ESSMEE Newsletter

February 2026

Chairman's Chat

At last, we have a volunteer to do the newsletter. I did not realise how much time and effort went into it until I needed to do one, so a big 'thank you' to the Malleson Family - but they still need copy from you.

Speaking of volunteers, we are still needing a new Chairman It is not an onerous task - you just need to control 70 odd people. It is not even essential to have a great deal of technical knowledge just the ability to be nice to people.

On with the real news. Fiji is almost ready to go back on the road, Gavin and Kevin have sorted out the lubrication system, put extra oil pipes to the cylinders, changed the braking system so that there are now whole train brakes from the cab and are thinking of cutting the cab roof to make the controls more get attable.

Mendip has had to have a pair of new axles made, one is already done and the wheels are ready to be pressed on. All the wheels and drive have had to be rebored to allow for this. Fiddly work involving the large faceplate and removal of the gap in the lathe bed plus the use of milling machine dividing head.

Shepton needs an oil change and the gates need a lick of paint here and there. See Robin Duijs about the painting job

The track also needs some attention as the little creatures have been trying to burrow under it either for food or shelter, I have no idea.

We are replacing the fence down by the marshalling yard, some work needs doing on the bridge over the pond and the pond need a new liner, The old one is the original.

Everything is waiting for the weather to warm up a little. Speaking of warmth, I have been known to complain about the temperature in the workshop, it is now nice and warm to the extent I have been removing jumpers, I put this down to the removal of the dividing doors between the two workshops allowing the heat to go through. Our first public running days are the weekend of the Food and Drink on the 20, 21, 23 March when volunteers will be needed.

One new thing we are trying, is to have a stall at the Newton Abbot ME Show on the 14th,15th,16th May This in conjunction with "Model Engineer and Workshop". Alan Hutfield oversees this and will need support. It is only a 2-hour drive away and we will see interesting stuff I am sure but it will also give us some publicity.

Please remember the AGM on 25 April if you would like to stand on the committee, please contact any committee member and Alan Hutfield will have nomination forms.

George White.

Building a 3" A7 Fowler Traction Engine

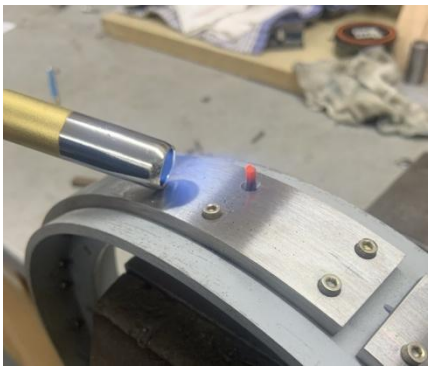
I started building my traction engine back in the late 1990's and exhibited the front end on a bespoke display board sometime in the early 2000's, and that's how it's been for the last 20 years. We bought a restoration project of a house, which seemed like a good idea at the time, and I've been renovating ever since, Traction Engine out of the window. 20 years later I've picked it back up with the idea of completing the front end first, which meant I had to look at the front wheels.

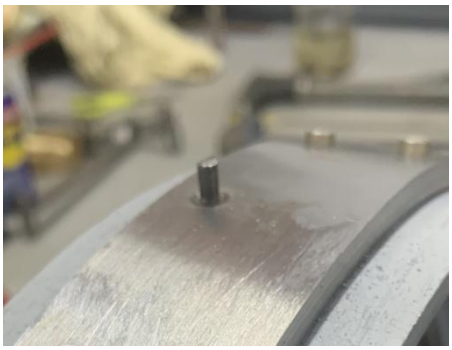
I never realised how complex building a traction engine wheel would be, machining the hubs were straightforward enough but assembly required a jig to ensure concentricity and then the tyres and outer assembly had to be riveted, well that was a real challenge. The spokes were laser cut and then had to be bent to the required angles, I made a small jig for this to keep bend positions consistent and then bent them by hand clamping them between a couple of steel plates and using a 'G' clamp, seemed to work successfully.





The tyres were a welded steel ring, which I was able to machine up in the lathe. The ring was a good fit on the wheel but sprang out a bit when I cut it into the four tyre segments; this meant I had to bolt it to the wheel initially before riveting to pull it back into required shape. I think I probably put too deep a countersink in for the rivets as well, which made the riveting harder work…!





I hadn't really done any riveting before, thought it should be easy enough…!, but it takes a lot of force to rivet a 3/16" steel rivet. Bashing a rivet down into a countersink was eventually mastered, but we had to heat the rivet red hot to soften and enable the process. The next riveting requirement was to complete domed

heads on both sides, and that has brought me to a bit of a stop, as I have no idea how I'm going to achieve that to the standard required. Fortunately, after a cry for help on the internet I was contacted by one of our members who is building a 4" Traction Engine and he had had the same problem, he had created a hydraulic jig for riveting which I have now borrowed, not tried it yet, but fingers crossed that this will be successful.



Next time we'll look at the rear wheels……

Alan Hutfield.

Holmside Report no 8 14 Feb. 2026

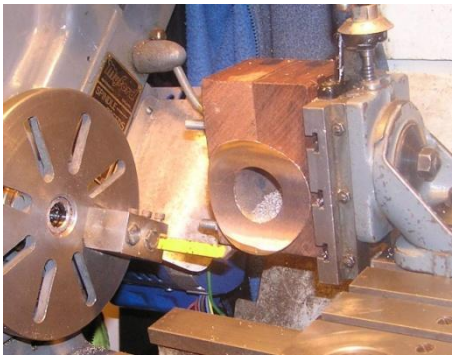
While waiting for delivery of castings for the inner dome and regulator mounting, I concentrated on machining the chimney casting. There was some discussion how to hold it in the lathe. Alan purchased a piece of cast iron bar about 40mm In diameter. One end was held in the 3 jaw chuck and the other drilled to take the tailstock mounted rotating centre. The chimney casting had hole down it that was parallel and 40mm in diameter. The bar was turned down so that the casting was a slide fit. It was then superglued in place to my surprise. This enabled the main parallel section and most of the chimney cap to be machined. The underside of the cap was done using a half round file. the super glue was made to release by warming so that the bar could be removed.



The next job was to devise arrangements to enable the casting to be held so that the chimney base could be machined to fit the curved top of the smoke box. We had done this before on my 5" Polly loco. It involved a split wood block bolted on to the vertical slide mounted on the lathe. I found this block lying around and concluded that it could be re-used for the larger Holmside chimney. Two operation were required. Firstly to enable the hole between the blocks to be bored out to accommodate the larger casting Now, with the casting secured between the wood blocks bolted tight, rotate the slide 90deg.without disturbing the hole centre position.

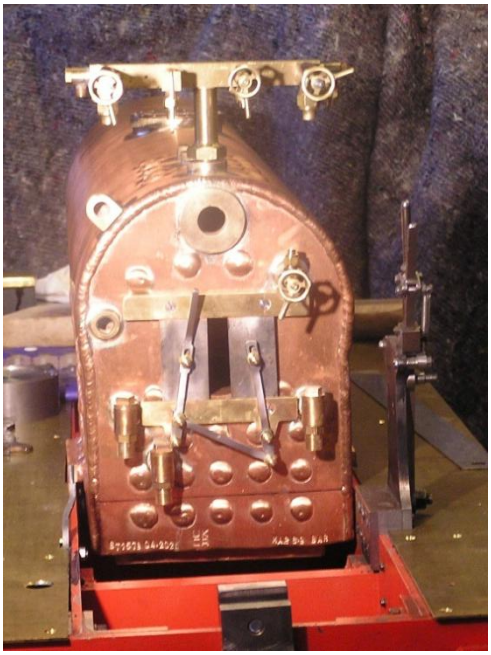
With this achieved , I then found that my Dore bore bar fitting would not screw on in place of the chuck due to a damaged thread. Fortunately I had a tap to clean up the thread. Then I found that the maximum throw of the tool was insufficient for the diameter required! Unearthing the faceplate it had a tool holder bolted to it that would take a suitable ordinary lathe tool and swing the required diameter, just !

With slow self act engaged and with a very fine cut set on the cross slide, machining was started.



All went well for an hour or so with 5 thou cuts. On stopping for inspection now that the machining was complete. It was found that the lower portion was thicker at the edge than the very thin upper one. It had not been possible to lock the vertical slide and it had moved down despite the cuts were upwards throwing chips over me and the floor behind. Wearing eye protection was essential. I waited for Alan's next visit. He concluded that I had stopped in time and that all would be well.





Alan has been very busy with all the boiler fittings on the back-head. He has made a beautiful job of the sliding doors for the firehole. (Photo). He has also been making the in-boiler tubes for the blower and regulator steam pipes complete with very satisfactory fittings for the rear end and the tube plate. These fittings are of his own design and will enable installation and subsequent maintenance to be much easier if required. With the arrival of the castings from Reeves for the inner dome and regulator last week, work has started on these. The inner dome has been finished together with an ingenious method to secure the regulator body, hopefully also to ease maintenance when required. Work is also continuing on the superheater and steam piping in the smoke-box.

The fire grate has been made and checked for fit in the boiler. It will be retained in position by brackets fixed to the ash pan. This in turn will be retained by a single removable rod through the frames to allow quick and simple withdrawal so dumping ashpan, grate and fire if required. We are now considering the design of the ashpan to include draft air inlet, ash removal in service and possibly a damper.

To be continued.

Roy Procter.

New Carriage Construction

Three new carriages are under construction at ESSMEE in order to increase the passenger carrying capacity, particularly at Main Show in May/June. Some time ago the station layout was altered in order to accommodate four coach consists. This has been achieved on one set of carriages by the addition of the wheel-chair unit. However, construction of three more carriages, for the remaining three main consists, can only be described as *slow*! This has now been addressed as construction of three more units has now commenced. One carriage will be very similar to the existing well wagons; of teak plank construction. The other two will be of plywood panel construction to be used in conjunction with the existing sit-astride carriages. It is appreciated that the less-able passengers we accommodate can have difficulty accessing the sit-astride. The new carriages will, therefore, be 'step-in' units similar to the current well waggons. Station staff will need to be aware if this and, as far as is practical, reserve the new units for the less able if necessary.

Currently we have one new chassis, for the plank waggon, and two completed bogies; plus the teak side members. Most of the material for the two 'sit-in' carriages is also available and just requires the labour for assembly.

One of the completed bogies.

The whitish nylon pads are the thrust pads which support the weight of the carriage.

The underside of the bogie showing the compensating brake operating gear. Conventional brake shoes have been used, as opposed to disc brakes, as only one operating cylinder is required, saving expense!





Self-aligning wheel bearing and axle suspension. (below)

Now, spot the difference! Fifty metalastic bushes were purchased to provide a little bogie flexibility, supposedly all the same part number. Upon using them it was found that some had 8mm metric threads and some had $^{5}/_{16}$"UNF threads!! Confusing initially.



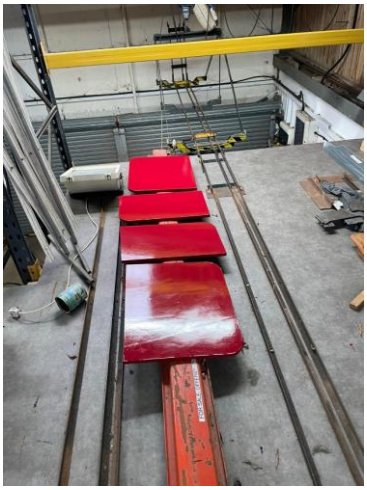




The frames for the bogies were pre-cut laser pieces, ensuring a near perfect assembly process

The wooden ply panels for the sit-aside sets are being painted, one red, the other blue. Painting this time of the year has proved a challenge…too wet and too cold!

It was intended to have all three finished in time for Main Show but this has proved to be a little too difficult, for a variety of reasons. Hopefully the teak plank unit will be completed for the well wagon consist.





Stuart Bond 22 Feb 26

New Carriages for ESSMEE

The prompt for building more carriages for the Railway came about partly from observing from the signal box during Main Show, that many more elderly people struggled to get out of the standard sit-astride configuration of our rolling stock. We have two carriages in the well-waggon rakes that have transverse seating in just the brake van, from which passengers could (and do) alight easily.

The other reason, is that now the show is just a 3-day event, we tend to have a higher concentration of passengers on the days that happen to have good weather, and the queue grows as a result. Again, observations from the signal box and the arrivals platform show that potential passengers make a rough estimate on the time they will need to spend in the queue before getting a ride, and once the queue gets to a certain length, turn away, telling their kids that they'll come back later when the queue is not so long: and that will be the last we see of them.

If we had four coaches on all four trains, then the number of passengers carried per hour should increase, as the time taken to embark and disembark passengers is roughly the same, however many coaches on the train -- they are loaded in parallel after all.

Thus, we should be able to keep the queue shorter than that length that puts people off waiting. So, the carriages. To make it easier for those who have difficulty "getting their leg over" the new carriages will have transverse seating, just like the passenger part of the well-waggon guards vans. To be able to fit four seats per carriage, each carriage needs to be a little bit longer than the existing stock: 2.8m instead of 2.44m, otherwise knee-room would be a little lacking.

To make them match the existing rakes, one will have channel section outer chassis rails to match the existing well waggons and oiled hardwood planks; the other two will have rectangular hollow section outer chassis rails, and painted plywood body panels, painted to match the red and blue sit-astride rakes. The existing design of bogies that were made for the well-waggons some years ago will be re-used, with the exception of using conventional tread brakes applied through a compensating mechanism using just one air cylinder, rather than disk brakes with one cylinder per axle. This is to reduce the initial cost as the air cylinders are quite a bit dearer then they were ten years ago. We have used bought-in wheels and axles .



The channel section chassis is now complete apart from finish painting, and is in the upstairs workshop awaiting paint, then will have the planks (which have already been treated with teak oil) cut and fitted. The cushions for all the seats have been ordered .



The metalwork for the plywood-bodied waggons has all been cut and prepped for welding: I am making a jig to enable the well-shape of the longitudinals to be welded up without having to measure and clamp each joint individually



The holes in the channel section chassis buffer beam needed drilling after it was all welded together, as I had forgotten to do so beforehand (the ply-bodied waggons have the buffer beam drilled before welding): as you can see, good use was made of the magnetic base drill to make these holes.

Stuart Bond has been doing a marvellous job, painting the profile-cut plywood panels, the final bit of top-coat was applied last Saturday.

Roger Hill-Cottingham

Thanks go to all our contributors George, Alan Hutfield, Roy Procter, Stewart Bond and Roger H-C. We already have contributions for March, but need more.

I must thank Anne for her Herculean efforts grappling with all the computer work needed to present a readable Newsletter. All I did was to stand by her and tell her where to arrange everything. Next issue will be a lot easier for us as she has sorted out most of the complications in dealing with submissions which come in different ways. Please note the sentence below, thanks.

Finally, please submit all text in Word if possible, and compress all photos to under 500Kb, and send to the email below.

Michael and Anne Malleson. Newsletter Editors.

newslettereditor@essmee.org.uk



The first sunny day of the year !