

Issue No. 850 November 2022

# The News Sheet

North London Society of Model Engineers

November 2022



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

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### **Front cover photo; -**

This very unusual model is of a Steel Turtle is actually one unit of a “Panzerspähzug“ (armoured scout train). The 5” gauge model was built by Holger Plünnecke and is the subject of an article which can be found in this edition.

Photo by Holger

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Following my appeal last month for more contributions I am pleased to say some of you have responded. Your editor is extremely grateful to all those who have contributed to this edition. Your efforts are much appreciated by all the members of NLSME. This News Sheet would not be possible without you.

Articles long or short on any subject which would be of interest to members of NLSME will be gratefully received for inclusion in future editions. If you don't want to put pen to paper but have a suggestion for a topic which is of interest let the editor know and we will do the rest.

## Chairman's Comments

Les



The last public running session of this year was a busy one. No other events are planned for the remainder of 2022, so we now have Tyttenhanger to ourselves again. As is now customary we will keep the RT open for use until New Year's Day and will then close it as necessary for winter maintenance. Same may apply for the GL though they do not have mainline sleepers to replace, which necessitates closure of the RT.

At the last general meeting, Work in Progress, Jonathan showed his 7 ¼" gauge model of Locomotion. Over the years I have been privileged to see some wonderful and remarkable models built by our members and I must say that Jonathan's Locomotion is right up there with the best. It is a remarkable and fascinating piece of work with barely any commonality with locomotive designs that came after it, a real model engineering challenge.

Recently I completed a boiler for Petrolea and whilst it is not much bigger than my first, for a Juliet, I enjoyed the manufacturing process as much as always. I find boiler making the most enjoyable part of locomotive building – except machining wheels. Anyone contemplating building their own boilers should take heart, it is not as difficult as sometimes perceived. However you do need the right equipment, plenty of heat is essential. It is now possible to hire oxygen and acetylene cylinders for a one-off refundable charge, plus the gas of course. You will need to buy torch and regulating equipment plus propane set up for background heat. Nonetheless on a cost comparison basis all these, plus materials and solder, you may find costs less than commissioning a professional firm to build one for you. The NLSME has always been, predominantly, a club of members that build complete engines – so, food for thought.

I missed the Midlands Engineering Exhibition but from reports I hear it was a welcome return after two years absence. I don't expect we will see the London exhibition again but there's hope that the Northern one will return next year though it may be back at Harrogate and not Doncaster.

Next General meeting is a talk by member Tim on his extraordinary achievement of driving a model traction engine all the way from St Albans to Dorset. Hope to see you there.

## Treasurer's Report

By Mike

As is unfortunately the norm a couple of changes, corrections need to be made to the recently issued Name & Address list: -



The Tyttenhanger open season has finished for the year with a resounding Sunday 16th, when according to the counters the GLR carried at least 300 people and the RTR carried 200. No mean effort when you consider that many of the RTR trains only carried two or three passengers at a time. Very few single passengers availed themselves of a superior ride behind Rob Roy, so I took over driving the Class 37 "Cyril Rylatt" instead for a long spell.

Amazingly fifty carnet cards (equivalent to 600 rides) were sold during the afternoon, so a number of them will re-appear next year for the surplus rides to be redeemed. Financially, this has put us in a good position to pay for winter maintenance work, a work list of jobs is being put together.

This month we have settled our LBB rent for our HQ building and adjoining land for another year. The electric gate to the HQ site has yet to be energised, so the night watchman is still in attendance.

Back in the August News Sheet, Bookworm made mention of a book called 'Attention all shipping', a trip around the UK Shipping Forecast. This intrigued me and I made efforts to obtain a copy from the City of London library at Barbican. Initially they were unable to locate the book and were going to acquire a new copy, but they finally found their copy in their Shoe Lane library under its Dewey number 910.45, additional note 'Shelve in Mood Boosting Section!' If you like your travel writings in the style of Bill Bryson, then this book could be for you. My connection to the North Devon coast drew me to the section on 'Lundy' in particular. The story of his trip out to the island on the MS Oldenburg from Bideford was a tour de force, we never managed to start from that point always having had to drive round to Ilfracombe and fortunately for us had much calmer journeys.

Now back to the workshop, I have an engine to finish!

Keep safe and keep on engineering

## Bookworm Writes –Book Review (Special)

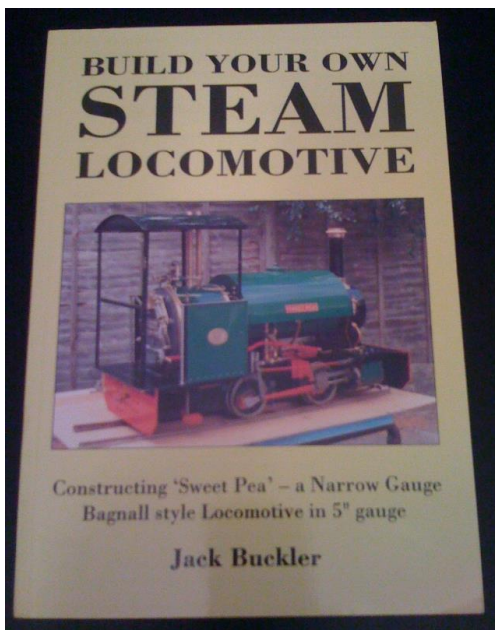
Here we are again heading into another winter in the workshop, so what better book could I bring to your attention this time than one about building a loco. Now, even though the recipe I will be reviewing is probably my most ambitious to date, I don't want that to put you off without at least having just a taste. After all ask yourself, *"has a Bookworm Book Review let me down yet?"* (...!)

Do you know whose design for a 5" gauge steam engine is the most popular, LBSC, Don Young, Martin Evans, maybe Kennions 'Butch'? No, well I don't either.... but I can tell you one thing, and that is I bet Jack Buckler's name should be up there in the top five, if not the top three.... *"Jack Buckler?"* I hear you ask. HE is the person who gave us the Bagnall style narrow gauge "Sweet Pea" design.... Now tell me I don't know a good recipe when I see one!

### **Build Your Own Steam Locomotive Constructing 'Sweet Pea' a Narrow Gauge Bagnall style Locomotive in 5" gauge By Jack Buckler**

ISBN: 1 85761 1020 by Tee Publishing

Perhaps an unusual way for me to start a review, but for the sake of fairness to all members and especially in these Health and Safety conscious times ( I constantly have to chew through reams of papers on the subject), I should state straight away that if you are unable to lift reasonably heavy weights in the workshop (or anywhere else come to that) and don't have lifting aids to help you, or harbour an antipathy towards narrow-gauge locos (there are such people), then this design may not be for you.



On your own you may just lift the chassis with cylinders or the boiler, but not both together (nor should you try). And if you really don't have a taste for narrow gauge then..... there are many good public services that exist where help can be found, mainly located in Wales but by no means exclusively.....

Should you though perhaps be considering building this one from the comfort of your arm-chair this winter, then be assured you will have only joy ahead and have it knocked off in less than a week, regardless of your muscle tone.

### Chapters 1 to 4 -The Frames - Where it all begins

No messing, straight in, you will be cutting 3/16 steel plate here though Jack has thought of you by giving you only straight lines to cut so lasers needn't have a look- in, that is unless a good work-out is not your bag.

### Chapters 5/6 - Wheels and Axle boxes - Moving forward

Wheels, simplicity in themselves at only 4 5/8" max in diameter and depending on your chosen design, only four of them. Nothing here then a machine that makes things round can't deal with. (Though using a hacksaw and file might be a bit heavy going). Plus, the axle box sandwich that Mr. Buckler recommends with either gunmetal or cast-iron filling is so refreshingly different... You really should try it.

### Chapters 11/12 - Valve Gear The magic transformation of steam into timed motion

Having given due regard to adopting JB's suggestion to use Ron Drake's (of Blackgates Engineering) mod to the rear suspension (chapter 10), then by following Jack's recipe the rest of the valve gear components can confidently be tackled in the knowledge that when the pistons push, the wheels will turn in an efficient manner. Nearly all the valve gear on this engine is straight lines and square bosses. Even Jack's choice of coupling rod design gives you a chance to 'tweak' the bearing spacing of the finished rods without having to resort to scrapping them and starting again.

### Chapters 14 to 20 - The Cylinders – Pushing ahead

Some may take the view that being weighty lumps of cast iron the cylinder blocks may at first sight be daunting to the beginner, in fact they may even appear daunting to 'old hands' as they could not be described as being "*Bijou*" - I imagine they would make a respectable sized hole in the shed floor (or foot) if dropped...so handle them with care! - Jack's wise counsel here is to identify a left and right-handed cylinder from your first cut and to then plan all further cutting appropriately. His suggested approach of using a 'fly-cutter' to tackle the flat surfaces of these lumps (after first securely fixing them to the cross-slide of the lathe or mill ) is sage advice indeed, and will give the inexperienced confidence in obtaining a high degree of finish combined with accuracy, all with minimal chance of tears. If however you are one of the aforementioned 'old hands' JB advises against dashing to use a faceplate for these operations (which no doubt would also include dissuading you from using a stub mandrel and having hefty lumps of unbalanced cylinder flailing around your best 'Grip-true' chuck), just to get all the flat surfaces square to each other. Much better to keep things nice and calm then and to keep the nails still safely holding the shed walls together for another day.

Bookworm Tip – This is of course relative, as a larger lathe can handle a bigger mass suitably counter-balanced. You will know if your own machine is big enough

if your shed was built up around your lathe, as opposed to your lathe being built up inside your shed -

Cutting ports can sometimes be a stressful operation particularly for those tackling it for the first time. JB is sensitive to this and has therefore prepared a 'dance plan' for the novice to follow, showing step by step where you should have your milling cutter at any-one time and in which direction to move it. Those that can boast CNC attachments on their machine and like to show it off by first having the computer engrave their name in the port face, can just type in the co-ordinates and toddle off to the pub.

Milling machine owners with suitably large tables can polish the entire job off in next to no time.....and still get to the pub before it closes.

At this point I do need to get this off my chest. And that is having progressed to drilling your own chest (steam of course), those not confident in drilling the holes in the suggested manner should be assured that in engineering there are nearly-always two ways of doing the same thing. Jack's adjustable nuts on the other hand really will be a God-send when it comes to tweaking (the valves) later.

### Chapter 25 - Chimney – A clean sweep

The suggested use of a single casting here – later to be chopped in half after machining - to create both top lip and bottom fixing of the otherwise long chimney, takes away all anxiety of holding something the size of a small drain-pipe along the length of the lathe-bed. Result; a top a bottom and a piece of (additional) pipe in between, what could be simpler?

### Chapters 26 to 33 - The Boiler- The pot of plenty

JB's description of his 'marine type' boiler in chapters 26 to 33 is an exercise in clear headed technical writing for the (maybe nervous) first-timer, and is *par excellence*. Quite honestly even your '*Best Beloved*' who no-doubt has never picked up a blow-torch in anger (..) would probably feel stirred enough to say "*I am ready to give it a go, bring me a stick of C4 and let's get cracking*" after reading Jack's essay on the subject.

However, this is the twenty-first century, and there comes a time in a model engineer's life when he or she has to face that big question, "*Do I buy the boiler*"? Having studied my owner closely every time he arrives at this stage, your guide proffers the following observations to aid you in your decision making:

Do you have the right equipment? - Do you have the knowledge? -Do you have the space to safely generate and dispel enough heat to keep a hot-air balloon aloft for a day without the danger of burning your workshop to the ground? - Is anyone in the Club building boilers who could help you? - Do you have an acid tank big enough to dunk a boiler of this size (and stored in a safe enough manner where next doors cat can't fall in it ....and disappear) and have you worked out what it will cost in: copper, solder, sweat, tears and maybe a bit of

disappointment? If your answer to all the foregoing is, **“I do, I have”**. Then go right ahead and build this one, it couldn't be simpler.



If however your answer is **“er, I think I'll be ok”**. Then you may wish to balance this more philosophical view by considering paying (yes a lot of money) but to someone who: A - knows what they are doing B - has the equipment C - has an acid tank that 'Dr Crippen' would have been proud to own and D - will in theory present you with a finished product that all you have to do is to bolt it to the chassis, connect up the pipes ...and open the regulator. You may even be keen to keep the local Health and Safety inspector (more leaflets!) on side and beaming from ear to ear at the thought of having that little CE kite mark on your new investment.

I am reminded here to quote what Socrates had to say of this dilemma when he addressed the Athens SMEE in 398 BC when he said; *“Citizens we must all do what is in our gift to achieve.”* I don't think I could have put it better myself. ....

### Chapters 39 to 41 - The plate-work -Dress to impress

Having arrived at this advanced and final stage you will now find further comfort in the words of your new mate Jack, when he outlines the cutting of the metal of your choice (probably only brass or steel plate) in the outline of your choice. This may include: something to keep the wind off, something to keep the warm in, tanks to the top, tanks to the side or even tanks to the rear.... your choice.

### Chapters 42/43 - More wheels Sir or a tender behind?

.....!

### Bookworms Verdict

You know I took to Jack Buckler almost instantly when I saw his recipe was a no-nonsense approach to engine building. This clearly is a fellow who has his own



mind but isn't precious about 'process' along as it achieves the desired result. I would happily wager my next good meal, no matter how big the chapter or the size of the text that he is also aware there is more than one way to arrive at the same outcome.

You will never please all of the people all of the time, I know that, you know that and I have no doubt Jack knows that. But I as your guide and (faithful) reviewer would be failing you if I didn't observe that probably not everything that Jack suggests is going to be to your taste. For example, a lot of 'old hands' will tell you jiggling really isn't their thing, they much prefer to do things in engineer long-hand. Maybe they have never really got to grips with jiggling? Some people will I know not be so keen to have a solid cast iron ring.... but then some don't like the thought of a soft rubbery one either and as for using Engineering Adhesive (aka glue) well..... but who am I to say if anyone's wrong?

With variants of this design being available in two other gauges, some also with more than four wheels, all tastes are catered for. If you can show your guide another design of small steam engine that is so adaptable and as versatile as Sweet Pea, then by the time you can say Martin Evans, I will have shown you yet another different variant of this most versatile of versatile designs. Tyros and schools should be encouraged to cut their model engineering teeth on one of these engines (maybe the 3.5inch version) as they would gain much valuable experience and confidence as each part was made, the parts wouldn't be too big to handle and importantly they would see things come together reasonably quickly; and even better they can personalize its final appearance!

For '*old greasers*' on the other hand who want to throw off all convention when building their next loco – which falls short of taking all their clothes off at the bench – will be hard pushed to find another design with so much freedom to *do one's own thing*...and in their own way.

Armed then with both the latest set of plans and a copy of Jack's book the first-time builder could in my (humble) opinion approach building this engine with confidence, leaving but two questions in their mind, '*will it be good enough to enter the Sweet Pea fiftieth anniversary rally in a couple of years' time and am I going to tackle the boiler myself?*' The 'veteran' builder on the other hand will also no doubt find much in this work to mull over and to perhaps encourage them to try things from a different angle, maybe even trying a bit of a jig for the first time along the way.

I recommend this excellent book and project to you.

## **Build Your Own Steam Locomotive**

Constructing 'Sweet Pea' – A Narrow Gauge Bagnall style Locomotive in 5" gauge By Jack Buckler

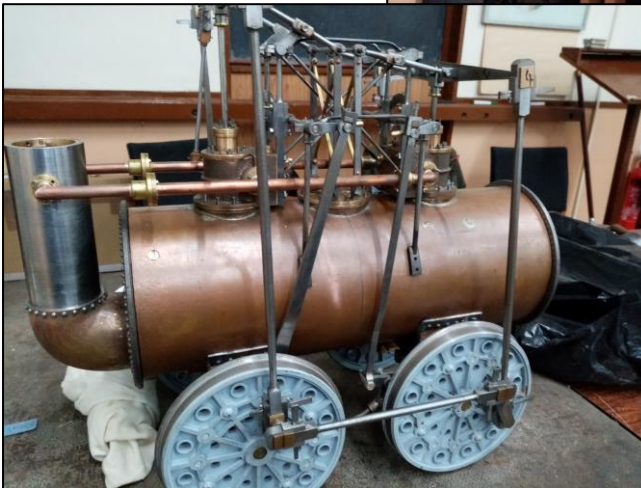
ISBN: 1 85761 1020 Published by Tee Publishing

## Work in Progress Meeting – October 2022.

### OMAH MK2.

The smiling Gate Man opened the gates to the enthusiastic members and their models in preparation for an evening exhibiting model engineering prowess. The scribe was shown a B&W photo of a work in progress group of years ago with many folks enjoying an evening of engineering skills. The lecture theatre was immaculate and ready to display our members expertise in their crafts.

First off was Jonathan with his model of *Locomotion No 1*. Built by Rob Stephenson 1825. It felt as though we were welcoming back a favourite grandson who was growing up to be an efficient and likeable member of our family of models. With the valve gear almost complete, it was a joy to see it move across



the front bench smoothly and gracefully. But still with answers needed to questions of valve gear and direction of travel.

Les was next with another old friend *Petrolea*; a name given to the locomotive because it could be oil burning or coal fired. At that time many folk thought that the World could run out of oil and hence the facility to be dual fuelled. The locomotive was a favourite with Royalty and was used extensively on the route to Sandringham. Les was not too much worried about Royalty but the position and mechanism of the Fire Door which was a source of bounteous advice from the floor.

Les also showed embryo models built by sons, James and Robbie. The family seem to be solving the Countries mechanical skill shortage single handed! (The scribes attempt to solve the skill problem with Rob doing a degree in Mechanical Engineering back fired, when he now works exclusively on computer projects but is still able to criticize the mounting of work pieces by yours truly in the Kerry lathe's chuck!)

James is embarking on building a *Britannia* so we can all wait with interest in the time to come to wonder at his inherited progress.

Robbie is building a *Rob Roy* but is also getting married. (Congratulations). There are to be a number of his friends at the wedding on many tables and Robbie is exhibiting the family's skills by making miniature Pub signs for each table. The photo should depict one example with the Club Logo where a pub sign should be. The manager of Hendon McDonalds won't know what's hit him.

Mike a graduate of the Ravenscroft School model engineering group showed the almost complete model of a *LNER V2 Locomotive*. The model is precise and looks well but he has a query as to where the cylinder lubricator should be fitted. Needless to say, he had a number of suggestions to the problem



but had to hurry home to continue care for his wife Angela, who was incidentally a past editor of this journal.

Mike had been waiting patiently all evening for his chance to bring the group up to date with the progress in the restoration of his *Morgan sports car*. The garage that he had used for years had been sold and so the car removed to Enfield. The car doors were the subject for the evening especially the timber work supporting the metal skin. Mike displayed his skills on metal bashing

and joinery concerning the restoration of the doors. Skills which were obvious considering that he had in the past built his own glider and a towed glider trailer.

Peter showed the group a weird contraption made out of empty Coke tins, a Sainsbury's pineapple tin, Pacific Ocean Salmon tins and a straw. Peter then attempted to set fire to the whole edifice with the result that a white flywheel mounted superiorly spontaneously started to revolve which not only amazed the open-mouthed fans but also Peter, who had been trying for days to get the *Hot Air Engine* to work!

The big hand on the wall clock all too soon showed that it was time to go home and so the spontaneous tutoring of the group ceased for the evening with a show of gratitude to the brave exhibitors and with a wish for a safe journey home.



This B&W photo of a *Work in Progress* meeting in the past shows many more members present than we get these days. The Club meeting on the sixth of October 2022 was in the scribe's opinion less combative and a joy to present.

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## G.L.R. News November 2022

By Peter

Tyttenhanger Light Railway.

Hi crew back from my summer sabbatical and raring to go, during the holiday I managed to fit in a visit to the Ravenglass & Eskdale railway that was given to me as a present. If you haven't been there, it is well worth the 500-mile journey for the scenery alone.

This narrow-gauge line known locally as the 'La'al Ratty' is reputedly the oldest and longest 15" gauge railway in England. The hospitality of the people in that

part of the country was very pleasant a world away from the Old Smoke I come from. Included in the present was a cream tea at Dalegarth station at the end of line which was most pleasant and went down a treat. But with fuel at the price, it was at time of writing I think it was the costliest present I have ever received and eaten!

### Tyttenhanger

What a great end to the public running season, in the last two sessions we managed to give around 692 rides on the Tyttenhanger Light Railway! Something of a record month, I think. 365 rides on the last public day alone and I am glad to say the day was saved by the salubrious who when the clubs vacuum unit suddenly stopped working half way through day with flat batteries? Cookie almost broke out into a trot when he ran down to the sheds and came back with his own vacuum pack to recharge Maid Marian's coaches. The drama did not end there as we had discovered a leak at the same time in one of the four coaches Maid Marian was pulling, Quick thinking Paul soon isolated the problem and we finished the day intact with a speed restriction in place on the loco and not a single customer was lost during the rush hour.

My thanks to Roy, Brian, Mike, Simon, Steve, Terry, Peter, Derek, and Jerry for aiding and abetting. Together we formed a formidable team and worked the three trains to almost full capacity every time a loco and passengers departed Orchard Junction. I apologise to anyone I may have barked at during the afternoons run



(it's tough at the top you know) but in the heat of the thronging crowd. It is bum's safely on seats that matter whether its club members or punters we worked a safe and pleasant passenger carrying operation. There was quite a crowd and lots of children on the day. The highlight of every run I made for me was the screams and cries of joy that the children made when going through the tunnel that was being filled with steam from the loco's exhaust. Many children and parents expressed their joy and thanked me for a great ride when alighting at Orchard Junction what can I say "JOB DONE"

### Winter working parties

The first essential jobs to be started are the club coach maintenance checks. The club loco Alban needs the hand brake checked out. Track maintenance will include cutting back shrubs, weed killing, and looking at the track at the turnout by the signal box. Dips in the track at various other places and ballasting has already started. We also need to cement the loose bricks around the turntable. The vacuum box batteries need replacing, so to avoid disappointment be quick and pick a cushy job! These are just the jobs I can remember for now but I am sure there will be more. All members are welcome to come along and help all day Saturdays and Thursdays with the G.L. crew who are the light of my life, good looking, congenial and great to be with.



It's that time of year again when the allotment is nearly dug and as the clocks go back, I look forward to lighting the wood burner down the time machine (my workshop) to spend many hours dreaming. I have so many projects to finish I do not know where to start first I guess I am not alone there, what more can a man want?

As ever in the muck

G.L.R. Section Leader.

# The German Tin Turtle

By Holger

After reading the article on the Tin turtle in the last newsletter I thought I could add my share. My Steel Turtle is actually one unit of a "Panzerspähzug" (armoured scout train). There were different units:

- Command car with a fixed octagonal turret and antennas.
- Artillery car with a Panzer 3 turret (PzKpFw III Ausf. N) short 75mm gun
- Infantry car with a fixed octagonal turret
- Pioneer car with a fixed octagonal turret

A quad anti-aircraft gun had been planned but never built.

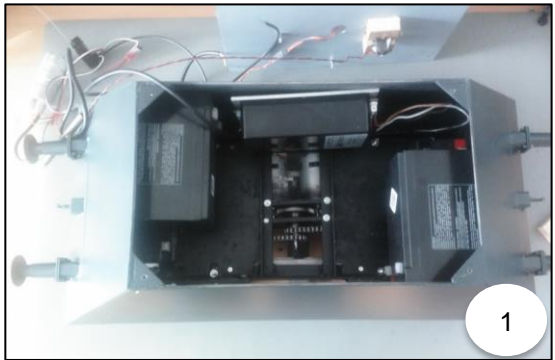
These four units made up a half train. Each unit had its own motor. So sometimes they ran on their own.

I came across pictures and background information a long time ago but never thought I could get all necessary equipment into this small body. I did not want the controller and batteries to be stored in a permanently coupled driving truck as is the case with many small locos.

A friend had constructed a small gearbox using two motors working on a central shaft. This unit fits between the wheels. The second stage of reduction is done by the chains driving both axles.

Picture 1 shows the gearbox assembly, the batteries and controller installed in the body.

Then I made a mock-up body from plywood to check if everything fits. I managed to fit four 7Ah led gel batteries which give a whole day of running. Next issue was the cabling to the turret. I wanted the turret to



be able to turn so a rotary feedthrough had to be used. As I also wanted the barrel to be raised and lowered, I needed 3 connections for the servo, 2 were needed for the battery, 2 more for the pump, ...so I ended up with a ten-core feedthrough.

Picture 2 shows the installed feedthrough with the water pipe going through its centre.

As I did not want to launch any projectiles that I had to pick up afterwards and that can hurt someone I put a 12V water pump inside the turret. This gives the cannon a range of about 5 metres. The tank holds 2.7 litres of water.

Picture 3 shows the cannon in action, spraying water over my 5" gauge "Taigatrommel".

The body is made of 3mm steel sheet. This is good for traction and makes my turtle almost bulletproof. The unit weighs about 40kg and can easily pull me, even when starting uphill.



The details were mostly filed from brass, some (like the turret hatch) were 3D printed.

After a few successful test runs I found that the plywood mock-up was no longer needed. So, I used it to give the Turtle a real test. The mock-up was placed in the middle of the long straight, a camera was set up and the Turtle came down the line at full speed. The mock-up was turned into matchwood!



The prototype has headlights hidden under a hinged flap. Due to the thick steel sheet, I could not do this, so I made fake closed flaps. For running in the dark the Turtle is equipped with underfloor lights (red or blue).

After adding the decals, the project was finished. I had the decals made using prototype pictures.

Picture 4 and the front cover of the News Sheet show the completed model.



4

The 4QD DMR and DNO are a good combination and give precise control. It is fun to drive using a driving truck or standing by the tracks. The two motors give it a lot of power.

And if during a running session someone is blocking the line or standing in the way, you can always use the cannon....

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## My model boat collection – Part 2.

### Nordfjord a 32-inch-long model boat. Including trials and tribulations on the way.

Well to start with she was Nogg Sund a Norwegian ferry serving the small villages who were somewhat isolated in their glacier formed valleys.

I had some free plans and I started building using simple hull construction. Over the years I have accumulated quite a lot of wood mainly obechi, also strip wood and some balsa. So, the decision was taken to use the wood to hand namely, obechi, sometimes known as Bass wood which was in 1/8<sup>th</sup>. sheet.



*The model in its original form*

When my Nogg Sund was painted I put all of the finished fittings in position and went to the test tank in the bathroom. I was rather surprised to find that the model floated at a 30 degrees list either way in the water! There was no way she would remain upright. It was clearly too heavy in the wrong places! Somewhat chagrined I stopped building operations.

I thought through various options. I could put more lead in and have her lower in the water. I could take all the lead out and make a deeper keel from lead, this would not look so good as the prop and rudder would look rather silly higher up. I could make a false bottom of lead under the existing hull.

It slowly dawned on me that I would not be happy with any of the above and this would have to be a cut, extend and shut job. The only place to cut was forward of the superstructure.

Perhaps a little background information would be useful here. At the end of WWII the cost of new construction had tripled from pre-war prices, so lengthening an older boat was economical. Also, more cargo space was needed as the population became more affluent.

I read and can recommend the Mike Bent book on 'Steamers of the Fjords' obtained via my local library. This is an excellent background read and has all of the steamers over the years in silhouette that operated in the fjords of Southern Norway. These ferries were the only means of transport and communication in the Norwegian fjords and islands up to the late 1930's and post war into the 1950's. Now there are more roads and Roll on Roll off ferries. I have a couple of models of the ubiquitous Norwegian fishing boats also known to the Admiralty as deep-sea fishing ketches, you may recall the Wartime Shetland Express?

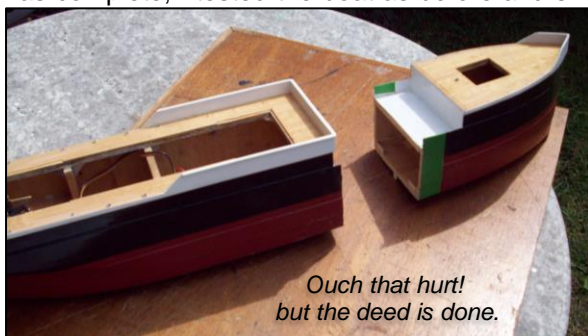
So, I carefully taped a cutting line around the boat and taking a nice new 12-inch hacksaw blade, gritted my teeth and cut the boat into 2 pieces. I then placed these 2 pieces on a board at various distances apart to see what suited the eye most. It turned out 8 inches was just right.

The reason for increasing the length of the model was that I now had a greater displacement available, nearly 40%, and could build some lead into the new longer part of the hull. After the extension was complete, I tested the boat as before and she now sat reasonably stable in



an upright position.

Also just increasing the length of the model would not require any extra power, just one of those things that works for boats but not for trains!



*Ouch that hurt!  
but the deed is done.*

The hull then had some faux plating applied, about 1-inch wide 1mm thick ply with the grain vertical to enable

getting around the curves. To be in keeping with the rest of the boat, I planked the new deck, I also created 2 cargo hatches, I find ladies hosiery makes a very good simulated canvas. I constructed 2 sets of loading davits; these are made of sections of old RC aeralis with some very small plastic aileron hinges fitted in the base so they can rotate.

The lower part of the crane has two simulated electric winches, made from small blocks and some dished pulleys. One hoists the jib and the other the lifting hook. Some plastic sheaves, ex Billing fittings were used. The main superstructure lifts out on its base and there



are a lot of stanchions and boat deck supports which have to key into the deck. I used brass servo mounting ferrules buried in the deck and these allow removal



and replacement of the superstructure without any damage to the wooden deck. The stanchions and supports are made from 2mm dia. brass tubing and as there are a lot to make, I made a simple jig from a Vee block and some spare tubing. The 2mm tube is a push fit into a close-fitting tube glued into the vee of the block, and there are guidance holes for the 0.7mm drill to drill regularly spaced holes for the rails. The

*This is how the two ends were brought together again.  
There is a 1.4" square keel which enabled a good line up.*

final assembly was mounted on a jig and then soldered together. Then sprayed with etching primer and then sprayed white.

I had already made the rear mast and hoisting boom and decided to keep that as the ship's engineer would need drums of oil to come down through the engine room skylight.

The mast is made of 1/8<sup>th</sup> dia brass tube with a soldered wire underneath, which is connected to the receiver aerial. The upper part of the mast is a tapered dowel plug in. The engine room 'skylights' are shoe eyelets.



turning big propellor and I found one in my prop box and cleaned it up, this was a 45 mm 3 bladed one. I tried a modern 555 motor on 6 volts and that worked well with the large prop on direct drive at slow speed. Nogg Sund was no more so I invented a new name and Nordfjord was born.



*Finished and ready for maiden voyage.*



*Nordfjord Sailing on the club lake*

She cost very little to build as I mainly used wood and bits from my workshop. The wood was rather old and the surface had dried out and I had to sand down a lot of the top surface to get one that would take a finish, she has quite a few coats of paint rubbed down wet and dry to get ready for the 'plating'. I use a good PVA glue for the wood and the finish is spray acrylic as found in Halfords. The fittings were all those items you collect over the years and the rest fabricated.

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## Forthcoming General Meetings

By Ian

In the past our members have been as good if not better than the imported variety of speaker.

If you, or you know of a member who would be willing to talk for an evening or even half an evening shared with another member; then that would be excellent.

Please let me know.

The Programme at the moment reads thus: -

### Friday 4<sup>th</sup> November

Prof Tim will take time off from teaching his students to extract teeth to take us all on a journey from St Albans to Dorset with speed and thrills on the way by miniature traction engine! Not to be missed by anyone!

### Friday 2<sup>nd</sup> December.

A Festive Gathering. A chance to meet and chat to members from other sections over some light refreshments with a backdrop of films from past glories at the Club. A good chance to see some hidden films from previous years at the Club.

Any questions regarding the meeting contact, Ian

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## For Sale – 5” Gauge Jubilee

Due to poor health club a member has concluded that the time has come to sell his Kingscale Jubilee Class 4-6-0 “Warspite”.

If you are interested in purchasing this locomotive and wish to view the engine please contact Bob

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## Juliet Work in Progress Report no.2

By John

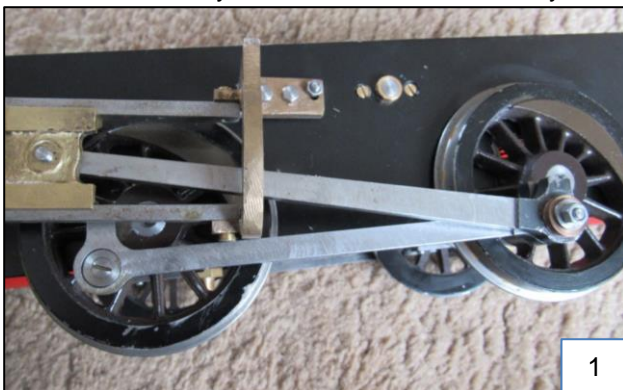
As reported last year, I next started work on the Coupling rods, and for convenience sake decided I might as well do the connecting rods at the same time. I initially drilled the hole in the rods just large enough to fit the crankpins, thinking that I could ensure all were correctly positioned and make any necessary adjustments prior to boring the larger holes for the PB bushes. Needless to say, though I did this, I found that when the bushes were installed that there were tight spots when the wheels were rotated and the bushes had to be eased a bit. The other things that I noted at this time were:

1. The rods themselves came close to the motion bracket – so I cut a bit more out of the motion bracket to ensure that they were clear, this I subsequently found was unnecessary as at this stage I had not fitted any springs and when I did there was plenty of clearance.
2. The leading crankpin was also remarkably close to the back of the crossheads, in fact in certain positions it could contact the back of the crosshead. Again, this was eased with springs fitted, but was still a potential problem. Ultimately, I addressed this by making shims up to fit the front axle and restrict the sideways movement. There is now very little movement and very little clearance, but it doesn't touch in any position, which is the main thing.

On the subject of springs, I had originally obtained some springs for Juliet from Kennion Bros in Hertford when I got the drawings and some parts when I started the original build. And these



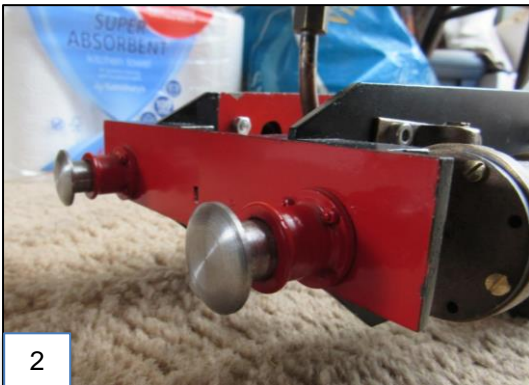
*Here I am driving Les's Loco at the 3 ½" day*





turned out to be 4 off 1" springs, though the design calls for 8 off 1/2" springs. I tried cutting the springs in half, but found it very difficult to get them all to the same length, so ultimately just purchased 8 off 1/2" springs from GLR. After fitting the springs, I found that the chassis rolled much more freely, which was a good result and suggested that I should have got on and done them sooner as in LBSC's build instructions, rather than leaving it until after the coupling rods. **Photo 1**

The next item I decided to address was to make some buffers, to improve its looks in photographs. I had recently been making buffers and stocks for the Gauge 1 LBSCR E4 that I am making and therefore decided to do Juliet's buffers while I was about it. They were quite straightforward to do, but I spent some time trying to get all 4 to the same shape at the front elevation. I don't think I have completely achieved this, but at least I managed to get 2 pairs to look the same and it's difficult to look at both ends of a locomotive at the same time, so only you and I know it's not quite right. I utilised the best of the cut down Kennion springs for the buffer springing. I am quite pleased with the way the buffers look. **Photo 2**



There is an odd reason for the manufacture of the next part, which is that I had obtained a self-centring 4-jaw chuck (for another job) and wanted to put it to use. I didn't use the chuck for some time after purchasing it and when I put it on the lathe and machined the parts I was dismayed to find that it wasn't running true. On inspection I realised that the thread on the backplate was not fully formed

for its entire length, so the chuck didn't screw down to the register, it just became tight.

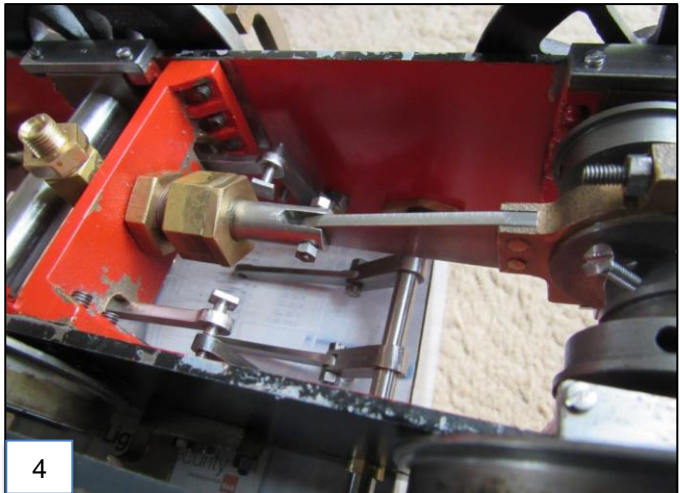
I initially attempted to clean the threads out by hand, but this was futile, so ultimately, I set it up in the 4-jaw independent and screw cut it (very carefully) I had a spare Myford threaded nose that I had made for attaching the chuck to the bed of my Milling machine, so was able to test the newly cut threads a number of times until it sat down properly



onto the register. Having made some test pieces with it, I then discovered that I had run out of material to make the part that I bought it for in the first place. Wanting to make something that was square needing to be turned round, I decided on the Square headed pins for the link hangars. They were simple and straightforward to make, but having done them, they naturally needed to be fitted to something, so I had to make the link hangars themselves. The most difficult aspect of these was making the rounded ends, I made some filing buttons and they look ok, but not brilliant. Fortunately, being inside the frames they won't be very visible to anybody else. While I was about it, I also made the Weigh shaft and lifting links. **Photo 3**

One of the other items that I had started in the original build and later found to be unsatisfactory was the axle pump. It was originally a nice gunmetal casting, but I had managed to cut

it so that the barrel tapered inwards from rear to front, deciding it was unsavable I decided to fabricate a replacement using the same method that I have used satisfactorily in G1, namely a PB barrel and Stainless-Steel ram, a Brass valve box and Nitrile balls. Being somewhat larger, it was rather

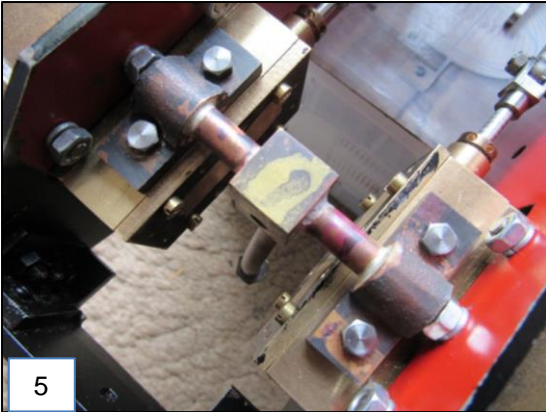


easier to make than the G1 versions. **Photo 4** Getting the pump rod to the correct length was a bit fiddly, but it seems to be satisfactory, though I think the eccentric strap may be a bit tight on the eccentric now that it's assembled on the chassis.

Turning back to the cylinders, I decided to make the steam inlet as I would need to make and fit this before the valves were finally assembled, as the bolts are tapped into the valve chests.

I had some gunmetal castings for the cross pipe to valve chest. Of course, I managed to get one of the fixing holes rather closer to the centre hole than it

should have been and therefore had to machine a bit more off the centre (to clear the bolt head) than is ideal, but there was fortunately enough material. **Photo 5**



There isn't actually a lot of progress visible in **Photo 6** as most of the work done is hidden between the frames. Les had a devious plan to encourage progress with my Juliet.

He let me have a drive of his engine. It was harder to balance everything than I expected, but it was great fun.

And I think Les's plan is working as the very next week I finished the eccentric straps, made up the rods and I am currently working on the Expansion links and die blocks.



There is still quite a bit to do on the chassis to assemble everything and make the mechanical lubricator and hopefully later in the year test the chassis on air. But it is also time I started to think about how I am going to make the boiler.

All pictures by myself except picture of me driving Les's Juliet at the 3 ½" day which was by Nigel



## Narrow Gauge Garden Railway

By John

This month instead of my usual gentle greeting it's a.....  
YEE...HAH !! and welcome to a good 'ole Yankee style  
narrow gauge news!

For the final public opening this year the narrow-gauge garden layout was taken over by Cheryl, Richard and John all of whom have a love and fascination of American railways. And what a treat it was, the layout looked splendid with American flags and bunting leaving no doubt to visitors and members alike that the day was going to be different to the usual. This month I am definitely going to let the photos do the talking so you can appreciate the amazing locomotives and rolling stock that we saw running, just a shame you can't hear them as well !! once again thanks to you all for a fabulous show. Incidentally that's my brother who



sneaked into the photos, he was on a visit and had a great day too and has become an American railway convert!



In conclusion, reflecting on the seasons public running days I think they've been very enjoyable. I don't believe we had a day when the numbers caused any concern, and I have only received positive comments from various visitors. In particular people do say that we are a very friendly bunch and always happy to talk about our models etc. so well done to everyone who played a part in making our club something I am proud to be a member of.





Next month will be the final newsletter for 2022....where did that go! In the meantime, enjoy your hobby and keep safe.

John

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## It seemed a good idea at the time! The “Lazarus Project” for 5” gauge

## Part 3

By Paul



It is great to have reader feedback on my chronical so far. It has clearly caused amusement to some and consternation to others. Thank you for sharing my pain.

This month I will cover the sticky subject of paint stripping together with a few words on the valve gear, driving wheels and the reconstruction of the tender.

But before I get into that, you may have deduced by now the key role played by Mike and Jonathan in rescuing me from my folly. Their early assistance was in the re-boring the original cylinders as described in the last part of this saga. But their fate was guaranteed when, in 2018, I asked Jonathan if he could help me to “just put the loco back together?”. The intent was for him to assist me in his workshop. But it did not turn out that way. I was working at the time and had Grandfather duties so my appearances at their house were sparse, to say the least. Then Covid struck which severed contact time but provided a lot of modelling time. Jonathan, ably supported by Mike, took on the job of seeing the rebuild through, perhaps not, at least initially, for-seeing what he had let himself in for. But Jonathan appears to love a challenge and has stuck with it through thick and thin. It was all way beyond the call of friendship. I am eternally grateful.

Those of you who have seen the colour pictures on the online version of the News Sheet will have seen the, frankly, awful shade of Apple Green that the loco came in. It soon became apparent that that not only was the original boiler cladding and bodywork green, but virtually the whole chassis including wheels, axles, a rather odd sprocket wheel on one of the driving axles, water pump, motion, front Pony, tender leaf springs and numerous small components were coated in green. It was almost as if the whole thing had been dunked into a bath of green paint. Whilst I did do quite a bit of paint stripping, I pay tribute to Mike who spent a great deal of his time in his workshop stripping ever more paint off! Thank you, Mike!

I mentioned in the last article that buying a readymade loco circumnavigates the need to fabricate many of the components, none less than the valve gear. Well, that turned out to be not altogether true. Jonathan pointed out that the machining of the coupling and connecting rods was less than visually acceptable – particularly the fluting. Luckily this was correctable by some careful machining by Jonathan. The basic valve gear dimensions were fine and all original components are as originally made. A better tally than the real Flying Scotsman, I think.

On examination of the condition of the driving wheels, Jonathan concluded that it looked rather as if two different people had done half of the wheels each. The profiles and finish to the treads was noticeably different. But, like the valve gear above, Jonathan was able to bring everything up to a similar, and acceptable, standard.

Now for the tender. The chassis was built as per the Martin Evans drawings and, apart from a re-paint, remains as procured. The tender leaf springs were curious. Over the years I have seen cast dummy leaf springs combined with working coil springs and I have seen working leaf springs. But in my case, I had inherited dummy leaf springs constructed from steel folded into a deep channel section and shaped to look like a leaf spring. Coils provided the actual suspension. What's more they were finished in green with lining! Since everything checked out with the Martin Evans drawings, I ordered a set of replacement cast springs from Blackgates only to find that the top leaf length was insufficient to align with the spring hangers attached to the frames. No one who has seen the loco seems to have noticed so the replacement of the steel channel "stand ins" has been postponed indefinitely.

The tender is, of course, a Great Northern design characterised by rounded vertical rear tank corners and coal rails along the top of the sides and rear. I purchased a set of laser cut brass plates from Model Laser to form the tender tank and body. I made a start on building the body by carefully (and successfully) folding the sides/half ends into the radius at the rear of the tanks. For my undoubted lack of metalworking skill, I am pleased to boast I got both sides right first time using only hand tools and wooden formers. I also shaped the coal space but then balked at the thought of soldering it all together. I also could not see how on earth I would manage to make the coal rails.





Fate intervened insofar as fellow member, and good friend Tony, asked me if I wanted to join him, and Geoff, to visit Maxitrak in Staplehurst. Tony was thinking of buying a diesel loco from them. We had a grand day out, despite Geoff's errant Satnav, to Kent. After Tony had conducted his business, I spoke to Alex, proprietor of Maxitrak, to see if he would take on the construction of my tender body. We agreed terms and I duly delivered all the existing and new parts for the tender body. This was in the late Autumn of 2016. An age passed with little report of progress from Staplehurst. I had to start chasing them but, eventually, they declared the tender complete. I arranged to pick it up in February 2017.

On arrival at Maxitrak only Andy, Alex's Father, was there. He hadn't been involved in my model but located it in the workshop ready to hand over. It looked terrific and the coal rails were beautifully, and robustly, made.

I checked with Andy that it was proved as water-tight – he didn't know. So, we set about turning off the feed valves, plugging the feed pipes and filling it with water. Well: If I said the water just "\*\*\*\*ed out" I would be understating the reality. In this design, the tender wheels penetrate the into the tank space within sealed splashers attached to the tank floor. But it seemed Maxitrak had not thought to make the splashers watertight. Good job I checked. Andy's embarrassment was palpable. Needless to say, I didn't hand over any money and left the tender with him to correct the fault.

It took until July for Maxitrak to sort the problem out and me to collect it from Andy's house in Maidstone on return from a holiday in Winchelsea Beach. At home, I mated the tank with the chassis only to find the tank leaking along the seam where the sides meet the footplate. Being a "modeller", I thought I would use low-melt (70 degree) solder along the seams as a filler. It worked. The tender was duly painted, decals fitted and stood ready to mate with the loco which was progressing in Jonathan's workshop.

In the next episode, I hope to continue with the assembly of the loco, early running on air and incorporate some words from Jonathan about the cylinders.

TO BE CONTINUED

Paul

## My Locomotives

By David

As some of you know, Jeanette and I have moved to Poole to be closer to our family. As a consequence, we have had to downsize, and I have had to sell the locomotives and disperse, sell, or give away my wonderful workshop.

I hope that you don't mind if I indulge in a little nostalgia and look back at my locomotives and some of the stories all related to them.

Like many folks, I started with an LBSC'S Tich. In my mind not really a beginner's loco, perhaps a 5g Simplex would have been easier and not so fiddly. The Tich came as a finished chassis/valve gear; reasonable workmanship, although the rod ends were not well made - I used filing buttons to get a good shape. A large boiler was purchased and the rest of it built. It looked good, a photograph was taken at Colney Heath with a Juliet and shown some months ago in the News Sheet. It now resides with my daughter, Julia, in Sheffield as a memento of her old dad!!

Retirement came in 1997, the workshop was more or less complete, so what to do next. By chance I saw an advertisement for a part built 5" gauge Britannia locally, which I bought. It came as a completed chassis/valve gear, a completed tender chassis, and a poorish boiler. The boiler firebox was not in line with the boiler barrel which gave difficulties later. Over the next 10 years the loco was completed but not painted. It was sold, first going to Holland, and then recently back to Yorkshire.



Next came a 0-4-0 AJAX purchased, well used, from Lincolnshire, so that I could get some track experience, its engineering was awful. I was surprised that it ever went, but it had been used. I rebuilt it twice and used it for a while running on the raised track at Colney Heath.



At the same time, I bought a completed chassis of a Martin Evans Jubilee. 3.5" gauge. This had lain under a bed for at least 10 years as the owner had bought it at an auction but had never done anything with it. Fortunately, it had



been well oiled to preserve it; when the dust was washed off it was good. It made a fine model and I was about to pick up a screwdriver to start to dismantle it, to paint it, when we decided to move to Poole.

The last loco was a part-built Rob Roy. My roofer guy who used to repair my house, knew about my workshop and asked if I would be interested in the contents of a neighbour's workshop. He had died suddenly just after Christmas. Some members of NLSME benefited from some items, while I obtained the Rob Roy.

This loco appeared to have been built by two people. Some items, like the valve gear, cylinders etc, were of excellent workmanship. However, other parts were poor. The saddle/smoke box were out of line with the boiler due to poor machining of the saddle. It was difficult to correct and had to be shimmed to fit between the frames. With a new boiler I did complete it, but I didn't really like it - too fiddly with all the internal Stephenson's valve gears and eccentrics.

When sold, I understand that it went well forward, but not so good backwards - clearly, I still had not got the eccentrics in their correct positions,



Lastly, I had used an electric 5" gauge Class 08. It must have done many miles on Sunday afternoons. It would wear out its main SRBF main gear; a tooth would break off, followed very quickly by the rest, Spares were available from Blackgates for a while, but in the end, I had three new gears made in Delrin at vast expense by a firm in Chesterfield - much better. I must have used the Class 08 for at least 20 years. By the time we moved the grandchildren were in their mid-twenties, and we also had two great grandsons who loved to drive it.



So now, at over 90, I have no workshop, but we are comfortable here in our new apartment. I am a country member of NLSME so get the News Sheet and read about all your activities. The pictures are much better in colour on the internet.

Keep going chaps! You have a marvellous unique site at Colney Heath.

David

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## Rotary Table wanted

By Tim

I am new to this hobby and have greatly appreciated all the encouragement and help I have received since joining the club.

I am trying to machine a component for my engine. After seek advice from those who know at the club, I have been advised that I need a rotary table to finish the job.

So, if you have a rotary table which you would be willing to sell, please get in touch. I know they come in many sizes so please ring me if you can help.

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## And finally – Liverpool Street to RAF

On 1<sup>st</sup> April 1918, there was a series of events marking 100 years since the formation of the RAF. I was interested in these as a friend of mine flew with the RFC. I don't expect many of these events to take note of the railway connection.

There certainly is a link. On 13<sup>th</sup> June 1917 there was an air raid on the City of London. A voice from the back will immediately shout "Zeppelin!" Not this time.

Just before noon it was a group of 18 twin engine Gotha bombers, each carrying 7 tons of bombs.



From my own experience rail lines show up very well from the air. A multi-track terminus must look like an arrow head. The enemy attacked Liverpool Street station and the surrounding area. One bomb hit the lead coach of the Cambridge Express. It is one of the quirks of fate that Gotha when not making bombers was building railway coaches. Bombs hit all round the city including the Royal mint, and the central telegraph office. One fell inside a multi storey building in Poplar. This was a school, where the result was the death of 18 children, all under the age of six. In all 162 were killed, and 432 injured, the worst air raid of the war,

And the enemy went home unchallenged. It was the start of aerial bombardment, as we now know it.

The damage to National Pride, and the embarrassment of the Army was immense (Where - Where Our Boys?) They must have heard the raid in Whitehall, and Westminster. It was through the work of Lord Trenchard, that 10 months later the RAF was formed. So, we owe our air defence to Liverpool Street Station.

Mike

## Club Dates for your 2022 Diary

November	
Tue 1 <sup>st</sup> Nov	Council meeting 13.30 at HQ (see note below)
Fri 4 <sup>th</sup> Nov	Prof Tim Watson will take us all on a journey from St Albans to Dorset by miniature traction engine! Not to be missed by anyone! - 8pm at HQ
Sun 6 <sup>th</sup> Nov	Working party at Colney Heath 9.00 to 12.30
Sun 13 <sup>th</sup> Nov	Working party at Colney Heath 9.00 to 12.30
Sun 20 <sup>th</sup> Nov	Working party at Colney Heath 9.00 to 12.30
<b>Wed 23<sup>rd</sup> Nov Deadline for articles to the Editor for December News Sheet</b>	
Sun 27 <sup>th</sup> Nov	Working party at Colney Heath 9.00 to 12.30
Ground Level Rly Working party at Colney Heath every Thursday & Saturday	
December	
Fri 2 <sup>nd</sup> Dec	A Festive Gathering. Light refreshments with a backdrop of films from past glories at the Club – 8pm at HQ
Sun 4 <sup>th</sup> Dec	Working party at Colney Heath 9.00 to 12.30
Tue 6 <sup>th</sup> Dec	Council meeting 13.30 at HQ (see note below)
Sun 11 <sup>th</sup> Dec	Working party at Colney Heath 9.00 to 12.30
Sun 18 <sup>th</sup> Dec	Working party at Colney Heath 9.00 to 12.30
Ground Level Rly Working party at Colney Heath every Thursday & Saturday	

A Non-council member, representing a section or committee, can, on request to the Secretary, attend the council meetings as an observer or to submit proposals as set out in the club's constitution. If attendance is agreed then the secretary will advise the member concerned.

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.
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