



Newsletter of THE PALMERSTON NORTH MODEL ENGINEERING CLUB INC

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TRACK RUNNING

This is held on the FIRST and THIRD Sunday of each month, from 1 pm to 4 pm Summer and 1 pm to 3 pm during the Winter. All club members are welcome to attend and help out with loco coaling, watering and passenger marshalling - none of the tasks being at all

Visiting club members are always welcome at the track, at the monthly meeting, or if just visiting and wishing to make contact with members, please phone one of the above office bearers.

Sender:- PNMEC
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Palmerston North

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This Months Featured Model



Report on the January Meeting.

Members gathered at Cynthia's for the Presidents BBQ. A lot of talking, catching up on what we had done over the Christmas break. Members brought and cooked their own food, and there were some very tasty looking puddings to follow the steaks, sausages and kebabs.

A relaxed start to 2009.



FEBRUARY Meeting

This will be held on the 26th February at 7.30pm in the Hearing Association Rooms, Church Street, Palmerston North.

The theme for the evening is 'Bits and Pieces' and what you made over the Christmas holidays. So let us all see what you have been doing.

Also there will be some details of the 'Locomotion 2009' event See below.

LOCOMOTION 2009 WEEKEND.

Would members who wish to help out with the Locomotion 2009 Event, please contact **Richard** Lockett, **Stuart** Anderson or **Murray** Bold and let them know when you are available to assist.

Members are invited to bring along models for display in the tent. See **Stuart** on arrival.

Cynthia is in charge of the station. She would like some ticket sellers.

To those attending, would you bring something for the morning and afternoon tea table.

As usual a free morning and afternoon tea, lunch and a BBQ tea will be put on by the members.

Ladies, **Janice** Hall and **Janice** Bold would like a hand in the kitchen, so if you can help please come and see them in the pavilion.

To all **PNMEC** members, do come along as this is a good time to catch up with model engines from other clubs, to chat and tell tall stories, renew old and make new friendships.

ANNUAL GENERAL MEETING

The Annual General Meeting will be held on the 23rd April, at 7.30pm, in the Hearing Association Rooms, Church Street, Palmerston North.

COMING EVENTS

Mid Week Run at Marriner Reserve Railway

24th February between 10.00 am and 2 pm

24th March between 10.00 am and 2 pm

Please contact Doug Chambers beforehand.

Track running at Marriner Reserve Railway

28 Feb - 1 March from 10am to 4pm

15 March from 1pm to 4pm

Open Weekends

Palmerston North Locomotion Weekend

February 28th-1st March

Hamilton Open Weekend

March 14th - 15th

The Weekend is to celebrate the life of Valerie Clark and all proceeds are to go to Hospice. Hamilton ME are anticipating a large turn out and would appreciate an idea of the numbers intending to come.

For Sale

Lockable covered locomotive trailer .
Set up to suit Phantom and 2 ride cars.

Has override brakes and spare tyre that has never been used
7.25 Ride car included.

Offers over \$4500

For further details

Call Murray Bold 0274-451-839

The closing date for the next issue of The Generator is Friday 13th March

THIS MONTH'S FEATURED MODEL.

Doug Chambers

'Britannia' 70047, a model with quite a history. The 5" gauge model was started by the late Stan Raines in 1985. The plans were drawn by Norman Spinks and the castings were supplied by him. Stan died and the project was taken over by Alan Bridle. A lot more work was completed but unfortunately health problems made Alan realise that he was not going to be able to complete 70047. Once again the project was taken on by a new owner. Barry Parker had been a long time friend of Alan's and he was fortunate in being able to take on the task of completing the locomotive.

The tender was finished and painted. The chassis was almost ready to run on air but there was no boiler. Barry, with some assistance from me, set about building the boiler and after a lot of hot and hard work it was finished. During this time Barry had come to realise that this was a very complex model and he felt that he was not up to completing the engine to the standard that Stan and Alan had set.

Barry asked me if I would be interested and I took on the task of completing the 'Britannia' and work on it got underway April 2008. January 2009 sees the locomotive completed, painted and lined out after some 370 hours work. When I am sure that the paint has hardened off, trial runs will begin and when the anticipated 'bugs' have been sorted out my part will be over.

No 70047 carries the name 'Winston Churchill' on plates attached to the smoke deflectors. Now Barry and I found that No 70047 was the only one of the class that was never named. But we found that Stan Raines had arranged with Norman Spinks to have the nameplates supplied with the castings.

We found that the name 'Winston Churchill' was on a different class of locomotive, a 'Battle of Britain' class which was similar to a 'Merchant Navy' class but having a lighter axle loading. I pointed out to Barry that he may get some 'rivet counter' pulling him up over the name but after some thought Barry said, "Fit them on". "Stan had gone to some expense to get the nameplates and that 'Winston Churchill' was the name he wanted his 'Britannia' to carry and it is only right that the locomotive carries that name."

I can honestly say that completing No70047 has been hard work, but very satisfying. I have learnt a lot more and have been fully extended at times with some of the tasks undertaken.

Sadly, Alan Bridle passed away December 2008. He didn't get to see the 'Britannia' finished but

Barry was able to show him a photo of the engine and tender shortly before the locomotive was dismantled for painting. His comment was, "Right, what are you going to do next?"

On the 14th February the Britannia was steamed for the first time on a stand. There were the usual minor leaks and faults, about six in all. Some time after these have been corrected, it will have an official steam accumulation test followed by a run on the track at Marriner Reserve.

LETTER FROM ENGLAND

by Stan Compton

Over the centuries needlework has always been popular with ladies as a leisure occupation.

I recall being with my wife in Sudeley Castle in the Cotswald District and examining a "sampler" made by a fifteen year old Catherine Parr who was later to marry King Henry the Eighth. (he had six wives 1st divorced, 2nd beheaded, 3rd died, 4th divorced, 5th beheaded, 6th Catherine Parr who survived him.)

Only young eyes could result in such very fine needlework while living in such a dark establishment.

Recently we called in at the 'picture postcard' market town of Chipping Campden where there used to be an excellent needlework shop located in this sought after residential area. We found the shop had closed some years ago. Is this a sign of the times we live in that women no longer feel the challenge to create a work of art that can be put to practical use, such as wool and canvas work that will wear for many years?

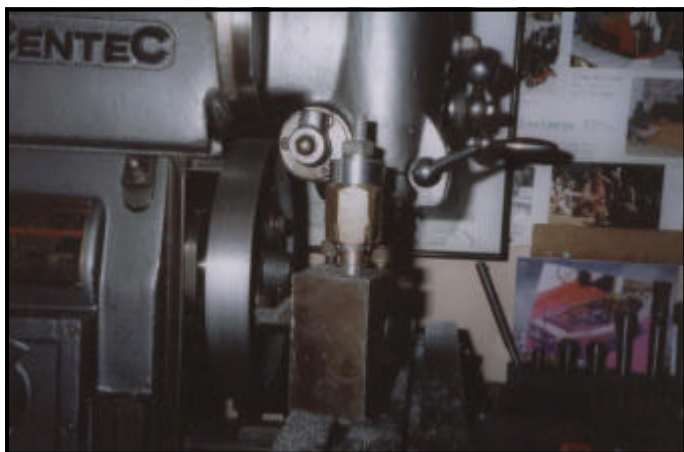
On a similar note I can only think of six scratch built models of passenger hauling engines being built in my club, plus three kit-set locomotives. These last three may cause a lot of worry for the builders. I was told that at the recent Midlands Exhibition the stall holders were very busy selling supplies. I wonder are these customers' old hands or newcomers to our hobby? I learnt that 'Polly Models' are busier than ever, probably due to being a product that is correctly made, assembles easily and performs well in service.

Stewart, our Chairman, took me in his Transit Van to the Exhibition with some of the exhibits and materials all ready prepared by Gordon to construct a display stand, who hoped to win a top prize with his excellent work, but it was not to be. The route Stewart took was to make for the 'Fosse Way'. This was once a Roman road and can still

be traced roughly north and south for over one hundred miles. Now a minor highway, but pleasant driving over quite attractive farmland following a line of hills, not high by your standards, but windswept in the winter by cold winds originating in Russia. Two hundred years ago a group of soldiers perished in a blizzard only a few miles from the market town of 'Stow on the Wold' which is on a high point of our route.

With the trees in their autumn colours it was a pleasant drive and all too soon we had arrived at our destination. The group of buildings called 'The Fosse', headquarters of the publishers of 'Engineering in Miniature'.

One of our members is building a 2" scale traction engine and I offered to machine the flywheel for him, because his Myford lathe has limited faceplate clearance. I found that the flywheel would not fit in my lathe until the outside diameter was reduced.



Not having a rotary table I mounted the casting on the main spindle of my 'Centec' mill and taking light cuts I roughed the outside diameter down until it could be mounted on the faceplate of my old 'Smart and Brown' lathe. Now this member is someone who does not give in, who will tackle something the average person would hesitate to even try to make.

One day he undertook to repair an oxygen control valve spindle with a two start thread, something he had never heard of before. I was too busy to help realising that it should have a tap made of silver steel at the same time as the new spindle to ensure a good fit. Now Orwen, who is from North Wales and had his own garage business, arrived at such a simple solution that I take my hat off to him.

He set up the change wheels in his Myford to cut the correct pitch and used his four-jaw chuck to hold the new spindle, he then cut the first thread, slackened off two jaws, moved the spindle half a turn and cut the second thread!! It worked well in

the original valve, saving a big expense for a small business man. We normally never move a job in the chuck but in this case why worry?

We have a member at Hereford who has an agricultural contracting business, this means if the weather is suitable his weekends are spent working on the farms, consequently he is unable to get to any of our track running days. As a newcomer to our hobby he has decided to build a 'Rail Motor'. When asked why this choice, he said that he felt it was not too big to start on. After a couple of years progress he is now fitting up the pipe work and he asked me to sketch a suitable lay-out which I did. I asked him if he could get to our last club day run, no public on site. As it was the end of the farming year he was able to attend and have a good look at the pipe work on my 'Speedy' and see steam being raised. "Now you are going to drive it" I said. "But I have never driven a loco". "I know that, sit on the truck and watch me". After explaining the different controls I said, "Leave the blower cracked open a little, open the drains, full forward gear and a touch of throttle." "Now move forward a couple of metres and stop a few times to get the feel of the throttle." You all know the drill, very quickly he got the hang of it, so I let him drive around on his own. This is the advantage of having a mechanical pump and being on his own with no one in front to run into while trying to look at the gauge glass. The man is a natural driver and memorised every control, years of playing tunes on digger controls must help.

At the end he said "I've learnt more in ten minutes than from all the books I've read!!"

I heard of someone in another club who bought a 5" gauge 'Britannia'. As a retired locomotive driver he fancied a big locomotive, but he never drove it. After a year or two he took it out for someone else, new to driving, to run on track days. However it was not fitted with a mechanical pump just two injectors that sent more water onto the track than into the boiler. This makes me wonder if the pipe work or steam valves are restricted, or perhaps the injectors are poorly made. The five thou annular gap between the steam cone and the combining cone is so critical.

Full marks to our two Junior Members who got a Third Prize and a Commended at the recent Midlands Exhibition. Being still at High School there is little time left in their day for metalwork.

A LITTLE ABOUT OIL

By Doug Chambers

There are all sorts of oils, baby oil, the good oil, midnight oil, snake oil, sunflower oil and oil on troubled waters. However I will just comment on the types of oil that model engineers are going to use in the operation of their models.

C.C. Wakefield, the founder of the firm later to become known as Castrol, is credited with producing the first lubricating oil. It was based on castor oil (yes the same stuff doctors prescribe for clearing your bowels). It proved excellent for racing engines, most of us can remember the smell of castor oil

being burnt in speedway motorbikes. It was little use in car engines where a longer period between oil changes was desirable as the oil oxidised very quickly and tended to 'gum up' the piston rings.

It was used with great success in the World War 1 aircraft, at least those having rotary engines.

The rotary engine is fixed to the airframe by the crankshaft and the cylinders rotate with the propeller. They had a total loss oil system so the oxidation problem was greatly reduced. You can all picture the pilots, leather cap and scarf. Well, the scarf was **NOT** to keep the pilot's nose warm.

It was to keep the castor oil fumes and mist out of the pilot's mouth and thus stave off the inevitable diarrhoea that he would probably suffer anyway.

Today model rotary engines are often run on Castrol's castor oil.

Steam cylinder oil.

This product has evolved over a long period.

Manufacturers had been able to produce an oil that was very good in saturated steam conditions and then superheating became popular and ever increasing degrees of superheat meant continual improvements to the product. Model Engineers have been able to acquire small quantities of 600W but in many cases have found that the very small oscillating cylinder pumps as drawn by LBSC are not able to pump the very thick treacle like oil. I have had several people come to me and say that they are using car engine oil instead as the pump can handle the thinner oil.

But I have had several of them come back and ask me how to free up the seized pistons in their locomotive's cylinders as the bores rusted up when the loco was not steamed for a while.

Steam cylinder oil is designed to function in a steam-hot water environment.

Car engine oil is **NOT** and will never be any use in a steam cylinder.

Modern steam cylinder oils are not as thick as the old 600W and pour like 80 – 90 gear oil. LBSC's oscillating pumps seem to be able to handle the thinner oil very well. The only catch is that the smallest quantity the Oil Companies sell it in is by a 20 litre pail. The Palmerston North Model Engineers overcame this by purchasing a 20 litre container and this is decanted off by the ½ litre or what ever amount is desired, charging enough to cover the cost. \$6.80 /L

Lubricants for locomotive running gear.

Well, I guess most of us use whatever we have in the shed, for topping up the lawnmower or what is left over after changing the oil and filter in the car. Is car motor oil the best for the purpose though?

I doubt it very much. Car engine oil is designed to be pumped around to all the various components and the inside of the crankcase becomes full of a mist of oil draining back to the sump ready to be pumped around again. It does not 'stick' to the parts it is applied to as it is required to drain to the sump to be pumped around the engine again.

We faithfully oil up while the locomotive is being 'steamed up', but by the time the train is ready to start moving passengers most of that oil will have drained off the surfaces we want to lubricate and fallen on the ground. Just have a look at the concrete under your steaming bays and the evidence will be there for you to see.

I have experimented with an HD 80-90 gear oil (not an EP extreme pressure oil, as this has a bad effect on bronze bearings) and found that it tends to 'stick' very well maintaining a film between components for some time, especially good on wiping surfaces ie guide bars etc.

In manual gearboxes the rotation of the gears is continually trying to fling the oil off so the manufacturers add additives to help the oil 'cling' to the rotating gears.

Whatever you use it is good practice to oil up every hour during running. Make sure the 'little end' of the connecting rods gets extra as the little end bush is prone to excessive wear.

I hope that this will help you keep the wheels keep turning and the rods flashing in the sunlight.

VINTAGE TRACTORS at FEILDING

By Doug Chambers

I met quite a few PNMEC members at the recent Vintage Tractor display in Feilding. Some of the tractors seen there looked just as they did when 'brand-new', others just as they had been found after a life time of hard work.

Most were 'betwixt and between'. From the dark red Farmalls and Internationals, orange Allis Chalmers, green John Deeres, grey early Fergusons, and lighter red later Fergusons, dark blue early Fordsons and the lighter blue Fordson Majors, grey Cletrac crawlers, and the yellow Caterpillars.

There were a wide range of models through the years of each manufacturer. The predecessors to the tractor, the horses and the traction engines were also on display.

For those who didn't attend the event, here are some pictures of a few of the over two hundred exhibits.



Fordson E27N



Cletrac



Allis Chalmers



John Deere MC



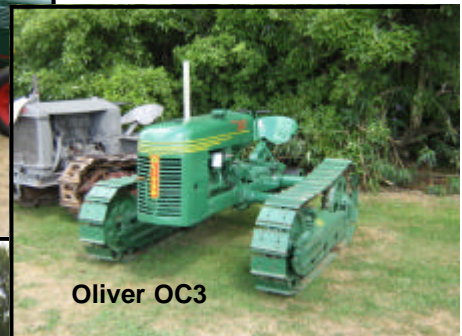
John Deere



Fowler 1908 8nhp



Oliver



Oliver OC3



Republic



LANZ Bulldog

The Generator