North Wales Model Engineering Society

West Shore, Llandudno, LL30 2PQ

Newsletter – April 2024

Congratulations :

Just a few words to congratulate Archie having just celebrated his sixteenth birthday. Having achieved a high standard of driving various locomotives on our track at West Shore there was one minor hiccup - he had to be sixteen years old to help us as a driver during public running. Now he's reached this grand old age, - welcome to the fold.

His ambition in life is to be a mainline train driver. I hope the experience he gets in our society regarding discipline, safety and engineering helps him achieve his goal.

Good luck for the future young man.

BEAUMARIS CASTLE.

Brian Haseler has kindly prepared an article on the trials and tribulations of building a Castle (locomotive!)

The Third Set of Frames!

My interest in Castles began around 1963 when, having started work, I needed to head off to London for various meetings. I remember getting to Worcester Shrub Hill to find that the engine at the head of the train was in fact a Castle, which one I didn't record. At the age of nineteen my interests had moved on from steam engines to other things. In all probability, I was rather disappointed that the train was not to be hauled by a more modern diesel but the seed was sown.

Many years later when collecting the boiler for my 0-4-0, Paul Tompkins of Southern Boiler Works, asked me "What are you going to build next?" "I had always wanted to build a Castle but thought it might be beyond me" was my somewhat tentative reply. His very sound advice was "Do it". He went on to say that if I started something else I would spend all my time wishing I was building a Castle.

I sometimes wonder if I have made the right decision. When my 0-4-0 was nearing completion I enthusiastically bought the plans, all thirty-two pages of them. Enthusiasm maintained, I ordered laser cut frames with hole centres marked, well worth the extra cost I thought at the time. Perhaps I should mention that the early Castles had joggled frames over the bogie to allow the wheels to move unhindered. The later versions, one of which I am building, abandoned this scheme by adopting a dished section to overcome the issue. To achieve this in the model, the frames come with a pressed disc from which it is necessary to cut out two sections, one for each frame, that then have to be butt soldered to the appropriate cut-out.

Moving from the South East of England to North Wales meant that not a lot happened to the Castle during the following year except that I decided to teach myself the basics of CAD in the hope that it might prove to be useful. As things turned out, it most certainly has!

Once my new workshop was set up and the 0-4-0 finished, I made a start. The drawings used fractional dimensions so using my by now basic CAD skill I drew the frames, developed coordinates for hole centres which could then be used with the DRO on my milling machine. At least I could check my sums against the laser marked centres. A rough check suggested all was well but for some reason I cannot clearly remember, I decided to drill a few experimental holes in one of the frames and check against the laser marked centres in the second frame. I'm rather glad I did, they didn't exactly match - nearly but not quite. Further investigation revealed this was not me, something had gone horribly wrong with the laser marking. One of the shows was coming up and so had agreed with the supplier that I would bring along my frames for them to have a look at. They were uncertain how it had happened but without hesitation offered a replacement set, "Laser cut frames plain" to quote their website, a refund was readily agreed. I note that for some reason they no longer seem to offer "Laser cut frames with hole centres marked".

Full of optimism, I naively set about drilling a full set of holes in the second pair of frames as per the drawings, confirmed by my CAD plan. Being very pleased with myself I silver-soldered the dished arch over the front bogie wheel as per the sequence in the following three photos:

Photo 1 - The pressed plate supplied with the frames

Photo 2 - Ready for silver soldering

Photo 3 - Dished section in place

Success, I now had two finished frames. Before proceeding further, I thought it might be a good idea to do more CAD work. Although I had meticulously checked, and double checked the hole positions from the drawings it transpired that they were not necessarily shown in the right place. I had read that the designer prepared the 5" gauge drawings by climbing over two or three Castles at Barry in order to produce a version with dimensions scaled down to the nearest 1/64.

Further analysis revealed that some mating fixtures and fitting were therefore out by 1/32". It was at this point I seriously considered taking up another hobby. Something had to be done; I decided to get a copy of the works drawings which, on reflection, I am not entirely convinced was a good idea - ignorance is bliss but at least it confirmed where the holes should be. After a few more minor changes I updated my CAD plan, now more confident that parts would fit together. I therefore set about filling the erroneous holes and re-drilling them in the correct place, or so I thought.

Meanwhile, a very helpful fellow builder had identified even more errors in the frame drawings, more filling and re-drilling followed. I wasn't very happy. From previous experience, disguising the filled holes was possible but still left me with a major problem - I knew they were there. I could live with a few, which in all probability the prototype had, but it became untenable when the number of filled holes approached those which were unfilled. Only one thing to do, I ordered a new set of frames. "Haven't we supplied a set of frames before?" was the understandable response of the supplier. "Yes, this will be the third". Before getting anywhere near them with a drill bit I drew all other items that were to be fixed to the frames and discovered even more anomalies.

Once satisfied that all was well, I drilled another set of holes followed by silver-soldering yet another dished section. At least, this being my second attempt I made a better job of it than the first-time round.

In summary, I have learnt a lot in the process and as the model progresses am learning even more. Before making any parts or sub-assemblies, I now make a CAD drawing and have accumulated many amended drawings to work from, both now and in the future.

MANY THANKS BRIAN FOR HELPING TO PROMOTE MODEL ENGINEERING IN OUR NEWSLETTER.

As a matter of interest, Brian mentioned his O-4-0 locomotive in his article. This locomotive is DOUGAL and is a model of the Welshpool & LLanfair locomotive. I don't know of any other person having constructed this unusual locomotive.
I'm aware of other members constructing interesting models, so please let me know what you're up to.

WEST SHORE PUBLIC RUNNING.

So far, we've had quite an unusual start to our season. I can confirm that the weather is winning the battle.

During the Easter Bank Holiday weekend, the Society had two good days, the other two were poor. We can't always blame the weather if the visitors aren't there. On one day the car park was completely empty.

Last Saturday the 13th of April the usual members attended our track. The visitors were there but the weather was atrocious.

Colin is seen here driving our Class 37, but I can guarantee you he is not saluting any person. The wind was so strong he was in danger of losing his hat. Later we ceased operations due to a risk of the wind de railing the passenger trolleys.

Work is still progressing on our track modifications adjacent to the station area.

The turntable on the main track is completed and is now in service. The next phase is constructing the sidings where our spare locomotives and passenger trolleys will be stored during running days. In the event of a breakdown, the locomotives can be changed with minimum interruption.

This photo shows members lining up the first half of the second siding with the turntable. This is not just digging holes and then

pouring in the concrete. The sidings have a slight gradient running down from the main track with the second piece level. This will ensure none of our rolling stock will inadvertently roll towards the main line.

GWR 15XX 5-inch gauge kit.
The latest model to be offered by Silver Crest is a 5-inch gauge GWR 15XX 0-6-0 tank loco originally designed by Hawksworth. The original 5-inch gauge 15XX model designed by LBSC is better known as SPEEDY.

This loco will be available as a ready to run model or for the first time the company are offering a fully machined, bolt together kit model.
I've always worried should one of the previous models need dismantling to rectify a problem, where do you start.

As regards the kit, if you have constructed the model, you will have a good idea of where to start. You will also have the construction manual to help you. If you still have no idea what the model looks like, our club loco "The Brigadier" is one of this class.

BOILER TESTING.

The boiler testing season is on us again. If your loco needs a boiler inspection, please arrange with Martin to make sure he can accommodate you on the specified date.
As all model locomotives have different safety valves with different sized threads, make sure you have an adaptor that has a thread to match your boiler at one end the other end having a male thread of ½" x 26 TPI on the other.

PRESENTATION OF BOILERS FOR TESTING AND DATES FOR 2023

Depending on the test being carried out the owner is responsible for preparing the loco prior to the test.

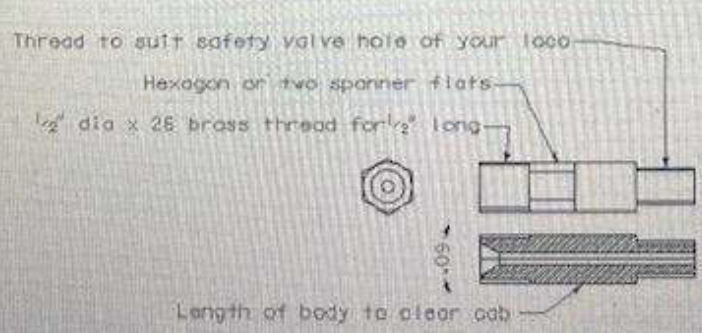
HYDRUALIC TEST

NEW BOILER

1. A commercially made new boiler should have paperwork and certificates of test with it and this must be presented to the boiler inspector when it is registered with the club and issued with its initial hydraulic certificate.
2. When all fittings have been installed a hydraulic test to one and a half times working pressure will be carried out to test the overall integrity.
3. Homemade boilers should be presented for an initial test where it will be visually inspected followed by a hydraulic test to twice working pressure where after which it should be stamped with the number allocated along with the working pressure.
4. A hydraulic test will be carried out when all fittings have been installed to test the overall integrity.
5. It will then need to be steam tested and the safety valves set at the working pressure.

EXISTING BOILER FOR RE-TEST

1. If possible, the owner should carry out a test at home and correct any faults before the actual test at the club.
2. The boiler should be in a clean condition this means a clean smoke box and tubes and the removal of the ash pan and grate for inspection of the firebox, fittings can be left in but must not leak.
3. Bring your previous certificate with you.
4. The miniature pressure gauge should be removed and the manifold plugged as this gauge will need a calibration check while it is off the boiler.
5. The boiler will be connected to the club's boiler test gear to do this we need a 1/2" x 26 TPI brass thread male adapter as detailed below.



If your loco has two safety valves you will also need a blanking plug for the other hole on the boiler.

MEMBERS PROJECTS.

Whilst having a chat with Richard Stoddart recently, I was able to have an update on his workshop activities.
At the moment he is at an advanced assembly stage of a 5-inch gauge three-cylinder Merchant Navy class locomotive.
Having assembled the third cylinder between the mainframes, connecting the piston assembly to the crank axle and timing the valve gear must have been quite a challenge for Richard but I can confirm when connected to an air supply, this fine machine ran faultless as a single cylindered pacific.
Both outside cylinders should be a piece of cake following the inside cylinder exercise.

When Richard feels he's had a bit of an overdose working on his Merchant Navy, he turns his hands to a Don Young designed 3 ½ inch gauge 4F 0-6-0 locomotive. For our senior members, we have fond memories of Don Young and his family visiting our track during his annual pilgrimage from the Isle of Wight up to North Wales to get his "steam fix" for another year.
Don produced a quarterly magazine called "Locomotives, Large and Small". As the name suggests the magazine discussed main line issues but included a construction series on two of Don's designs in every volume. Even today, these magazines are a good read.

GWYN JONES. I hope Gwyn won't mind me saying but he is a gentleman of few words. A retired motor mechanic, I can guarantee you everything that comes out of his workshop is of the highest quality. To prove this, Gwyn entered a 4inch scale traction engine at the National Exhibition at the Alexandra Palace. If my memory serves me well it was the 100th anniversary of the exhibition and Gwyn walked away with the gold medal.

Later he turned his hands to horology and has recently completed a long case clock. The photos that I have seen of th is clock show a very high-quality instrument.
His latest challenge is a railway locomotive. He always wanted to build one, the only criteria being it had to be a manageable size.
The model Gwyn has chosen is an LBSC designed Black Five in 3 1/2-inch gauge. (DORIS). I can't wait to see the end product.

KEITH JONES is continuing to churn out various timepieces, but his latest one has given him a slight headache. Having produced various gears, Keith has noticed they do not mesh. Although the gear cutter has the correct number on it, it seems to be incorrect. I've managed to give Keith a suitable piece of brass, and he's had to purchase another gear cutter at a great expense. It's back to square one as far as these gears are concerned.

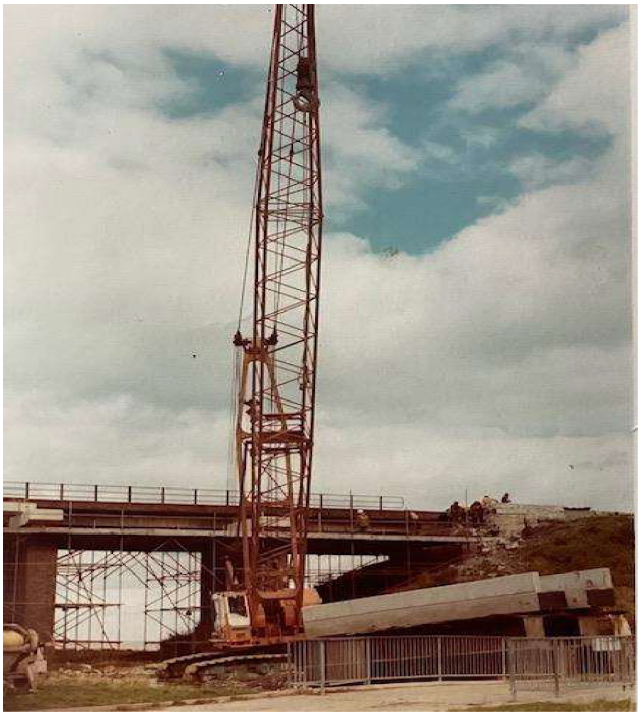
PAUL GENNOE is constructing a 5-inch gauge Don Young designed BARNET. This is a model of the Eastern Region N2 0 6 2 suburban tank loco used for passenger service in the big city. We don't see a lot of Paul these days assuming he's giving the model all of his spare time. I know this model is at an advanced stage so I wonder if Paul might send me a few photos to include in any future newsletters.

TONY GRAHAM. Everyone who knows Tony is aware that he has established a niche market in the smaller scale railways. He constructs boilers and gas receivers for O gauge and Gauge 1 locomotives for members of the relevant societies. These orders keep Tony very busy.

ARCHIVE PHOTOS.

A few more official BR photos that I have managed to get my hands on. This is the Llanddulas railway viaduct in the 1980's. I can only guess the railway track needed re-aligning with the viaduct in order to accommodate the A55 road in some way.

As can be seen, the re-aligned track will be running on what I can only describe as a cantilevered section.



Do any of our members have any recollections of this work being carried out and what was the real reason? Let me know.

I was unable to attend the track last Saturday due to a long list of duties needing my attention back home. Hopefully the last piece of the jig saw will have been completed for our two shunts next to the station area.

Once again, on behalf of our committee I wish to thank everyone involved in this very worthwhile exercise.

Finally, if any member requires a qualified electrician in the Conway area, can I recommend Nick **Hill,** the electrician who conducted the testing and certifying of our electrical installation at West Shore. I have no personal connection with this young gentleman, my recommendation is purely on his efficient no fuss attitude.

This is where I say farewell otherwise the April newsletter will become the May newsletter.

Kind regards,
Harold.