



MAIDSTONE MODEL ENGINEERING SOCIETY

Summer 2019

www.maidstonemes.co.uk

Maidstone Model Engineering Society Summer 2019 Newsletter

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Cover photo: Andrew with Lochwood having just finished a brilliant run this years IMLEC at Leyland

Above: The Duchess of Sutherland makes an appearence

Luke's Spot

Hi all, me again... yes really. I'm experimenting again in more ways than one here, do feedback to me if you see me or by email as it really does help write these newsletters.

As well as the usual bits I've tried to include a more "technical" article about an area that interests me and that I've heard numerous queries about. If you don't like it or if you do, please tell me.

I've skipped featured model for this issue but rest assured it will be back in the next newsletter, I've made up a list of models I'd like to feature; now to do some arm twisting. I just ran out of time for this one.

If I don't experiment with what's in these pages then how will I ever know if you, the readers and members, like an idea or not.

Amy (my very able assistant in all things printing, proof reading, envelope stuffing) has once again provided us with a light hearted take on IMLEC to hopefully balance out my article later on. If you make it to the end of mine, congratulations from me but you'll be glad to have read Amy's.

Submissions lately have dried up l'm afraid to say. Even if you have an idea of an article, l'll see if I can make it happen if you don't fancy writing it yourself. Although it makes for much better variety than if my dodgy spelling, grammar and bad sense of humour fills every page.

We've got a lot to look forward to over the next few years with some exciting and perhaps long overdue developments taking place at the club. If you feel you can lend a hand to any of them then let a committee member know.

Otherwise it leaves me to say, happy steaming and don't lose too many fingers in the workshop on your current or next model.



At the park

General Works - Jack Ruler & Maurice Knott

The clubhouse has been repainted and has come up very well by outside decorators at a very reasonable rate. I'm sure members will agree its very refreshing, brighter and looks much more presentable for upcoming events.

Thanks is also relayed to Gerald and Les for their rebuilding and repair of the collapsed wall in the steaming bays.

The "Wednesday Gang" as usual have been very busy doing all sorts of jobs too numerous to name, these include painting, general site tidying, weeding/ gardening, repairs, you name it, they do it - without their efforts we would not have the excellent facilities we do.

All the single power sockets in the clubhouse have been replaced with double sockets.

New "No Entry" signs have been ordered.

Household and Catering - Sue Parham & Chris Williams

Nothing to report that isn't included above.

Public Running - Sue Parham & Chris Williams

The layout of the running sheet has been updated and simplified - it is all drivers responsibility to ensure they are on the list, not just for public running on a Sunday afternoon.

Safety - Tom Parham & John Hawkins

First Aid boxes have been checked.

A hatched danger are will be marked where the traverser travels in the steaming bays.

Permanent Way - Chris Williams & Peter Kingsford

The track is running well, it has been strimmed and will need tidying prior to

the rally.

Fuel - Tom Parham

Many thanks to Paul Rolleston for the use of his van to collect more coal, of which we now have a good stock including the smaller size.

Club Locos - Tom Parham

Enterprise - Available for use

Gertie - Spare gearboxes have been obtained, and being investigated into using for spares. Hopefully to be able to repair the current gearbox and to have a swappable spare.

SNCF - The engine replacement has worked well, a larger capacity fuel tank is being manufactured

Doris - The work has been completed by Edgar, many thanks to Edgar for his time and has produced an outstanding loco. (Article in a future newsletter)

Rolling Stock - Andy & Luke Bridges

After the recent Friday night run, a pair of trollies were left out on the track until they were discovered Sunday morning having been pushed (ridden?) around the track and has collided with the locked traverser making them unusable and needing repair. Can members please double check all trollies used or that were out are returned to the trolley store at the end of a playtime, Sunday afternoon or Friday club meeting. Current thinking is that they rolled round the corner out of sight on a dark night and forgotten. And a note for traffic controllers - Just because trollies are in the trolley store this does not automatically mean they are okay to be used for passengers. Whilst they normally have a small white "Not in use" marker in the coupling, this may not be the case if they have been worked on or used for playtime etc and this hasn't been replaced. Please check the rolling stock log to see which in the store are available for use with their being an OK in the final column.

<u>Other</u>

Unloading Bay/Lift

It has been agreed to proceed with a means to assist in unloading locos from cars instead of just the well time honoured ramps. We have been investigating and have seen in use at other clubs, hydraulic lifts, most commonly motorbike lifts. This will be worked on over the coming months. We have heard concerns from members about the ability to unload locos from cars and hope this will encourage those who have not brought an engine down for this reason to do so again, weather this is because the engines are now too heavy, awkward or any other reason. A scheme will be drawn up and circulated, and is planned to be carried out over the winter period - and should be in use before next years public running commences.

<u>Turntable</u>

Along with the unloading solution discussed, is also the Turntable project. This has been discussed and the intention is still to have this on the inside of the track on the end of what is now the head-shunt.

Running List / Traffic Controller

A reminder that anytime a loco, steam or petrol or electric, is going on the track, then it should be recorded on the running list. This includes Wednesday play times, Friday evening's and Sunday mornings. The list is not just for public running. It is there so we know who has been on the track on any given day and with which engine. Outside of public running, the trolley does not need recording or a spark arrester need to be fitted.

Southern Federation Rally

Information will be circulated later following an extra committee meeting at the end of August to finalise details. Also see in-article on page 20.



Chairman's Report August 2019 - Tom

Well, good evening all (at the time of writing)...

I shall keep this reasonably brief since the workshop is calling me, and at present I'm getting quite eager to work on the current rebuild, this time on Duke of York. If I get a chance I'll put pen to paper on my Enterprise rebuild, maybe by next newsletter...

So, what's been going on, and what's coming up? We've been having such lovely weather so far this year that it's been such a pleasure being at the club on a Sunday, for me that's my happy place surrounded by friends and family, discussing all sorts of things, especially the current workshop projects.

Although passenger numbers appear to be down a bit at the moment, that's not a huge worry for me personally, as for me the main reason for us running is for our enjoyment, and not as a commercial enterprise, although the fares do raise funds to help us develop the club. I am pleased to say that one such use of these funds has been to buy a new welder for the workshop, which can be used for stick welding, and TIG welding of steel and stainless steel. If anyone would like anything stuck together just give me a shout and we'll have a chat, I'm also happy to help people learn how to weld, although the biggest thing you'll need is time to practice, so bring along some scraps if you want to have a play, I think so far it's been used on about 6 sets of superheaters as well as a number of other little jobs.

Our devoted Wednesday gang have been working away as always, keeping the track in top condition, as well as making sure the site is as good as it can be, one example of this is the repaired wall by the bench in the steaming bays. There's so many to thank for their efforts that I wouldn't want to miss any names, so please know that all efforts are very much appreciated.

Recently Andrew and I travelled to Leyland to enter IMLEC, with Luke and Amy there to support too. We had a great weekend, with mixed fortunes between us (maybe another article in that...), which did give us the final chance to have a look at the organisation of the event ready for our turn to host it next year.

For this year we have the Southern Fed rally on the 7th September, it would be great to see as many of our members as possible on the day, we are hiring a marquee to go in the centre of the track to hold an exhibition of our models, any exhibits (either complete or works in progress) would be great, and the track will be made available for those who wish to run into the evening, although priority on track space will go to visitors. We would also appreciate help with preparations on the Friday night for all that can spare the evening.

Before I bore you all I'm going to head out to carry on with my latest project, which I hope to get to a suitable stage ready for the marquee.

Happy modelling, and I look forward to seeing and chatting to you all soon!

Tom.



IMLEC 2019 - Amy Dixon

So this year, I decided (for the 2^{nd} year in a row) to attend IMLEC with Luke. Not entirely sure what I was letting myself in for but was going to be a nice weekend away, especially as two of our own members had entered this year!

We arrived on the Saturday, nice and early, before they had even opened their gates. The members of Leyland were a bit surprised to see spectators arrive as early as we did, we unloaded and got a nice spot near the track where you could see all around, so we didn't miss any of the action.

We spoke to a member of Gravesend for a bit before he had to get ready for his run (first of the day) and gave us tickets (my first ride at IMLEC). One thing that Luke told me before we went to go to the loading area was "go to the toilet!". I am so glad I did, yes you may have to alight at certain points if the driver dictates but you could be on for the full 30 minutes, in which case, it's a long time to be needing the toilet!

I surprised myself on the first ride, saying I could hear slippage of the wheels and could hear if the engine was struggling, much to Luke's amusement. I think his task of turning me into a Nerdette has finally been completed, much to my dismay.

Tom and Andrew arrived with their engines, both for contemplating how many passengers to take on their engines and were examining all the other candidates, looking at how many passengers they were taking, where they were finding the track slippery or where their engines were struggling (inclines etc.). While talking to Andrew, he gave us tickets for his run, and I got laughed at for getting excited. Like I said previously, Luke has accomplished his task of turning me into a Nerdette. In fact, I was a bit nervous, I wanted Andrew and Tom to do well and was listening out even more for slippage and got nervous when we came to an area of the track where other candidates struggled. At some points I even 'shushed' Luke as I was listening so intently, or I was just point blank ignoring him as I was listening to the engine so much.

As per usual, it is hard to keep IMLEC running to schedule as sometimes our little engines have a mind of their own. Tom's run was a little later than the schedule dictated but we got tickets for a ride again. The same thing happened with Tom as we felt with Andrew, anxious for him as we wanted them to do well.

Both did exceptionally well, even if it was just for a bit of fun and to see what both engines were capable of. Luke started saying that maybe in two years' time he might enter Trojan for IMLEC (I will NOT be attending that IMLEC!)

On the Saturday it was a bit chilly, but once I had warmed up in my nice comfy camping chair, I found that I ended up having an involuntary snooze, when I awoke, Luke had gone and I was all on my own, a tad confusing.

As some of you may have seen Tom's photos on Facebook, the Sunday was again a rather chilly day and it seemed to be I was the only one that was cold (lots of layers and blankets!) but nonetheless it was still an enjoyable day and I found myself wanting to constantly look at the leader board to see how every contestant got on.

We added a new member to the family on the Sunday after much discussion the previous day, we went to look around the 'selling' tent and found a Railmotor No 2 with a Railmotor No I tender, which I was very interested in. We called around family to see if there was anywhere in sheds or storage that we could keep a started on loco until we had a house and workshop of our own so I could start work on it. Luke kindly bought me the loco with the condition that I have to finish it (trust me, I will!). After telling both sets of parents, I think it is safe to say there is no doubt but having to admit to myself that I am a Nerdette, I can no longer hide it or run away from it.

It is safe to say that IMLEC is an enjoyable weekend and you get yourself talking to people that you wouldn't necessarily speak to any other day, which is what I like about this hobby, you all have a common interest so it is so easy to get talking to people. When it was announced the next IM-LEC will be held at Maidstone, Luke and I started speaking to a group of people behind us who between themselves were trying to figure out where Maidstone was. The men were asking Luke questions on amenities and the women were asking me where the nearest shops are, with the men horrified at the thought!

The fire burns brighter?? - The editor

Dad (Andy Bridges) has written an article's in the past (??????) about the exhaust and draughting changes we have made to our Polly locos.

This broadly falls into two main changes, Trojan's exhaust plumbing and the fire arch. I've included the arch here because it is still affects the draughting of the fire.

However, we are using the rebuild of our first Polly "Marjorie Evelyn" as an excuse to experiment further. The important point here is that although they are different locos, they share the same boiler, smokebox, cylinders and valve gear. They differ in wheels and chimney. As such, as standard all the plumbing is the same, the same problems, the same dimensions, the same fire.

Lets start with the first main change, the fire arch. I'm not referring to it as a brick arch, because it is made of stainless steel.

Our findings, which are mostly shared by other Polly owners whose design we copied, as well as other club members and those wider in the hobby is that a brick arch doesn't necessarily make an engine steam "better". What a properly designed and fitted arch does do is the increase the flame path before the tubeplate.

The critical part here is that the boiler metal is always cooler than the flame, therefore as soon as the flame comes within a certain distance of the tube wall, tubeplate, crown or side plates, the temperature of the flame/gasses decreases. If a flame loses too much heat too quickly it is extinguished and therefore becomes simply hot gas, no longer creating heat. (Wardale)

So by increasing the flame path you are increasing the time the flame is burning, giving out heat, raising the average firebox temperature and getting the hottest part of the gasses into the top back corners of the box (Porta)

A properly experimented design comes as close to the sides of the firebox, the tubeplate and as close to the superheaters as possible but with a small enough clearance of stays etc to avoid rubbing from vibration or thermal expansion, not so much of a problem in full size as our miniature/more fragile engines and boilers.

This allows the flame to "touch" or pass as close to all of the available heating surface as possible. It has some extra side effects:

- I. Increased superheater temperature
- 2. Less ash in the smokebox/lower tubes
- 3. Longer tubeplate life
- 4. (Particular in Polly's due to their design) Easier dropping of the fire
- 5. More forgiving fire

Let me explain.....

- 1. Imagine you have a single row of superheater elements across the top of the firebox, and the arch comes right up to the underside. Now all the flame, hot gasses has to pass directly through and around them instead of being drawn straight up the tubes, therefore more heat is being departed into the superheater elements and hence into the cylinders.
- 2. As the flame path is longer, more of the carry over (ash particles entrained in the draught and flame produced by the exhaust) is completely burnt before the flame is extinguished, so it cannot be dropped in the tubes to block, the smokebox to fill or spark arrester to block. A clearer smokebox and tubes also leads to longer running time before the engine struggles to breath and steam.
- 3. As found by Wardale in China and South Africa and by Porta in Argentina, any carry over in the flame has an abrasive effect on the tubes but more so on the tubeplate, especially around the tube joints. By burning more of this carry over off, and by directing the flame straighter into the tubes, this abrasive action is reduced (in some cases the tube life doubled and in one particular SAR garret, its tubes never needed replacing due to abrasive corrosion over its entire mainline working life, only due to metal fatigue/rusting.

4. This may also apply to other designs but in Polly locos case, the ash pan has a tendency to twist when the pin is being withdrawn from one side and catch on brake rods, drain cock rods and or pipework, causing it to jam in place until persuaded to drop with a shovel up its backside. The arch mounted to the grate almost acts as a guide to keep the grate and ashpan straight and all bar one occasion with Trojan over the past year and a half, it has dropped out cleanly and quickly without trouble.

Dad's original drawing of our arch is at the end of this article. We have evolved a step further since by having a pair of supporting legs instead of one central one. The leg has a tendency to waste away around the level of the top of the fire, the arch leans and twists and becomes a hindrance rather than an aid.

There is a second design of arch that Tom has fitted successfully to all of his locos, in that instead of attaching to the grate, they are mounted on a clamp that clamps to the superheater elements. The two designs suit different loco designs, grate mount for Polly's or designed where there is only a single superheater on one side or where the grate is a straight drop and clamped where there are superheaters across the box or the grate sits partly over an axle or cant be completely dropped.

5. A more forgiving fire is perhaps down to perception but in my experience and point of view with Trojan/Marjorie, but with the arch the boiler will still steam freely on "bad" coal and also will forgive a bad fireman (Me) and keep going. Having taken Trojan/Polly to a few rallies and open days and having run on varying grades of coal, she has never not steamed because of it. Where others have struggled to make a batch of coal burn, Trojan/Polly will still go like a scaled cat. Also, me not being the best fireman (heavy handed and forgetful) the fire will keep its heat for longer and be easier to recover.

(I apologise for the wordiness at this point, if you're still reading, well done!) So the second modification, the exhaust plumbing. There is much written about steam loco exhausting. From simple plain straight chimney single nozzle with I in 3 and I in 6 tapers, right up to Lemprex (orig. Porta) exhaust systems. By far the simplest fully developed design that has proven itself is Porta's Lempor exhaust (spell check hates me by now) which along with Chapelon/Gresley Kylchap are the ones most engineers may have heard of.

"Any idiot can get steam into a cylinder, the hard work is in getting it out again", Sir Nigel Gresley (I can't remember the exact quote, but something like that)

There is an excellent book/thesis titled "The Fire Burns Much Better" by J.J.G Koopmans. A long detailed read, but it charts the development of steam exhausts from Trevithick sending the exhaust up the chimney (at first just to clear the heads and sight of it driver and passengers) all the way up to Porta, Wardale, Chapelon, Girdlestone developing exhausts systems to, in some case, almost double an engines power output a the same time as decreasing coal and water usage.

With Trojan we haven't gone quite as far (for now) but have made a start by only changing a single piece of the puzzle, both due to time, effort and to allow a comparison. We have changed the exhaust pipe. By design Polly's are a straight tee-piece of ample bore but does allow one cylinder to increase the back pressure on the other.

Back pressure on an exhaust robs the power from the boiler supplied steam and cut off in the valve gear. For example if you have 13psi+ exhaust backpressure (Porta found one example of this in Argentina) then effectively you have 13psi less pressure in the steam supplied to the cylinder which also leads to not being able to notch up the valve gear as far, leading to further loss of power/efficiency.

We replaced the tee-piece for a swept design, quite typical in designs. Speedy for example.

But we have a Kordina.

A Kordina is described as

"expand the release steam to low pressure and high velocity at the point where the exhaust flows from the two cylinders join, preventing backflow of release steam into the opposite cylinder which occurred whenever the flow area of the exhaust passage junction was much larger than the blast nozzle tip. This was normally the case with First Generation Steam locomotives and showed as a jump on the back pressure line of the indicator diagrams at approximately mid-stroke position, the most unfavourable point."

further added by Wardale when working on the Red Devil (The Red Devil and Other Tales from the Age of Steam)

"Ideally, some of the great amount of energy in the release steam could be used to create an ejector pump action on the exhaust from the opposite cylinder, lowering the back pressure in this cylinder, even to below atmospheric pressure."

"the exhaust passages from each side first branched into those for the front and rear chimneys respectively, and at the very top, the dividing walls separating the exhaust steam flows from the right and left cylinders ended. At this point the combined flow section was equal to the total exit section at the blast nozzles and this was the essence of the Kordina."

Now, I'm not claiming that we create a partial vacuum in the opposite cylinder as Wardale was able to with the 4 cylinder Red Devil in South Africa, but we do appear (by observation) to have cured the cushioned feeling of Polly when running at full pressure, notched up under load. Polly has a distinctive galloping feel created when one cylinder exhausts and partially exhausts into the opposing cylinder, as stated above, at mid stroke. In Trojan, even when running hard, under double the load Polly has ever coped with and notched further back then Polly has ever managed, she is free and sounds much crisper.

The most important design criteria of a Kordina is as quoted by Wardale above. The combined flow section should be equal to total exit section of the nozzles.

As has been found by experimentation in miniature steam, in a two cylinder simple engine with simple single nozzle, each exhaust are where they meet should match the blast nozzle.

For example, in Trojan, two cylinders, 0.25" diameter nozzle, the exhausts area where they combine in the same area as a 0.25" nozzle.

This doesn't apply to a three, four or even more cylinder engine, where ratios more along the lines found by Wardale apply, but is a good "rule of thumb" to follow.

Trojan's Kordina means that each cylinder only has its own back pressure to over come and that the blast nozzle is only really a guide to the exhaust steam and is only providing minimal back pressure and compression to the exhaust steam aligning it with centre of the chimney.

Trojan's Kordina is the only meaningful difference between Trojan and Polly (Marjorie) and the difference between the two in terms of haulage steaming could not be more different.

If I'm overlooking something major other than wheel diameter please point this out to me.

Trojan will pull a double loaded trolley around our track all afternoon and will run longer on a tank of water and small bunker of coal than a tender loco (which I've done twice on a Friday night run, when just us two on the track the tender engine stopped first for water/coal). I'm not saying anything about the other tender engine here only that the best I ever had out of Polly was three non-stop laps. Trojan managed 12.

At a recent Canvey visit, eager to see what Trojan could do, I steamed up quickly and was on the track first clocking up 11 continuous laps before needing water, 2.75 miles. On an 0-4-0 saddle tank with small fire and small boiler.

A Kordina works by limiting back pressure to a single cylinder but also as an ejector/Venturi on the opposite cylinder, actually sucking the exhaust from the other cylinder which increase peak flow, stronger blast, brighter hotter fire, more steam = more power for longer.

To make a Kordina we essentially made a normal swept exhaust but with a flat dividing plate up the centre until the pipe splits at a threaded joint.

The dividing plate makes the exit point of each cylinder the same area as that of the single nozzle 0.25" diameter, so that no more compression and therefore, back pressure is created at the nozzle. After we had fabricated this new exhaust, a simple test was performed for comparison. This was by no means a scientific test but is still a good indicator of improvement.

The running chassis was connected to the air line, the smokebox with door and chimney just placed in the correct position, no sealing was done, just placed over the pipes and roughly aligned to the chimney on two bolts.

This being repeated with the original and new exhaust pipes.

Running on ~30psi, a piece of plane A4 placed over the opening in the smokebox that accepts the boiler. The original exhaust struggled to hold the paper in place with no assistance. The new exhaust sucked the paper into the smokebox creating a cone shape in the A4.

So by no means scientific but definitely an indicator of increased draught/ vacuum being created in the smokebox.

Now Trojan is running the difference is to Polly is stark.

Polly only ever managed a single trolley of passengers around our track and would struggle to maintain pressure more often than not running around on 50psi. Trojan will pull a double trolley all day long and be blowing off, running often with the door off the latch just being sucked against it.

As I said back at the start of this (now longer than planned) article, we have Polly in bits for overhaul and are taking the time to change to a swept Kordina exhaust as per Trojan, but also going the next step which will form the basis of a follow up to this article.

My intention has always been to keep changes relatively simple, so keeping the basic boiler and engine untouched to see what can be achieved while still keeping the loco, the same loco, still a Polly - just one that's been played with a bit.

The current wish list includes, larger steam chests with extra insulation, insulation on cylinder blocks, lempor nozzle, weight, drip oilers to all of the motion, moving injector feed from backhead to front feed alongside axle pump, axle pump feed heater, generous insulation to all hot parts, longer chimney.



This the sketch for Trojan's Kordina exhaust. The top showing a view down with the Kordina dividing the pipe down the centre.

Polly's new exhaust will be an identical design.

Southern Fed Rally - Sat 7th September

First of all a message from Sue -

If you can ask members to get in touch if they can give any time to help with general tasks on Saturday for the 90th. Nobody is expected to do a job the whole day, the more we have volunteering, the more free time we can all have to enjoy the day.

Those that can make cakes or scones or sausage rolls (Male members and/or their wives/partners) or something and then bring them on the Saturday (the earlier the better), please let Sue know at the club or text or phone her on 07850 799171 as soon as possible. The more the merrier, but we need to know what will be coming. Many thanks.

Now my turn....

I joined the society not long before the clubs 80th open day. I remember it as a day of fun, forgotten boiler certs from Gravesend, a full track, much laughter, visitors tackling out track and good company.

But to sum it up in three words - An Excellent Day

80 years is an amazing achievement as a club, it means we have survived changing priorities, attitudes, fashions, generations and councils and have come out on top.

90 years, now 90 years is even more special.

That's 90 years of model making, of producing more variety, ambitions and talent than I can say I've seen at many other clubs, 90 years of lessons learnt, 90 years of lifelong interests acted upon and great friends made.

We as a club have a lot to be proud of, we have the ability to turn out fantastic models of great variety.

Now let me define what fantastic means for me.

Fantastic doesn't have to be built from scratch, fantastic doesn't have to have been built yourself, fantastic has nothing to do with paint, or finish, or that slight rattling sound running at 8mph with a train load of passengers, it doesn't mean pulling passengers at all, it doesn't mean steam or petrol or electric. Fantastic means hours spent in a workshop, hours spent maintaining, building, fixing, preparing, cleaning, painting, overhauling out models.

Fantastic is lorries, boats, clocks, stationary engines, traction engines and railway engines, coaches, wagons, garden railway scales, 3d printed or meccano.

Fantastic is a member spending his or her time, money and skills, learning, making, improving doing something they enjoy and seeing the achievement of a finished model whatever that may be.

We are a fantastic club. We have a lot to be proud of. We are Maidstone Model Engineering Society and we are 90 years old.

My personal plea, to all of our members.

I look around the club and see engines and models of all sizes, skill and capability. I see members building more models than we ever see on a Wednesday, Friday or Sunday. I personally don't necessarily go for the biggest engines or the most powerful - I'm building a Canterbury Lamb and Northumbrian and have build an 0-4-0 Saddle Tank - Whilst they are amazing they are not be all and end all, and I'm not alone. I know of a beautiful Calbourne, Tich, Rob Roy's, 2" Traction Engines, Boats and Barges that all deserve to be exhibited. Id love to see them all! So why not! At our 90th we are intending to have an exhibition of members models and it would be fantastic to not just have huge big models display but also the small rarer cheaper easier to build models. PLEASE show whatever you have, I can guarantee it will be very, very much appreciated.

Otherwise, please just come down, even if you haven't been down for a while or are down almost every available chance, it will be a fantastic day to see the hobby at its best, sociable, fun, entertaining, varied, appreciative and supportive.



Boiler testing

Just a quick note on boiler testing. I expect this should be a reminder for most, however for a few of you this may be of use.

The current boiler testing procedure is split into four sections, and although this may seem a lot, it's easier than it seems.

Firstly there I the Written Scheme of Examination. This only need be done once, and it is essentially a document that details all of the parts of the boiler system that are to be tested. It is not transferable between owners, and requires redoing should the model change hands, otherwise it remains valid indefinitely. A copy of this is sent to the Southern Federation who keep a record so that it may be tracked in the unlikely event that it was lost, and subsequently resurfaced somewhere else.

Secondly we have the Shell Test. Again this is a one off test. It is a hydraulic test at which point the boiler should be bare of all fittings, and off the frames. This is to 2x working pressure. The only time this is to be repeated is if the boiler were to undergo any modifications, for example a repair or an extra bush added. This should be presented to the boiler testers fully plugged and with a $1/4 \times 40$ male thread available to attach to the test pump. At this point the volume of the boiler would be measured.

Thirdly we have a Repeat Hydraulic Test. This is another hydraulic test, this time with all of the fittings on. Essentially this is when the loco is ready to go, but with safety valves plugged. It is pumped up to 1.5x working pressure, ideally with the pressure gauge still attached, assuming it reads to a high enough pressure. Again, a $1/4 \times 40$ male thread is required to attach to the test pump. This is repeated every 4 years.

Lastly comes the Steam Test. The loco should be presented to the boiler inspectors, preferably not too dirty, with the ash pan and grate out if possible. It is also necessary to look in the smokebox. The pressure gauge should be tested at this point too, so it should be removed and an adaptor available. The loco will then be steamed, and a number of checks made. This is repeated annually. If you are unsure of any of the requirements then just have a chat with a boiler tester.

If you would like a test please discuss and arrange in advance with two boiler testers in order to make sure they have the time to conduct the test for you when you require. If you turn up without prior arrangement then be prepared for the inspectors to be busy and unavailable for you on the day.

The current boiler testers are:

Dave Deller Peter Kingsford Martin Parham Tom Parham Edgar Playfoot Bernie White



MMES DIARY DATES 2019

Tuesday 20 August Wednesday 21 August Tuesday 27 August Friday 6 September Saturday 7 September Wednesday 18 September Friday 4 October Wednesday 16 October Sunday 27 October Thursday 26 December Mencap Runs, 10-12 Members Run Mencap Runs, 10-12 Prep for Southern Fed Rally Southern Fed Rally + 90th Celebration Members Run Amy's Quiz Night Members Run Last Public Running Day Boxing Day Run

Friday Nights start around 7-30pm at the Clubhouse, evening runs a bit earlier, with the track available from 5pm

Friday Evening Meetings are for members and associate members (their families), occasionally for members' friends, and for those who intend to join the society.

Donation minimum $\pounds I$ per person for Friday evening meetings, unless otherwise stated for food if you are eating what is advertised for the Club Night.

Wednesday Playtime Runs generally start around 10-30am and finish early afternoons.

Events listed will only alter if an unforeseen situation means change is essential.

Exhibitions/Open Days in 2019

Saturday 28 - Sunday 29 September

Llanelli Autumn Rally

