



INSIDE MOTION

News and Views from the
TYNESIDE SOCIETY of MODEL and EXPERIMENTAL ENGINEERS
No. 49 November 2024

Preamble

I hope you enjoyed your recent extra hour in bed. With Autumn heading rapidly in to Winter, things will inevitably slow down as the year approaches its end. No doubt activities will increasingly move indoors.

Club matters

Public Running

After September's rather disappointing showing, October's started chilly but gave us a fine day with spells of warm sunshine. After a slow start, visitor numbers picked up and were steady throughout the day. Four steam locos and several drivers were available and took turns handling the traffic.



left – Lindsay Oliver's "Imp" right – Tony Falloon's Quarry Hunslet



left – Mick Jordison's Wren right – Steve Lowe with Jim Mountjoy's "Nathan"

The opportunity was taken for a further trial of the CPL Homefire briquettes over an extended running period and found to be entirely satisfactory. It may well prove to be salvation when the current stock of steam coal is exhausted.

Boiler Additive

Linda Nicholls

Multitreat TC Water Treatment for Copper Boilers



This great product from Heritage Steam Supplies is usually £20 + postage

By buying in bulk we can offer TSMEET members a 1 litre bottle for just £15.

See their website entry at

<https://www.heritagesteamssupplies.co.uk/tc-boiler-water-treatment-1l.html>

if you want further details, but the positive reasons for using just a capful in your copper boiler each time you steam it include

- Helps to disperse the solids present in ordinary water, which would otherwise adhere to all inner surfaces. These are held in suspension & are released when the boiler is blown down at the end of the run.
- Helps prevent a build-up of solids causing poor heat transfer; poor steaming, possible hot spots occurring possibly leading to failure of stays, tubes etc.
- Helps prevent injector & other ball valves from sticking while not in use.
- An extremely simple & cost effective way of maintaining the internal surfaces of your boiler.

Container

The paved pathway and apron to the Container have been completed, and very fine it all looks too. The whole project is a credit to the members who made it happen, and a tribute to the range of skills they bring.



Member's Musings

The Sock Knitting Machine Saga

David Dunbar

In August 2020 a plea was put out by Linda from a person she had talked to in the park to see if he could get some basic machining done to help him with the restoration of a Victorian sock knitting machine. I was intrigued to say the least and responded. I had no previous knowledge of such machines apart from being asked as a child to help my mother with her then new fangled knitting machine, so had a small idea.

Circular knitting machines are a different kettle of fish compared to linear ones but still share common things that I would later find out.



So having got in contact with Eric I was presented with the job in hand and a damn good cup of coffee I must say.

The first job was to get the low down on what the original would have looked like, the pattern was obviously a knocked up version to get things working (not by Eric I hasten to add) the electric welding was a dead giveaway. You can see it in the photo.



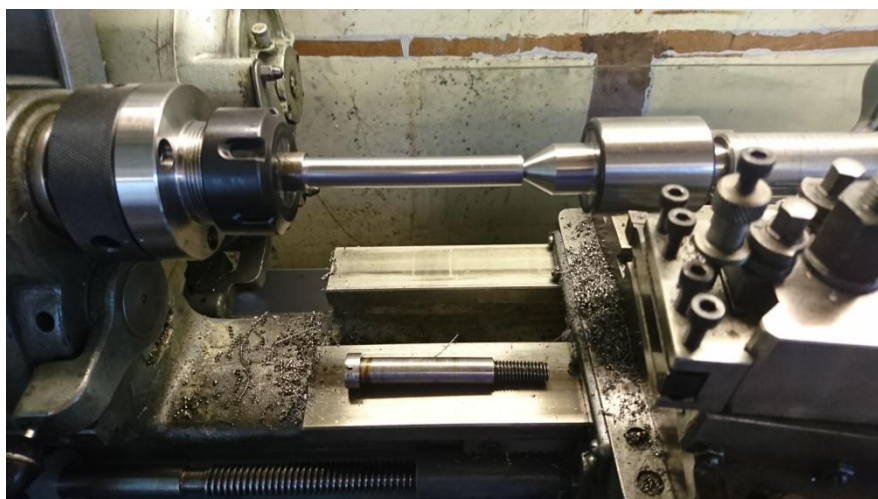
I then asked whether he was sure these things were metric and he admitted that he didn't know, as all he had to measure things with were metric. He did say that some of the machines were German and that he thought from that they would be metric. I pointed out that the Germans didn't adopt the metric system until somewhat later than the date of his machines and we were still supplying Whitworth fasteners to them until just before the war broke out !

Ok so what did I do, well I started to look at the threads and low and behold they were not metric. They were BSW. So I made a new mast out of steel with a 3/8 x 16 BSW thread and added a nut to the bottom and silver soldered it to the end. Turned the small diameter at the far end and job done.

So all goes quiet for a while until I was asked what to do with a bent handle spindle.



So I asked him to give me the spindle/stub axle and I'd have a look. Once again it was identify the thread time and then hit the lathe. I've worked with imperial stuff for 50 years and to be honest metric for 40 years but I now see how the Victorians took licence with their measurements. I then produced the required spindle. I could not produce the handle but Eric said he would 3D print one.



And while I was at it I discovered that the fixing screw on the end of the spindle was not 5mm as I was told but 1BA so I tapped the thing 1BA and cleaned up the original screw.



Old and new

The next step was being asked to make two more masts for the knitting machines. These were meant to be tapered but I said that I didn't have the facility to taper turn over that length and it was agreed to go for parallel but they did need shaped nuts at the bottom and a little piece of turning at the top. So I made the masts, made the shaped nuts and loctited them on the bottom. I had by then realised that these things were not screwed in tight so anything to make the work easier !



Well that's the tale of how to help someone who wishes to use your knowledge and workshop to fulfil what they need. I have to say that Eric learned about threads and how rough they could be. More than just getting things done he, has more insight into engineering now. He did stop at buying a lathe for himself when I mentioned the amount he would have to spend on extra kit to be able to use said lathe to produce finished work.

Postamble

The next issue will be your bumper Christmas read – I use “bumper” reservedly as, so far, I have only two pieces to hand. Thanks to David Dunbar for his article – as a general rule it's nice to do things for others once in a while. Which reminds me – do please wash your tea and coffee mugs when you're done so others don't have to.

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Gallery – recent sightings

The last Sunday of October was a beautiful, if slightly chilly, day which brought a flurry of activity.



Visitor David Kitchen from Wakefield was back again, this time with 3 ½" gauge LNER A2/1 Pacific "Highland Chieftain"



Left – Dave Henderson's "Ankor Thom", minus smokebox, having a boiler leak inspected. Right – Ray Simpson's Regner 16mm scale Guinness Tram



Left – Ian Spencer's 5" gauge LNER V2 running "light engine". Right – Mike Mee's GWR 15XX Pannier Tank