NEWSLETTER October 2025

Good Evening All, the nights are drawing in, so I hope you all have lots of LED lamps for when you are tinkering in the late afternoon.

N.A.M.E. sent me a copy of their e-mail newsletter and asked if I would pass it on to our members. I reckon it is of primary interest to the loco men, but have a look and see what you think. There is a link to the N.A.M.E. Newsletter and Website on page 8 of this Newsletter.

Right, listen up! It is the AGM on Friday 7th November at 11.30 am (doors open 11.00am). It will be kept brief, but the fact is, we need more help on the Committee. We have Rob Davey who is volunteering to help out, and that is brilliant, thank you Rob.

After losing George, no one has expressed an interest in being the Workshop Rep, and in all honesty, it is not a very busy post, but it is a Committee position. For further details ask me. We desperately need a Secretary/Admin, call it what you like, but someone to keep the Club running smoothly.

If things go according to plan at the AGM, we will be having an early lunch and plenty of time for a good social chat. This year's bumper fruit harvest may enable us to serve home-made apple pie as well, but you will have to attend to find out !!

Subs are due soon, and don't forget that if you don't renew you won't be covered by Club Insurance, and we don't have a Secretary to chase you up!

I have just had a message from a new member, Paul, who has a *Harrison L5* lathe with a problem with the apron. Is anyone familiar with *Harrisons* who could help him? Contact Paul via me .

That is about it for this month, see you at the AGM. *Kind regards, Jonathan.*

Forthcoming Events.

- **Friday November 7th Annual General Meeting. (Friday Lunchtime ~ Doors Open 11.00am).**
- **Tuesday November 18th Workshop Morning.**
- **Wednesday December 3rd Pre- Christmas Social.**
- **Tuesday December 16th Workshop Morning.**
- **<u>There is No Club Meeting in January</u>.**
- **Tuesday January 16th Workshop Morning.**
- **Wednesday February 4th Passenger and Goods Workings at the Normanton Motive Power Depot (MPD) in the 50s/60s. A Talk by Allan Dawson.**
- **Tuesday February 20th Workshop Morning.**

- **Club Evening On Wednesday 1st October. *Mike Sayers Trophy* Evening and Autumn '*Bring and Brag'.***

Jonathan welcomed everyone to the meeting, especially Richard Gretton, the winner of last year's *Mike Sayers Trophy,* and John Schofield who was visiting.

Unfortunately, on this particular evening, there were no entrants to the *Mike Sayers Trophy* competition, (the first time this has happened), although there were five entrants for the '*Bring and Brag'*. So, the evening was going to be a little different. Before the *'Bring and Brag*', there were some announcements:

- **The PEEMS Annual General Meeting (AGM)** will be at the Hungate Centre on Friday 7th November in the morning at 11.30am (doors open 11.00am). This means that there will be no Club meeting on the Wednesday evening preceding.

  The AGM will be followed by a free "*pie and peas*" lunch, followed by some socialising, before wrapping up.

  The Agenda will be e-mailed out soon, along with the nomination forms for the election of Committee members.

  To run a Club like PEEMS, we definitely need a Committee, and we definitely need a Club Secretary and a Treasurer, and also by convention, a Chairman. This is just to keep things right by *The Articles of Association,* and this maintains checks and balances in the administration, especially when we have Club Funds, expenses, subscriptions, donations and insurance. The Committee has been asking for more volunteers for quite a while. We are grateful that Rob Davey has agreed to join the Committee, and at the AGM, Rob will be putting himself forward for election. New input from members is definitely a good thing for PEEMS. If anyone has secretarial skills, and wants to come and help, they will be most welcome.

  The Committee has decided to streamline the AGM process, so it should be speedier than in the past. A lot of information on the past year with regards to events and visits is already in the monthly Newsletter, so none of that needs to be reiterated at the AGM. Last year we managed to get through the proceedings within the hour, allowing a relaxing lunch and enjoyable social.

  By convention, the existing Committee will resign and stand for re-election. This allows members to take over any of the roles, and the AGM gives them the opportunity to do so.

- **Next Year's Calendar.**

  The Committee is in the process of fixing next year's calendar. There is a template to fill in. Jonathan did say in the Newsletter that if anyone has any ideas for talks and visits, please let him know. John Nesom and Nevile have put forward ideas for visits and speakers, but we would like to hear from other members.

- **PEEMS Clothing.**

  Some members wear PEEMS fleeces, or sweaters. It has been mentioned that the Club should buy some more clothing for those interested. At the moment, Jonathan doesn't know the prices, but if there are members who would like to acquire a fleece or a sweater, please let Jonathan know. He will enquire about prices, colours and availability at the suppliers in Seamer. Some members showed an interest in a show of hands.

- **N.A.M.E. (Northern Association Of Model Engineers) Newsletter**. The N.A.M.E. Newsletter can now be downloaded from the link on page 8 of this newsletter. There is also a link to the N.A.M.E. website.

- **The Mike Sayers Trophy ~ A Discussion.**

  As mentioned above, disappointingly there were no entrants for *The Mike Sayers Trophy* competition this year.

  Mike asked the members present, if interest in the Trophy had waned, and whether they wanted it to continue. This is the first time this has occurred. The number of entries has been dropping over the last few years. Do the members want the competition to continue or not?

  The main reason for the Trophy evening, was to encourage the members to put forward their work for a fun competition, but if there is less enthusiasm, then maybe it should cease.

  Paul Hayward said the Trophy competition was set up with good intentions, and has been running for about twenty years. It would be a pity if it stopped, because the competition recognised the variety of work carried out by the membership. Mike said that members tended to bring more work to the *'Bring and Brags'*, than to the competition.

  Jonathan thought that next year, members should be notifying the Club of their intention to enter the competition at least a month beforehand. Someone thought it would be a good idea to wait until next year before deciding whether or not to continue with the competition.

  Mike was concerned that asking members to enter a competition maybe an embarrassment for them.

  Richard Gretton said that he had won the trophy last year, and was very proud to receive it. It's a magnificent trophy, and it's been on his desk all year. People have asked him about it too. He had the thought that with the '*Bring and Brag',* why can't the competition be spread over the year and the trophy be awarded to the most highly voted for entry in the three "Bring and Brags"?

  Mike wondered how that system could be made competitive, and Richard said that could be worked out. Richard also thought that more emphasis should be made about *The Mike Sayer Trophy* evening in the Newsletter in the run up to the event.

Mike realised that it may be difficult for members to come up with new entries every year, especially as the rules state that the Trophy winning entry, can't be entered again the following year. Mike suggested that 2025 should be the first year for a judged "Bring and Brag", using the *Mike Sayers Trophy* voting forms.

- **Welding Gas Agent.**

  Jonathan asked Dave Dobson if he was still an agent for welding gas, and he said he was. Although he didn't deal directly, you pay a deposit for the bottle and pay for the gas that's in it. Nothing is rented. When you go for a refill, you just pay for that and it's "popular gases (oxy-acetylene, argon, CO_2, etc.).

  Just give Dave's son a ring.

  Q: So, you can pick up the gas at any agent once we've purchased it from you?

  Dave: Yes, so long as it's the same bottle.

- **Autumn '*Bring and Brag'*.**
  - **Chris Bramley ~ A Decorative Outside Door Lamp.**

Twenty-five years ago, Chris made an outdoor lamp just like the one above. It was quite a bit smaller, and was made from a set of drawings. Unfortunately, the size of the lamp was such that it was difficult to get a bulb in and out. It's been sitting around Chris's workshop for about twenty-two years.

Last autumn, Chris decided to make a new lamp similar to the old one, but this time to his own dimensions and specifications. It's taken a lot of work to make it, but fortunately he had a lot of copper sheet available from his time in business, to complete all the copperwork on the lamp. To buy that amount of copper today would cost substantially more. Cutting all the copper parts out, took a lot of work.

Chris did some of the ironwork himself, but for some of the more specialised work needed, a blacksmith was employed. When the ironwork was complete, he was going to get it galvanised, but someone suggested he powder coated it. He found a shot blasting and powder coating business in Malton, and they did a very good job.

When Chris was copper-smithing, he never used a lacquer coating, because he believed that hand polishing was better. However, this time he has lacquered the copper. The copper should keep bright for at least the next five years.

Q: Has it taken you all year to build the lamp?

Chris: It's taken me about six months on and off.

Q: When you were in business, did you make a lamp like this?

Chris: When I was in business, I made quite a few lamps of various shapes and sizes, but not one exactly like this one. I enjoyed making them. I might make a different type of lamp for this event next year.

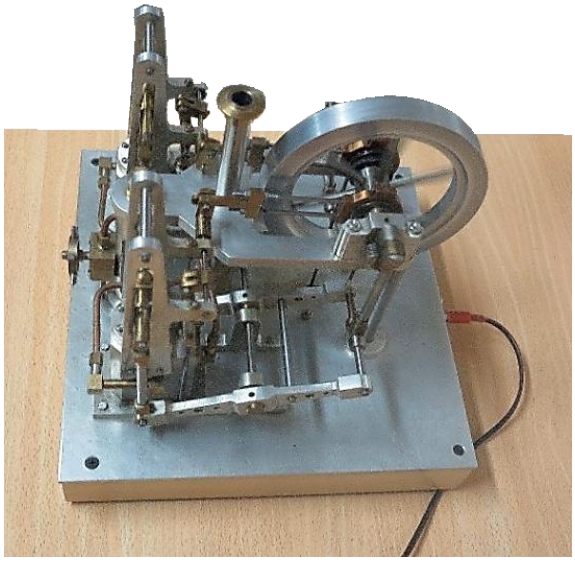
Q: What do you use for lacquer? I am interested because sometimes I use lacquer.

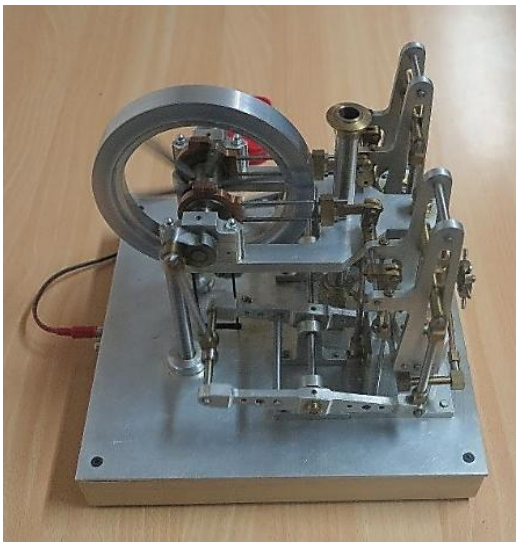
Chris: I use a spray lacquer. I went to the paint shop in Malton, and asked them about it. When I was an apprentice, the lacquer was always brushed on. With the spray can, it covers the surface quite easily.

Comment: I apply acrylic lacquer using a spray can, but I found some lacquer that's based on melamine which is harder wearing.

- **Brian Stephenson ~ Twin Vertical Cylinder "Steam" Engine.**

Most people will be aware that Brian's models are designed by Bob Middleton. Bob is an ex-ship's captain, and he designs the "steam" engines and Brian then builds them. The full-size engine doesn't exist, but the model represents a typical industrial steam engine. The model runs off compressed air.



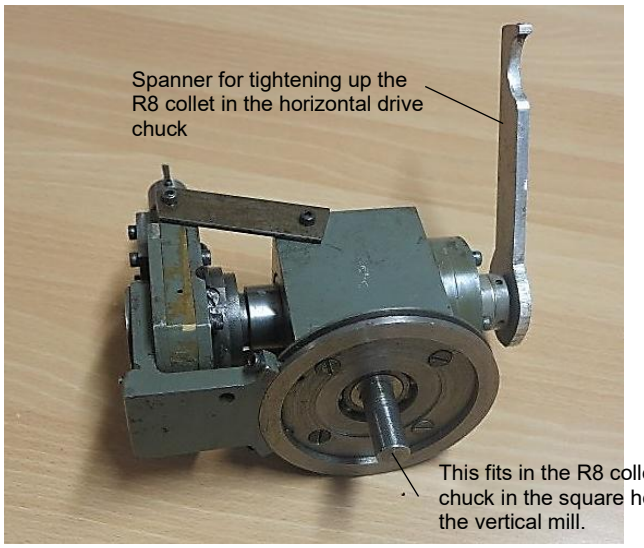


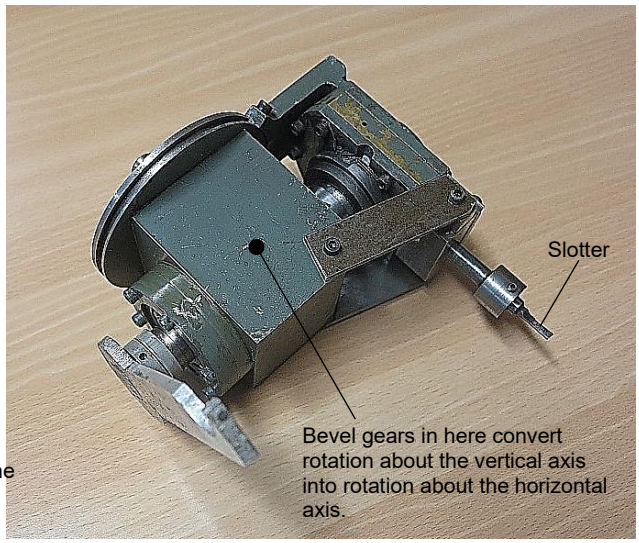
If you would like to see the model running, please press on the following link:

https://youtu.be/t4_b4BIHbGg

To return to the newsletter, press on back arrow at the top lefthand side of the screen.

- **Peter Bramley~ Horizontal Milling Fixture For Use In His Self-Built Vertical Mill.**





At the last Club meeting in September, Peter talked about the vertical milling machine that he had designed and built. This evening, he brought along one of the accessories that he built twenty-five years ago, but hadn't actually used. The reason being is that he changed the vertical mill as he was building it, so it no longer fits. However, this was an opportunity to explain how this ingenious device works.

Although he built a vertical mill, Peter realised that he could save a lot of hand work, by adding a horizontal milling adaptor to his machine. The photo above shows a slotter in the adaptor, but this is nothing to do with the horizontal milling feature.

Tightening up the R8 horizontal collet

The fixture mounts in the R8 collet in the square head of the milling machine, with some clamps in the top to hold the fixture and stop it spinning around.

There is a drive down from the head to bevel gears which translate rotation about the vertical axis to rotation about the horizontal axis. The horizontal shaft has the usual R8 tapered collet in it, which can be tightened up with the spanner.

- **Richard Radcliffe ~ Banjo Fretboard, Fret Assembly Tooling/Jigs.**

Richard brought along four jigs that have been used to make a banjo fretboard. A banjo fretboard is flat on the string side, whilst a guitar's can be slightly curved, depending on the type of guitar. The frets these days are made from a soft wearing nickel-silver, which is actually nickel-copper-zinc (but no silver).

With the first instrument that Richard bought 25 years ago, it didn't take long to wear grooves in the frets, and if you're not a good player, the grooves occur on the frets that are most used. If you are a more advanced player, you will use more of the fretboard. It was annoying, because once you play for a while, you realise that you can't get the notes quite right, because you are pressing the strings into the worn fret groove.

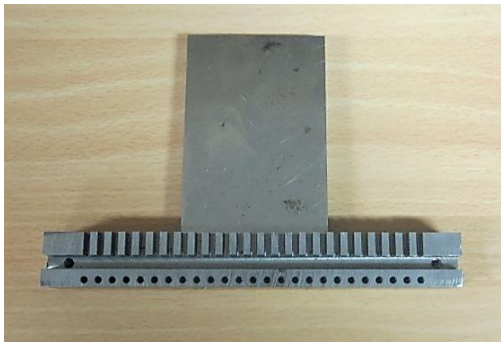
Richard therefore, tried to develop a system by using a simple tungsten carbide rod for the frets, that is supplied in various diameters. The fret shown here is a 3mm diameter rod which Richard thinks is a bit on the big side, but this is the first prototype. Richard thinks he will eventually end up with a 2.5mm diameter rod.

The first experiments were concerned with fixing the frets to the ebony neck, which wasn't an easy thing to do because if you simply use glue, it doesn't work. You can make a small groove in the ebony, press the fret rod into the groove, leave it for a couple of days to cure, but eventually it will "flick out".

Richard decided to silver solder each fret rod to five brass (CZ121) pegs, which pass through the "neck", in 2.4mm drilled holes. These pegs could be seen protruding on the underside of the neck. Because the pegs are square in a round hole, the corners will provide some sliding resistance when pushing the pegs in. Richard's thinking was that if each of the five 3/32" x 3/32" square pegs was silver soldered to the tungsten carbide fret, and the pegs were pushed into the neck, this would act as a soundboard in itself. Whether that is true or not, Richard doesn't know.

Richard thinks that his next prototype fretboard will only have four pegs/fret. This will give a little more margin between the edge of the fretboard and the first pin, thereby giving more strength to the edge of the fretboard, and it will be cheaper. Silver solder isn't cheap and these frets work out at £4.70 a piece, and it soon adds up.

The other problem is that because the fret rod is round, it has to be nicely finished at the edge of the fretboard. Finishing off the edge of the rod with anything other than a diamond cutter is a waste of time. Richard had to make sure that the outer edge of each fret was "dead in line".



The process was to use a series of jigs. There are twenty-five holes in this latest jig. The frets can be mounted in this, and the outer edges finished off in it, with a cutter grinder.

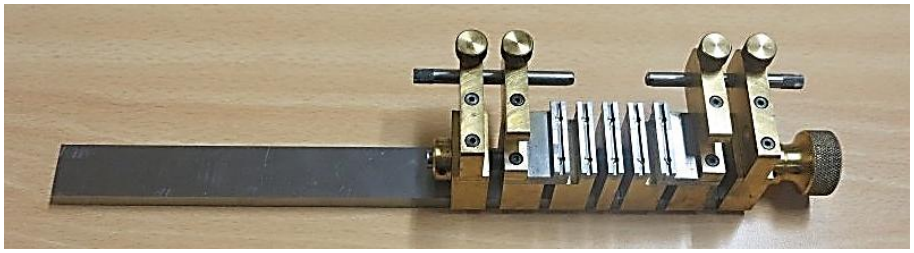
The pegs are left a little bit proud of the neck, because when the fret rod is pressed down onto the ebony neck and squeezed with a cushioned G-clamp, an impression is made in the neck, and if glue is used, this means that the fret won't move once pressed in.

It's very difficult when you have a large area, to stop components moving from their intended positions, and the frets and the neck have to be exactly in line.

Q: Where did you get the ebony from?

Richard: I got a supply of it from someone who was getting rid of it.

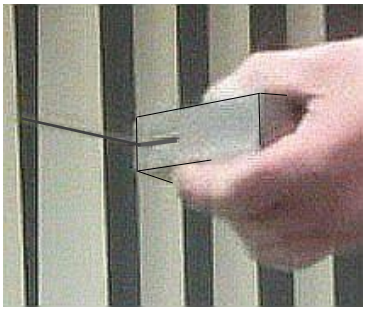
The principal jig Richard had to build first, was this one:



This jig includes a series of five little grooves, each of which takes a peg rod. This lines the pegs up axially with the tungsten carbide fret rod. And this is blasted with a Laser MAPP gas portable cylinder to silver solder the peg rods in place.

The end of each peg rod is radiused to the same radius as the tungsten carbide fret rod, so it sits on the rod, and can't move sideways. It was a bit of a problem to get all the pegs in line together on the fret rod.

So, Richard came up with a secondary jig, which clamps in the machine vice. Ten peg rods are placed side by side in this jig. The jig is then tightened. A spacer tool is then used to check the length of the peg rods are all correct.



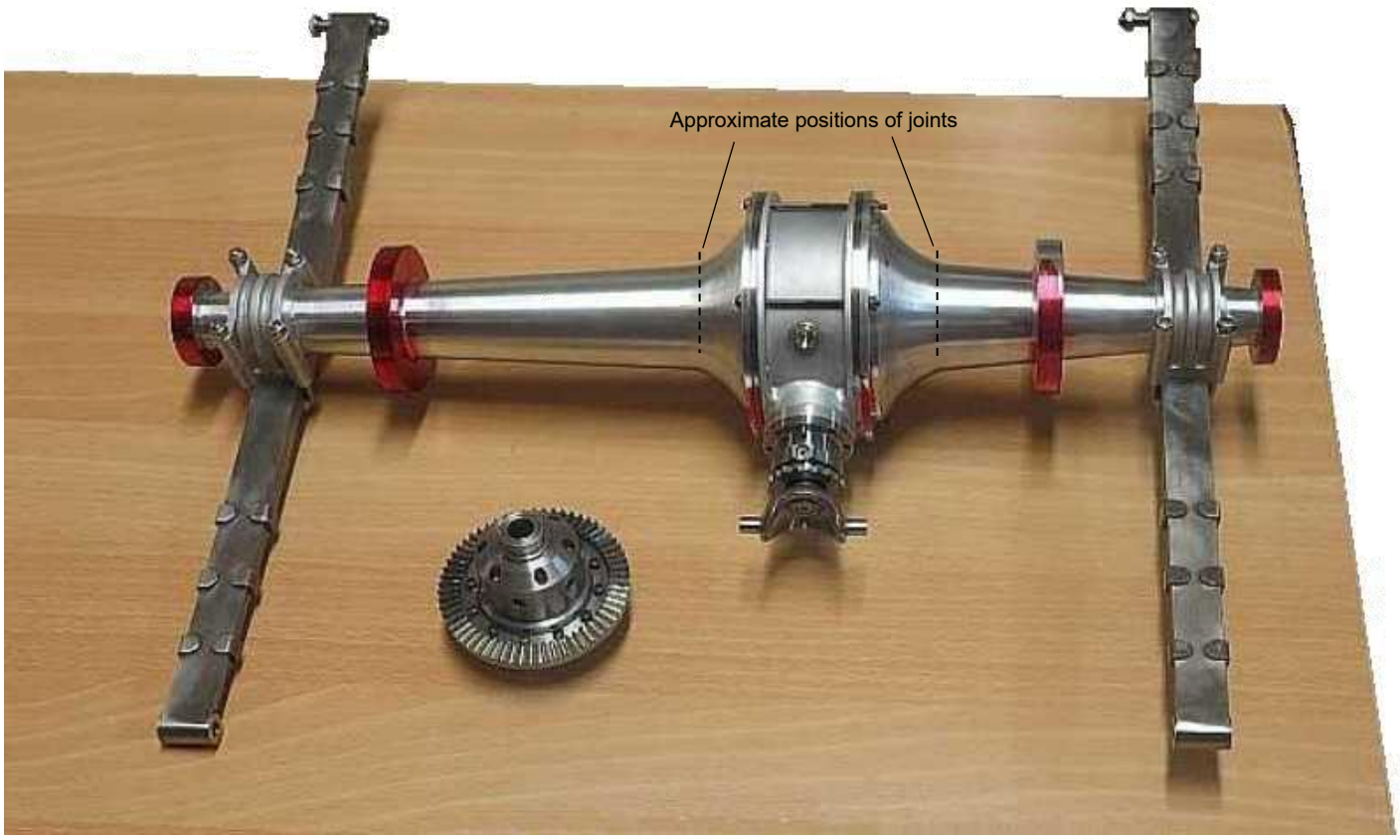
The cutter is then passed over the ends to give them all the correct radius to sit on the fret rod. Ten peg rods cover two frets. By radiusing the other ends of the peg rods, that is four frets. When the peg rods are silver soldered onto the fret rods, 0.4mm silver solder rings are used.

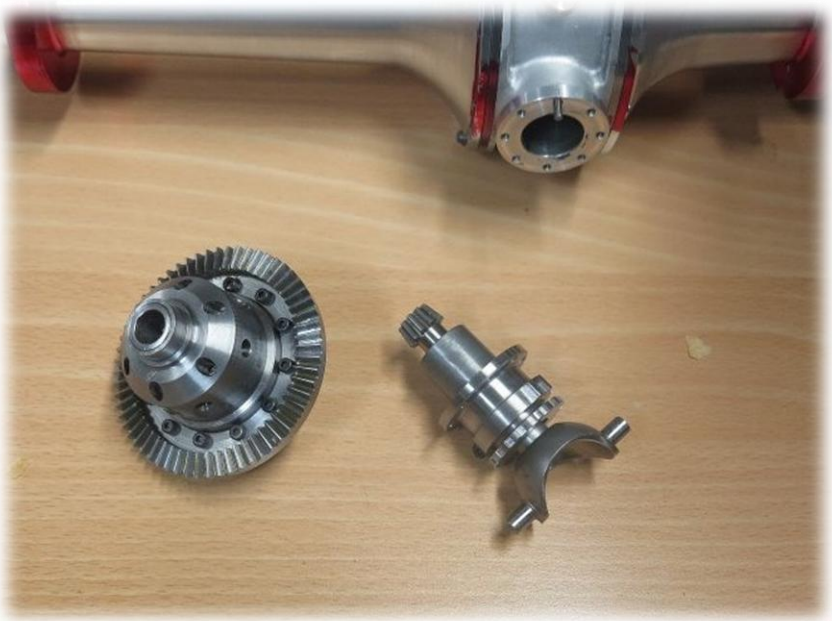
Some Of Richard's Fretboard Tooling.

- **Mike Sayers. The Delage Rear Axle.**

At the Summer "*Bring and Brag*" in July, Mike presented his *Delage* Model Engine and Gearbox, mounted on a completed chassis with suspension springs. Mike said he wanted to add axles, brakes, wheels and 3D printed tyres.

At this, the Autumn '*Bring and Brag'* he brought in the rear axle to show what progress had been made on that.





The rear axle is virtually complete, with the differential gears now machined. The rear axle sections on each side of the differential may look as if they have been machined out of two 4" diameter bars of aluminium, but they have each been machined in two parts.

The tapered axles on each side of the differential have been machined from 60mm diameter aluminium bar, whilst the conical sections have been machined from 4" diameter aluminium. The conical and tapered parts have been screwed and glued together with *Loctite.*

The thread used was 32mm diameter with 32 threads/inch.

This method of construction is more economical, and Mike was able to use up material he had on the shelf.

The areas marked in red are areas where excess material has been left on, so metal can be removed to allow the attachment of the shock absorbers. The photo above shows how the material has been removed from the nearside flange on the axle, to create the lug for the shock absorber attachment. Also, you can just see the joint line between tapered and conical section.

Questions and Answers.

Q: How do the springs locate onto the axle?

Mike: As can be seen, on each side of the rear axle there are two trunnions and the section between is parallel, on an otherwise tapered shaft. There is a ridge in the middle of this parallel section. The springs then fit between the trunnions, on the parallel sections, and the springs are clamped to the axle.

One of the tricky bits of machining the axle taper, was that flanges and trunnions cause interruptions. The taper has to be consistent all the way through from end to end.

The trick to do this right, was by setting the lathe cross-slide to zero at the start of the taper. Then the taper was machined to the flange. The cross-slide was again set to zero on the other side of the flange and the machining process repeated. That worked reasonably well. Working on the diameters, the taper had to be set up to the included angle of the taper, not the half angle.

- **The N.A.M.E. (Northern Association Of Model Engineers) Newsletter Now Available For Download At The Link Below.**

The Northern Association of Model Engineers
(Founded 1945)
An Association Promoting Model Engineering Through It's Member Societies

The NAME September 2025 newsletter is now available to download on the new website here:

https://www.nameuk.org.uk/newsletters/

This edition is **24 pages** long! and well worth a read.

Also reminder about the upcoming **delegates meeting**:

To be held on Saturday 25th October 2025
At the Royal Oak Public House, at Ockbrook
Nr Derby DE72 3SE

Share on social

Check out the N.A.M.E. website at this link: Northern Association of Model Engineers

Contact: If you would like to contribute to the Newsletter, the contact is:
Nevile Foster Tel 01751 474137 or e-mail nevf123@outlook.com