



# INSIDE MOTION

News and Views from the  
TYNESIDE SOCIETY of MODEL and EXPERIMENTAL ENGINEERS  
No.15 May 2021

## Preamble

So far, so good it seems with CV19 restrictions easing. At the Club, assorted wombles, pixies and other faerie folk have been taking full advantage of the new freedoms to progress works, test boilers, tidy the site (outside and in) and generally get things ready for the next phase.

## The Next Phase

As long as the Government Road Map continues as planned, we intend to open the Club to members from the 17<sup>th</sup> May (in reality this will be Wednesday 19<sup>th</sup> May) with a maximum of 30 attendees at any time. As numbers are limited you will need to book a place through me ([lindanic@sky.com](mailto:lindanic@sky.com) or phone 07761960788). At the moment members only will be allowed on site.

There will be the same signing in and out system as last year and social distancing will be essential at all times.

Initially we stated only those who have been vaccinated could attend, however since that announcement free test kits have become readily available. The Committee has decided therefore, that a negative test result on the morning of attending will also be acceptable.

While to some these measures may seem harsh, the vast majority of our membership is in the older age range and therefore in the high-risk category, so we need to be extra cautious. We need to do all we can to reduce the risk of infection.

You will still need to bring your own food, but we plan to provide tea and coffee outside (similar to the open weekend).

Hope to see you in the not too distant future !

*Linda Nicholls, Secretary*

## People

### Allan Bones



Sadly, I have to write about Joseph Allan Bones who died on Sunday 25th April. He leaves his wife Brenda and children Jacqueline and Andrew.

I first met Allan in the mid sixties when he joined the Sunderland Model Engineering Society. He was building a Juliet. Unsurprisingly he was soon elected to the Committee and then became Locomotive Section Leader. He was very involved with the construction of the large track, and helped with shuttering, concrete placing and with the acquisition and placing of the clay fill to the main embankment. Once his "Holmside" was completed it became the mainstay of passenger hauling services, especially when running for the Illuminations. At any time he would be found working on building and maintenance of the society facilities. Eventually he was elected Chairman of the Society.

When TSMEE proposed to build a 7 1/4" ground level railway, Allan, who was very keen to have the larger locomotives on the ground, was quick to join up and offer his assistance. We joined forces and he assisted with the surveys I undertook to allow the layout to be decided and subsequently we did all the setting out of the new raised track and the ground level track. He was also involved in preparation work for both tracks, especially for the under track drainage and the organisation of the excavator that did the work. As the concrete bed progressed Allan was always available to set up the formwork and provided the vibrator to compact the concrete as it was placed.

In the mean time he built a pair of passenger cars to run with his "Holmside", and once the track was finished he proceeded to build four more longer ones for TSMEE, including one for disabled passengers.

Allan loved to run his loco in efficiency trials. He won the Stephenson Trials in 1972 driving Tom Arnott's lovely green Black 5, which he also ran in IMLEC the following year. His "Holmside" was also a regular entrant in the 7 1/4 LEC and was often a close second. He was instrumental in bringing 7 1/4" gauge to the Stephenson Trials and was never happier than when he was thrashing Holmside along with 2 or 3 tonnes behind it. He won that competition on six occasions over the years and was elected President of the Association in 2004.

At the start of his career Allan had spent time at sea as an engineer on oil tankers. When he came ashore he became involved with construction plant maintenance and subsequently became plant manager for a local construction company. His experience gave him a broad engineering knowledge and he was adept at fault finding and repairing and using all sorts of equipment. Although he would deny it he was an excellent machinist (his work is testament to that) and he was also a very skilled carpenter which I remember from seeing his work rebuilding a timber frame for a Foden lorry cab.

Ever cheerful, always eager to help out where he could and always giving advice if asked on a wide range of engineering matters not limited to models, Allan was a popular figure locally and will be missed throughout the model engineering community in the North East and wider area.

My friend, advisor and colleague for fifty years. RIP.

*Edward (Allan always gave me my full name) Gibbons*

I have known Allan for over 40 years I first met him when a member of Sunderland Model Engineering Club. It was a real family association his Mum and Dad plus his Sister Barbara her husband and all the kids were members. His Mum and Barbara did the teas and any catering for the special events and were always present on the club bus trips, normally to nearby clubs "open days"

Under Eddie Gibbon's supervision we built the new Sunderland track. Allan had managed to borrow a dumper to transport the ready-mix from the main road across the site into the pre-prepared forms. If it were not for Allan the new Sunderland track would possibly not have

happened. Years later I met up with Allan at our track in similar circumstances building the ground level track again under Eddie's supervision

It's thanks to Allan that that the Club has two marvellous sets of passenger trucks for the 7 1/4" track all done single handed at his home.

Of course we all know of Allan's "Holmside" a 7 1/4" 0-6-0 tank locomotive and run on most of the local 7 1/4" gauge tracks. For a number of years, before we bought our electric loco, "Holmside" and Allan were a major contributor to our public running.

Allan - a true gentleman - you will be sadly missed.

*Peter Newby*

Junior Engineer Sam Yeeles has had yet another of his splendid line-side photographs published in Heritage Railway Magazine.



NELPG K1 62005 looks at home in the surroundings of Comondale as it nears Battersby on Good Friday

Dave Nesbitt gave his "Princess Victoria" its first runs after completing the build and a successful boiler test.



A YouTube video, courtesy of Jim Scott, gives a flavour of its performance

<https://www.youtube.com/watch?v=elfTlf16NUY>

## Member's Musings

### Fitting a new motor to a version of the George Thomas Pillar Tool.

Peter Dawes.

When Ted Ames died, I bought a pillar tool from his estate which is a very nicely built tool to a larger size than the Hemmingway castings. This was around 2005 and the first photo shows a picture.



Photo 1

The motor was switched directly from the plug in the wall socket. Not ideal in my garage, but I lived with it till now! Very soon after I got it, I acquired a drawing and made some staking tools which have proved useful for riveting over the years. I decided that the motor (photo 2) was old and weary and I would like some speed control. This suggested an inverter solution (photo 3).

The motor (photo 4) was lighter, a great advantage when moving the item. I did try a rescued sewing machine motor which was not fast enough for very small drills. The system was installed and a new belt made.



Photo 2



Photo 3



Photo 4

However, there were two problems;

First, the old shaft was 12.5 mm and the new 11mm diameter with a keyway,

Second, once installed the motor only ran slowly.

On both occasions, Royal Navy technical language was used, as 16mm modeller friend refers to it. Very quietly, due to lockdown I have to say as there are adverse comments otherwise.

I broached a keyway after plugging and redrilling the pulley (photo 5) but the only easily acquired 4mm broach was not ideal (photo 6).



Photo 5

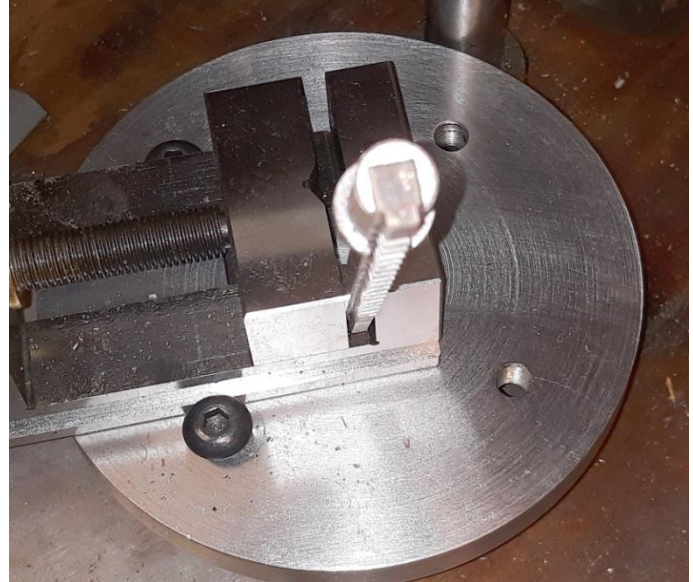


Photo 6

Having bought it, it had to be used. Needless, to say it was difficult and I had to make bush first (photo 7) and with careful pressure and cutting a good keyway ensued. For the motor problem Newton Tesla's technician, John was very helpful and over a few emails and nearly a week allowing for his and my schedules reprogramming got the system working.

Early on, it seemed a good idea to make small table to hold an Emco Unimat lathe/mill vice which holds small items nicely. (photo 8). My one and only attempt at cutting "T slots" which was using a vertical slide on the lathe. It has been useful. Photo 9 shows the EMCO vice replacement, one of two small cast vices I bought at the Harrogate show. The first gave up when tightening it on the vertical slide to hold a shaft for keyway cutting, I tightened the "T" nuts and bolts too hard on the "T" slots when rebuilding the drive on my milling machine for a new motor, cheap Chinese device.



Photo 7



Photo 8



Photo 9

So, all in all I am pleased with the new arrangement and its new more ergonomic position on the bench.

## A Miscellany

Eddie Gibbons

Ever since the beginning of the coronavirus pandemic, I have been intending to write something for the newsletter. Peter Newby's piece in the March "Inside Motion" set some thoughts going on models of LMS 2-6-4 tank engines, after he said he had only seen a couple of these at Sunderland. The Martin Evans 'Jubilee' is quite a successful loco design as Peter says and whilst George Heslop and Roy Surtees both built and ran Jubilees there were others at TSMEE.

The TSMEE Jubilee that I remember most was that of our late Chairman Jimmy. His engine was, I think his first and he drove it most of the time at break neck speed, and always claimed to hold the record for the fastest lap of the track with that engine. As you know, Joe and me love to press on and we can, on a good day, lap our track in around 42 seconds. But 25 ? Well that was Jim's claim, albeit on the old track and I'll leave you to decide how much lap time has been lost in the telling over the years.

Of course Brian Nichols also built a Jubilee, although it's many years since we've seen it. Has he still got it? There was another, built I think in the eighties by a member who's name escapes me (Linda?) and this was a fabulous loco, with much added detailing and I recall seeing it on the track once or twice and at exhibitions where it looked good in polished brass. I don't think it was ever painted.

Moving back to George's Jubilee, it was consigned to his lounge as a display model, since it was too heavy for him to handle due to his poor health. When I visited his house I had admired it, it being well detailed and nicely finished. I'd had the pleasure of driving it at the old Leeds Society track in Temple Newsham Park on one of our annual bus trips and I'd passed the remark that of all of his LMS locos, that was the one I liked the most. After he retired he was always a bit short of cash to pursue his relentless program of loco building and sometime in the eighties, he phoned me and asked if I wanted to buy the Jubilee. I did and after I'd done some minor repairs and renumbered it, I ran it regularly for more than ten years and it went really well with little requirement for maintenance other than basic servicing. After George died in 1995 I decided to sell it. A Sunderland member bought it and I've not seen it since, but it did pay for my milling machine. The two photographs show it when I first ran it.



George's remaining collection of locos was bequeathed to his many model engineer friends, and I found myself with his almost-complete Don Young Midland 4F goods engine. It languished in its box for many years, waiting for me to find the time and the enthusiasm to complete it, till around 2008, when son Joe said he wanted to help me get it going. Well we stripped it down, checked out the valve gear, piped up a couple of injectors, got the boiler tested and gave it a run using my atlantic's tender, its own being far from finished. Sadly it wasn't much of a success as the boiler primed almost continuously, spraying water from the chimney and the safety valves, and after cleaning the boiler a time or two it wasn't much improved. Our interest waned and it went back in its box for future attention. Covid suddenly presented an opportunity to do something with it. Really we were looking for more space to store models and work on current projects and my thought was

to get a coat of paint on it and get it sold, so Joe agreed to go to work on it so with the intention of make some much needed space. First thing was to sort the priming boiler. He washed it out with de-scaler and found that it had some sort of cream coloured material inside, perhaps a joint sealer. I recalled that some years earlier one of George's other locos had suffered priming much the same as this one and it had taken quite some time to get rid of the stuff. So Joe washed it out some more and steamed it, blew it down, steamed it and blew it down and repeated until it would run without serious priming. We found that it ran quite well and it linked up as well, always a bonus. Encouraged, Joe got cracking and started on detailing and finishing off some of the parts that didn't look right or were just wrong , and eventually got around to painting it. It looks good and I suspect it's a keeper now. He's been working on the tender of late and the paintwork and detailing are coming on fine. We've just had it to the park for testing and it passed both hydraulic and steam tests and we managed an hour's running afterwards. One or two minor teething problems to iron out but nothing serious, so Joe can get on and get the transfers on and add yet another loco to the compliment.



Beside this, Joe has also been building a couple of 3 1/2" six wheeled GNR passenger brake van's intended for use on ground level as driving cars. He experimented last year at Gilling with the 4F's tender frame fixed up with a "seat" as a driving car and I used it with the A4 and was surprised to find that I could stay upright and manage the driving and firing as well. This has given him some experience of 3D printing and white metal casting, making patterns for parts for the 4F and the parcels vans, some of which have been sent out for casting in bronze and white metal and some that have been cast in white metal here at home. (Photo 3)



Photo 3

Whilst all this has been going on, I've been plugging away on my two Gresley 2-6-0s. This time last year I was working on the connecting rods. It had taken longer than I'd hoped but I had to

allow for the fact there were six to do to four different designs, and half of them were being made in alloy steel which requires some different techniques to mild steel. They were done including the bronze bushes by the end of August, (and so was a good bit of the remodelling of part of the garden) but I'd also finished paintwork between the frames and completed the detailed work needed on the driving axle-boxes, putting in the oil feeds to the under trays and the oil seals to the inner faces. Also I had made the pistons and their rings and front cylinder covers, and installed the metallic packing to the piston glands. After they were done I could get on with installing the connecting rods, so the piston rods could be finally cut to length. The next step was the coupling rods, which were eventually completed in the middle of February, barring final finishing and polishing, and much to my amazement, they not only fitted but the wheels went round, smoothly on the H4 and with a couple of minor tight spots on the K3, which looks like a slight issue with the back coupling rod length, that I think a few strokes of a round file will cure.

Currently I'm taking a break from K3s while I work on another project for a couple of weeks. Lock down has been holding up this job, but there are things I can do while we wait patiently to be given our freedom again. I'm also working on the drawing board (virtual on the computer) to refine and correct and modify the valve gear design for the 2-6-0s. When I did the original design work I expected both engines to be fitted with the same valve gear, but as my research has progressed I came to realise they would have to be individually designed because there are visual differences between the two locos, and I need them to look right, whilst having similar valve events. I think I'm nearly there now and I have resumed work making those valve gear parts that are not likely to change as I progress the valve gear drawings.

Finally a short anecdote featuring our late Chairman Jimmy Stephenson. As you will have gleaned from above, although I was a Sunderland MES member, I was an occasional visitor to TSMEE from sometime in the sixties. My early association had been on Friday evenings at Manors, where our main interest was model boats, but eventually model locos became the focus and the TSMEE visits moved to Exhibition park, where I must have met and got to know Jimmy. At the time he was working on the railway, but I'm not sure I fully appreciated that was what he did at the time. It was, however, impressed on me later, when I was working as site engineer on a new bridge across the East Coast Main Line near Killingworth. Working for Tarmac Construction, we were engaged to build the A189 spine road from Westmoor to Annitsford, and had been awarded the separate adjacent contract to build a single carriageway from the Sandy Lane roundabout to Station Lane, now known as Killingworth Way, crossing the main line and NCB Weetslade exchange sidings on a 4-span bridge number 22a. Working away one morning in the summer of 1971, setting out the bridge abutments on the east side, with my back to the railway, I was interrupted by a long and loud blast on the horn of a diesel loco passing slowly behind me on the nearest track, and as you can imagine I must have jumped with the shock of it. I turned to look at the train, and there, stood in the driver's door was Jimmy, waving at me with a cheeky grin from ear to ear. Photographs show the first of 22 bridge beams waiting for the track possession to begin at 6 am on a Sunday morning in March. (*Photo 4*) All were installed by 11 am when we had to hand the main line back to BR. The first train through that morning was Deltic-hauled, heading for Edinburgh. (*Photo 5*)



Photo 4



Photo 5

## Spot the difference...

Jim Scott

The first photo shows the elegant lines of the mixer tap installed over the TSMEE Clubhouse kitchen sink. The second shows the same design as fitted in my own home. Both items are about 15-20 years old and presumably have seen normal domestic service. You will note the splendid but unrequested flow from the side of the spout low down on second photo, - but why? And what if anything has this to do with model engineering ? Please contain your excitement until the following issue of Inside Motion when all will be revealed ....



## Diary Dates

There has been a notification that the “This is Tomorrow” festival is to be held in Exhibition Park over the long weekend 17th–19th September. It is assumed that this will, as previously, prevent access to the Club.

## Postamble

Thanks as always to the contributors to this issue. Two of the items were carried over from my “editorial reserve” from April – an illustration of the benefit of having too much rather than too little material.

With a fair wind and plenty of sanitizer, activities at the Club should have picked up markedly by the time the June issue is due. This should generate some refreshing news after such a prolonged period of inactivity, but what you are doing at home (or elsewhere) is still of interest. Get writing !

## Contact information

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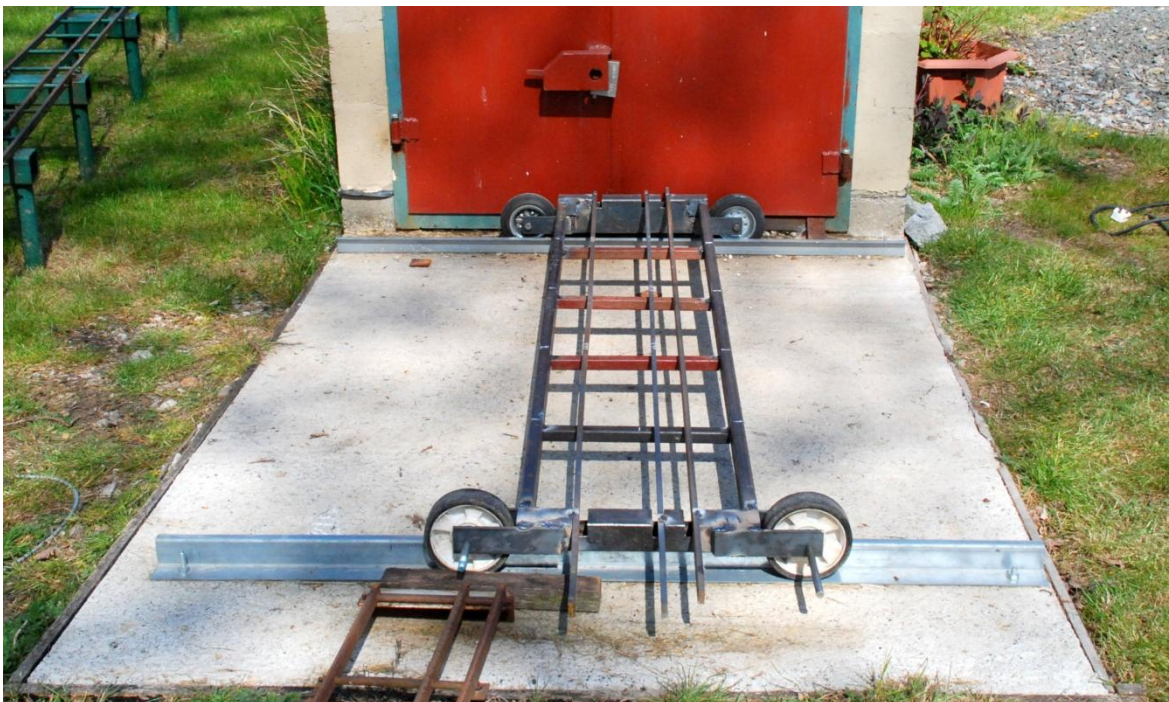
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**Headquarters and Multi-gauge Track – Exhibition Park, Newcastle upon Tyne NE2 4PZ**

## Gallery



Allan Bones with Edward Gibbons in 2016 (Linda Nicholls)



Progressing with the locomotive shed traverser