NEWSLETTER October 2018

FORTHCOMING EVENTS

- **Club Meeting:** Wednesday 7th November ~ Annual General Meeting (AGM)
- **Workshop Morning:** 20th November 10-12 noon
- **Club Meeting:** Wednesday 5th December ~ A Slide Show About The Development Of The Marshall Tractor by Bridget Laycock.
- **Visit To BHI Upton Hall:** Monday 10th December (currently being planned).

1) CLUB MEETING: Wednesday 3rd October ~ *'Bring and Brag'* Project Presentations.

The tables were set for the evening's *"Bring and Brag"* project presentations, where there were eleven exhibitors. Before the presentations, there were some announcements by the Chairman David Proctor :

- **GDPR:** Most forms are now in, with some received back in the previous week. David read out some names for those who still hadn't returned their forms, so that people could remind them. For those members who live far away, David has posted the forms to them.
- **Outings:** The next outing, was announced at the previous meeting and this is the visit to the BHI (British Horological Institute) *Museum of Timekeeping* at Upton Hall near Newark. This is planned for Monday 10th December. Richard Gretton will be organising this. It will cost £10 per person, assuming a minimum group of 10 people. The tour of the workshop is possible, but that will depend on the situation on the day. David asked for names and deposits for those people who would like to go. Eleven people showed interest on the evening. There was then a discussion about travel to the venue. A 29 seat *Fletchers* coach will cost £400, a smaller coach would cost marginally less (the main cost being the driver). A coach from Pickering is being organised. Details to be advised. Of course, the people attending could be supplemented by guests and/or other groups.
- **Rolls Royce (Derby): Neil Shute Norway and R100 Airship Lecture ~ Wednesday 21st November**

  Details:

  End of Season Lecture

  Start: 17:15 hours
  Location: Derby, United Kingdom
  Address: Learning & Development Centre, Gate 5A, Wilmore Road, Derby DE24 9BD

  Neville Shute Norway and the RR-100 Airship

  Roger Alton

  Register: http://endofyear2018.eventbrite.co.uk

  Nevil Shute (Norway) the author wrote some very interesting books. David said that his last book *'Trustee From The Toolroom'* was very enjoyable, especially during a voyage with the Merchant Navy. There are local connections with Nevil Shute Norway: he was the 'Chief Calculator' (Stressman) under Barnes Wallis on the R100 Airship, which was constructed at Howden, East Yorkshire, and he cofounded the aircraft company *Airspeed Ltd* which operated out of the old tram shed in Piccadilly York.

- **The Railway :** There have been discussions in committee on how to keep the railway going. The issue has been discussed previously at club meetings, and the problem seems to be the lack of able bodied members willing to turn up to help out at events. This year, the Ryedale and Malton shows covered the costs for another year. This was only possible at Malton due to the *Young Farmers* installing and dismantling the track. The current thinking is that if the railway is operated and makes money, after costs, sharing profits with a local charity should be considered. The reasoning is that if a good cause is being supported, more volunteers may be encouraged to attend the railway deployments.

- **The Workshop:** There is a small Axminster C2A-300 mini lathe with a basic digital read out currently residing in the workshop. This was donated to the workshop, so there is a reluctance to sell it. However, if anyone is interested in storing or leasing it, please let David Proctor know.

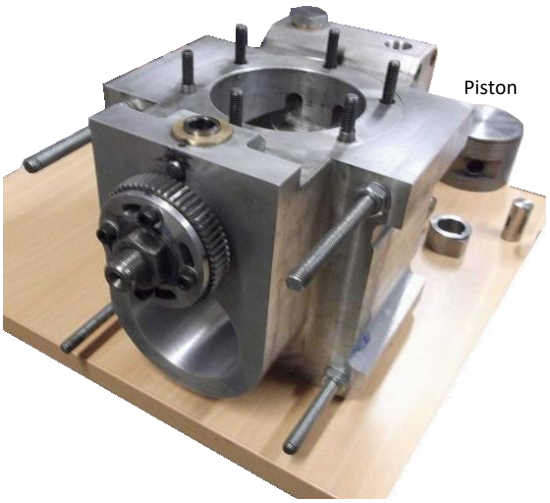
- **Keith Sleightholme** : David received the sad news that one of our members, Keith Sleightholme passed away on the 21st September. Keith was a valued member and will be missed. PEEMS would like to extend our sympathy and condolences to Keith's family at this sad time.

  PS: At the time of his death Keith was trying to dispose of his 3" Burrell Traction Engine. If anyone is interested in acquiring it, please let David Proctor know.

***'Bring and Brag'* Project Presentations**

a) Paul Windross ~ Steam Engine For A Motor Bike Or Three-Wheeler.

Assembly showing head and valves (including holding mandrel)



Piston

This is a full-scale version of Paul's model flash steam engine. There is still a lot of metal to remove, but the basic dimensions on the internals have been done. Paul has been using a light-milling machine, so the job has taken time. The cam followers are tipped with *Stellite* (a cobalt-chromium alloy). Seen above are various cams with different timings, and a pressure release valve. The piston (a drag racing design) is very heavy at the moment and will need more work.

Paul found that the model 14cc engine running on compressed air wouldn't start until there was a pressure of 140 to 150psi. With the full size engine not being a self-starter, a kick-starter may be necessary. These engines start very easily once the steam pressure is up. Paul wasn't sure what temperature he would get it up to, but he doesn't think it will be as high as the model. The full-scale valve is the same material as the model. Putting red heat on the valve head increased its length by 11thou. This means that the valve clearance when running will need to be around 12 - 13 thou. Any clattering of the valves will be drowned out by the engine! The engine will have just over 270cc capacity, and the piston stroke is 50mm, which is very short. Paul is hoping to get 5,000 to 6,000 rpm out of the engine. The model engine flat out got to 15,000rpm, and that's with cast iron pistons. Paul is hoping to put the engine into a motorbike or three-wheeler. He is building the generator and might have the tubing he needs. He hopes to run the generator at a pressure of 1000psi.

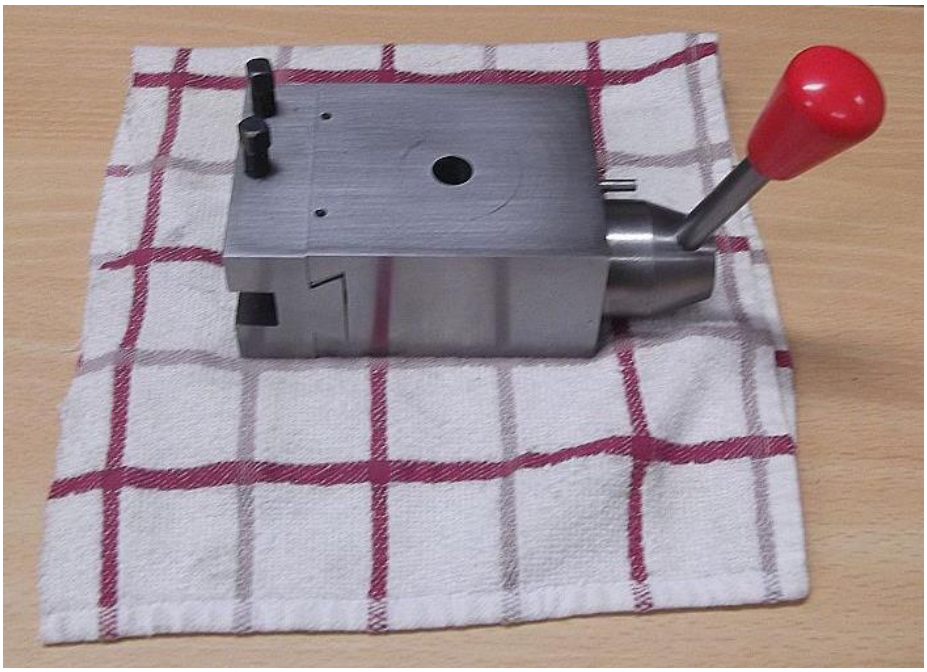
b) David Hampshire ~ Progress In Garden Railway Rolling Stock

Some of these items have been displayed before. David is trying to encourage his grandson to start modelling. The engine came in kit form, but unfortunately, the switch on the engine packed up and had to be replaced. David put a stronger switch in with an on/off switch at the top of the engine. His grandson didn't want the cab on the engine, so the cab was made into a guard's van. David bought a lot of 3mm thick MDF and his grandson used that to make the small flatbed wagon between the engine and guard's van. Another small flatbed will be made to complete the set.
The log wagon was displayed in February, but it was in pieces. His grandson glued it together, painted and completed it. This is also in 3mm MDF.
David challenged himself to make a complete wagon. He has about thirty wagons at home in 2mm ply and stripwood, so he built a wagon from 3mm thick MDF, with the exception of the aluminium underframe which gives the wagon its strength. 2mm plywood can be bent to form roofs, but 3mm MDF can't. MDF apparently doesn't like water. David dropped a piece into boiling water until it became soft, put it in place on the roof, strapped it down and heated it with a hair dryer. With that technique he managed to make the roof. 3mm thick MDF can be cut with a Stanley knife.
Finally, David decided to buy a kit of hopper wagons, buying four for the price of three. As seen three have been completed and there is one to go.

c) John Heeley ~ Oscillating Engines vs Piston Valve Engine.

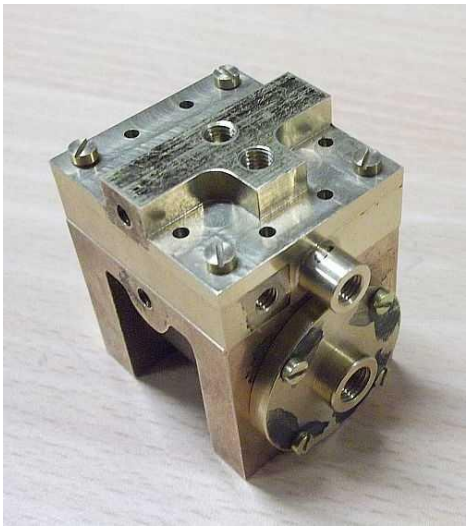
John has been playing around with these oscillating engines for a year now. The inlet port cannot be opened until the piston is well after top dead centre. The intention was to build something which is made on the same principle. It is made from aluminium, for convenience. It is held together with adhesive screws and bolts. At the back of the engine, John has managed to include an eccentric to drive a piston valve. With a piston valve, the inlet and exhaust can be controlled. The valve cuts off at 60% piston stroke. This is the sort of percentage you get with a fixed valve gear on a stationary engine, like a *Stuart Turner* for example. It has very similar performance to a *Stuart Turner* of the same size. *Stuart Turners* are trialled at the Barnsley club so comparisons can be made.
Looked at in isolation it is nice little engine, it runs smoothly and quietly. The troubles only start to come when it is compared with an aluminium oscillating engine, which has the same bore and stroke, but is much smaller, with fewer components and machining. The oscillating engine will run quite happily on 15psi, and with 10cc of fuel it will run for 20 minutes on a remote control boat moving at 4mph. In comparison, the other engine needs a bigger boiler as it needs 30psi to run and to do the same distance at the same speed it needs four times as much fuel. The question is, why is the oscillating engine so good? This is a question John can't answer. There is something about oscillating engines where the scale factors seem to be working to an advantage, which is unusual. They seem to be more efficient than they have right to be. The only thing than John can put this down to is that when the oscillating engines are running, there is always a film of vapour visible between the cylinder and the port block. This happens with all oscillating engines. It doesn't matter how carefully the surfaces are homed in order to put the cylinder and port block together, there is always that film. John thinks that the vapour acts as a lubricant. The crankshaft is on ball races so there is very little resistance there. It appears there is no wasted energy, it's all going down the prop shaft. It is not that the piston valve engine has poor performance, it is just that the oscillating engine is three to four times more efficient in terms of fuel use. There was some discussion as to why the piston valve engine was less efficient, for example more friction in the system.

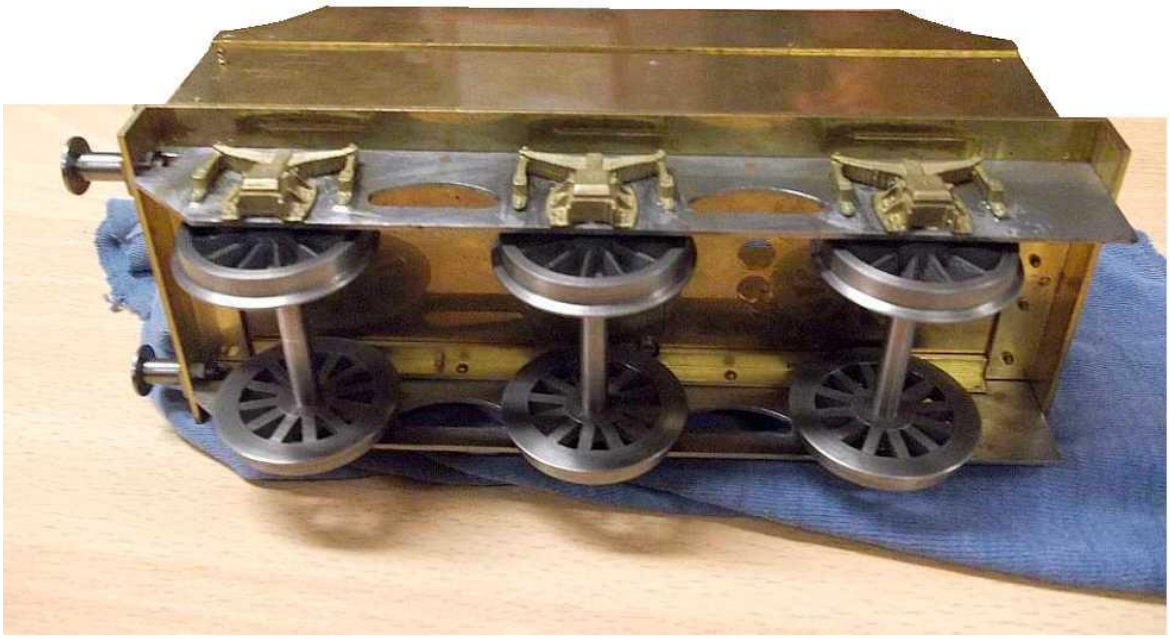
d) Brian Stephenson ~ Screw Cutting Device For Lathe Cross Slide.



Brian said that when he gets magazines, there's always a gadget in there. He looks at these and thinks "that's a good idea, I'll make one of those". Normally the gadget is made, used and put away in a cupboard, but this screw cutting device is invaluable and always in use. This tool greatly improves the screw cutting process by simplifying the actions needed, and eliminates the risk of forgetting the cross slide setting during thread cutting. This is especially important when backlash has to be taken account of. The good thing about this device is that it doesn't need setting up.

e) Colin Bainbridge ~ Tender, Wheelcasting and Cylinder For A *'Gauge One'* Locomotive.





This is a tender for a *Gauge One* project locomotive. *[Gauge One is 1/32nd scale which runs on a 1.75" (44.5mm) track].* The project locomotive is a design that the *Gauge One Club* came up with as a starter engine for people to 'cut their teeth' on. Colin started this project about ten years ago, thinking he would complete it fairly quickly! Steam locomotives are Colin's interest, but mainly of the 3½" and 5" gauge sizes.
Colin started the *Gauge One* project because at the time his workshop was being constructed, and he wanted to get on with something.
Colin has had experience with '*Bring and Brags'* at other clubs, and the patina on some of the models gives a good indication of how long each model has been in the making! The tender here has a good patina on it, as once his workshop was finished, this got put back on the shelf so he could concentrate on the bigger gauge models, and the *Gauge One* gets worked on from time to time.
The real reason for bringing the model to this particular '*Bring and Brag'*, was that the tender is a laser cut kit from *Model Engineers Laser* (www.modelengineerslaser.co.uk). For anyone who hasn't seen their work close up, this bears scrutiny.
The way they provide platework is in a fashion, they claim, that once the kit is put together, it only needs to be sealed with sealant rather than solder, because their joints are so accurate. They use a 'tongue and slot' arrangement on the joints. A close look at the tender shows the 'tongue and slot' joints in the sides, as well as the underside. Colin wants to solder it eventually, so that is why he has put it together with brass angles, which in itself was a learning process.
The reason for bringing the wheel was to show that *Gauge One* castings, unlike the bigger gauges have 'plenty of meat' on them. Colin doesn't know if this is the biproduct of the size of the castings or the method of manufacture. The casting for the wheel is a 'shell casting'. The photographs on the previous page show the wheels before and

after work. Colin proved to his satisfaction that there was so much extra material left on the tender wheels he took a good slice off with a hacksaw before even turning them on a lathe. In their favour they are cast iron and machine very easily without any issues.
Colin also brought along the cylinder for the *Gauge One* locomotive project. The engine has a single cylinder in the middle of the frames. The cylinder is very much the same story as the wheels. The main body is a gun metal casting, and it had so much draft on it before he started working on it, that he thought he could save a lot of machining time by taking a hacksaw to it beforehand. He ended up taking four slices off the block before putting it on the lathe. The bore itself is ¾". Even though it was a casting it wasn't cored, so with the various machining operations, the weight has been reduced by a least 25%.

f) Ted Fletcher ~ Rotary Table Controlled By An Arduino Microcontroller.

This is the control system that that Ted first presented at a mini Bring and Brag last March.
The control system was based on an article in the "Model Engineering Workshop" which Ted decided to make. The rotary table can be rotated at preselected angles or divisions. The divisions are selected on the keypad and the Arduino Microcontroller controls the rotation of the table. This is especially useful for operations which require machining operations at certain positions on a diameter, for example gear tooth cutting. The 'D' on the key pad is used to divide the rotation into divisions. For example, if a 20 teeth gear is required, 20 is entered and the table will step around. The number of divisions can be altered quite easily.

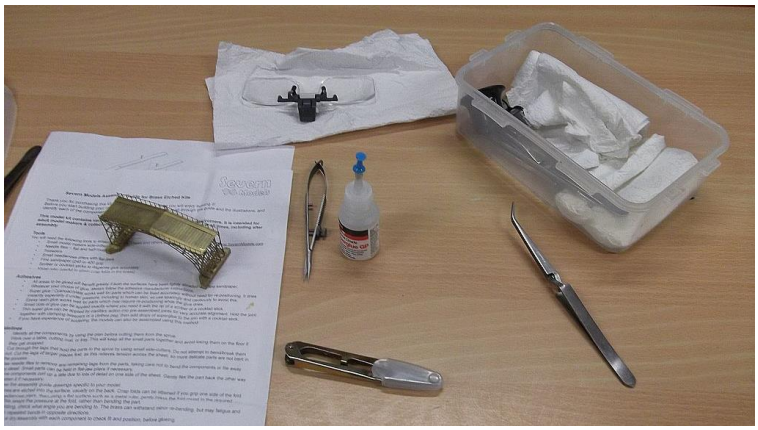
The operation of the table is shown at this link: https://www.youtube.com/watch?v=LT3VZMEKdi4
Use the back arrow to return to newsletter. ⟵ . There is a more detailed description in the March newsletter

g) David Hick ~ An Oscillating Steam Engine



This is an oscillating steam engine by Tubal Cain. David has been working on it for the previous two weeks, and he needs to ask someone who knows more about it why the meths burner doesn't work as well as the gas.
Someone at the meeting suggested a baffle plate across the opening with a small hole in it to let in air might work.
The barrel of the boiler was formed by tapping the copper on a former.

h) Ron Baier ~ A Model Of *Iron Bridge*



Ron went to the York Race Course *Dolls House And Miniature Fair* and admired the models on show. Next thing was he got this etched kit of *Iron Bridge* for Christmas. And he had to put it together.

Ron brought along the tools he had used to build it. The parts can be soldered together, but he said he'd hate to try it. Instead he used superglue. The trick is to get a pool of superglue and use a little drop on a pin. There are two types of capillary action so you have to take great care applying the glue to the joint.

i) Mel Doran ~ Jewel Balance For Checking Watch Beats When Hair Springs Have Been Replaced

Mel brought a jewel balance for checking watch balance beats when hair springs have been replaced. It oscillates at 18,000 oscillations(beats)/hour which is five beats/second. This is the standard rate for a lot of watches. He made this when he was taking examinations for BHI. He thought people might like to see it.
It sits in a device which is a plate with a filler, and it is clamped. A watch balance can then be hung so it is resting on the glass. The jewel balance is set going and there is a button on the outside where the oscillations can be stopped.
Both the watch balance and the test balance can then be swung so they are both swinging in tandem. This is useful when a balance for a watch set at five beats/second has a broken hair spring and it needs to be replaced. Hair springs come in all shapes and sizes, and the only way to check a spring is to check it with a known source. The jewel balance comes with an index on the bottom, so the speed can be adjusted (plus or minus) until it is right.

j) Mike Sayers ~ Tool For Checking Engine *Top Dead Centre*.

This is a tool Mike made to check out the position of Top Dead Centre (TDC) on the engine of his wife's *Riley*.
It is made from an old spark plug, an extension, a rod that's fixed to a spring so it can't go down, and a dial indicator on the top.
This is screwed into the number one spark plug hole. The dial indicator is zeroed, and the engine is then turned until a maximum reading is indicated. This is the TDC. From there the cams, gears etc, can be timed. It's very simple and very safe, and avoids anything dropping in to the engine. Something like this was manufactured in the 1930s and sold for ten shillings and sixpence, including the dial indicator.

k) Pete Bramley ~ Parting Off 'Damper' (1912) For Lathe Work

This isn't something Peter has made, but he thought it was something others would be interested in. It's marked with a patent number 23498-12, so he presumes the patent was taken out in 1912. It is a parting off 'damper', and John Powell had given it to him in the previous week, but he hadn't used it yet.
It's such a simple idea for parting off. When parting off bars on old lathes, sometimes when the tool comes into contact with the bar, the bar will 'snatch', lifting up and causing the tool to dig deeper. All Peter can assume is the damper is put into the tool holder, the jaw is dropped onto the bar, the two nuts are tightened and this will stop any bar 'snatch' during parting off.

2) PEEMS Visit To Parkol Marine Shipyard At Whitby On The 27th September.

Twenty one PEEMS members, wives and guests visited the very busy *Parkol Marine Engineering* shipyard in Whitby. It was a fascinating visit, because although it occupies a small site on the east side of the river Esk, it is one of the most successful boat, ship and trawler builders in the United Kingdom.
The yard contains two work sheds and the building berths can accommodate new builds up to 25m long x 8m beam. We also saw a dry dock with a capacity of up to 5m draft x 42m long x 10.5m beam.
To increase capacity, *Parkol* opened a new manufacturing facility in the Tees Valley at Middlesbrough last November. *'Atlantic Dawn'* (above) was the first boat to be brought from Tees Valley for final fitting out at Whitby.

We were surrounded by history, as the old seaport of Whitby has, for hundreds of years, been a major base for seafaring and boat building.
In 1706 Whitby was the sixth major port in Britain, building 130 ships that year. It was here in 1746 where James Cook trained as a seaman, leading to his epic voyages of discovery. Cook chose Whitby built colliers for his famous voyages. Appropriately, the replica of Cook's ship, *HM Bark Endeavour*, was moored on the opposite bank of the Esk to the yard. Coincidently, this had been towed from the Tees Valley. It has been transformed into a floating museum to mark the 250th anniversary of Cook's first expedition to the Pacific.
Today *Parkol Marine Engineering Ltd*, continues that long Whitby tradition of boat building and boat repairs.

We were conducted around the yard in two groups. After receiving our hard-hats, Tim Hinkley, our guide gave us our safety advice, and then the tour began. We were able to look at three boats in various states of manufacture.
Tim explained how the *Parkol* name came to be. The original company was formed by Ken Parker and John Oliver in 1971. Ken Parker then retired and Jim Morrison joined John in 1988. John and Jim later formed the present day *Parkol Marine Engineering Ltd*. In 2010 Andrew Oliver took over from his father. Today the Morrison and Oliver families jointly own the company.
The yard was very busy, so we took our chances at what we were able to see. One boat (*Uberous*) was being paint sprayed in a "tent". Tim said he would have liked us to go onboard, as the boat was near completion, and would be finished two to four weeks later, however we were only able to view the rudder, propeller and propeller nozzle (duct), as spraying was about to start.
Tim had worked at the yard since 2003, and was now working on a part time basis, and one of his tasks was showing groups around. He explained that the restored buildings across the road from the yard used to be a tyre company. *Parkol* bought the buildings, and the facilities now replace the portacabins that were on site. The buildings also provide accommodation for contract staff, working on site. There are about forty staff at the yard.

The boat we saw in the water *Atlantic Dawn*, was the first boat out of the Teesside facility. It had been launched two weeks previously, and was being finished off at Whitby. The shed at Teesside is very large and will add to *Parkol's* capabilities. The main difference between the Teesside yard and Whitby's is that at Whitby, the boats are manufactured in sections in the main shed, and each section is then brought onto the yard. The sections are then mounted on the keel, and the whole boat is assembled outside. At Teesside, the whole boat can be built under cover. *Atlantic Dawn*, was brought out of the shed on a multi-axle trailer, operated by remote control. As it was built in a shed, it was in an advanced state when it arrived at Whitby and was almost ready to go. *Parkol* also built the 2/5th scale *HM Bark Endeavour*, that we later saw taking passengers through the harbour. Traditional boat building skills were revived in the construction of the replica, using techniques that were around during Captain Cook's day.

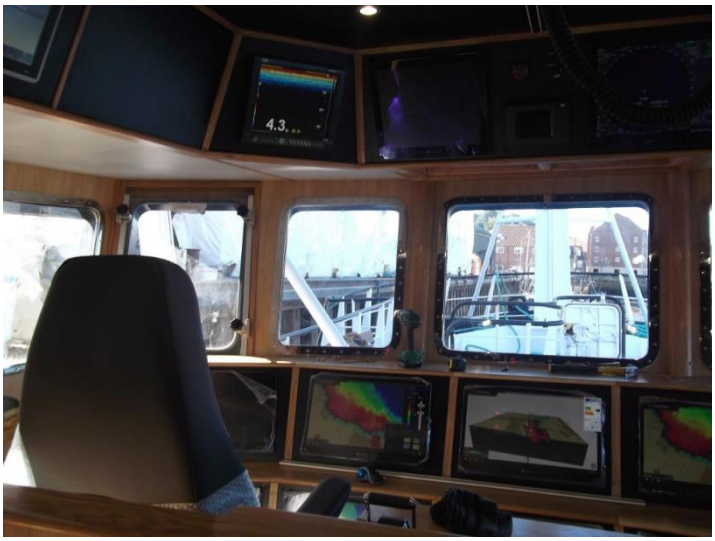
2/5th scale replica 'Endeavour'

'Foy' Boat

Parkol specialise in fishing boats, however they did build one boat that delivers salmon feed to the fish farms in Scotland. They also built a Foy Boat, which is like a tug boat for the Tees Licensed Foyboatmens' Association Ltd. They moor everything from super tankers to car ferries.

We went into the spray tent just before spray operations began. This was the fishing boat *Uberous*. Before it goes into the water it weighs 250 tonnes. We were able to inspect the propeller, nozzle (prop duct) and rudder. We could see the underwater size and shape of the hull. *Parkol* specialise in making the nozzles. They used to be bought in, but now they make them themselves.
The propeller/nozzle/rudder combination improve the economy and efficiency of the boat through the water. There is about 3-4mm clearance between the propeller tip and the nozzle. That is all that is allowed, and the setup must be 'spot on'. The boat is classified as a normal trawler, whereas *Atlantic Dawn* is a 'scalloper'.
Boats built for Ireland have different regulations to adhere to.
Tim explained that *Parkol* have modified two boats, where a 7 metre section length was inserted by cutting the boats in half and welding them back up. According to Tim that was 'a job and a half'.

We then went aboard *Atlantic Dawn*. This has been built for *Islay Crab Exports* based on the Isle of Islay. *Atlantic Dawn* has an overall length of 20.5 metres and a moulded breadth of 7.4 metres and a moulded depth of 4.05 metres. It has a fuel capacity of 20,000 litres in three tanks, and a 4,000 litre freshwater capacity. Its fish room has a capacity 600 x 38Kg bags. There is an ice locker capable of holding 3 tonnes of ice. As can be seen from the shape of the boat in the previous photograph, regulations have dictated that as there is a limitation on the length of the vessel, depth has to be increased in order to maintain the same size of the boat.
Drag nets (dredges) are let out on each side of the boat, to catch scallops etc, and they are pulled in and emptied into the catch hoppers (long boxes) along the port and starboard sides of the boat. The catch is then deposited on a slow moving conveyor, where the selected scallops are picked off. After washing, the shellfish are lowered to the fish room in baskets, and then they are bagged and stored.
We entered the wheel house, which was a "glass cockpit" with digital LCD screens needed both for navigation and for finding where the best catch is. Some of these boats are "pair trawlers", as they fish together in pairs. The sophistication of the technology means that the two boats can be controlled from one of them.



These boats can steer themselves by using this technology. The nets between the two boats can then be in the optimum position for the catch. Tim told us that this is a massive advance from the boat he used to go out on, where all that was needed was an alarm clock and a compass. They used to steer in one direction for a number of minutes, then another direction for another set time. Now satellite technology has changed the whole business. We decided not to undertake the steep climb down to the accommodation which contained eight berths.

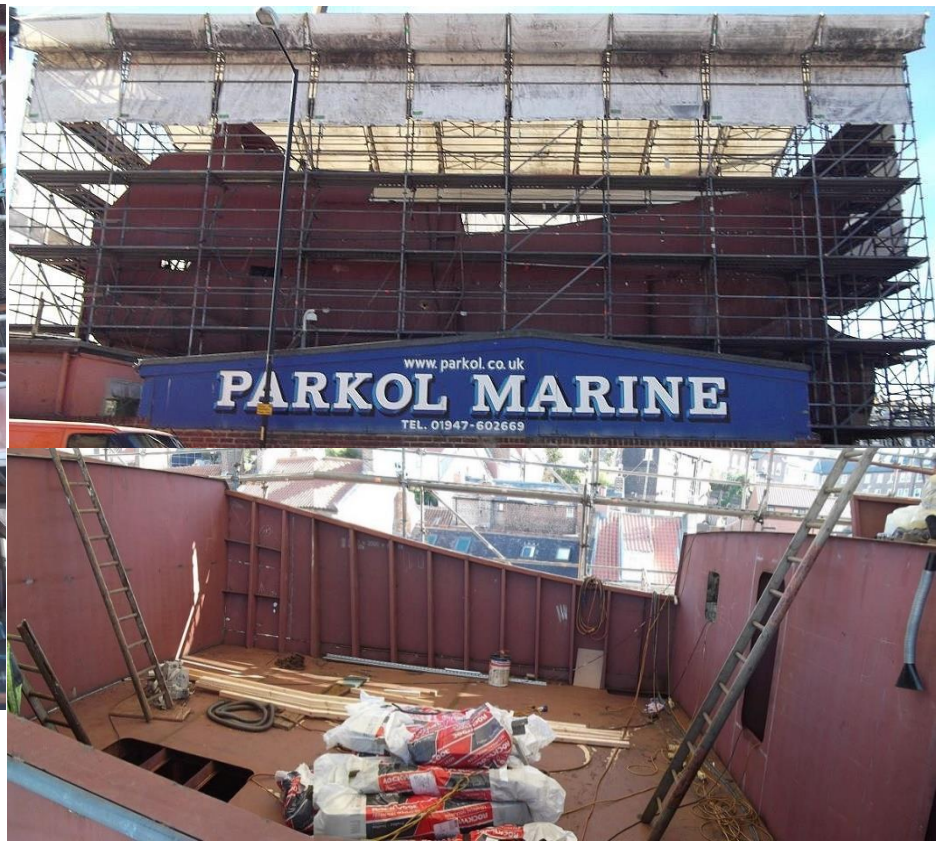
We were, however, able to look down the forward hatch and saw where the catch is refrigerated. This gave us a very good impression of the depth of the boat. The catch is stored in boxes, and it's all insulated. There is also concrete ballast. Every part of the boat was built in Teesside. This involves all sorts of skills, such as welders, platers, pipe fitters, electricians, painters etc. All the boats are numbered. *Parkol Marine Engineering Ltd*. started building boats in 1997. The boat numbers (reflecting orders) are up to 056, and new builds are up to 044.
In good maritime tradition there is not a Number 013.

The provision of the dry dock at Whitby has brought a lot of business into the yard. The dry dock is a key part of the yard and brings in a lot of day to day work. Boats of up to 42 metres, 5 metre draft and 10.5metre beam can be accommodated. There is an order for a 33 metre boat which is the biggest *Parkol* have built, and this will be built at the Teesside facility.

We then saw the engineering shed. This is the area where they assemble the big sections, with sometimes inches to spare. The sections are pulled out of the shed on a cradle. They are then lifted onto the keel by crane. In the shed was the mast for the boat that was being sprayed. Outside was a propeller for the boat we were about to view.

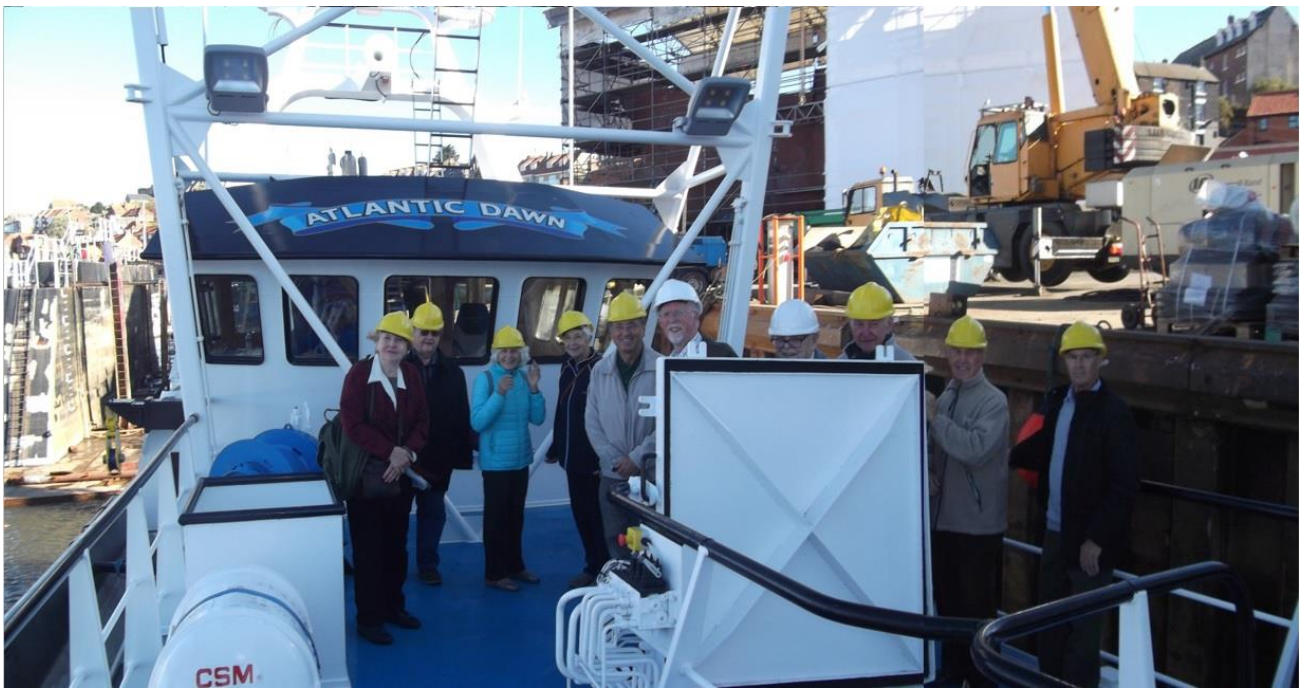
The engines are installed into the boat after the hull has been assembled. This is done by cutting access in the side and sliding the engines in. *Mitsubishi* and *Caterpillar* are the favourite engines for the boats, but there are also auxiliary engines. In some boats there can be up to four engines. These auxiliary engines are used to power hydraulics, generators etc.

We then viewed the boat that was being assembled. *Parkol* is in a residential area, so has to be a good neighbour. This is why there was scaffolding and a plastic sheet covering around the boat.



We first inspected the bulbous nose which was formed by tack welding rectangular plates of steel together. They are properly welded later. These plates were originally cut by laser. We climbed the stairs to view the deck of the boat being built. This wasn't as big as some boats that *Parkol* have built. The part viewed was the steel hull, but there will be an aluminium super structure welded to it. The shelter deck and wheel house will be aluminium, in order to keep the centre of mass of the boat low for stability.
First, an interface of steel and aluminium is welded together under water, using explosives. The steel of the interface is then welded to the steel hull and the aluminium superstructure is welded to the aluminium of the interface. [*A trawl of the internet indicates that galvanic corrosion is reduced or prevented at the steel/aluminium interface due to the explosive fusing of the two materials]*

Access cut in hull for auxiliary engine installation



After the two tours were completed we retired to Hadleys' fish restaurant for excellent fish and chips.

PEEMS would like to thank *Parkol Marine Engineering Ltd* for kindly allowing our visit, Tim Hinkley for spending two hours taking two groups around the yard and providing a very informative narrative, and to David Proctor for organising this trip.

Parkol Marine Engineering have a very informative website at this link: http://parkolmarine.co.uk/

3) Further News From Elvington (Paul Windross) :

I did not go to the two day record attempts at Elvington on 15th to 16th September 2018 as I was wanting to get some workshop time. The final *Top Speed* meeting is on Tuesday 16th October at Elvington.

A personal best for Phil Wood on a bike that can be set to deliver 1000 bhp?

His speed if I'm correct was only one way flying quarter mile 271.821 mph.

There were many distances run that weekend and the flying quarter results are tabulated below.

A link to Phil's previous Elvington meeting 258 mph run.

https://www.visordown.com/motorcycle-news-general-news/25854mph-big-ccs-1000bhp-road-legal-turbo-hayabusa

STRAIGHTLINERS BRITISH NATIONAL RECORDS

Flying Start Quarter Mile Speeds at Elvington

15 + 16 September 2018

Weather Cloudy, light showers

No.	Name	Machine	Best	s1	s2	s3	s4	s5	s6
Electric Engine									
C183	Martin Roberts	Tesla P100D	159.688	159.688	148.197				
P-AG-50 Production Modified Gas 50cc									
A5	Sam Bush	Yamaha 50cc	71.225	71.225	60.967				
MPS-P-100 Modified Partial Streamlining Production 100cc									
A12	Sam Bush	Kawasaki AR80 Whizz	85.195	85.195					
MPS-P-125 Modified Partial Streamlining Production 125cc									
A55	Andy Bush	TM Maverick 125cc	127.623	123.035	111.663	121.819	124.671	127.623	105.535
M-PG-350 Modified Pushrod Gas 350cc									
A138	Phil Betty	Triumph T21 1957	105.982	105.708	94.113	102.951	105.982		
APS-AG-500 Special Partial Streamlining Modified Gas 500cc									
167N	Katy Calmon	Ducati Prototype	135.014	135.014	116.701				
A167	Katy Calmon	Ducati Prototype	133.988	131.540	65.015	133.988	121.294		
M-PG-650 Modified Pushrod Gas 650cc									
A67	Miki Sprosen	Triumph Bonneville	115.830	105.683	113.737	97.424	115.830		
A-PBG-650 Special Construction Blown Pushrod Gas 650cc									
A1433	Chris Hawkshaw	Triumph Bonneville	142.766	141.132	126.957	138.058	142.766	124.481	139.125
P-P-750 Production 750cc									
A170	Hugh Brown	Triumph 650cc 1968	106.020	89.153	106.020				
P-BG-1000 Production Blown Gas 1000cc									
A266	Jay Coddington	Suzuki GSXR Turbo	237.781	237.781	207.469				
A122	Jack Frost	Kawasaki ZX10R	227.560	227.560	201.162				
P-PB-1000 Production Supercharged 1000cc									
A77	Zef Eisenberg	Kawasaki H2R	207.373	207.373					
M-BG-1000 Modified Blown Gas 1000cc									
1A128	Daryl Ruddock	Suzuki GSXR K5	240.385	240.385					
A265	Martin Stanton	Suzuki GSXR 1000cc	225.847	225.847	202.520				
A128	Daryl Ruddock	Suzuki GSXR K5	221.839	221.839	198.851	202.783	167.038	215.517	189.036
M-P-1000 Modified Production 1000cc									
A79	Steve Bland	BMW 1000cc	195.228	195.228	174.486				
M-BG-1350 Modified Blown Gas 1350cc									
A139	Steve Bland	Hayabusa Turbo	252.454	252.454					
A111	Jack Frost	Hayabusa Turbo	250.976	245.969	250.976	165.837			
205	Sid Horman	Hayabusa Turbo	195.560	195.560					
A299	Mark Stewart	Hayabusa sc/ 1300cc	187.813	187.813					
P-BG-1650 Production Blown Gas 1650cc									
1A777	Zef Eisenberg	Hayabusa Turbo	229.826	229.826	225.564	194.342			
A777	Zef Eisenberg	Hayabusa Turbo	225.960	224.159	223.881	202.111	219.352	225.960	192.513

STRAIGHTLINERS BRITISH NATIONAL RECORDS

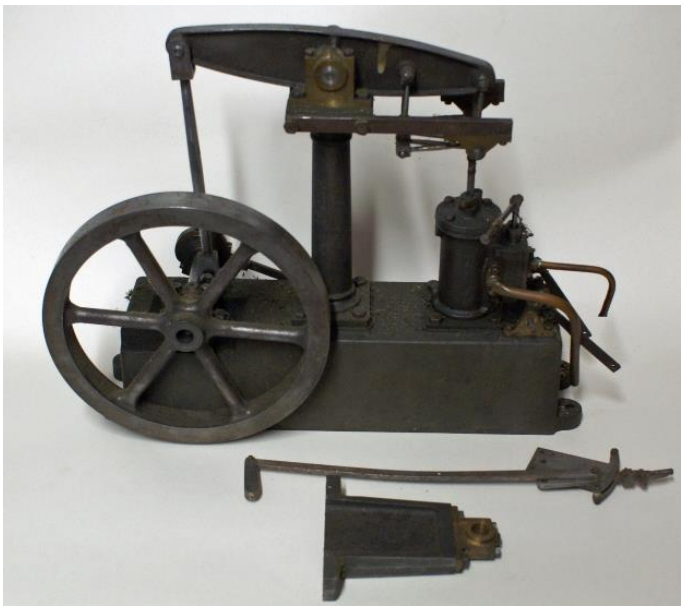
Flying Start Quarter Mile Speeds at Elvington

15 + 16 September 2018

Weather Cloudy, light showers

No.	Name	Machine	Best	s1	s2	s3	s4	s5	s6
P-AG-1650 Production Modified Gas 1650cc									
1A22	Terry Smith	Hayabusa 1587cc	217.760	214.286	189.633	217.760			
A22	Terry Smith	Hayabusa 1587cc	215.569	212.465	165.776	206.944	215.054	186.066	215.569
M-BG-1650 Modified Blown Gas 1650cc									
A130	Phil Wood	Hayabusa Turbo	271.821	230.238	271.821				
AT-AG-1650 Special Construction Three Wheeler Modified Gas 1650cc									
A89	Gary Sargent	Kawasaki ZZR 1441cc	144.881	139.340	127.155	139.882	144.858	125.226	144.881
Bicycle									
263	Neil Campbell	Moss Silver Eagle	109.356	109.356					

Item For Sale



Sirs

I have in my possession a partly constructed Stewart Beam Engine, see attached photo. It is my intention to dispose of this item, if anyone in your group is interested please contact me on 01751 473815.

Many thanks

Chris Pearson

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