

# TIVVY BUMPER

The newsletter of the Tiverton & District  
Model Engineering Society

Spring 2017



## Editorial

Welcome to the Spring edition of 'Tivvy Bumper' for 2017.

As usual, we are featuring the last six 'Pictures of the Month' that have appeared on our web site. The first one is our previous Chairman, Mike, driving his "Virginia" at the Worthy Moor track. This engine has now changed hands, and Mike has sadly left the Society. The second picture is one of Tim's range of stationary engines - this one being a hot air engine. The third picture is of our current Chairman, Adrian, driving the 'Butch', that has been kindly loaned to the Society, and which Adrian has spent much time getting back into working condition. You can see the final instalment of his report on the work later in this edition. The fourth picture shows Ray, driving his GWR diesel railcar, with a hefty load, at the Society's 2015 barbecue. Nigel's ingenious engine, powered by an internal combustion engine (lawn mower, I think) is the next picture, whilst the final one is another of Tim's engines, this one being a low differential hot air engine. As you may now, these will run from the heat of a cup of tea!

Remember, all the previous 'Pictures of the Month' are available on the web site. Just follow the link at the bottom of the 'Home' page.

The club web site has all the latest information about the society, dates of meetings and presentations, steam-up days, as well as a bulletin board where members can share experiences, post sales and wants, share information about events, etc. So if you have access to the Internet (or someone in your family does), have a look.

The web site address is: <http://www.tivertonmodelengineering.org.uk/>

Steve

## **Society Meetings**

Earlier this year, we were informed by Blundell's School that they were going to have to start charging us to meet there. This was a big surprise, as the school has kindly allowed us to meet there free of charge for many years.

Unfortunately, the charges they proposed to make would have required a substantial increase in membership costs to cover the rent. So the Committee investigated several alternative venues, before deciding that The Old Heathcoat School Community Centre fitted our needs.

Meetings have now been arranged to be on the second Friday of each month at 19:30. The Committee is also committed to ensuring that we have an 'event' at each of these meetings - certainly during the winter months, so please come along to as many meetings as you can.

## **Chairman's Chatter**

I am writing this edition of "Chairman's chatter" a few days after the AGM. In the past 12 months the club has successfully faced a few challenges head on; which shows the depth and strength of our membership. Throughout this we have maintained our positive, supporting and friendly philosophy. Our membership has increased which is very encouraging. We are also fortunate to have some (and I hope they don't mind me saying) younger members, that is under the age of 30. They bring fresh ideas together with knowledge of current new engineering technologies, which, we should as members of an engineering club embrace. We are never too old to learn. I myself only took this up hobby seriously in my mid 50s to face new challenges in retirement and exercise the "grey matter"

It is worth remembering that this is a hobby in which we all voluntarily partake for enjoyment, relaxation and hopefully fun. It is however in a

group of hobbies that require vigilance at all times. Powerful, unforgiving machines in our workshop; locos with boilers under pressure and running at Worthy Moor, we constantly have to be conscious of our and others safety. As a club we have to demonstrate that we are proactive and exercise due diligence which requires us to produce written rules and guides. These are also required to maintain our insurance cover and membership of the Northern Association of Model Engineers (NAMES). Our rules and guidelines are not onerous and are really just common sense. We unfortunately live in a society with "ambulance chasing lawyers" and others keen to make a quick buck at someone else's expense.

On a lighter side, we are now approaching the summer and hopefully warmer weather (it is bright but chilly at the moment) with our open day and "official" BBQ not too far away. Do make use of the BBQ at scheduled steaming days as well – lets enjoy the summer. On the subject of food, one thing I have always wondered is what bacon and eggs taste like when cooked on a full size loco coal shovel in the fire box, I bet they taste special. I'll give this a try with the Butch using a Quail's egg and a sliver of streaky bacon. Joking of course!

Adrian

## **Treasurer's Trivia**

The club is presently on a nice firm financial footing, although our having to pay now for the Monthly Meetings may change that!

Annual Subs are now due for 2017/2018 and are at the same rate as last year - £29.00 or £27.50 for Country Members

Please let me have your payments in due course

Chris

## Secretary's Scribbling

It does seem very strange, all of a sudden to have no formal responsibility in TDMES. I do hope that a reasonable proportion of people are reasonably satisfied that I did a reasonable job. If not, I could always have been pointed towards the plank!

My Sweet Pea, that has been hanging around for years, creeps ever so slowly towards completion, but there is always some problem which means I can't get on. The pipework leaks like a sieve even with no pressure, but I can't see where from. I want to put the loco on a trolley and take it out into the garden, where the water cascading all over the place won't matter, but of course Axminster Power Tools are out of stock. On we go!

Plan B consists of starting the electronics of a speed controller for a 24v DC motor, which I intend to power a diesel-shunter lookalike, to act as a runaround on the track. The controller even recycles some of the unused parts of phase 1 of the signalling system - very green!

When I gave your new secretary Chris Catley the handover document I had written for him, he had done most of the bits anyway. I know he is going to be a good sec.

Looking forward to seeing everyone at Worthy Moor, or OHSCC on a Friday night.

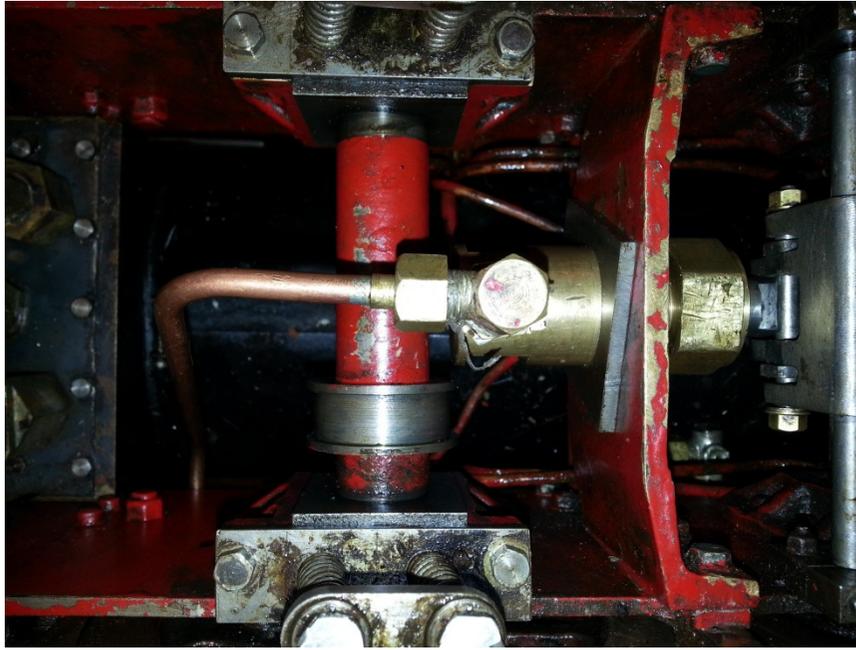
John

## 'Butch' restoration (Part 3)

I performed a basic water test, filling up the tanks and pumping water into the boiler to completely fill it. I must admit to being very pleased that there were no leaks at all. I then blanked off the safety valves and pumped again in 10 psi steps, checking each at each step for leaks. All was OK until I got near 1.5 x working pressure (120psi) and found the pressure slowly reducing. I could not find any obvious leaks, so carried on pumping, but heard “gurgling” coming from the smoke box. To cut a long story short, I decided it had to be the regulator (a sliding type) not sealing, so I removed the dome and tightened the regulator. I tried again, and the pressure drop was slower, with small drips from the drain cocks. Consulting with members, sliding regulators are notorious for leaking and as there were no leaks anywhere else, I decided to steam up.

In the last “chatter I mentioned that the ratchet on the lubricator was worn. I replaced this and the lubricator worked well for a couple of steaming. Unfortunately a small tensioning spring shot off somewhere. Despite a number of attempts, I could not make another that worked reliably, so taking advice I made and fitted a hydrostatic lubricator. This appears to work well. The next item to cause problems was the axle pump as it became intermittent. It was a major job to remove and I decided to make a new one out of a bit of 1inch diameter brass that would be easy to install and maintain. I tried this at Worthy Moor (following our maintenance day and committee meeting) and found it very effective.

Below is a photo of the axle pump - trial fitting (with loose PTFE tape) taken on my phone – sorry the quality of the picture is not great.



Adrian

## **Marsh Top Garden Railway (Part 1)**

By Nigel Gettings

This all started at a young age being taken by my Dad to Cranleigh GtG's (Get toGethers) and the Model Engineering show, once held their in the Village Hall. Roll the clock forward a number of years - I wanted to build an engine and went for the "Project" or rather an LMS 4F – started around 1979 and completed it in 1988. I then rejoined the Society in 1996 with the Salisbury and Stonehenge group. At this time, I decided that it was time I should have my own garden railway. Plans were drawn up to use the space available for a small track. Work then put a stop to plans and we then moved to Somerset. The choice of location was decided around having space for a workshop and a garden

railway, as it should be. This was now 2002 and this was the time that friend ship was made with the Bristol group of G1MRA.

After the site was surveyed, it then laid dormant for the next three years. It was then that we found Paul, who helped me progress things in the garden by completing several jobs that we wanted to do. It was then that the question arose, if he would be prepared to help with construction of a Garden Railway! It was a bit of luck that it was a positive answer and so the railway started to form. The design was drawn up and work progressed for the next 2 ½ years, Paul did the spade work, with me mixing the concrete. This progressed up to the point that the steel running top wanted to be attached to the galvanized posts. These were concreted into the ground and were set to give a reverse curve to add to the interest when running.

*Construction Method* - The station, sidings and the curve at each end of this area of the track, were constructed using concrete blocks laid on concrete foundations. This part of the track was the lowest above ground at around 17" (43cm). A mini digger was used to rough out the trenches and then Paul dug out to size by hand – with a spade!. Marking out, I used the method of a fixed pivot point and timber arm to strike the radius and marking spray held vertical at the end - all very technical!. Curves worked out at 3.8M with the reverse curve at 3.95M.

The garden slopes from front to rear, so the station area gives a raised track bed of 16inches, this being the side nearest to the top boundary. The opposite side varies but gives a maximum of 3ft 10 inches height. The running surface is on top of scaffold poles set into concrete at 4ft centres. The curves each end of the station straight were built by making two beds on concrete at the set radius and then laid with concrete block as before. The centre was filled with rubble and shuttering fixed to the outer top edges at the height required for the track bed or running surface. (See picture below).



With all this now completed, the straight section was laid using council grade paving slabs - 50mm thick and heavy!



Now that the scaffold poles have been set in the ground, I had decided to deviate from the normal method of construction of wood and use steel cross beams top and bottom connected with a stud each end to separate the two. This will allow for adjustment of cant or elevation and give a small amount of side to side adjustment if required.



The ends of the top 'T' section were connected by 25x25x3mm steel angle formed with heat to the profile to join up the posts. This was quite a lengthy process; as the job progressed I improved, keeping the angle level and square.

(To be continued..)

### **Forthcoming events**

Don't forget that we meet on the first Saturday of every month at Worthy Moor for a steam-up (and chat), and now on the Sunday 2 weeks later. Please come along.