# NEWSLETTER September/October 2020

**Hello everybody,** once again welcome to another Newsletter. Sadly, not a lot to report.

We had another lunchtime social meeting at *The Middleton Arms* at the end of August, and everyone took advantage of the *"Eat Out To Help Out"* scheme. About 20 people attended and went away well refreshed and content after a bit of chatter.

**Club Meeting Wednesday 7th October At Pickering Memorial Hall.**

The next actual gathering was our first evening meeting at The Memorial Hall in Pickering. Considering the recent upturn in Covid, it was a small but friendly meeting, and I was pleased to hear that we are all in good health. We hired the Main Hall because we weren't sure how many would attend, our chosen room (The Mill Suite) had a new limit of eleven persons. Eleven people came, so the choice was the correct one. The acoustics were pretty good and I am pleased with the new venue.

It is looking unlikely we will be holding the AGM there and we will more likely use 'Zoom'. I am sorry that it's not possible to suit everyone, but those without internet access will be able to join in by telephone if they wish. As Bob says " Times they are a changin' ".

We had an email from a chap offering the club three very nice models that his late father, a dentist in Scarborough, had made. These had survived a few house moves since he died. The models ranged from 'almost running' to 'requiring completion'. We gratefully accepted. It was decided to offer the models to individual members, and after considerable interest was shown, it was decided that the best way to allocate them was with 'a draw'. The lucky winners were Tony Leeming, Nev Foster and Ken Hillier. A modest donation was given to *The Red Cross*, the late dentist's charity of choice.

Like buses coming one after another, we were contacted by someone else with bits and pieces to clear out, and again had a draw to distribute choices. This time, one member was lucky three times. I expect he will be buying a lottery ticket tonight! One of the bits and pieces was a home-made tool hone that will be for members' use in the club workshop when we get up and running again.

This might be of interest to anyone with a lathe without an integral gearbox, or missing a change wheel or two. I came across a calculator on the brilliant www.lathes.co.uk website. The input is: i) the leadscrew pitch or tpi, then ii) the teeth numbers on gears available, and then iii) the desired pitch or tpi of the thread required. 'Calculate' is then pressed and there's a choice of combinations and corresponding errors available. Handy for cutting metric on an imperial lathe without a 127.

I don't know about you, but I don't seem to have got much more done, considering I have not been anywhere this year. The good news is I haven't been bored. The Rudge motorbike is very slowly getting put back together, and I am looking for someone who is good at coach lining. Do you know anyone?

*Stay safe everyone, Jonathan*

As Jonathan says above, considering the circumstances, the club meeting was a very interesting evening, and although only eleven suitably distanced members attended, there was a lively atmosphere with presentations and much active discussion. We heard that Chris Irvine's son has signed up to be a PEEMS member.

Thanks to presentations from Peter and Chris Bramley, David Hampshire, Mel Doran and Paul Gammon. Their contributions have been written up on the following pages.

Thanks to Jonathan for ensuring the area was 'Covid Regulated' with the appropriate signing in, and for cleaning down the tables and chairs prior to, and after the event

**PEEMS AGM 2020 ~ Calling Notice**

At October's committee meeting it was agreed that the 2020 AGM would be by 'Zoom'. For those members, who can visit the web site to read the newsletter, the Calling Notice will be e-mailed to you. For those members who receive the newsletter by post, the Calling Notice is included in the envelope with the newsletter.

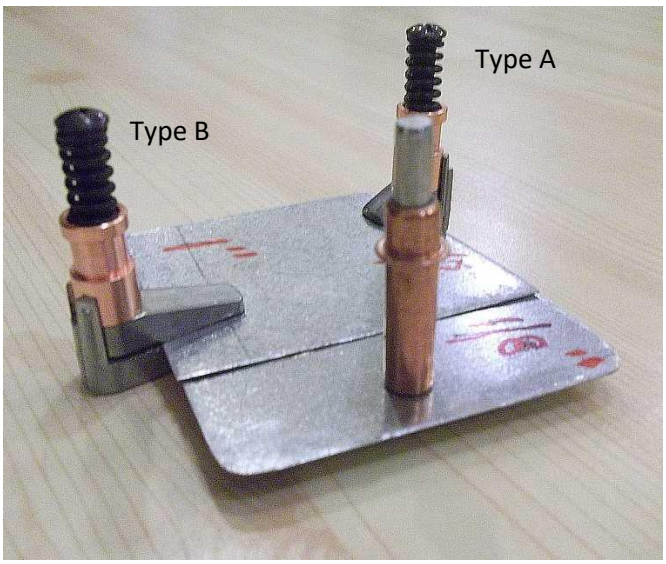
- **Chris Bramley ~ *Cleco* Fasteners For The Temporary Joining Of Metal Sheets.**

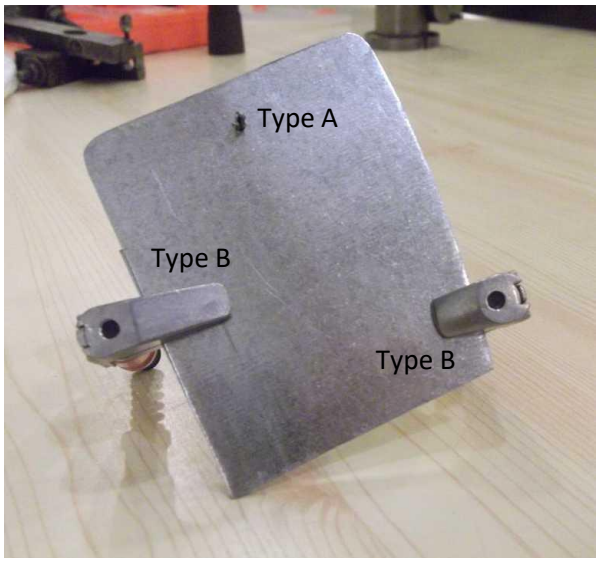
  Chris recommended the use of *Cleco* fasteners for the temporary joining of metal sheets prior to riveting or bolting. These were originally used in the aircraft industry where skin panels were joined to frames. They are easy to use. When an aircraft was being skinned hundreds of *Cleco*s were used to temporary hold the panels in the correct position to the frames prior to riveting.

  Chris first came across these when he worked at Hawker Siddley in Brough in 1964. He was working in copper smithing/pipe bending department. He then went on to work at Slingsby Sailplanes where *Cleco*s were used on aluminium parts.

  Chris showed two types of *Cleco*s. One type was used to hold the panels together through predrilled fastener holes (Type A) and the other clamped the panels together away from any fastener holes (Type B). They are both activated by special pliers.

  The Type Bs apply 60 pounds of pressure. *Cleco*s are very useful in the modelling world. Type A *Cleco*s go up from 3/32" to ¼" diameter in 1/32" increments.




  There is a YouTube video on the use of both these types of *Cleco*s here:

  https://www.youtube.com/watch?v=DA1cMkTAgzs

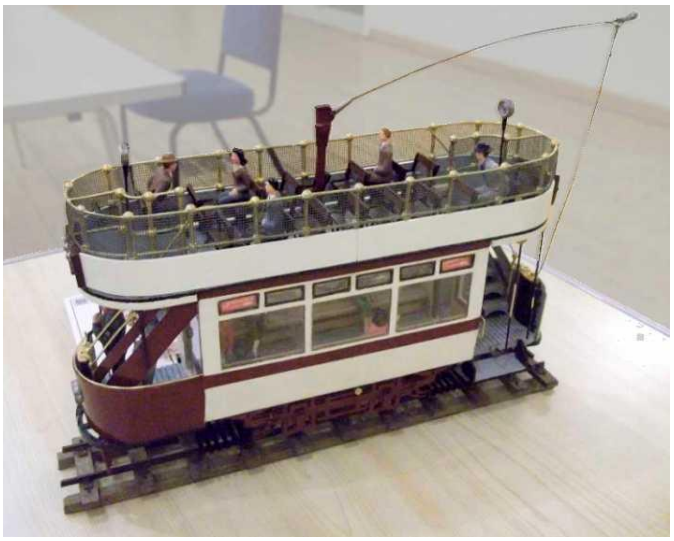
- **David Hampshire ~ Battery Powered Tram (London County Council No. 106).**

  Since the 1970s David has been building model trains with battery powered engines (12 to15 all told) and 60 odd wagons. Last year he told his wife he wouldn't build anymore due to lack of storage; however, he couldn't resist this kit from *Hobbies*. It is made by a Spanish company called *OcCre*. They were being sold off cheap, and David has always wanted to build a tram, so he bought it just before Christmas, with the idea of completing it over winter. He has been in "lockdown" since January and has only just completed it.

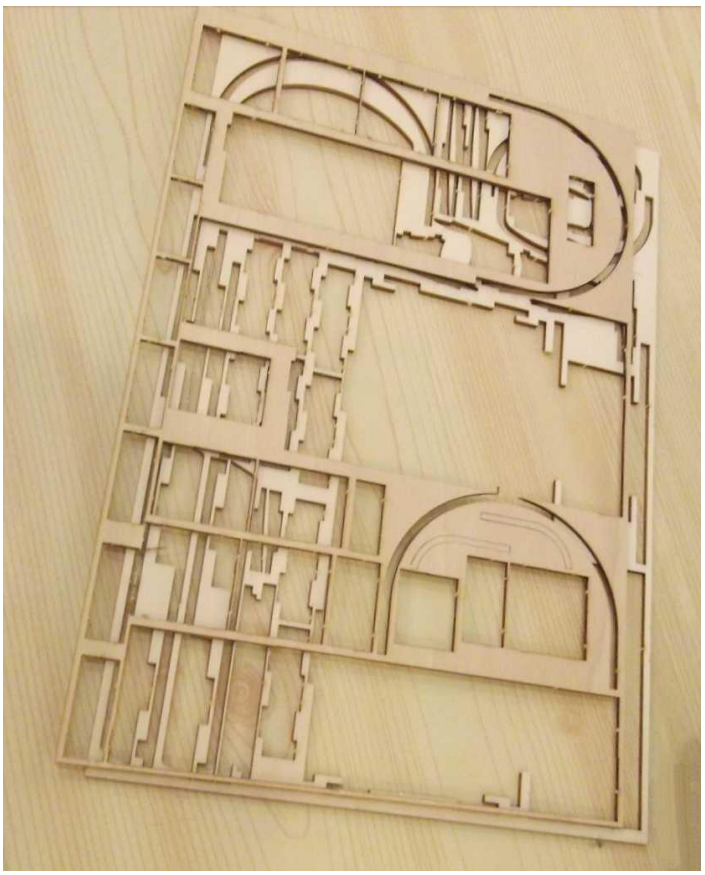
  Why Davis is interested in trams, is because as a boy he lived just outside London. His mother used to take him and his sister up to London for a day out. They used to catch the "Workmen's Train", because it was the cheapest, but it got very crowded. They then went to the famous teahouse at London Bridge for breakfast. They used to then ride around London on the trams. He was fortunate that on one day when they went there, he rode on the trams on the last day they went under the Thames. He came across the trams many years later when he worked in India, with his headquarters in Calcutta, which was where all the London trams ended up. You can go for miles on these trams. If you went out of Calcutta first thing in the morning, you have the tram to yourself. You could travel for an hour or two, come back and you would miss all the crowds.

  When David bought the kit, he had no idea what he was buying. He has been used to making his railway rolling stock, but compared with the tram, was very simply built from scratch, with just the wheels, gears and motors being bought in. This was a new 'adventure'. This was designed as a static model that was not intended to run. However, David thought he would like it to run on his garden railway, which was the object of the exercise.

The project has taught David a lot about different materials. One such material, which he has never come across before, is plywood, which when soaked in water can be shaped, and then keeps that shape when it dries. This is how the curved end panels on the front and back of the tram are made. He found a paint tin which was just the right diameter to shape the plywood.

There are nearly six hundred parts in the tram. It comes in six sheets of plywood, where the parts are presented in a very efficient pattern with parts inside parts, for example. David uses ordinary commercial paint. His railway is painted with outdoor paint as it has to withstand the weather, although modellers' paint would give a better finish. He has learnt some things, for instance, how to glue brass wire to ply wood. It is quite tricky, but *Bostick* or *Superglue* is the best.




Everything moves, including the doors to the cabin inside which slides across. The London tram still exists at the tram museum. It is called London County Council (L.C.C.) No. 106. *OcCre* don't just make trams they make engines and sailing ships etc. The figures were bought from Taiwan. Unfortunately, there isn't an overhead wire on his garden railway. When the tram got to the end of its journey, the conductor would go to the top deck and move the trolley pole around, and tip all the seats to face the other way. The seats tip on the model. It took about an hour to finish each of the seats on the model.

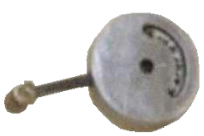
It is designed to run on a 45mm track width (Gauge 1). It is basically a “G” scale model. The scale in the garden is 16mm to the foot with a track width 32mm. David bought wheels and built his own power unit into the base. He also buys gear wheels. In the 1970s when he started, it was easy to buy gear wheels from “*Bonds Of Euston Road*”. When the proprietor retired, there was a period when you couldn’t buy cheap gear wheels. With the advent of laser printing, however, gear wheels and gear boxes can be easily printed. That was what was used to build the tram running gear. The wheels are set to the track width of the garden railway which is 32mm. This goes back to the 1930s when Welsh engineers were trying to make working steam models of Welsh narrow-gauge engines. In the 1930s the only model railway track available was the old ‘O’ gauge tin plate. ‘O’ gauge is 32mm track width.

David belongs to the *16mm Narrow Gauge Model Railway Society* of which there are 4,000 members. There are a dozen layouts at York, and there is a big one at the *York Engineering Society*.

- **Paul Gammon ~ Steam Brake Valves And The Importance Of ‘Lapping’ Mating Surfaces.**

  Paul said that when dealing with 5” gauge railways, sometimes steam regulators and steam brake valves are ineffective because the mating surfaces of the joining parts are not flat. Sometimes they seem good enough when they run on steam, but as soon as a boiler test is carried out with water, they leak.

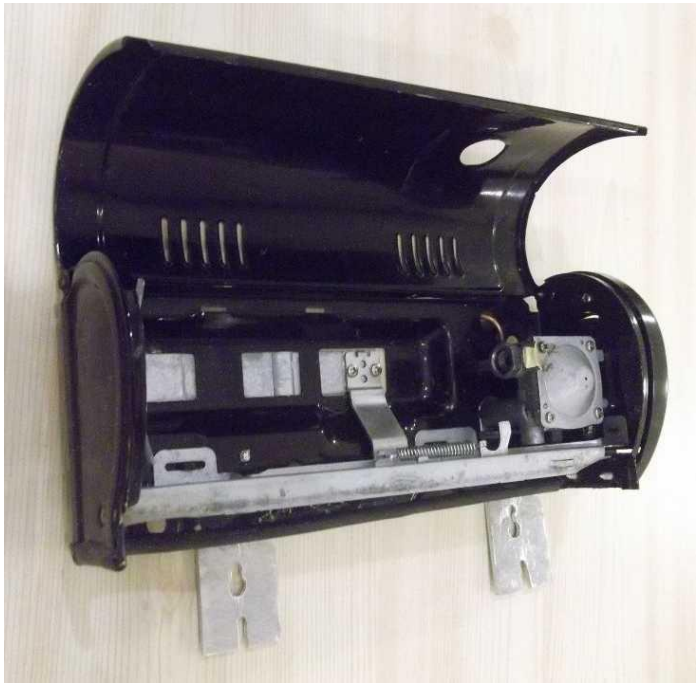
  Paul always laps his surfaces so has never had a problem. He brought in an example of a steam brake valve (which is the same as a regulator) which had failed, and the stainless-steel surfaces were not flat.



Paul is going to lap these surfaces. Lapping is where 'high points' are removed from the flat, ground or turned surfaces. Paul learnt 'lapping' at *Monotype*. There, even some of the tooling jigs were lapped where components slid together. Paul had to work to very tight tolerances. The most accurate job Paul had to do was -0.0 +0.03thou on two GO/NO-GO gauges for 3" diameter. There was a 'lead on' chamfer, then a 1/16" flat, then a 'V' undercut behind that for wear. Care had to be taken not to wear the end off. It took a fortnight to do four ends, two GO and two NO-GO.

- **Mel Doran ~ Fuel Source For A Gardner 'O' Gas Fired Engine.**

Mel took a Gardner 'O' engine to The Doncaster Show. It was gas fired with a hot tube ignition. He used to run it from a *Calor Gas* cylinder with a length of hose. As soon as the organisers saw that, he was told he couldn't run it there. However, he did notice that other people were running models at the show with canisters of gas.




Mel had a gas canister camping stove, and he thought, I can modify this to provide gas fuel to my engine. All he needed was the canister holder and the regulator. Out with the saw and tinsnips! He rerouted the gas pipe from the gas burner to a position where a plastic tube could transport the gas to the engine. To securely fix the new fuel source, he pop rivetted two 'ally' brackets to the canister holder, slotted them, and then used two Allen bolts, under the engine, to secure the conversion. Hoping to now pass scrutiny!

- **Peter Bramley ~ Lathes I have processed.**

I started model engineering in 1954. I began with a *Super Adept* lathe. This was a cantilever bed lathe of approximately 2 inches centre height, powered by a war surplus inverter. It was housed in a tin roof shed 20 ft from the back door, and the electrics spanning that gap consisted of clear plastic twin core wire from Woollies connected to a 2-way light socket in the house. This was supported by my mother's washing lines and removed at the end of the night.

The mists of time mean I cannot recall much about it now, but I remember it was mounted on a sewing machine table, which I trundled home from near the roundabout; also it was driven by a ¼'' sewing machine leather belt. Because of its light construction, small size and my lack of experience, it wasn't used a great deal.
In 1960 I decided that my main interest was traction engines, due to the early Traction Engine Derbys held at Pickering, and that I would concentrate on making 1½" scale engines, having talked to Lou Rex's father Jack, who offered me his lathe. This had been designed and made at Leeds University as a project for the students. It also came with a ¼'' inch drill mounted on an old dressing table (which I still possess). The lathe was a flat bed with 2½'' centre height, and with 10" between centres. It had pick off gears for threading, the fine feed was by a double cam ratchet moving 2 teeth per rev, and it was driven by a plastic belt (from K.R.Whiston) which after half an hour or so started to slip. This meant that a leather hand was needed to keep it taut. This lathe lasted for six years and produced two 1½ traction engines along with other 'bits and pieces' (an early Dave Clark 5 hit for those who can go back that far).

The latter two years of this period were spent in Aden when the troubles were on. Lots of time was spent considering the future, and after placing an ad in the *Model Engineer,* I acquired *Magnificent Millicent Myford*. May I crave your indulgence in relating how it came my way? Receiving only one reply to my ad, I had to wait until I came back from Aden before I could see the lathe. I arrived home on a Thursday afternoon, borrowed a fiver from my Mother to pay off the taxi from York, and went down to my local garage to see about buying a car. After a little searching around, I found a Volvo in Harrogate (not the P1800 'Saint' sports car I fancied), but an estate car which I collected on the Saturday.

A phone call to the lathe seller saw me travelling down to the South Coast on the Tuesday to have a look at the lathe, and hopefully bring it back the same day. However not being an 'Officer and a Gentleman' (then or now), I had to wait for my cheque to clear. A week later, with my brother Chris, I got it home with a little difficulty. Because of all the gear that came with it, the steering was very light when driving the car. At the first filling station I blew up the rear tyres to nearly twice the pressure and rearranged the weight distribution which improved matters, but the steering was still lighter than I was happy with; needless to say, after a cup of tea it was partially unloaded on arriving home. A suitable bench was next on the agenda so it was down to the local joiner for some 4 by 2 and 6 by 2 to make a 6 foot by 3-foot bench.

Millicent was a *Myford Super 7b* long bed lathe with a quick-change gearbox and power cross feed, mounted at the rear, and the tailstock end was a ½ hp drill with a six speed back geared miller. Among the accessories were the usual selection of chucks, vertical slide, boring bars, tailstock chuck, spherical turning tool and many others. There was also a selection of large short end bars.

Over the years (43) it was modified and many accessories made. Just to mention a few: a rack and pinion feed for the tailstock, a six-position stop, a large number of tailstock accessories (hence six position stop), a *Potts* milling device, and an extra head stock for increasing the centre height, making it possible to turn 12'' dia x 10'' instead of 9'' x1½''. Millicent produced five 1½'' scale traction engines, a 2'' scale ploughing engine (just about), a milling machine and lots of accessories. It was also used for making wrought iron gate items.

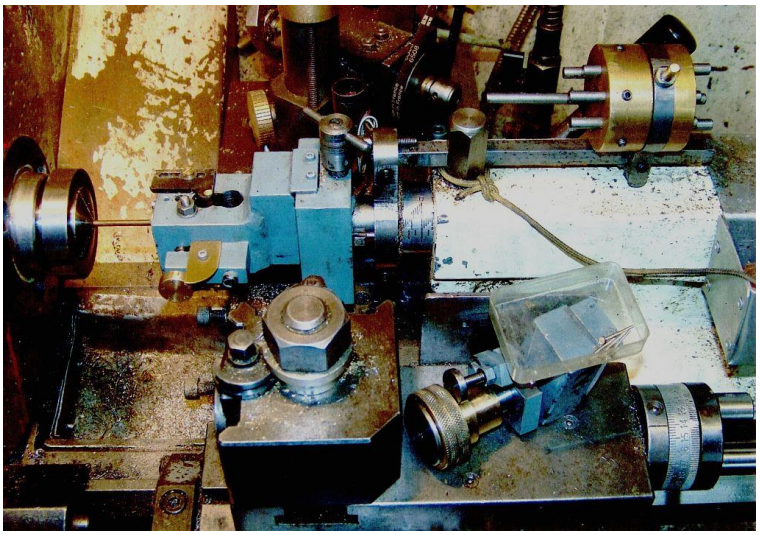
Needless to say, she suffered somewhat over the years, and had to have a number of parts replaced including the bull wheel, the front spindle bearing, the tail stock pad, the lead screw and a bed regrind. In the forty-three years of owning Millicent, she had a number of homes, (five in all), most of them being in converted garages, and for ten years in a custom-built workshop, all of which had no adequate heating.

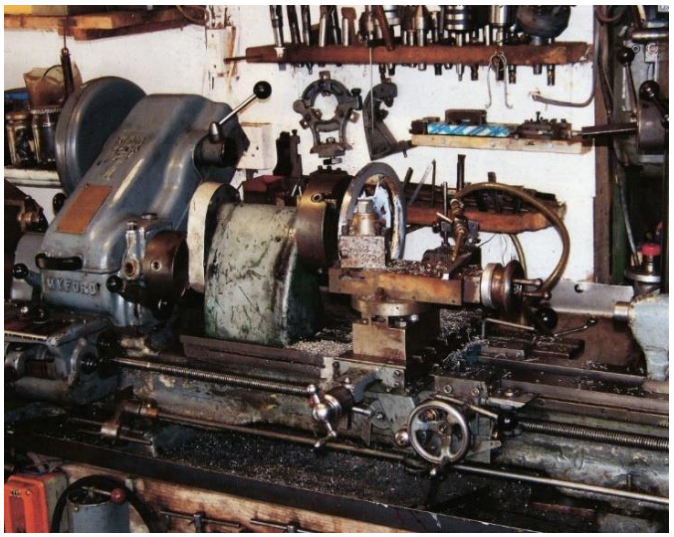
Eleven years ago, it was obvious that the Myford was too small for the type of modelling I was proceeding with, namely three 1½'' scale *Fowler Super Lion* engines. Having joined Bill Sweeting's get togethers, I looked at some of the lathes which passed through his hands, and finally for ten times the amount I paid for Millicent, became the owner of a *Boxford 6''x 18'' 250 IS*. By the way, I sold Millicent for about eight times the amount I bought her for, the only time I have made a profit.

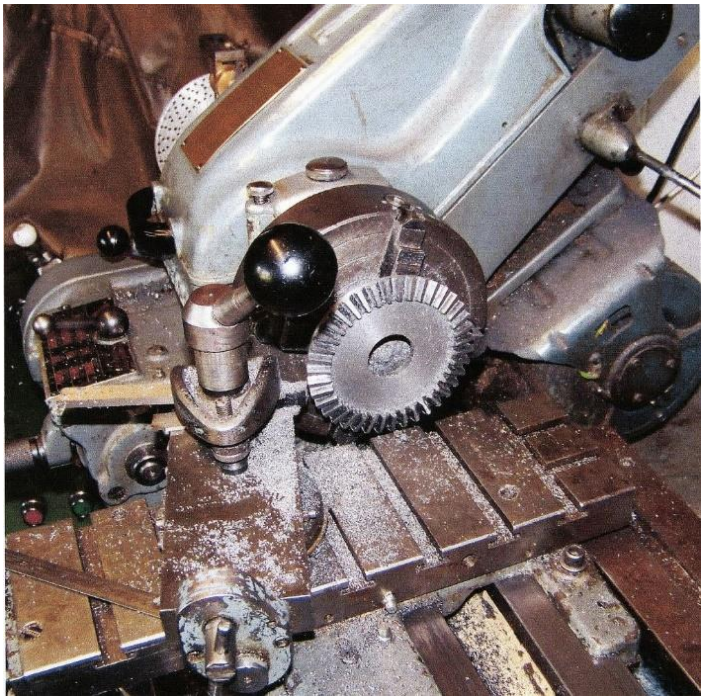
The *Boxford* was fairly well equipped coming with a DRO, collect set, QC tooling, a full parts list; The only disadvantage for an old codger like me, it was Napoleonic instead of Imperial. Again, it was adapted to suit my needs and made such accessories as: head stock, adjustable stop, screw cutting trip, simple dividing plate mounted behind the chuck, a 6-position tailstock stop, modified *Jack Ratcliffe* tailstock tooling (from the Myford), angle plate, spherical turning, and slotting attachment etc.

After about a year's ownership I found the gear change levers would slip out of engagement, or, I couldn't be sure they were engaged. Stripping the lathe down, I found the detents were sticking and were way out of adjustment. Because the lathe was old, about 1970 vintage, everything was tight and presented problems with dismantling. At the same time, I replaced the spindle bearings as they were fairly noisy, and also re-levelled the lathe as described in a previous newsletter.

Now it is quiet, accurate, turning parallel to 0.001'' in 4 inches. Am I satisfied with it after 10 years or so? Yes; but as time goes on, I am sure I will improve it further as was done with my previous lathes. The world never stays the same and neither do any of my machines.





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**In Memory Of Chris Irvine.**

Members will have noticed the shocking announcement in a previous newsletter of the unexpected passing of Chris Irvine.

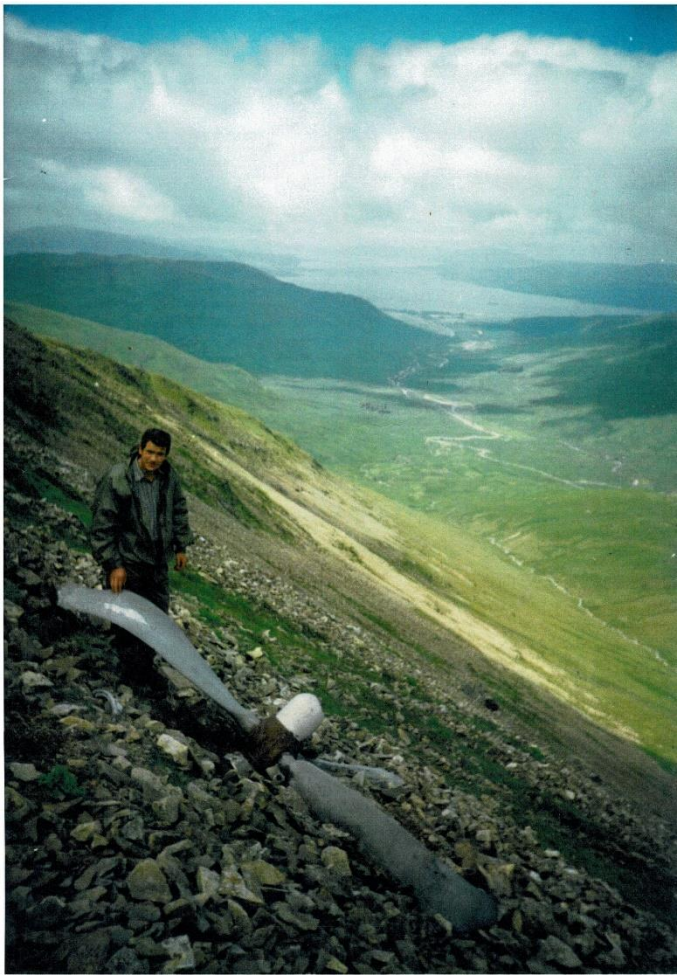
Chris was a PEEMS member for many years. Although his initial attendances were few, latterly he was one of the group chosen by past chairman, Jim Everett, to follow on as a future club chairman. Chris asked for his time to be deferred until his family commitments reduced.

He was born in Dunnington, the youngest of four children, and from an early age exhibited interest in practical engineering. From twelve years old he helped out at a local garage specializing in classic cars, Rolls Royce and Bentley to finance the setup of his first workshop and began a lifelong love of those engines.

Sadly, he lost his father when he was sixteen.

He studied Maths, Physics, Geology & Geography at Fulford then went on to St John College.

He worked for two years at York University Science Laboratories and financed his Private Pilot training at Church Fenton. He then left to take up Air Traffic Control training. He spent the next twenty one years as an Air Traffic Controller at Manchester Airport.



From the age of eighteen he spent his spare time searching for WWII aircraft crash sites and obtained M.O.D permission to excavate and preserve the remains. He designed and built his own six-wheeled all-terrain amphibious vehicle in order to retrieve airframe and engine relics from sites on moorland and mountain regions around the UK.

During his time at Manchester he also designed and built his own Autogyro and began to build up his own formidable collection of WWII aircraft piston engines, both V12 water-cooled and multi-cylinder radials. He was fortunate that, at the time, the military were disposing of all their piston engine spares for scrap and he was able to save a great deal of spares and engines which are now in a private secure storage. His intention was to offer a spare parts service to historic aircraft owners.

After his time at Manchester he and his family, wife Lisa and son James, moved to Edmonton, Canada where he worked as an air traffic controller at Calgary airport.

He returned to the UK in 2004 where he set about extending and refurbishing an old farmhouse single-handedly (with his wife, Lisa's help, of course). He quarried stone from the farmland and constructed a huge reciprocating stone saw from an old two post garage lift to cut up the boulders to make all building blocks, cills and lintels required for the re-building work. Working single-handedly meant that this has taken time but, fortunately, all the main structural work on the project is complete. The amount of work done by him alone is staggering! The farm buildings house the machine tools awaiting the time when Chris could pack up the building work, tidy his workshop and begin working on his beloved engines.

Chris was kind, considerate, ingenious and hard working with a quirky sense of humour.  I asked him once why he chose to work the way he did.  His replied by saying that he was the type of chap who, if wanting a dog, would buy a cat and modify it!  Life was more interesting that way!!!

He was my friend and I shall miss him greatly.

*Mike Sayers*

**Ivan's Shaw's 'Personal Aircraft' G-SEKR's First Flight On Monday The 28th September 2020.**

The PEEMS Newsletter has been following the progress of Ivan Shaw's "Personal" single seat, pusher prop aircraft G-SEKR.

After many months of 'fettling and adjustments', and after final clearance from the Light Aircraft Association (LAA) regulatory authorities, Monday 28th September 2020 was a "red-letter day" when G-SEKR finally took to the air from ex RAF Church Fenton (Leeds East Airport).

As is usual on a first flight, the landing gear was not retracted, and the aircraft was taken on a long circuit of the airfield. Unfortunately, an engine warning light came up, and the flight had to be aborted.

Although Ivan likes first flights to be private affairs, the flight was recorded by someone at the local glider club with some shaky camera phone footage (see below). However, Ivan reports that the handling was good:

*"You cannot do anything these days without being caught on camera!! Sent this by a friend just hours after the flight!!*
*Carried out the first flight on the Seeker today. Aircraft handling and stability felt good, very easy to fly, controls being sensitive but not twitchy…..a real RED LETTER DAY! Just delightful!!*
*Cut the flight short due to warning light on engine! Will update after next flight hopefully with video and photos".*

A dongle was used to download engine diagnostics, for investigation. The next stage will be to retract the gear and explore the flight envelope.

The camera phone video of the first flight is here, click on link:

https://www.youtube.com/watch?v=ERcrOm_we3M

Note: Please click on back arrow at the top left of screen to return to the newsletter

*Photograph and Video reproduced with kind permission of Ivan Shaw.*

**Straight Liners At Elvington ~ A Report By Paul Windross.**

I was at the Elvington records last weekend (27th September). The wind was a bit dodgy for some riders, but various class records were broken or established.

The outstanding moment was Jason Liversidge's electric wheelchair record at over 60mph (see below). He can only move his left hand and cannot talk as he is paralysed.

Thanks to Graham Sykes and friends, a safe record attempt wheelchair was made for Jason.

I was watching Jason's run and heard his two very young children say "I am going to watch Daddy run".

Please click on the links to see records:

**<u>One-way speeds which shows the one-way record for each class</u>.**

- **Flying start quarter mile**
  https://app.box.com/s/dkjekq7qzw61n81yga8be5oh70ynbwa3
- **Flying start kilometre**
  https://app.box.com/s/osx7yqi61uovlb7f58hjjrijlr7ke6gz
- **Standing start mile**
  https://app.box.com/s/3q7ydsq0ubqhunythonif9t58goc4zhu
- **Guinness World Record attempts**
  **Note:** See below. There are some very interesting "vehicles".

**<u>Two-way averages</u>:**

- **Standing start mile - ACU classes**
  https://app.box.com/s/y5t7g9qcbqzejeg4waas1z5vyrl8xg9y
- **Flying quarter mile - ACU classes**
  https://app.box.com/s/i1jbt1ua00kbtoa6dzggcp40cqrp6zsf
- **Flying kilometre - ACU classes**
  https://app.box.com/s/ef7b99y23w7ytn5u1pk239762bo6j6fa
- **Standing start mile - Bonneville classes** https://app.box.com/s/yfux8yfmdn8mpouqbjmzoqjkcaoiq270
- **Flying quarter mile - Bonneville classes**
  https://app.box.com/s/0ie0hvmic2wicfzpd92bsag6x6jizl53
- **Flying kilometre - Bonneville classes**
  https://app.box.com/s/lgswrdb977vorwoqm0jnet9pskct87ee

## GUINNESS WORLD RECORD ATTEMPTS

### Elvington 27th September 2020

Weather Cold, windy — Timekeeper Straightliners Crew

| No. | Name | Machine | Best | s1 | s2 | s3 | s4 | s5 | s6 |
|---|---|---|---|---|---|---|---|---|---|
| **Electric All-Terrain Mobility Vehicle (Prototype)** | | | | | | | | | |
| G1 | Jason Liversidge | Electric Wheelchair | 66.826 | 51.338 | 52.748 | 66.826 | | | |
| **Garden Shed** | | | | | | | | | |
| 208 | Kevin Nicks | Fastest Shed | 106.123 | 105.769 | 106.123 | | | | |
| **Monowheel** | | | | | | | | | |
| 216 | Mark Foster | Trojan 300cc | 50.669 | 50.669 | | | | | |
| **Motorcycle Handlebar Wheelie** | | | | | | | | | |
| G4 | Jonny Davies | Suzuki GSXR 1000cc | 95.116 | 86.712 | 95.116 | | | | |
| **Motorized Toilet** | | | | | | | | | |
| G7 | Thomas Ellis | HAWC MK1 | 44.706 | 44.706 | | | | | |
| **Wheel Barrow** | | | | | | | | | |
| 208B | Kevin Nicks | Barrow of Speed | 45.089 | 37.048 | 45.089 | | | | |
| **Wheelie Bin** | | | | | | | | | |
| G2 | Andy Jennings | Wheelie Bin 110cc | 43.353 | 35.161 | 43.353 | | | | |

**Zef Eisenberg.**

By now most of you will have read in the national news that Zef Eisenberg was tragically killed in his Porsche 911 at the end of a run at Elvington. He was a very well known “Straightliner”, and record breaker.

For your interest, his family have put up an official statement on his Facebook Page. It is a very inspiring story.

https://www.facebook.com/StraightlinersNewsChannel/photos/a.1290652681105508/1549117731925667/?type=1&theater

**Items For Sale.**

- Small compressor (5 litre tank capacity). £15
- Aircraft winch (vintage) 3/8’’ by 100foot cable weighs about 1 cwt. £15
- 1/8’’ wire cable to your required length at 5p per foot
- Threading compound, 35mm film canister approx 50 pence.
- *Union* two cutter grinder.
- Set of Whitworth spanners ¼” to ¾” (combination spanners).

**If you are interested please contact Peter Bramley.**

- A *Mercer* bore gauge. Looks hardly used. About 150mm to 225mm with an extension. Require £50.
- Also a *Starrett* internal micrometer up to 800mm. Require £30.

They would have to be collected from York.

**If you are interested please contact Paul Windross.**


Bore Gauge and Internal Micrometer

**Contact:** If you would like to contribute to the Newsletter the contact is:
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