

April /May 2010

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STEAMING AHEAD



Sutton Coldfield Model Engineering Society

► **Spring Steam Event Sat 22nd May your help needed** ◀

President Neil Harrison	0121-378-3992
Chairman Alan Leary	01827-892503
Secretary Bill Betts	01543-683729
Treasurer Chris Greene	0121-351-3509

Directors

Mike Brophy	0121-353-6233
David Smith	0121-351-7876
David Moseley	01543-258939
Peter Robinson	01543-253343
Gary Tyso	0121-354-9178
Steve Whitson	01543-675852

Co-opt to board

Eric Davies	0121-308-6886
Ron Freeman	01922-632180

Events This Month-

Tues 11 May	Steam Up Faggots & Peas 6pm on 7pm food Also includes a Visit by Morris Owners Club
Sat 15 May	Steam Up 1pm onwards
Sat 22 May	Spring Steam Event 11.00am—4pm
Mon 31 May	Bank Holiday Steam Up 10am onwards

Dates for Your Diary

Sat 05 June	Birthday Party- Private Function	2-4pm
Sun 06 June	Steam Up 10am onwards	
Sun 13 June	Erewash Valley MES Visit to Balleny Green	10am onwards
Tues 15 June	Traction Engine Night Jacket Potato	6pm steam 7pm food
Sat 19 June	AGM & Steam Up & BBQ	10am onwards
	<u>AGM 5.00pm</u>	
Sun 20 June 2010	Barbers Shop- Private Function	2-4pm
Sun 27 June 2010	Birthday Party- Private Function	2-4pm

Editor : Steve Whitson Phone 01543 675852
 Mobile 07976944171
 email steve@casprint.co.uk

Copy Date is the last Tuesday of the month

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Chairman's Chunter.

I remember quite clearly, in the last edition, advising all to enjoy the spring.

At the time, at best, this was wishful thinking, at worst, premature or even plain daft. Thankfully, the snow ploughs have not been out but occasionally it had felt cold enough. But guess what, over the last couple of weeks, spring appears to have found its feet and isn't everyone feeling better for it.

The weather aside activities rumble on and, as ever, it seems, the majority of work is related to the ground level track project.

The project has become reliant on the completion of the points. I have had a great deal of help from others in an effort to achieve this. My thanks go to all concerned.

I reported, in the last edition, the difficulties that had arisen with the new design points. Even though the board agreed to the solution of motorising all points, including trailing points, it

is perfectly obvious the benefit of trailing points having the capability to 'float' was unquestionable.

Further brainstorming and crucial amendment to design has resulted in a, apparently, successful trailing, floating point.

There has been considerable development in the signalling department.

I was invited to a very constructive signalling group meeting which, after much positive debate resulted in mutually agreed policy.

This month included a birthday party which was obviously enjoyed by everyone, ---and the kids.

We put on a very good show and I thank all who attended to help in making it a special day for the young chap, he may remember and become a member sometime in the future.

The Thursday evening talk at Shenstone hall proved to be very enjoyable. The subject was regarding the building, so far, of a 4" scale traction engine. The way the slide show was put

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together and the parts exhibited were excellent.

I have to say those who were unable to attend missed a good one.

We have been contacted by a gent who is involved with Middleton Hall.

He has enquired about the possibility of the society putting on a steam based stand as part of a bank holiday Monday steam event on 31st may at Middleton. All types of steam engine would be welcome. If you are prepared to assist in any way please contact a board member as soon as possible. Obviously he needs to know one way or the other.

The society was pleased to be part of the Sutton Coldfield MRS exhibition recently.

The stand was manned on both days by the regulars who I sincerely thank for their continued commitment.

I should also thank the SCMRS members who, as always, looked after our chaps so well and kept them fed and watered.

We have a season ahead,

hopefully with fine weather continuing (I seem to have this obsession with the climate, perhaps a session with a shrink is needed- or a holiday), including a few public events so I am appealing to all to do their bit and help the regulars in manning these fund raising events, after all it's the money raised at such events that keep our subscription rate low, full member for just about £1 per week, not bad in my view.

Just to conclude I need to mention that the secretary is to tender his resignation at the forthcoming AGM therefore I am appealing to anyone who is willing to take on the position to contact me as soon as possible. While I'm on the subject it's not too long to the AGM so prepare your contributions, be they complaints or ideas lets get them discussed.

Kind regards to all

Allan Leary
(may the sun soon shine)

For any one who has not picked up the change please note that the
Spring Steam Event is on
Saturday 22nd MAY

Your help is needed please contact
Peter Robinson the event coordinator
01543-253343

Membership Reminder

Membership fees are held at last years price for 2010 may we remind you that they are due by 31st March.

Brief report-back from **Midlands Federation Meeting** **held on 13th March**

1> Boilers

- The good work by our representatives on the Boiler Forum continues with the most recent meeting considering 15 pages of comments that were received on the "Blue" and "Red" books. No major changes proposed at present, but increased understanding by all parties on the issues concerned. No feedback yet on the issue of

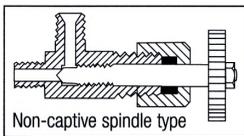
TIG welded boilers, but the disparity of approach to these between UK and other countries has been noted. On the subject of stainless-steel boilers, it has been noted that the cost of suitable grades of stainless-steel are not that dissimilar to the cost of copper!

- Clarification is being sought from the insurance companies on the circumstances under which a full re-certification of a boiler becomes necessary. This follows an incident whereby the detachment of a fitting under steam subsequently required a relatively minor modification to the boiler itself.

- On the subject of boiler fittings,

CAPTIVE VALVE SPINDLE

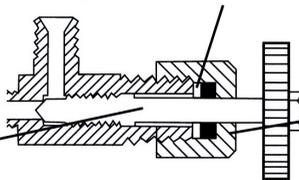
The Boiler Test Code requires that screw operated valves should have captive spindles. The following sketches show how one type of existing valve can be adapted to a captive spindle without too much work, assuming the existing spindle is of sufficient diameter to permit the modification. **Ensure the reduced valve spindle diameter is not too weak for use.**



Turn down valve spindle to the core diameter of the threaded portion leaving a small amount behind the thread not reduced - this non-reduced non-threaded portion prevents possible engagement of the thread with the washer.

Invariably, the flats remaining on the end of the spindle are sufficient to use the old valve handle.

Insert washer - the hole of which just clears the reduced valve spindle but doesn't allow the threaded portion to pass through.



Make new nut with smaller hole to fit valve spindle or, if space permits, insert another washer the other side of the packing and use the existing nut.

MBL

Mike Leahy has produced a design which can often be incorporated into existing steam valves in order to make the spindle captive. This diagram is reproduced above for the benefit of our members.

- On the subject of boiler testing, it is worth stating that it is not expected that the current guidelines should be applied retrospectively. However, if someone is doing a major overhaul to a boiler or doing

some repairs then it is worth considering what else can be done to bring the other components up-to-date.

- A contingent of Boiler Inspectors from our own society will be attending the Boiler Testing Seminar in April, the purpose of these seminars being to bring everyone up-to-date on the latest guidelines and gain a consistent approach across all societies.

2> Stoneleigh/Royal Show

- Although the Midlands Federation (and hence the member societies) did not have a stand at the Stoneleigh Show last year, it has now been announced by the organisers that due to falling attendance and the adverse economic circumstances, no further shows will be held.

3> Midlands Federation Rally 2010

- This year's event is to take place on Sunday 18th July at the Coventry/GEC Society track. A map showing how to get there will be published nearer the event, but it is hoped that as many of our members as possible will be able to support the event.

[Peter Mc / 14th March 2010]

**MARCH 2010 --- GROUNDS
MAINTENANCE DIARY AND
MISC NOTES**

TUESDAY 2nd

Grenville and I were quickly joined by Bill and Roger as we continued with the work started last week, e.g. building up, levelling and landscaping the area along the alignment of the new 'pool junction'. The heavy rain over the weekend had settled the soil down nicely and showed where we needed to add additional soil. There were lots of large roots as we cleared and levelled the remaining part of the mound round the 'dog kennel' which slowed us up.

A beautiful sunny warmish morning saw us shedding our top coats and jumpers well before coffee time. By then we had levelled most of the ground and all that remained after coffee was to collect turf from around the hedges and the south west corner, stored when the new track was dug out. Unfortunately there was not sufficient to do the whole area and we may have to purchase a

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small amount to complete the bank.

By lunch time the four of us needed a break having completed the work. So we called it a day and headed for the hot soup in the club house, courtesy of Mike. Cocooned in the warmth and occasional blue haze of the heated bays in the maintenance store Allan (L) and Dave (M)'s teams worked on the new points --- but see elsewhere for their reports.

There are clear signs that spring is now on the way with the daffodils well advanced and by the time you read this they should be in flower. There is one patch of snowdrops on the bank by the top end of the beech hedge. Snow Drops multiply quite quickly and so, if you have any to spare, I can soon find good homes around the site for these lovely first spring flowers.

Stuart and John identified the fluorescents in the steaming bay are badly corroded and dangerous. Stuart provided the board with a quotation which

was approved at the Board Meeting this evening. Whilst mentioning Stuart, I was pleased to see the minutes of the February Board Meeting were approved with Stuart, Stan Jones and David Moseley made Honorary Members – Congratulations.

TUESDAY 9th

Almost a week of fine dry weather so it's time to have a go at getting rid of the rubbish on the bonfire. Tested the wind direction – not blowing towards the village so collected up some more old wood and my can of diesel and set about getting the fire started. Worked and it was soon alight but the wind fluctuated in direction and unfortunately some smoke went in the direction of the village. However, having removed the leaves quickly there was little to cause any annoyance.

Grenville arrived and worked to finish the above ground comms connection area at the far end of the tunnel. Having removed some of the banking he installed a 2'0" square slab retainer; it's

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now ready for the signal team. Vic has made a start on finishing the levelling and landscaping of the old pool area but it's going to take several weeks and a largish amount of soil to complete it to our satisfaction.

Jim (H) tidied up the leaves around the club house while inside Neal (H) clean up – I was quickly reminded to wipe my feet as I inadvertently took in soil on one of my boots. In the steaming bay Stuart and John worked on installing the first of the new fluorescent fittings, Dave, Allan, Peter, Vic and Chris were concerned with getting the new track tamped, cambered and levelled but see full reports elsewhere.

TUESDAY 16th

Can't believe we've got another fine day. Still too cold for the daffodils but they are almost there, another week of this warmer weather and we should see them start flowering. Roger worked removing old tree stumps from between the tracks by the maintenance store while Grenville and I took a barrow and tools to the S/W corner pile

of soil. We raked and tidied up ready for seeding before breaking for coffee, after which we joined Roger to clear the final large stump.

After coffee I spent time with Bill before he left to meet a contact with some expensive software. Bill was very successful and got two lots which is just what's required for the PLC system. After lunch Allan, Dave, Chris, Allan (D) and I started walking the track looking at signal positions – Bill joined us shortly after and I left them to pick up Jane.

Lots of other work going on around the site; the motor on the station approach point has been replaced by Mike, Mark and Allan (L). Points and track elsewhere were occupying other member's interest but see their reports in Steaming Ahead.

TUESDAY 23rd

Another dry morning so Bill, Grenville and I started filling in and slopping the bank to the right of the old filled in pond. After coffee Grenville and I moved turf and soil from the top

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of the bank to fill in the slope which helped improved the look. Quite a bit of soil had been tipped in readiness for this work and it was used to grade the bank, making it more attractive and a little easier to maintain, hopefully.

Peter has started painting the new patio and signal box fencing, David (O) made a good job of cleaning up the steaming bay, John (R) cleared the mole hills and Stuart finished off the work on the new bay lights. Elsewhere work went continued on the new point work but we all stopped to watch a helicopter lifting sections of the new BBC mast into place.

The colder winter period this year has given the hort team a bit of breathing space to help with other work and to concentrate on some landscaping activity. Grenville bought grass seed which he's spread on the bare landscaped area by pool junction, S/W corner and elsewhere around the site.

The first daffodils are in flower and hopefully, with a little more

warm weather they will be all be out within the next week or so.

TUESDAY 30th

Not a lot we could do today so Grenville and I walked the 'estate' checking the shrubs, trees and new plantings. Everything is late compared to last year but the buds are all starting to open, so a fortnight or so should see the site turning green and loosing its winter drabness. In the mean time the 300 or so additional planted daffodils are doing well but we need a lot more; so if you are turning any out please let me have them.

The turf laid last year has taken well and it was clear, as we walked round, the grass needed cutting around the S/W corner, shoulders either side of the new outer track, front road side area and a few other places.

A good turn out today but see elsewhere for detailed reports. We all appreciated the soup at lunch time -- thanks to Ivor and Mike for clearing up afterwards.

Eric Davies 6th April 2010

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BIRTHDAYS

**Ben and James Birthday Party
Sunday 21st March 2010**

Thank you to all those members who assisted with this birthday party. We were blessed with a nice dry sunny day and it went off very well. I'm pleased to pass on what the organisers and their guests said:- *'Thank you - it was the best party we've done or been to'*.

Quite and accolade, so again. Thanks to you all -- one down and 4 to go this year.

**APRIL 2010 --- GROUNDS
MAINTENANCE DIARY AND
MISC NOTES**

TUESDAY 6th

Nice dry day and just what was needed for the first mowing. Tractor and mower started first time and by coffee time Grenville and I had done the major part of the work.

While we were mowing Roger worked clearing all the debris branches the wind had brought

down and piling them on the bonfire. Bob, our new team member, went round checking and tapping the fire bucket bottoms back into shape, the frost having pushed them out, and refilling. John and Stuart carried on fitting conduit in the steaming bay between the new fluorescent lighting to protect the cables from the enthusiastic steamers.

Bill talked to Ossy and others about the signalling system while Grenville and I finished off mowing. The site looks very good and tidy, ready for the birthday party on Sunday.

SUNDAY 11th

The birthday party went off very well and by now you all should have seen my note on the Notice Board. Thanks again to all of you who assisted and made it such a success.

(TUESDAY 13th & TUESDAY 20th) -- TUESDAY 27th

While I was away on holiday, for the past two weeks, it was obvious the team had done a good job as soon as I drove in. However, they had left me the

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bonfire which was the first thing to be tackled – no problem. With everything tinder dry it went well.

Grenville and I then started mowing and were very soon joined by Roger; so by coffee time we had completed a large part of the work. While having coffee a new member, Dave Brooks, arrived and Neal was happy to take the completed application form and cheque. Dave is not 'an engineer' – 'welcome to the club' – ex long serving BT Engineer in IT, retired and happy to join the hort team looking after the site, for the moment at least. He did good offering to trim the first of the banks – something I really appreciate.

Bill and Ossy went signalling, Ron continued 'facing off' the new steel signal posts brought by Garry and then continued working on varnishing and painting the benches around the club house. Lots of simple but very important jobs that require doing --- Mike (B) greased the turn table while John (R) cleaned up the steaming bay.

Why is it that 'engineers', at least those at Little Hay, think that someone else will clean up after them, wash the mugs, clean the sinks, clear the ash etc., -- come on chaps please play fair. At the same time thanks to those who do clean up and those that make the soup on a Tuesday – thanks Ivor and Mike.

Well that's the end of another month and I'm pleased to say that Balleny Green looks very good as I walked round just before leaving a 2.30.pm. Thanks to all of you who contribute and make a difference; to those who can't please try to come and enjoy the 'estate' – it's lovely to just sit quietly and enjoy a cup of tea or coffee under the canopy.

BIRTHDAY PARTIES.

The next birthday party is not until SATURDAY June 5th (2-4.00pm). I will draw up a schedule for this one and the final two parties, put it up on the board and send an e-mail to those names who I've put on the lists. It's purely to save time

and give members plenty of time to tell me they can't do it or confirm they can. Thanks again to you all for your assistance.

Eric Davies 27th April 2010

(Copy enclosed for members)

ED

Wanted

5" Pansy Drawings to buy, copy or borrow please.

Bob Bates 01827 63291

The Club Signal System

April

The club's signal system has been controlled by a BBC micro computer which was adapted by Peter McMillan and Mark Bradley since it was installed over twenty years ago. This does serve the club very well but it is becoming close to its retirement. In addition the extended track, extra points and signals make the system larger

and the requirements more complex. The club also has to be more aware of the increasing demands of health and safety.

The Board was aware that change was necessary and they set up a committee under Mike Brophy a year ago to consider the options to replace the existing controller. A number of alternatives were discussed.

These included a relay system; adapting a PC and making our own computerised system. All these would need a great deal of homemade equipment and may not be very flexible.

In industry control problems like this are satisfied by using a Programmable Logic Controller (PLC). This is a rugged modular computer designed to operate in harsh environments and have many inputs and outputs (I/O).

It does not use Windows or hard drives and its software is largely written in Ladder language so it looks like relay diagrams and can be understood easily. A PLC is ideal for this task but costs much more than the alternatives.

I made a presentation to the Board in January explaining all the alternatives. This was

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followed by a proposal to purchase a Siemens PLC this month. The board have decided to authorise this investment. This might seem to some of you to be an overkill for the control of our track but most drivers like driving to signals, it is fun, but if we have them then they must be as safe as we can make them. The job that has to be performed here is not trivial it has to scan about 96 inputs and control about 120 outputs. A number of these are associated with controlling motorised points which may be approached quite fast and must be set correctly. There are areas of the new track where trains may be merging from two to one line needing anti collision logic that must work! The capacity of a PLC allows us to build in a large number of checks into the system. These include annunciating missed or faulty train detectors, checking point movements for jams and faulty drives. It is intended to give aural warnings locally if points fail. This professional approach would help us if an incident involving points or signals occurred. Although the

equipment itself is complex it is designed for easy servicing by replacing one of many modules. Testing a new system like this, spread out over two acres, is always difficult so it has been agreed to build a large mimic diagram with all the inputs and outputs on it so that both the software writers, the Board and club members can try it out before the PLC is installed. This whole process will take some months and I understand that Peter McMillan is extending the existing system to cover our needs until the PLC is ready for installation and passed off. The present situation is that I am completing the final negotiation with the Siemens distributor, clearing up a few technical points, getting the software employed to write the logic to work and finalising the signal positions with the Board. Thanks to Steve W. I already have a very smart face board of a site test mimic 4X3 Feet large. Once the signal positions are finalised I can drill this and start to assemble it. I will keep you informed each month of progress.
Bill Colman

11.03.10

The Club Signal System Update May

Since the last report The Board have approved the signal, motorised point and train detector positions. This fixed the capacity of the required PLC and this was then ordered in case the new government increased VAT. It has just been delivered and it has to be assembled on a DIN rail mounting. There are 52 pieces – Like making Lego. I am also proceeding with the test mimic which is a large lash up to enable us to test the system and all the logic fully, before the equipment is installed.

Peter Mac has made a very smart new passive mimic that was on display at the S C Railway Exhibition. This will be used in his temporary extension to the existing system and I hope in the final solution.

The greatest disappointment we have had during the last month

is that the latest train on track detectors have proved to be more temperature sensitive than we had expected. These required readjustment during the brief spells of hot weather in April. The detector system remains the greatest challenge to the signal team. Our fall back solution is to revert back to Ossy's previous design where the detectors were mounted vertically in the rail. This is a technically less critical application and appears to be much less temperature sensitive. It is however more difficult to install and to reposition if necessary.

Bill Colman

27.04.10

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