

Issue No. 825

August 2020

# The News Sheet

North London Society of  
Model Engineers

August 2020



You can see this News Sheet in colour by visiting our web site  
at [www.nlsme.co.uk](http://www.nlsme.co.uk)



Your editor is most grateful to those who have contributed to this edition. My sincere thanks to all.

Lots of positive comments about Mike's articles "A Coach for Tyttenhanger". So, if you have a story to tell please let your editor know. Usual fee will be paid.

YOUR NEWS SHEET NEEDS YOUR CONTRIBUTIONS

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**IMPORTANT NOTICE REGARDING NLSME ACTIVITIES  
RELATING TO CORONAVIRUS (COVID-19) PANDEMIC**

This news sheet, being a monthly issue, can never provide members with up to date decisions on how the pandemic impacts on our club activities. It is therefore important that members always follow the latest government advice.

Please note the following restrictions currently apply to our activities.

Head Quarters

All meetings at HQ are cancelled until further notice.

Tyttenhanger

All public running days, events and functions are cancelled. The site is open for use by members and their families only but subject to interim rules contained in this edition of the news sheet (page 5).

Fetes and Fairs

All events have been cancelled.

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### Front cover photo

The definition of a good day at the track;

A new loco, everything works, a good run and a new steam certificate.

John with his new loco. Having just completed the required examinations the steam test certificate is about to be issued. Happy days!

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## Chairman's Comments



We are now settled into operating Tyttenhanger under the interim rules. No issues have presented themselves and I am pleased to see many of you attending the site and enjoying yourselves. Wednesdays, Thursdays, Saturdays and Sundays always seem to have a decent number of members on site either working on maintenance, running/sailing or just chatting. How fortunate we are to have this facility at present times.

Unfortunately, HQ remains off limits for meetings. I do encourage HQ sections to go along to Tyttenhanger on any of the days listed above if only to enjoy the British summer in a pleasant outdoor location with fellow modelers. Just remember to follow the rules and maintain social distance.

We were able to hold our first council meeting since March, at Tyttenhanger, and hope to repeat for August - subject to covid19 of course.

I have been asked how the society approves new projects. We have followed the same procedure for so many years it is maybe taken for granted that everyone knows, which clearly no longer is always the case. The short answer is that the membership as a whole vote on desirability and approval of new projects at meetings convened for the purpose in our meeting room at HQ. However, in practice it is the significant proposals, or any that impact upon other sections, or upon the society in a more general sense, that are put to the full membership for approval. It has been our practice in recent years to reserve the February General Meeting for this very purpose. Minor developments within sections are dealt with locally so to speak. Low impact proposals for Tyttenhanger are reviewed by the TSC who then seek council approval as appropriate.

In connection with the above my attention is drawn to the fact there has been instances of late when members, who are not on the TSC, attend TSC meetings to support a particular proposal. I see no problem with that providing the proposal is on the agenda issued beforehand. However, TSC attendees must understand our decision-making procedure as outlined above. Only TSC members can vote at TSC meetings. Members have voting rights at HQ meetings.

We like to keep things as informal as possible whilst compatible with running a large multi section club. However, some rigor in decision making is required to ensure all members, that wish to do so, have the opportunity to review, discuss and vote. This is a key factor in how we remain a successful organization with less friction between sections than would otherwise result. Keep well and healthy, see you at track or HQ, CV 19 permitting!

Chairman

# TYTTENHANGER INTERIM RULES

## EFFCTIVE 29<sup>th</sup> MAY 2020 UNTIL FURTHER NOTICE OR AS MAY BE AMENDED FROM TIME TO TIME

(Issue: Rev 1)

### 1. General

- Members only and their families allowed on site as permitted by UK Government guidelines.
- Site is closed to the public and visitors from other clubs or societies.
- Gate to remain closed at all times
- Maintain social distancing
- Use sanitizers provided at steaming bays, bothy, RT station and old running shed
- Members to provide their own masks and gloves if required or in accordance with government guidelines
- Only one person in coach, bothy, toilet block or any other building at any one time
- Members at higher risk advised not to come to site. Those that insist on attending should remain in the general areas where social distancing can be achieved
- The carriage or other buildings not to be used for cooking. Storage of food in fridges not permitted in any buildings on site. Members should bring their own food and drinks to be consumed in open areas only.
- All seating areas shall be arranged to comply with social distancing guidelines

### 2. Running – boating area

- Number of persons using the boating area shall only be limited by compliance with social distancing guidelines

### 3. Running - Raised Track

- Members not involved with the preparation or disposal of locomotives should remain outside the steaming bay fences to maintain social distancing.
- Alternate steaming bays shall be used to ensure social distancing guidelines can be maintained between club members preparing or disposing of locomotives
- Members riding on passenger cars to be socially distanced from each other and driver

4. Running – Ground Level

- Members not involved with the preparation or disposal of locomotives should remain outside the steaming bay fences and GL steaming shed to maintain social distancing guidelines. (note steaming shed is to be defined as a building for the purposes of this assessment).
- One loco at a time to be prepared/disposed on GR steaming bays to maintain social distance.
- Members riding on passenger cars to be socially distanced from each other and driver

5. G1 and Narrow Gauge

- Use gloves to set out tables and chairs. Only two persons per bench or table. (based on 2m (6ft) rule.)
- On G1 only one train per circuit. If middle circuit is used the start time to be staggered in relation to inner & outer circuits. (this restricts raising steam to one person at a time).
- A Track Marshall for G1 railway shall maintain a running list to ensure no sharing of general equipment
- Numbers of persons inside G1 and Narrow-Gauge railways to be limited to ensure social distancing is maintained

6. Grounds maintenance

- One club member or family group only to enter the equipment store at any one time Sanitize controls after use.

7. Caution

- Any club member not willing to comply with these or government guidelines will be asked to leave the site

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Forthcoming General Meetings

General Meetings at our Legion Way Headquarters in North Finchley are now cancelled until further notice.

Any questions please ring, Ian

General Meetings Co-ordinator

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## Treasurer's Report

By Mike Hon. Treasurer

As mentioned in last month's report regarding defaulting payers, those that have not paid up or advised otherwise will have received final reminder letters. Those that do not respond to these letters will be deleted from the membership list. A list of their names will be published in the September issue, to enable you to update your Name and Address lists accordingly.



Following a number of recent incidences at HQ, when an ex-member from 2011, who unbeknown to us still had access to the keys had entered the building to practice on the Slot Car track, Council has taken the decision to change the Chubb lock on the main door to prevent a re-occurrence. Existing key-holders will be advised accordingly and supplied with a new key when the changeover is made, in exchange for the return of their existing key for the old Chubb lock. This way we can safely re-use that lock in another location. In addition, to further improve security a 4-pin coded padlock has been installed on the intermediate door between the main hall and the corridor to the other rooms and the key-holders have been advised. A bit belt and braces, but it would have saved a lot of the grief after our last break-in through the roof if fitted at the time.

At the recent socially distanced Council Meeting, it was decided to make a suitable donation to NHS Charities website in memory of all those society members who have sadly not survived the Covid-19 pandemic.



This picture was sent to me by my friend Holger, in Germany showing the finished result of some of his lockdown activities. The Russian diesel (Taigatrommel) being fired at by his model of an armoured railcar, converted to squirt water, shown on his garden railway. He is a DB rail engineer by profession.

## Work in Progress 1916 style.

By Ian

A postscript to Mike's series of articles "A coach for Tyttenhanger"

Years ago, a good friend of mine (Douglas Phare) showed me the photographs that he took during WW1 when he was a dispatch rider in Egypt.

My interest in the album was that the first photograph was of a blue Funnel Ship called Helenus. Douglas sailed on board Helenus when the ship was a troop ship carrying military personnel to the Mediterranean. I served on board a Blue Funnel ship called Helenus as third mate in 1955 on the Australian Service hence my interest.

When Douglas had to "down size" he gave me the album and I subsequently donated it to Barnet Museum who in turn gave it to Hendon Air Museum. At Hendon, a researcher who lives in Barnet contacted me with photo copies of some of the items that interested him.

One photograph of interest to me will remind members of Mike's excellent reminiscences described in the news sheet over the previous few months describing how club members moved the coach. The photograph depicted Egyptian labourers "moving" a van. When I saw it again, I thought that young NCO looked similar to our dear Mike in another life! Was he just rehearsing in preparation for the sawn up telegraph poles and other methods to be used at Tyttenhanger later!



*Egyptian labourers moving a crated BE 2C, "V" Type Landing Gear, serial number 4504 which was assigned to No 17 Sq. in January 1916. Probably in Alexandria docks.*  
*Photograph by D Phare – Barnet Museum*

## Work in Progress from club members workshops.

With the current restrictions in place we thought it a good idea to find out what project's members are filling all this enforced spare time with. So, we asked and several have responded.

We would like to make this virtual work in progress section a regular feature over the coming months. So, if you have something of interest whether it be a boat, slot car, plane, railway (all sizes) or any other project which would be of interest please let your editor know. We will even offer to put the words around your photo's if that would help.

## Pelican Loaders

By Paul

Whilst wondering how to detail up a coal yard on my 00 layout, I pondered how coal was unloaded from wagons in small goods yards around the country in the 50's/60's when labour was short. An online search led me to discover Neal Pelican Loaders.



I thought a model of one would be ideal for my layout and started to search for a commercial model to buy in 4mm scale. None are available so, where there is a will, I resorted to scratch building one.

Before I describe the model, let's see how the real one came about. The Pelican Loader was a grab machine invented by a NZ company but built in the UK by RH Neal, a Grantham engineering firm. The company was originally from Ealing, being set up in the 1930's to build cranes and loaders. The company ceased to exist in 1959 when taken over by Coles Cranes Ltd.

The Pelican design was based on a Fordson Major tractor except the loading operation was reversed so that the driver faces away from the engine. This made it, in effect, rear wheel steer. A hinged boom arm was provided with a 2 cubic yard grab at the end. The boom is supported on an A frame bolted to the tractor chassis with concrete balance weights at the tractor radiator end. A hydraulic ram, founded on a frame near the tractors universal coupling, was provided to raise and lower the boom. The whole thing was configured to be able to reach right into the ubiquitous 16T mineral wagons used for coal traffic in the 50's. It's just the sort of shoe-string mechanical conversion I am sure many readers would embrace.

Given there is no commercial Pelican model available, I started with a tractor from the Oxford Models range. Admittedly it is a Massey Ferguson, and probably a little under sized compared with the Major, but I already had one, so I used it as a basis for my model. The conversion to a Pelican precisely followed the real Heath-Robinson style conversion – save, of course, for the materials used and the movement. Plasticard, wire, glue and paint were fashioned into the likeness I had found online. The picture below shows the result.



Live steam readers may also like to note that the model coal in the picture is actually the smokebox ash retrieved from my 3 ½" gauge loco. Its colour, size and general appearance far surpasses any other material for 4mm scale coal!

## Princess Elizabeth rebuild

By Geoff

For Christmas 1953 or 54, my father bought me my first model railway. A basic Triang set including a black Princess Elizabeth. As time went by this became a decent layout with 3 locos, a turntable and a viaduct. The layout was sold when the family moved house in 1958.



In 1990 I was at swap-meet and saw a black Princess Elizabeth, very similar to the original one I owned, I bought it but found it didn't run terribly well on modern Peco track.

One of my lockdown projects was to rebuild the loco to running condition. Stanier's real Princesses had run from 1935 for about 30 years. My model was about 45 years old, so time for a rebuild.

Some obvious changes were:

- Wheels – the model had massive flanges which would not run without hitting the sleepers:
- Motor original XO4 was worn out.
- Pickups were bent.
- Front buffer beam was broken.

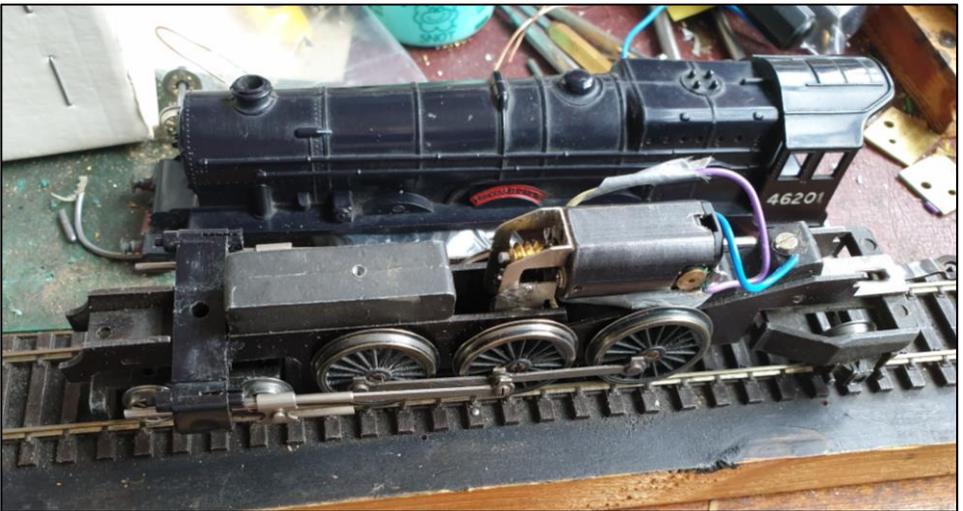
Disassembly was straightforward. The loco was built on a sturdy metal chassis but the tender was plastic and the wheels had to be knocked out through the axleboxes. The rear pony truck also had to have the axle knocked out and some Romford trailing wheels inserted with insulating spacers. The front bogie (original 10mm diameter) was replaced with Romford 9mm wheels and a 1 mm washer to compensate for the height. The main chassis was originally drilled for Triang splined axles of about 2.4mm diameter so 6 x 2mm axle frame bushes were superglued into the chassis. Replacement Romford driving wheels (3 insulated, 3 plain) were fitted having been tapped or drilled as needed in the crankpin holes.



The tender, which should have been simple, was a problem as I could not get replacement wheels to sit square on the original axles. So, I made up a brass frame with 9mm spacers and fitted 6 x 12mm insulated wheels.

The phosphor bronze pickup strip was bent and had been ripped so some extensions were soldered on and the whole lot flattened

The motor gearbox combination I chose was a flat Mashima with a High-Level gearbox. This gearbox was just thin enough (with a bit of filing and persuasion) to fit between the original frames. Initially I forgot to solder up the middle gearbox axle, but was able to do this with the gearbox in situ.



Having put everything back, I soldered up the motor wires, adjusted the pickups to rub on the wheel edges and after a couple of "hand of God" nudges got the loco running.

A very satisfactory outcome. The irony of course is that the cost of the new wheels and the motor gearbox, is many times the original cost of the complete loco.

# Maisie

By Martin

I started building LBSCs Maisie design for a 3.1/2" gauge Great Northern Atlantic in 2015. At the start I decided to use laser cut parts for accuracy and hopefully save a bit of time. To date Malcolm at Model Engineers Laser has supplied the frames, coupling rods, connecting rods, crossheads, sidebar yokes and the intermediate valve rods. These latter items I had to draw up in CAD send them off as they were not in his catalogue.



He also supplied the expansion links for the Stephenson's valve gear,

but these were water cut from gauge plate.

Castings I obtained from Kennions with the exception of the wheels which I came across at a good price on Ebay.

I ordered a non-combustion type boiler from Western Steam, they quoted 2 years for delivery but the boiler arrived within 6 months! I'm told I must be in Helen's good books as this is unheard of.



I decided to paint as I go as I couldn't face taking the whole lot apart at the end to paint it.

## Pelican out of Bella.

By Roy

The first photo is of a Pelican that I took a few years ago when staying with my son in Australia. The controlled crash of a pelican taking to the water was the inspiration for the name of the yacht. There a good number of pelicans around as there is a colony of them not far away.



The picture is a cropped view from his rear 'garden', which goes down to the water called Booker Bay, which is off Brisbane Water. It is about 300 metres wide at this point and is part of the route out to the sea. I just sit in an easy chair and look at the view with passing birds and yachts.

The Bermuda rig model yacht is of Bella, I did not build this model but it is here to illustrate the intended finish of the yacht kit. The kit is called Bella and produced by Aeronaut, it is still on sale and is very nice and easy to put together with laser cut wood and sails already made, sells at around £170 complete. The yacht entitled Pelican is the way this kit was rearranged, re-built would be a bit of an exaggeration!



I rarely buy boat kits and my Pelican was the result of a swap deal about 3 years ago, I had fancied one but I was not prepared to dig that deep, so when I was offered a partly completed kit, I could not resist. To the parsimonious among you I can categorically say that 'No money changed hands at any time'.

The frame (bulkheads and keel) had already been glued together and the lower skin glued on. The unknown builder had decided to fit the lead keel as well, perhaps a little impatiently as it should have been left until later. This had caused a problem as the yacht had been put away and lain on its side for some time, perhaps a couple of years, and the weight of the keel had warped the ply keel into a twist. If left the yacht would have gone round in circles the whole time. All of the rest of the kit was there right down to the smallest fittings.

I decided that first thing to deal with was the ply keel, it was really far too flimsy for the job at just 3mm thick. I should say this is the only thing I question about the kit and it is easily remedied. As I had the building instructions, I could see the lead weight was screwed to the keel and then the holes filled, so it was easy to remove the two pieces of lead. This left a twisted piece of ply that was an integral part of the hull frame. I decided that I would have to thicken the keel by gluing 3mm Bass wood either side and clamp everything down flat to my bench for a couple of days.

The keel, now nice and true with the hull frame was then filed and sanded to an aerofoil section and varnished etc. The lead keel pieces no longer met together and a little bit of maths calculating the extra volume of the keel shape came up with an equivalent displacement of 5 ounces of lead which I cut up from lead flashing and this was used to fill the gaps, then all filled with P 38 and smoothly finished.

The rest of the yacht build went ahead without problem, but on the way, I thought



about changing the rig to the Gaff rig. This is not as simple as you might think, I have designed sail rigs before so knew what to do. When starting afresh you have to place the centre of area of the sails 4% of the waterline length ahead of the centre of lateral resistance (C of E) of the hull. I could work out the C of E of the existing rig so did not need to know where the centre of lateral resistance (CLR) was. But in case you were wondering how to find the CLR it can be found as follows; The yacht hull has a CLR. All it means is that if the hull is in the water then there is a point on the side of the hull which if you push at right angles the hull will not move to one side or the other but travel evenly away from you.

First, I laid the original Bermuda rig sails out on our kitchen table and worked out where the collective centre of area was for the sails. This is done using triangles and plotting between them to get this point and as expected it was 'in the air' just in front of the mast, so I measured the distance it was from the bow. This gives me a vertical line along which I have to place the new sails' area centre. The point also tells you how high above the waterline this is so you also can work out the 'righting moment'.

My crude rule of thumb for this is to use the fact that a 20-mph wind has a 1-pound force on 1 square foot of sail area. The number of square feet of sail now becomes pounds in weight at a certain distance above the waterline, the old foot/pound system. The keel weight multiplied by its distance below the waterline gives the righting moment and in my rule of thumb they should be roughly equal. Anything more than a 20-mph wind will see me at home looking out of the window!

I tried drawing some sails of the same area as the ex-Bermudan sails, but they were not right, so I drew some that did look right and I fancied a flying jib as well but the hull was not long enough, so I added a bowsprit about 4 inches long to incorporate the longer rig.

I cut some sail shapes out of a strong tissue I have by me just for this process and again laid them on the kitchen table spread on top of some lines representing the hull including mast position with marked in the C of E (not to be confused with any religious connotations)! I usually only fit fore and aft sails so this is the calculation involved. The sails of any shape can be reduced to triangles. The centre of area of a triangle can be found by drawing a line from the halfway point of any line to the opposite angle and then doing it again for another line, where these cross is the centre. The sail shapes were taped down and with rather a lot of pencil drawing I worked out the new centre of area of the three sails. It was not in the right place, so paper was cut moved around until I got a better compromise but it still was not going to work.

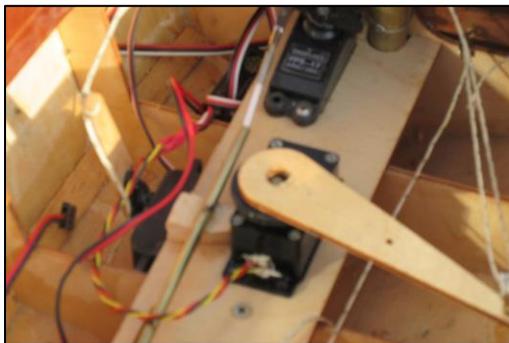
I had another look at the yacht hull and I could see that if I moved the mast back half an inch it might just work out. Moving the mast back also moves the large mainsail back as well but still leaves the jibs in place. The angle of the gaff has quite an input on what the yacht looks like on the water and I settled on 45 degrees.

More cut out sail shapes and measuring and I got to a nice solution that should work. In the meantime, the sail area had increased by 40 %. However, the righting moment (height of centre of area over the waterline) had dropped down as I expected, so that multiplying this new increased sail area as above with the lower height, nicely balanced out the keel, which was now a few ounces heavier anyway. I should add the changes to the keel brought the yacht back to its correct waterline, I had to counter-act the extra buoyancy of the thickened keel.

There was another change, as with the Bermudan original rig the main boom is shorter which allows for a backstay for the mast. With the Gaff rig the main boom extends over the stern and this calls for another method of stabilising the mast. I chose to go authentic and made some metal stays which are attached to the side of the hull. The mast now rests on the keel instead of the deck but I still had to shorten the mast by a few inches.

Having just basic tools at my disposal I hammered flat some brass tube and drilled for the rivet holes (into the hull) and the mast stays on my small vertical drill. Then I carefully filed the sides of the flattened tube on both edges until they parted into two identical pieces. There was going to be some wear where the hook goes in and this has a small washer soldered inside to compensate, there are two pairs and they do the job nicely and in character. I left the mahogany surfaced ply as it was, I have seen some painted and they do not look as well and having been given such nice quality ply, I wondered why anyway!

I did slightly increase the rudder area to compensate and I would have taken it further astern but that was going to be difficult. You can see from this last photo



how the servo arrangement inside control the sails and rudder. After sailing her on the lake I thought I could improve things by having a fine adjustment on the flying jib. I fitted an additional (standard) servo with a short arm (vertical in the photo) which can flatten the flying jib against the inner jib and this creates a wind slot and you can see how the speed increases when adjusted correctly.

The main and jib sails go in and out in parallel, the flying jib is on a rope 'horse', the sail has an eye in the clew and slides across as the yacht tacks and it is by shortening this rope that brings the flying jib flatter with the jib. All the sail calculations mean that the sails can be set at 30 degrees to the wind and she will sail hands off dead straight. This works well in a scale yacht but things are a little different in racing yachts which are set up to be more 'twitchy'. My yacht responds like this in quite high winds, I have been trying to find a model yachter with a Bermudan rig Bella that I can compare handling with. Or let's face it, have a race!

## Recycling

As a point of interest, the sail servo first saw use in a wind tunnel at The Building Research Establishment. It was one of several that controlled small air flaps for the operation of the unit. I took this one apart and added some balance resistors inside to increase the throw of the servo arm. I replaced the wiring and fitted a modern connector. The wind tunnel has long gone so I would think the servo may be as much as 50 years old, they run very smoothly and I have another one in use and a spare as well!

The redundant sails have gone into service on another yacht I am working on, so are not discarded, this one should be ready to sail very soon, Politicians permitting.



## Narrow Gauge Garden Railway

By John

Greetings again narrow-gauge railway lovers ... after last month's ramblings which detailed how the layout had survived the lockdown, and also what was required to bring it back to a condition conducive to good running. It's now great to be able to bring you some photos of the railway bringing some running pleasure at last.

One of our newer members son Nathan, recently celebrated his 6<sup>th</sup> birthday and as a special treat his dad

brought him and his American loco and rolling stock to run on the layout I brought some of my own stuff and we had a most enjoyable afternoon .....That's the way to celebrate a birthday Jim !! I'll focus on the actual models in a later newsletter when Jim's got his latest acquisition back!

At the other end of the age spectrum we have our own Guy who has entered his 101<sup>st</sup> year and as Derek reported last month still modelling...I tip my hat sir! Derek asked anyone who knew an older model engineer still modelling to let the editor know, anyone Keith? ....thought not!

Last autumn Guy via Derek gave some wagons and a directors coach to be used on the narrow gauge railway, with other projects on the go I put them into the "to



do later" box, but when I mentioned them to Michael he immediately said "I'll get them running!" as you will see from the photo they represent a travelling circus

transporting lions and tigers, presumably depicting a time before they were banned in circuses! Apart from the animal cage wagons there was also a director's coach, the circus owner maybe? Kids will love the animal wagons and older folk will certainly admire the coach. The level of detail is fantastic; indeed, the lavatory even has a roll of loo paper present and correct. Michael has done a fantastic job in bringing them to a position where they can be run. Guy had originally built them to run on the usual narrow gauge standard of 32mm (0 gauge) but of course ours is to the lesser used 45mm (gauge 1) so all wheelsets had to be replaced and sole bars rejigged the photo shows the longer wagon on 2 axles Michael has now replaced these with 2 bogies. He has also restored paintwork etc but without changing Guys original paint scheme, as for the director's coach this required some remedial work where sides and ends had parted company, but all turned out well. Indeed, Michael has great plans for the interior, this has arm chairs and a table etc these will eventually have upholstery, table cloths, people etc. I can't wait to see it.....



Finally, at this time of year the alpine garden part of the layout always receives compliments of how good it looks and this year.

I think it looks even better than usual...so here's our permanent way gang Bert and Fred enjoying being at work for a change!

Keep safe, keep chuffing and see you up the track soon.

## Tyttenhanger Light Railway – August

By Peter



Hi crew. Another great month for action at the track just out of lock down and straight back to shovelling the pink stuff don't you just love it!

So much has gone on this month just passed I do not know what to start with first.

George has become the proud new owner of an 0-10-0 petrol hydraulic!! Yes, you did read it right 0-10-0, George discussed the purchase before leaping in as we thought it may not go round all the tight corners at the track, coming to the conclusion he would have to remove the leading axle if it did not fit. The front axle was removed it now goes' round. He is now rebuilding many other bits including changing the control leavers to his liking adding new horns and no doubt some lights will be added to the bodywork before his grandchildren take it off his hands ,that's what it is all about eh George, whose nickname is now "one axel short of a loco"



As George was so busy the crew decided to leave him be and clean up Henley Halt by cutting and fitting some gravel boards to Georges fine fence, finishing off backfilling with the pink stuff, feeling guilty George has said he will try to make up some HH name plates to replace the sorry looking one we have at present there.



All we have to do now is decide on what the colour to paint the nameplate. George made the signs out of some eighty odd year-old timbers taken off a church roof the finished product looks great. The pile of spare timber is steadily going down. It has been used for gravel boards, flower boxes and signs. All from scrap timber.

The wooden fencing job at Henley Halt is nearly done. Just a few more fence panels and then we will be starting on the wire fence and iron posts down towards the narrows. In this area where the wood fence meets the Iron posts at Henley Halt there is a redundant strip of concrete. Having now researched why this is there we are looking at the implications of using the strip again as originally

intended thirty years ago and install a head shunt. We will of course be seeking permission before starting work in the not so distant future.

Mike is chomping at the bit to finish his project having already cut the angle iron posts and sockets that hold them. The sockets will be concreted level to the ground to allow for ease of grass cutting and removal of small sections especially through the narrows! My thanks lads for all the hard grunt you have put in at Henley Halt it is beginning to look smart once again.

The new age camp is no more it was removed and burnt with gusto, Roy and the lads who carefully sifted through the piles of covered unburnt timber looking for any wildlife that was hiding out found two toads that were relocated, the crew also whilst in pyromaniac mode cleared and burnt all the rubbish and a large pile of brambles that had accumulated on the new land pond area, we seem very good at leaving piles of rubbish around? This action came about as a result of a small fire that was started deliberately by unknown people at the front of the club site that also damaged the carriage shed roof. Repairs are now in hand, thanks to Peter for fixing the barn doors saving us a job.

Many members have now commented how clean and tidy the new age camp as



it became to be known the area now looks fine and natural once again we hope it stays that way, this Autumn I will be sowing some woodland plants from seed in and around that area I hope there are no objections, maybe the club could splash out on a large bag of Daffs or some other plants to further enhance this area, Galanthus and or Blue

Bells would be a good choice for all to enjoy at the end of winter and a splash of colour to lead us into spring.

G.L.R. Loading Gauge;

At the beginning of the year I asked our editor Keith if he would help me set out the parameters for a loading gauge to check and limit the rolling stock that is using our track! Reason being is to try and prevent damage to the signal treadles. Just as important is the development of a structure gauge that comes with this exercise. This will define the minimum clearance for any building or

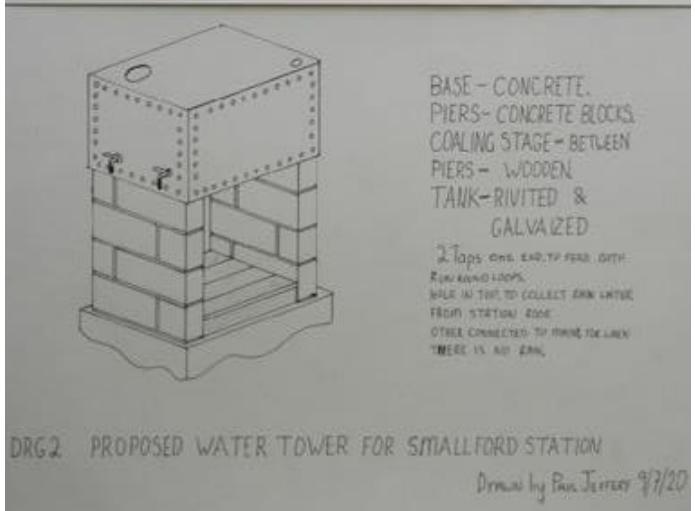
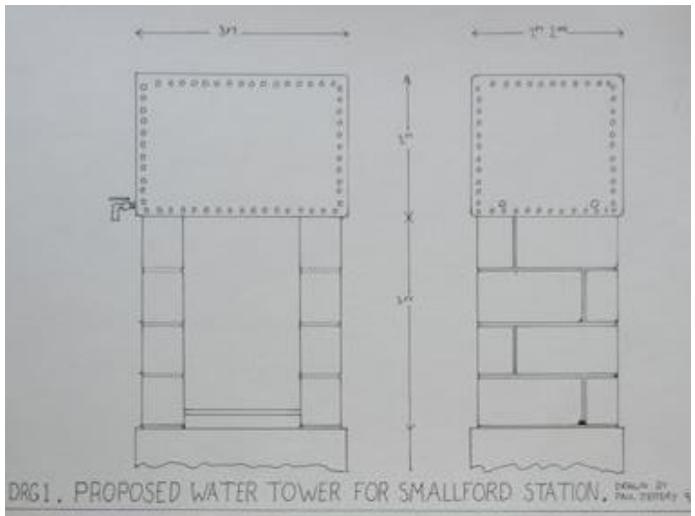
structures from the P-way. As part of the same exercise in consultation with the grounds maintenance team we will be defining a vegetation clearance gauge that sits outside the structure gauge. (Hope you are still with me) This will define how much of the vegetation should be cleared back that is trying to grow towards the trains, drivers and passengers when passing. Keith is well qualified for this job I am led to believe as he once this stuff for a living on the full-size railway. There needs to be further discussion and assessment of the viability and implications of adopting these profiles along the way to agreement but with the right people on board it will be a cinch (don't often use that word) especially in this club.

My thanks and admiration to Paul for producing a fine drawing of (our proposal to be) water tower and I must say it's amazing what you can make out of junk with a little thought and lots of skill!

This proposal once fully developed will be put to TSC for discussion and hopefully approval.

As ever in the muck

G.L Section Leader



## Gauge 0 Section

Paul



As we are unable to meet at HQ on Wednesday's, the Gauge 0 Section are now meeting at Tyttenhanger on Wednesday afternoons.

Members bring their own seats, refreshments and PPE in order to be able to sit and chat safely. Whilst no modelling can take place Section members have brought along some of their "work in progress" projects many of which have been the bringing back to life of old (usually 00) models. The earliest we have seen is a 1954 Triang Princess loco (see page 11 of this news sheet).

One member brought along a Mamod spirit fired Gauge 0 loco which hauled its wagons around the Cuckoo Line in great splendour. Another showed us his collection of Hornby Tinplate Gauge 0 models.

It all goes to show that there are ways we can still safely socialise amongst our hobby friends despite the prevailing emergency. How we will do this in the winter will be the next challenge! "

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## 5-inch gauge driving truck wanted

Wanted: 5-inch gauge raised track 4 axle (Bogie Type) driving truck for one person.

Please contact Richard  
or see us at Colney Heath on any Thursday.

## Gauge 1 Group report – July 2020

By Geoff

As with all sections at Colney Heath we have returned and are currently making the most of the summer weather. We have not had that long sunny spell that we had at the beginning of look down but we have had dry weather to enable us to socially distance around our track.



The big news of this period is the release of a new Locomotive from Accucraft. The gas fired Gauge



1 Adams Radial tank has hit the tracks. It is available in 7 different liveries from LSWR Adams green through to BR lined black. So far, I have seen two locos in BR Black at the track. They appear to be sprightly runners “straight from the box” and haul 4 coaches very easily.



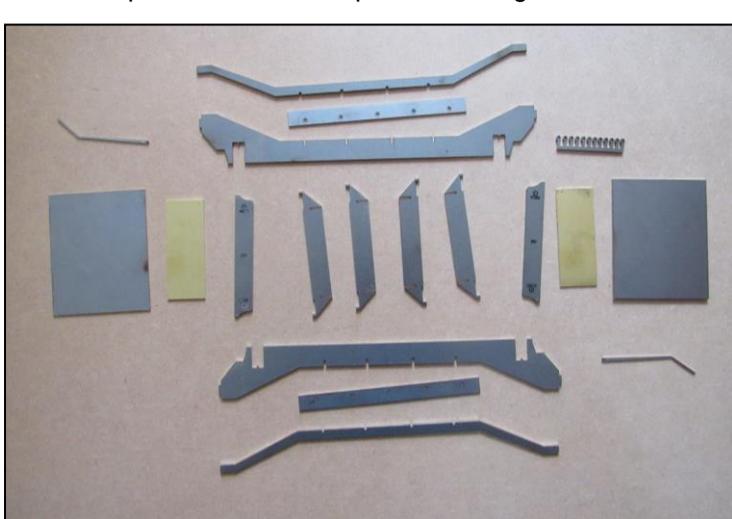
They also come in LSWR Drummond Green livery.

We also have an American following most weeks with a variety of locomotives being seen.



As for Engineering.

This is the modern version of engineering (which I have not yet succumbed to) Computer drawn components for a Lowmac Wagon that have been laser cut.

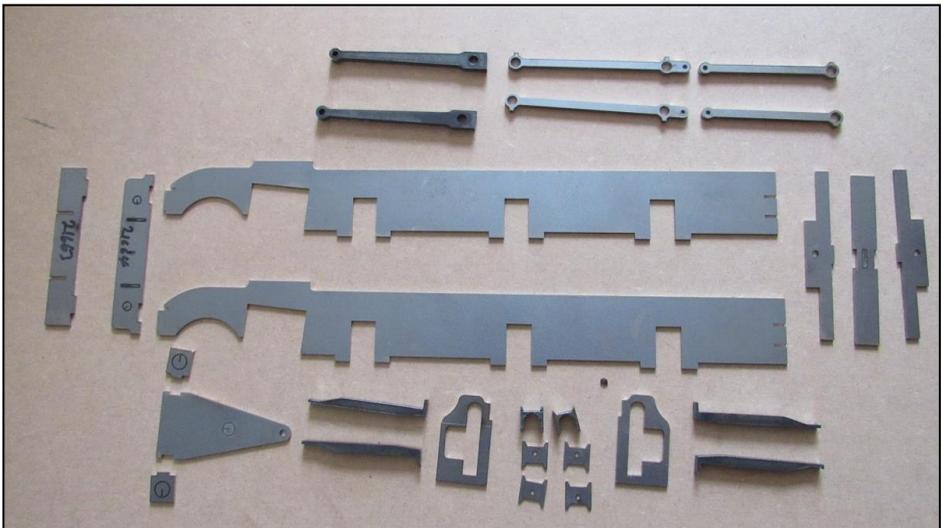


Here are photos of the components along with the trial assembly. (you may remember Airfix produced one of these in OO moulded in yellow plastic complete with a JCB excavator as a load)

These have been produced by John Dixon along with a set of components for a new locomotive.



This may be considered as a speedy way to build items but I am told that if the drawings for the loco were commenced 5 years ago with the laser cut parts being received recently (there were probably reasons that it took this time interval). With his normal output I am sure it will look more like a locomotive shortly.



## Bookworm writes

Half way through a mouthful the other day I over- heard someone say apprentices, well ..... do you remember that at the 1958 Model Engineer Exhibition the pupils and apprentices of Crewe Railway Works won the Students cup with their 1 inch scale model of BR Class loco "Duke of Gloucester" ? Most of the lads were 16 years old! Under the tutelage of Mr. F.T. Jones the lads did a great job.

1958 must have been a vintage year for apprentices, because the lads at the training school of English Electric & Napiers built a fantastic looking 5" gauge Netta to LBSC's design to run at the firm's annual Sports Day. Other than a tweak to the superheater on the trial run, it proved a success and yes, it ran Sports Day. Source: ME 1958 Sept 25 page 409

I always approve of a bit comfort.....how about having access to not only a well-equipped workshop to pursue the hobby but to also have a canteen and common room providing the comfort afforded by the provision of armchairs. I know this is the rumor doing the rounds about the new machine shop at Colney Heath. Sorry to disappoint but these were the facilities provided at the Men's Institute by the Birmingham Education Committee for the unemployed and those wishing to pursue handicraft in their spare time. All for 2 shillings and sixpence per session. I can't see Hertfordshire Council providing armchairs to Model Engineers today! Source: ME 1937 Dec 2 page 538

1951 seemed to have been a very splendid year. Festival of Britain happened – do you know I didn't realise that it was actually 100years after the Victorian Great Exhibition – anyway that aside, something far more important was reported in the ME for 1<sup>st</sup> Feb. That was the introduction of the first of the Standard locomotive types for British Railways, the "Britannia" Class locomotive. LBSC also introduced his 3.5inch gauge version in the same issue which was considered a real coup at the time. Incidentally R.A. Riddles the designer of "Britannia" and Mr. Cox from BR was known to LBSC and co-operated by providing copies of the drawings and details of the full sized loco. It was said the features common to both LBSC's "Tugboat Annie" and "Pamela" designs where of "considerable" interest to Mr. Riddles as they followed the general principles of the design used in the full sized "Britannia". In the concluding installment of the construction series of LBSC's 3.5" gauge Britannia, LBSC took a moment to reflect, and in the opinion of your guide, I think he seemed very satisfied with what he had achieved. He knew he had come up with something special as he finishes his article with: *"Curly, sends out hearty good wishes for the reward that sweetens labour – the possession of a really smashing locomotive that will provide endless hours of pleasurable running."*

Footnote: Not for the first time I am grateful to the lads on the other shelves for calling me over to look at a photo. The picture this time shows no lesser person

than Mr. R.A. Riddles driving a 3.5" gauge Britannia owned by Mr. Buckles on the inaugural run of the Romford Clubs (then) new multi-gauge track. What a small world!

Source: ME 1951 Feb 1 page 159 / ME 1953 Nov19 page 596 & 1954 June 10 P661

Heard my owner the other day talk of the modern luxury of having a car whose hood can be raised and lowered at the touch of a button and stores away so neatly in a locker which is concealed by a streamlined lid, says it's the *height of modernity*. Well I hate to break the bad news to him but, this was the description afforded to a new car in production in the United States.....in 1945!

Source: Mechanics 1945 Nov 23 page 45

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## Normal Service is resumed (well nearly)



*Photo by Owen*

There has been a gradual return to running on railways of all gauges large and small at Tyttenhanger. As can be seen elsewhere in this issue the boating lake has also seen activity return. Let's hope things continue to improve and we can soon open HQ again for the other sections to enjoy the facilities there.

## The London and Birmingham Railway.

Ian completes his journey north along the route of the London to Birmingham railway providing an insight to the history behind the construction of this railway.

### **Kilsby Tunnel**

Construction of Primrose Hill Tunnel, Tring Cutting and Wolverton Embankment could be on 'level' one difficulty. The cutting at Blisworth on Level two but the construction of Kilsby Tunnel was by far the most demanding project of the whole line!

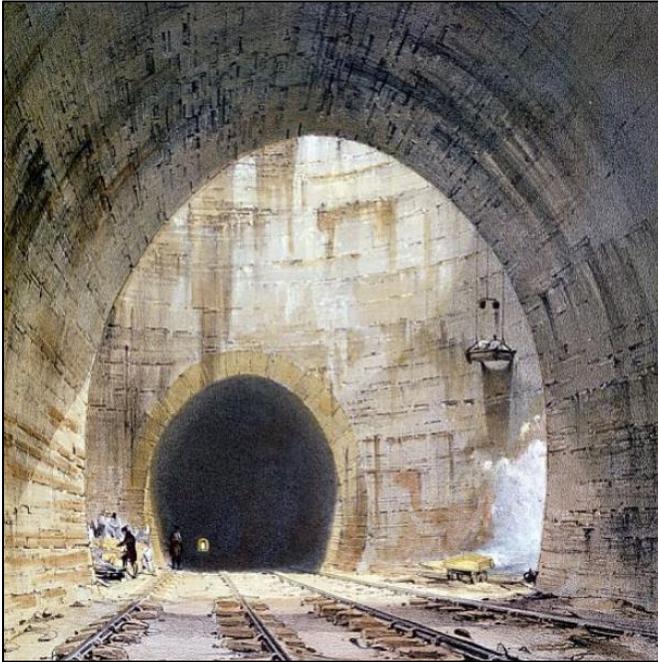
One of many problems was that a rail tunnel that length of 2440 yards had never been built before. Pundits thought that passengers would suffocate on the way through.



Apparently when the 'Bill to Proceed' was passed Robert Stephenson went to Rugby School to pay his respects to the headmaster Dr Arnold who was rather cold in his response to the visitor. This was probably because Robert had no letter of introduction with him but Robert had no experience of public schools. Dr Arnold's farewell remark was, that he thought the tunnelling under the Kilsby Ridge would give problems; and by gum there were great problems. Arnold must have known the problems the grand Junction Canal had in that area especially concerning quick sand.

Once the contractor had been assigned, a survey of the route to be taken was carried out. Bore holes were drilled on the eastern side of the proposed track but the unlucky contractor Joe Nowell and Sons found numerous places were contaminated with quicksand. So, a line to the West was taken; the bore holes here were more promising showing clay, gravel, limestone and of course plenty of water. So, working shafts were sunk and then working faces developed in both directions to meet up with other working faces in due course. However, the working shaft near the southern portal struck quicksand in abundance above and below rail level. The other working shafts were dry and tunnelling proceeded north and south. But the problem with quicksand at the southern end persisted.

It was not possible to drain the quicksand and Stephenson resorted to steam pumping, this was probably the first time this method had been used on any scale.



Two steam pumps were erected and had limited success but ultimately met with failure when flooding started. Stephenson constructed drive shafts to the side of the proposed tunnel and drove headings towards the main tunnel. Then he pumped and pumped for almost nine months at the rate of two thousand gallons a minute. The expense of the additional shafts and the pumps was not in vain and tunnelling in that area proceeded.

At this point the contractor became ill and died; the sons carried on but then gave up and left the problem to Stephenson. The tunnel was 30 feet wide and thirty feet high. Disaster struck again, a section of roof nearest the ground made up of quicksand collapsed with a deluge of water. The tunnel became flooded, the level rose and was going to fill the incomplete tunnel. A quick-thinking foreman made a raft for the gang and were paddling in the direction of the fault to repair it but the level rose precipitously and they were in danger of getting jammed in the roof. The quick-witted foreman jumped into the water and swam with a rope in his mouth and towed the raft to the foot of the shaft where they were lifted to safety. The water now followed the gang and rose up in the shaft and drowned the works. What an escape! Eventually the pumps won the day, tunnelling recommenced and eventually was complete.

Thirty-six million bricks were used for the tunnel. Two gigantic shafts were constructed for ventilation and light they were sixty feet in diameter and the largest consumed over a million bricks.

At one time well over a thousand men were employed to build the tunnel and shafts. A 'town' sprung up to accommodate these men, high rents were charged and were overcrowded. Hot bunking was the norm with two men sleeping in each

bed in six-hour shifts. Rather like Gilbert and Sullivan's Cox and Box but not nearly so jolly.

Successfully leaving the completed Kilsby Tunnel construction of the run north to Rugby was fairly straight forward with a gentle romp into Rugby.

This part of the line opened in April 1838.

Kilsby tunnel still presents its challenges to the infrastructure maintainers of today. In recent years the main, 60ft in diameter shafts were very wet and water ran down the walls into the tunnel below. This presented serious problems particularly during freezing winter periods with the build-up of tons of ice which had to be regularly removed during overnight line blockages.



Your news sheet editor has spent many shifts during the 1970's and 1980's working in the tunnel, relaying track and repairing the main drainage systems which were vitally important to carry the constant flow of water away. Standing on the railway looking up one of these great shafts is a remarkable experience.

In recent years extensive repairs and waterproofing of the main shafts has been undertaken. Even more recently taking the opportunity of a significant reduction in passenger services caused by the Cov crisis there was an opportunity at very short notice to take extended possession of the tunnel. In normal times with over 400 trains passing through the tunnel each day it would have been impossible to close this section of line for work of this scope and scale. The reduction in services offered a rare opportunity for an extended closure of 14 days. This was utilised to replace just under a mile of track and ballast plus ½ mile of drainage together with various other repairs within the tunnel. Work which would normally take months

of detailed planning was planned and the resources mobilised in 9 days and all the work then completed unseen by the general public within the 14-day closure.



The line was closed between Rugby and Hanslope junction with all services diverted via Northampton. So, opportunity was taken to also complete a significant number of other jobs along the closed section of line which included; rerailing, replacing S&C components, drainage repairs, clearing lineside vegetation, 3500 metres of signalling cable replacement and the stabilisation of a landslip site with 820 tonnes of stone.



### **Rugby to Birmingham.**

From Rugby to Curzon Street Station there were few civil engineering challenges. Over the Avon Valley a very attractive viaduct was built which earned Stephenson accolades for its design and the manner that it fitted into the environment, almost enhancing it.

Ten miles south-east of Curzon Street Station the Meriden Ridge has to be passed a cutting would suffice but a tunnel was to be more economic than a deep cutting hence the Beechwood Tunnel. The tunnel is 302 yards long and it lined with brick. Apparently 1837 was an extremely cold winter and many bricks were destroyed. Stephenson contemplated lining the tunnels with concrete but nothing was done until 1840 when the tunnel was lined with engineering bricks.

The contract through Rugby and Coventry to Curzon street was not demanding but did cause problems for Stephenson in that the contractor was showing no enthusiasm for the work. Gangs had no spirit or energy and the line was due to be opened shortly. Stephenson took matters into his own hands dismissed the contractor and by great exertion and more financial outlay finished the job in time.

To the east of Hampton in Arden lies the next point of interest on the line, the viaduct over the River Blythe, the drawing of which by John Cooke Bourne has been particularly admired.



Curzon Street is but a gentle romp for the Robert Stephenson and his men building railways from the Blythe crossing so concluding a most exacting journey of civil engineering journey from Euston 112 miles away, with many trials and tribulations on the way.

For Bibliography please refer to the July edition

## And Finally

These two steam launches with the unusual name Borkum were spotted on the lake at Tyttenhanger recently. There must be a story behind the origin of this unusual name. Both have been constructed over the past 12 months one by Derek and the other by John

Hopefully we may be able to persuade Derek and John to describe some of the history of the full-size vessels in a future edition. I know readers would also be interested in details of the building of these two fine looking models.



At the very least we could have a spot the difference competition.

*Pictures by Owen*

## Dates for your Diary

The current government restrictions resulting from the COV-19 virus has resulted in all NLSME organised events being cancelled  
Please refer to page 2 of this News Sheet

MAY	2020
<i>Tue 4<sup>th</sup> Aug</i>	<b><i>Council meeting at Tyttenhanger – Time to be confirmed</i></b>
<i>Mon 17<sup>th</sup> Aug</i>	<b><i>Deadline for copy to Editor for September News Sheet</i></b>

NB. Please notify our Secretary of all meetings and other Society events for inclusion in the Society Calendar. Approval for special events still rests with Council and/or the Tyttenhanger Site Committee.

## Next Month

The construction of Milford Star by Richard and another article about a mighty locomotive called Titan which is a product of Terry's workshop.

