And what became of 3149, last picture I know of her, 10 years ago already. Parked at Masons Mill, Pietermaritzburg Transnet Freight Rail (Once SAR) will not let steam on the mainline anymore. Nowhere for her to run, she cannot be moved by rail, too expensive to road haul out.

There is speculation that the cutters torch will be coming.



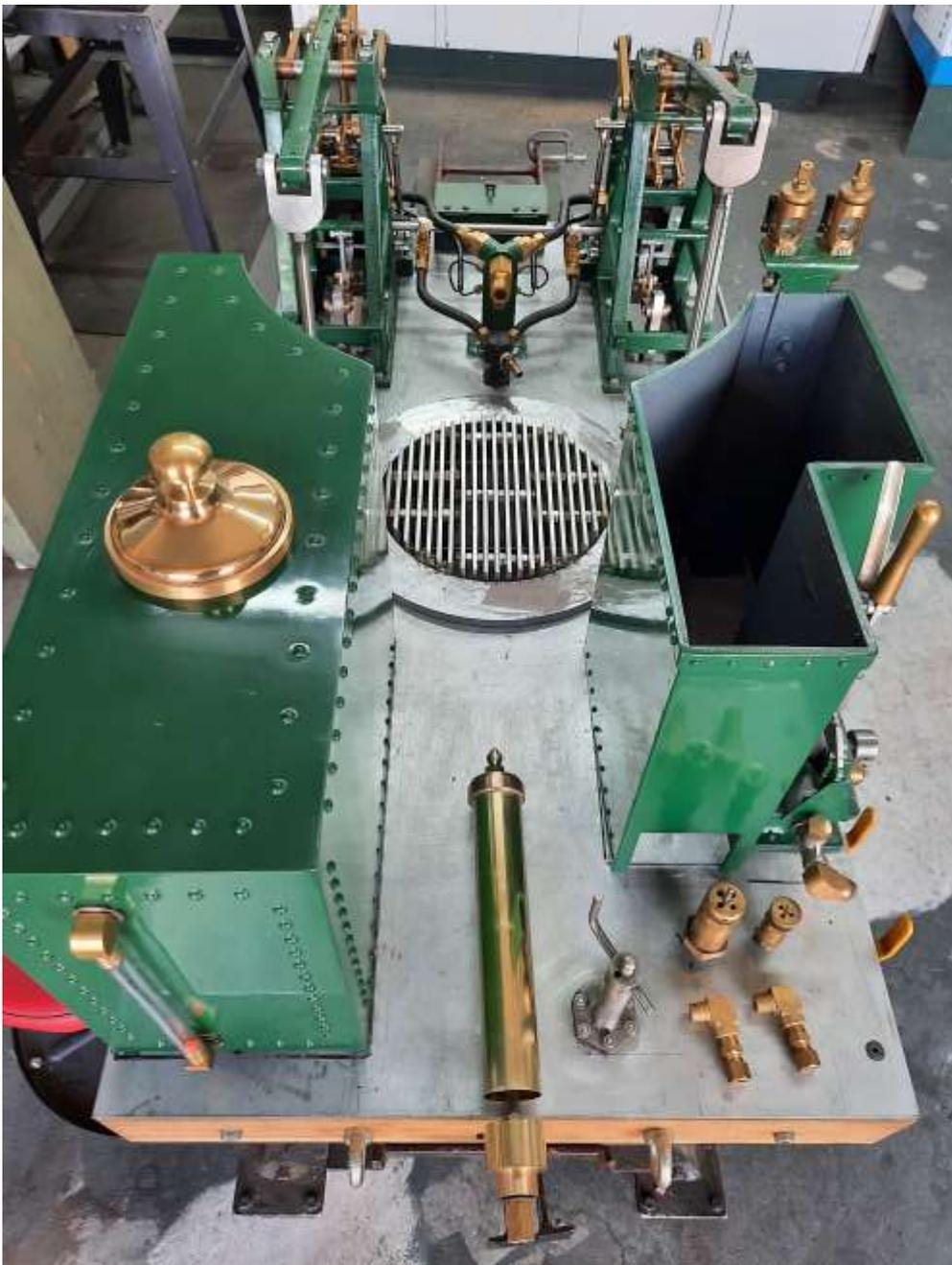
The reason behind so many wheels. In December I decided to fit brakes to the tender, quick job I said, April and almost there.

From handbrake handle to a 4 x brake shoes per axle, over 200 parts later, repetition is an understatement.

I was not going to attempt to make the 4 vacuum units under the chassis work as way too fiddly. The whole system works via the vacuum cylinders being in the tender, still waiting for them to arrive from DNC systems.

Asking the Ajax valves to operate 12 brake shoes each when they are only doing 4 on the ride cars is pushing my luck but it was enough to test the system.





The Covid-19 Virus has allowed model engineers to spend far more time on their hobby than is the norm. I have had a proliferation of pics together with some articles from several members who have never before contributed. Thanks to you all it has made my job a dream this month!!!!

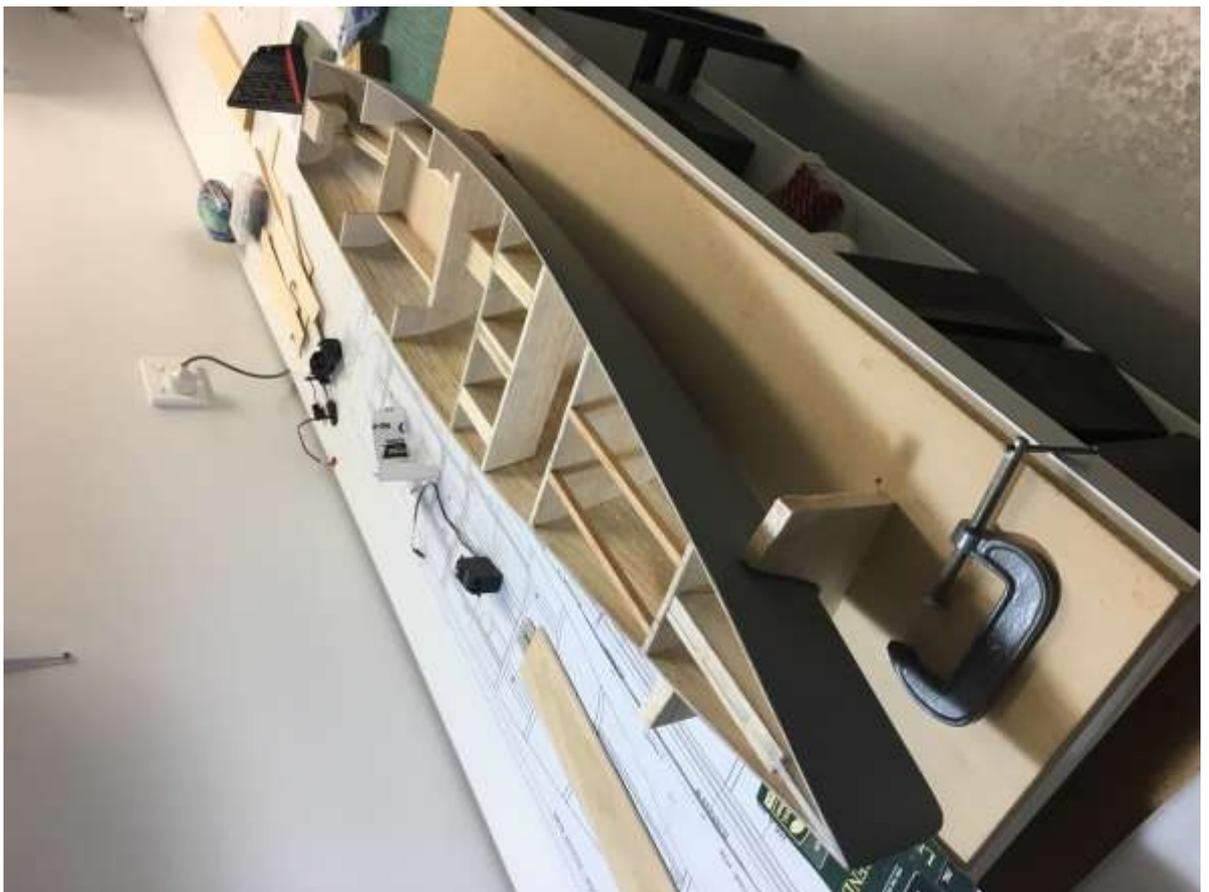
Editor

Top : an addition to Jason's article on the SA loco he is building.

Left : John Heald is well through his latest project. I can't wait to see the finished article.



Regan Olivecrona has been busy on an A1 1m yacht. Mmmmn wonder what he is doing with his single cylinder IC engine?????????????



President Russell has the following project under way.....

I would like to think all work in my shed involved model engineering but alas when you have horses and a few acres some of that work involves different toys.

For a while now I have progressed the design and build of a post or pile rammer and with more fencing to do, the thought of digging holes and hand ramming posts was not a happy one.

With only 100kg of steel to make the 'monkey' (hammer) and two pieces of I-beam which when joined would give me a 2.7m drop I set about making the unit fit on my excavator.

What I now have allows me to reach 3m, sit on top of a 3m pole and free fall 2.7m. The monkey is raised by hydraulic winch and free falls via a release cord from the safety of the cab.

It takes around 12 blows of the hammer to drive a half round post 700-800 into the ground. Of course with the very dry ground we have it has sometimes taken 50plus blows to get this depth.



It is still a work in progress but at least I can use it whilst I am isolated.

John Stent adds to the collection :



Got ya!!!!!!!!!!!!

A truck driver stopped at a roadside café one day to grab some lunch. He ordered a cheeseburger, a coffee and a slice of apple pie.

Just as he was about to eat them three big hairy bikers walked in.

The first grabbed the truckers cheeseburger and downed it in one gulp.

The second biker picked up the truckers coffee and downed it in one slurp.

The third scooped down the truckers apple pie.

The trucker didn't do anything or say a word as all this went on.

When they had finished he just paid the waitress and left.

The first biker said to the waitress " He isn't much of a man is he?"

"No", said the waitress, " and he not much of a driver either, he's just backed his 18 wheeler over 3 motorbikes!!!!!!!!!!!!!!"

From the Editor

If you are looking for something to do on the computer go to **Old Iron Photography** (facebook) some excellent pics of the 2006 Rangiora Steam Fest plus other pics.

We are still trying to organise our domestic hierarchy!! I can say I have had a promotion, I'm chief bread maker, however I've been demoted in other areas!!!!!!

Disclaimer :

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