



NEWSLETTER November 2017

i) COMMENTS

In this edition of the newsletter, there is a report on the very interesting tour of the National Railway Museum's workshops at York, attended by many PEEMS members and guests, organised by Tony Leeming, and co-ordinated by Mel Doran.

The Annual General Meeting, was held on the 1st of November. A summary is presented below.

In the run up to Christmas we will have a talk on clockmaking by Richard Gretton, and a long awaited trip to the JCB factory in Staffordshire.

As you can see from your calendars, there will be no meetings in January, except for the workshop morning on Tuesday 16th January. Club meetings start in earnest on the 7th February.

ii) FORTHCOMING EVENTS

- **Workshop Morning. Tuesday 21st November: 10am to 12 noon.**
- **Club Meeting Wednesday 6th December:** "Clock Wheel Making" a talk by Richard Gretton.
- **A Visit To JCB** in Rocester (nr. Uttoxeter, Staffordshire).
As mentioned in the previous newsletter, a visit was proposed to JCB's World Headquarters Visitor's centre. We now have a firm date for the visit of **Tuesday 12th December**.
There is a charge of £30/person, for both the visit and a lunch, which we have been told is excellent. There appears to be sufficient people (including guests) to hire a bus, for which there will be an extra charge.
- **Workshop Morning. Tuesday 19th December: 10am to 12 noon.**

iii) The PEEMS Annual General Meeting On Wednesday 1st November.

The Annual General Meeting had a good turnout, with 29 attendees, consisting of twenty-six members, two ladies and one guest, Ian McGregor. There were apologies for absence from Tony Leeming, Paul Hayward and John Nesom.

The meeting was admirably chaired by our out-going Chairman Jim Everett, under the slogan '*Adapt, Adopt Improve*'. He said that in his role as Chairman, his aim had been to reduce the workload on officers and spread the load over a greater number of members, both on and off the committee. His aim had been to bring new blood into the committee.

Summing up he said that everyone has a part to play and many PEEMS members had been very active during the past year. He thanked everyone for their efforts, making his job both easy and enjoyable.

A brief summary of the discussions follows:

- The Treasurer (David Hampshire) said that everyone should have received the accounts. The good news was that subscriptions and attendance at meetings have stayed up, so he recommended the subscription remains the same as last year. Subscriptions should be paid by cheque rather than cash.

- The Treasurer then discussed the railway accounts. There is a problem with the railway in so far as the volunteers are getting older, and currently there are no younger people volunteering. With the railway events, there is a lot of lifting during assembly and dismantling. It has been decided that in 2018 the railway will only be taken to those events that PEEMS regards as the most worthwhile. These are: a) The Malton and Ryedale shows which are both revenue generating, (and where there is the possibility of 'heavy lift' from the 'Young Farmers'), and b) the visit to Welburn Hall School which is a PEEMS community project.
- The loan on the workshop milling machine has now been paid off.
- The newsletter is now on the PEEMS website, and this should have reduced costs. The Treasurer stated however, that fifteen members still receive printed copies by post. In some cases, the newsletter is their only way of finding out what is going on in the club. It is important that all members receive the newsletter. A discussion followed with ideas from the floor on how costs can be reduced, from 'printing for a friend' to an extra nominal subscription for those who still needed printed copies.
- The election of officers then followed. Each officer was proposed by a member and seconded by another member with a final acknowledgement by a show of hands from the floor.
 - a) A new Chairman (David Proctor) was elected for the year 2017/2018, with a Vice Chair (Colin Bainbridge) who would succeed him in 2018/2019. The new Chairman was welcomed by the out-going chairman.
 - b) A member (Chris Irvine) volunteered for Chairmanship for the year 2019/2020.
 - c) The present Secretary (Tony Leeming), Treasurer (David Hampshire) and Newsletter/Publicity officer (Neville Foster) volunteered to continue and were re-elected into their roles.
 - d) A Speaker Organiser/Secretary (Ted Fletcher) and a Membership Secretary (also Ted Fletcher) were elected.
 - e) The current Railway Officer (Peter Bramley) has now retired, and it was decided that three members would each negotiate/coordinate with the representatives of the three Railway events for 2018. There were two volunteers, one for the Malton Show (Jim Everett), one for Welburn Hall School (Mike Sayers), and Ryedale show was left for later discussion. The Chairman said that Peter had been the longest serving member on the committee, and given 'yeoman' service over the years, He presented him with a gift.
 - f) The Safety Officer (Eric Foot) volunteered to continue and was re-elected into his role.
 - g) The Clock Focus Group Officer (John Powell) volunteered to continue and was re-elected into his role.
- The Chairman's Award was then presented to Neville Foster, and vouchers were given to the Anne Hillier and May Stephenson who unfailingly provide tea and biscuits to us every meeting.
- A gift was given to Mike and Pat Sayers, for allowing the PEEMS workshop to be on their premises, for the use of their back garden for the Garden Party, for the use of Mike's office for committee meetings and to Mike for fixing the trailer. A photo album of events over the years was presented to Mike and Pat. Thanks were given to Ron Baier for putting the album together.
- The new Chairman gave a speech in which he thanked everyone for electing him. He had only been with the club for a few months, and didn't know many people, but in his new role, he hoped to get to know the membership. The Club is a broad church with regards to interests and he found that very appealing. What he liked about the club, was how everyone helped each other with modelling and experimental engineering. Looking forward he wanted to encourage younger members to join the club, and he thanked Jim Everett for encouraging him.
- Brian Stephenson proposed that we all thank Jim Everett for his work as Chairman
- The evening finished with an excellent pie and pea supper washed down with tea and coffee.

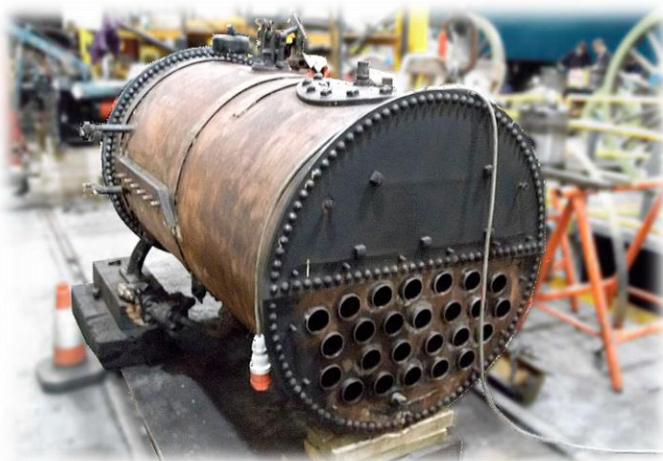
iv) A Visit To The National Railway Museum (NRM) Workshops On The 25th October.



There was a very good turnout for the PEEMS visit to the National Railway Museum workshop, an area not normally open to the public, apart from the upper viewing gallery. We were given a guided tour by Simon Holroyd, the Engineering Manager, who has worked in the workshop for the past seven years. We were fortunate that we visited on a “quiet day”, with no vehicle movements or noise, but it had been very busy over the previous weeks. There are currently only three permanent staff working in the shop, so they cannot take on big overhauls, although a major overhaul was being carried out on A4 class “Sir Nigel Gresley” by the ‘Sir Nigel Gresley Locomotive Trust’. The NRM are providing the facilities, and the Trust the engineers.



The first item inspected was the replica ‘Rocket’. This was built in 1979, and was in for a ten year overhaul, the main item needing attention being the boiler. ‘Rocket’ is stage maintained on a regular basis with components being attended to when needed. The boiler arrangement on ‘Rocket’ is fairly complex as the boiler and firebox are separate items, with circulation tubes. The firebox is in good condition after being inspected, and the boiler is being re-tubed. The firebox used to be welded steel, but is now rivetted copper, and attention has to be made to preventing leaks.



Rocket Boiler Barrel: The boiler was actually at 8 years life between overhauls when the insurance company wanted to inspect the lower row of tubes. There are twenty five tubes, so the NRM decided to remove all the tubes and inspect them to get the full ten year ticket. Ian Riley Engineering’s chief boilersmith Colin Green had very kindly adopted it. He came with his team, cut the new tubes to the correct length and expanded them in place. The workshop was waiting for the ‘stay tubes’ to be welded in. Instead of longitudinal stays to hold the ends of the boiler together, seven ‘stay tubes’ perform this function. After the ‘stay tubes’ have been welded in, the boiler will be hydraulic pressure tested for the insurance. The boiler will then be fitted back to the dry front and back plated firebox. Hopefully ‘Rocket’ will be operating by spring 2018.

A new crank pin has been fitted to 'Rocket's' main driving wheel. As can be seen in the photo on the previous page this is absolutely spherical. The workshop has no CNC machines. The chief machinist Danny Holmes, however, managed to ingeniously manufacture both this the 'male' pin, and the mating 'female' brass bush. Use was made of the 1970's Dean Smith and Grace lathe. A ball turning attachment was available, but this didn't fit that type of lathe. Danny spent the first two weeks making an attachment to fit the attachment, and he managed to ball turn the crank pin. The brass bush was even more interesting as it mated with the crank pin, being a perfect sphere inside a brass bush. Danny managed to machine that by making a guide/template and used the Holbrook lathe's hydraulic copying attachment.

Workshop Wheel Drop : There are two pits in the workshop, in addition to two overhead cranes, one with a Safe Working Load of 7 tonnes and the other 2.5 tonnes. Simon showed us the 'Wheel Drop'. Wheel drop systems allow the safe removal and replacement of wheel sets. Eighteen months previously, before the inaugural run of Flying Scotsman (FS) after major refurbishment (currently operations are managed by Ian Riley and Sons), a spring broke during test runs. When a large locomotive's spring breaks, it affects the bearings, and there was a hot bearing on FS, with a week to before trial. The engine was brought back in, and using the wheel drop, all the motion was taken off, the wheel set was dropped out, the bearings were cut away, and all the white metal was melted. The bearings were recast, then remachined, and then fitted with two days to spare. This work was all done whilst the other team were busy painting the engine BR Express Passenger Green! Unfortunately, in October this year FS ran over some bad tracks between Lincoln and Peterborough, and yet again pumped some white metal out of one of the crowns, resulting in a warm axle box.

Flying Scotsman is currently hanging from two 50 ton cranes, which is the 'alternative' method when there isn't a 'Wheel Drop' to hand!



Flying Scotsman's Springs

A4 Class 'Sir Nigel Gresley' 60007 : As mentioned previously, Sir Nigel Gresley (SNG) is in the workshop for a major overhaul. It was explained that the NRM are only providing the workshop facilities whilst the work is being undertaken by the 'Sir Nigel Gresley' Locomotive Trust.



The trust saw the facilities available, and the museum agreed to them carrying out the overhaul there, because the public could see the work being carried out from the workshop viewing gallery, after they had viewed the other A4, 'Mallard' in the Great Hall. SNG is undergoing probably the most in depth overhaul it has ever had since BR days. It has been completely stripped down and many interesting markings have been discovered under the paint and 'bolted on' bits have come to light.

If you would like to follow the overhaul of SNG the web site is: <http://www.sirnigelgresley.org.uk/overhaul.shtml>

SNG's Front Bogie : The bogie horn stays are being fitted with new fitted bolts.



Other interesting components in the workshop were pistons from a Class 20 diesel electric locomotive. These need new cylinder liners to give an extra 20 years of service. There were also some steam pipes which connect the cylinders to the smoke box of a steam locomotive.



Simon then gave us a tour of the workshop machinery available, and the dedicated workshops. All the equipment has been donated to the workshops and comes from the previous two centuries, but no CNC!

The Butler 16" slotter is used quite a bit, as is the Invictor planer. The Butler shaper sees little useage. Other machines included a Churchill surface grinder and a Jones and Shipman universal grinder.

The horizontal borer was used for axle boxes, half bearings and locomotive cylinders.

One interesting item was the steam heated marking out table, which provided a very flat service. This came with a plaque stating it was GWR Works Swindon 1878. At the time of viewing it supported 'Petra' which runs on 7¼ inch gauge track (1/8th scale), and came from the now closed Weston-Super-Mare miniature railway.

<https://www.youtube.com/watch?v=7vJYTah0Jnk>

The Holbrook lathe with the hydraulic copying attachment mentioned earlier, is shown on the next page as is the Joseph Lang lathe. Simon machined the 5½ foot valve rods for The Flying Scotsman on the Joseph Lang lathe. It was built in the 1920s and runs at 400 rpm. The accuracy of the machine is such that Simon could set the work up again on the machine to within an accuracy of two thou.



Slotter



Shaper



Invictor Planer



Horizontal Borer



Level Table with
'Petra'



Joseph Lang Lathe (1920's)



1960s Lathe

There are dedicated units within the main facility, There is a) a room containing the surface and universal grinders b) a metal workshop, c) a joinery shop.



As regards the future, Simon explained that there will eventually be massive investment in the surrounding area of the museum, with a plan to divert Leeman Road and planning for housing. It is hoped that the museum can grow, and provide even better facilities.

Mallard last ran for twelve months through 1986 – 1987. Although there is no plan to run Mallard again, A4 Class 'Bittern' is still running. Simon explained that when old steam locomotives are overhauled, Health and Safety edicts require compromise with regard to authenticity, for example the installation of air brakes.

The Museum Workshop looks after locomotives from other museums such as Shildon, and Manchester Museum of Science and Industry.

After this very interesting visit, some PEEMS members and guests retired to the various museum food outlets, followed by a ride on the museum's miniature railway.



Acknowledgements to Simon Holroyd for kindly proof reading this article and for giving PEEMS a very interesting and technically informative tour.

A Request For Help

Dear Modellers,

Is there anybody local that could cut out brass letters for an old/new Rum Tub? I have the letter size and copies to match. I do know Chris Fletcher ? from Outgang Road ? Pickering, who made the model version of the Blacker Power Hammer, as I have been a Farrier for years ! Any help would be appreciated please.

Yours Jarvis Browning, Tel; 01751 430842 <jarvis.browning@btinternet.com>

Contact:

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