



INSIDE MOTION



News and Views from the
TYNESIDE SOCIETY of MODEL and EXPERIMENTAL ENGINEERS
No. 50 December 2024

Preamble

Another year is rapidly approaching its end. Looking back, it doesn't seem to have been a particularly good one – we certainly didn't have a summer worthy of the name. Nonetheless, there were spates of activity off and on the tracks and a significant asset project was brought to conclusion – the Container with its much-needed additional workshop and storage space.

Club matters

Public Running

November's Ghost Train Special must have been a record event for the numbers attending. The public enclosure was full to bursting by opening time at 11:00am, with the queue spilling out into the car park area. Even with two trains running at capacity, it took over an hour to start thinning out the crowds, but still they came. Things tailed off slightly in the afternoon, but there was never really a slack time. Fortunately, there were four locos in steam and several relief drivers to share the work.



December's Santa Special was also very well attended. After a showery start, the day turned sunny and bright with a gentle breeze. Again, four locos and several drivers were available to handle the traffic. Santa's Grotto (in the Container) was a big hit – much better than the tent which had been used previously.



These two events take a lot of work to set up, operate and take down afterwards, so full credit to all those who pitched in and made them happen. This year, donations from a very generous public have been exceptional and a very welcome additional bonus.

Annual Subscriptions

A reminder that your annual subscription is due at the end of the December. Fees are currently £40 for Single and £50 for Family Membership. Cheques should be made payable to "TSMEE Ltd", posted to Norman Blacklock at 10 Bowesville, Burnopfield, Newcastle upon Tyne NE16 6DZ or handed to him at the Clubhouse. If you prefer to pay by Bank Transfer, the full details are "The Tyneside Society of Model and Experimental Engineers Ltd", Sort Code 40 37 37, Acc. No. 41383817.

Member's Musings

Federation Rally 2024

Ian Spencer

On 31 August I attended the annual rally organised by the Federation of Model Engineering Societies, and hosted this year by Nottingham SMEE. The Nottingham track is at Ruddington, about 4 miles south of the city centre, and on adjacent sites there are also a heritage bus group and a railway preservation group who have many first generation main line diesels.

There are two tracks. The ground level 7 ¼" has recently been extended to 0.6 mile, and has a challenging gradient of 1 in 85. The raised 5" 3 ½" track is 0.4 miles long, and only slightly less challenging with a maximum gradient of 1 in 115. Both are controlled by colour light signals with full track circuiting, and run through woodland for some of the time, all making for a great setup.



Left – the beautifully-kept ground-level station. Right – the steaming bays, complete with ventilated roof

The event was very well supported, with about 30 visiting locos from all over the country. There was a prize for the owner who had travelled the greatest distance, but I didn't win it. For me, one of the principal attractions of the day was seeing a large number of models which I had not seen before, and many of which were of a very high standard. The hosts were very well organised, and there was minimal delay getting on or off the track. I managed to run for a little over two hours.

The Nottingham Society has what it describes as a workshop, though it is more like a small factory. There is an assortment of large lathes including Colchesters and Harrisons, as well as three Bridgeport millers and a radial arm drill. There is also a large selection of sheet metal working machinery including a plasma cutter, guillotines and folders. All the equipment is available to members, with authorised supervisors to give guidance where needed.



Part of the superb workshop

Like us, the Society relies heavily on public running to generate income. They have two 7 ¼" sets of carriages, which are of substantial construction. As well as the normal driver's brake, each set is fitted with an emergency continuous brake (i.e. a brake which operates simultaneously on all the vehicles in the train) which is operated by compressed air from a receiver located in the train. The receiver is charged before running begins from a shore based compressor. In the event of an emergency, the driver can apply the continuous brake from a valve on his riding truck.



Left – Non-steam models are becoming popular at some clubs - a fully detailed Class 37. Right - 7 ¼" gauge Stirling Single



Left - Southern Railway Class U. An uncommon choice of prototype, built to competition standards. Right - LMS Jubilee, one of the commercially produced models advertised in Model Engineer.



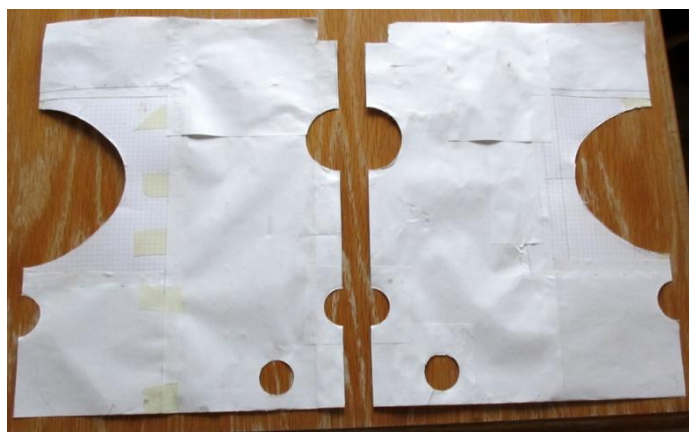
LNER Class A1. This ran at TSMEE when its owner Bill Sharp lived in Stockton. The prototype was a Gateshead engine for many years.

As is so often the case, the ladies of the Society provided super food, and to finish off, each visitor was presented with a memorial mug. The Nottingham Society really is in the premier division of model engineering societies, and I thank them for a thoroughly memorable and enjoyable event.

Neptune's Cladding

Robin Hedley

Some pictures of Neptune's cladding. Self-explanatory for the most part. Vertical cladding was done in two halves, held together with soldered straps. Dummy rivets are for cosmetic purposes. Hoping to steam Neptune this coming summer (2025).





A Schrader Whistle Valve

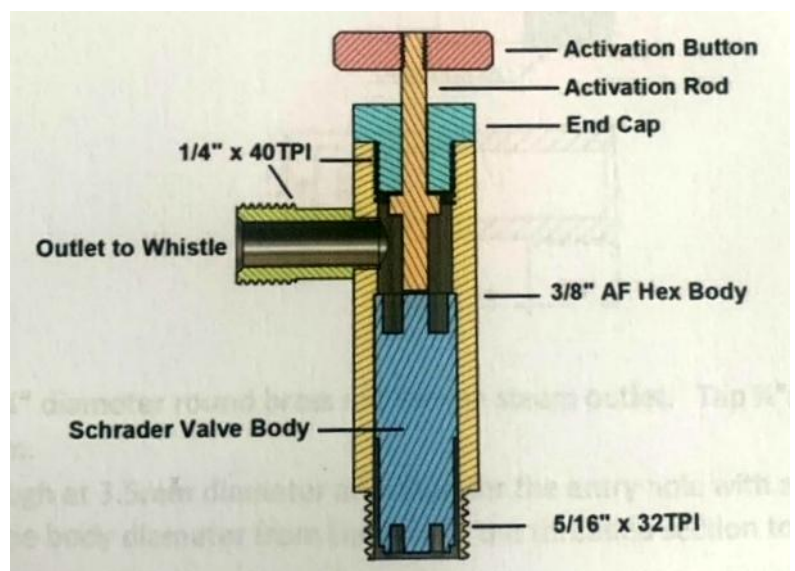
Adrian Morley

After some thirty years of interrupted construction my 7 ¼" six-wheel Bridget designed by Ken Swan is now approaching completion. Having sorted a variety of minor steam leaks around the back-head, I was left with a persistent cloud of steam from the whistle and no sound. There is a false whistle in front of the cab, and a real one in front of the ash-pan. Both have a steam supply from the manifold. Ken's design on Bridget and Jessie is the same consisting of a 0.125 inch ball seated by a spring and displaced by a rod pushed by a lever. After numerous modifications which failed I asked Peter Newby for advice and was given a plan for a Schrader-type valve.

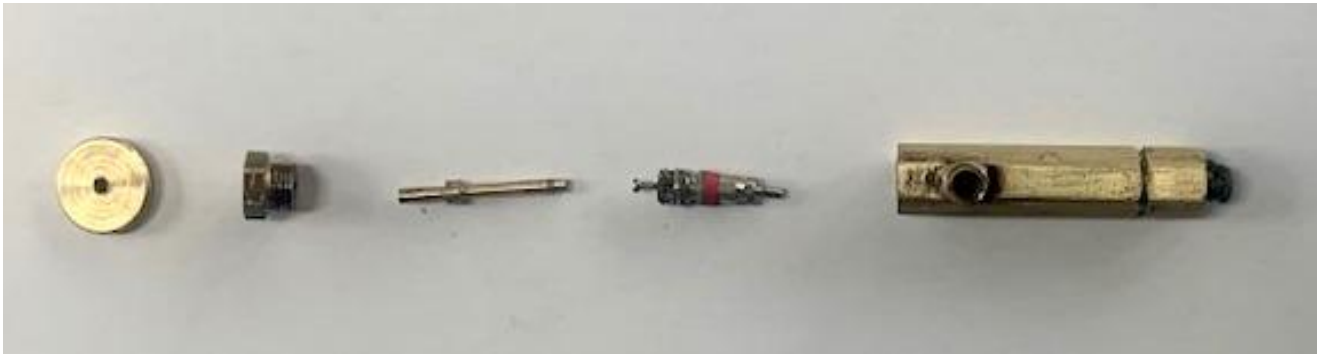
The plan came from "Woody's Workshop" which is found on www.altrish.co.uk in the postings section and entitled "New whistle and valve on my Polly V steam locomotive". The author, Woody, has produced an excellent website full of well described steam, clock and workshop projects. The article and plans are easily downloaded and easy to follow. Woody's innate modesty seems to have prevented him putting his name on the website. I am most grateful for his plan.

In summary

Motor car tyre Schrader valves begged from Quickfit are stripped of their rubber coating with scalpel and wire brush. The screwed brass tube containing the Schrader valve is cut down to about half its original length. The screwed section is turned down to fit in the hexagon. My only significant modification was to turn the screwed section down to exactly 0.250 inch, and to ream the hexagon. The plan uses 3/8" AF Hexagon but it is possible to use 5/16" AF. The Schrader valve is removed to allow the brass tube to be brazed as well as any steam connections.



These two pictures (above) are stolen from Woody's Workshop. Sizes given are all metric which will meet approval from proper engineers but made me think. I was able to put a 5/16 x 32 thread on the hexagon to allow connection the manifold



Too much braze will prevent insertion of the Schrader valve. Woody gives a design for the insertion tool which can also be purchased from most car accessory shops



Finally on the manifold the valve extends an inch further back than the original. I am discarding the false whistle steam supply and using the button rather than a lever for the now functional and steam-conserving whistle.

Many thanks Peter

Measuring Hole-to-Hole Centres

Peter Newby

With my current project I had a problem of how to measure hole centres on a tie-rod as the holes were offset and not very accessible. I struggled to come up with an answer without a lot of guesswork. Then a Eureka moment - why not use electrical crimp tags crimped onto a piece of welding rod. This allows adjustment of the centres and this can then be transferred to a jig as per the photograph. I hope the photo is self explanatory.



Photo showing the wire with crimped eyelets, the jig and the wire tie rod made on the jig.

Quite Interesting

Fred Cutter

Here's an interesting item for you to puzzle over. What is it, and what's it's purpose ? If you know, or find out, please email the Editor and he'll post the answer in a future issue of IM.





Stamped with "MATHESON GLASGOW" and " 1/2" 26 "

(object courtesy of Norman Blackburn)

Postamble

Many thanks to those who submitted articles for this issue, without which it would have been a rather slim read. I notice this is issue number 50, a bit of a landmark. I try to get something out on a monthly basis, but it doesn't always work out that way. Much depends on the availability of fresh content, and "news" can be in short supply. Contrary to how it's sometimes presented, this is not "Mike's Newsletter" – it's yours. Use it or lose it. The next issue will be in February 2025.

Have a Very Happy Christmas and make sure to sharpen your pencils for the New Year.

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A year ago – TSMEE on 3rd December 2023