

S**SOUTHERN** ***F*****FEDERATION** ***N*****NEWS**



JUNE 2007



Photos: Mike Chrisp

ABOVE: Throughout the duration of the Harrogate Exhibition, Roddy Turner demonstrated the operation of his 1:76 scale Ruston Bucyrus Walking Dragline Excavator. Apart from the aluminium body, the model is mainly constructed from brass, and took five years to build.

ABOVE RIGHT: The model is remotely controlled from a chair that emulates the driver's console in the full size excavator. Behind the operator can be seen the TV monitor which gives the view seen from what would be the operators position in the model.

FRONT COVER & BELOW: Mr A. Barlow won the Barry Jordan Trophy for 'Best in Show' at the recent Harrogate Exhibition with his 1:10 scale model of the Mersey class Lifeboat, RNLB Andy Pearce, currently stationed at Llandudno. The model also gained the Eventex UK Shield for 'Best Boat' and the Precision Paints Award for the 'Best Finished Model'.

Photos: Mike Chrisp



SOUTHERN FEDERATION NEWS



June
2007

Editor
MIKE LEAHY

Views and comments expressed in this publication are not necessarily those of the Southern Federation of Model Engineering Societies

EDITORIAL

MY THANKS to the many clubs that have recently sent in their club/society magazine, journal or newsletter. Quite a number of them are new to me and so for this edition I have given them precedence for the limited space that we have. Please don't be offended if your club/society hasn't appeared this time around; I will ensure that everyone gets a turn. No matter what, we try to ensure that all clubs/society events and rallies appear in the Events Diary section. Even if your club doesn't have a magazine, send in your rally dates, etc.

It would seem that common sense has prevailed with regard to the EU attempt to ban imperial units of measurement. Many thought that this proposal was a new imposition from the EU, but actually it had been in place for some years, excepting that its full implementation for the UK had been deferred to a later date. This deferment has now been extended indefinitely. However, we must continue to remain forever vigilant in this respect. No doubt, as time goes by, the issue will no longer be a problem, for when the older ones amongst us disappear to that workshop in the sky, the youngsters, who are taught nothing but the metric system at school, will wonder what all the fuss was about; that excepting any dealings industry may have with the USA.

May your tools always remain sharp!

Mike Leahy

May 2007

www.southernfed.co.uk

Items for inclusion in the September 2007 edition should be sent to the Editor
by
27th JULY 2007



From the Chairman

Welcome to another edition from the Chairman's pen, or should it be keyboard?

So what has been happening in recent weeks on the Federation front? Early March saw yet another Annual General Meeting, held on this occasion at the excellent Coventry Transport Museum. Despite the fairly central location of the venue it was disappointing that the attendance was the smallest we have had since the decision to take our Annual Meeting on tour. There were 58 individuals present representing 47 Clubs/Societies, with 19 apologies for absence. However, congratulations and well done to everyone who attended, it makes all the effort and organisation worthwhile.

In the days and weeks leading up to the meeting, several organisations tendered there apologies, not being able to attend since it clashed with one of there own events. To overcome this problem in future, the delegates present unanimously agreed that future Annual General Meetings would be held on the second Saturday in March. So book the date now for 2008, it is **March 8th**. At present several venues are being considered.

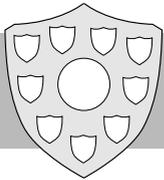
We also welcome two new faces to the Federation Committee, Wally Pearson (Fareham and District SME) and the much-respected Mike Chrisp (North London SME and former Model Engineer Editor).

These notes are being penned a few days after the very successful new Model Engineering exhibition at the Milestones Museum in Basingstoke, in excellent weather. The exhibition was well supported by local Clubs/Societies, and the exhibition team are to be congratulated on an event well organised with only a few hiccups. There is already an indication that this could well become a regular event.

By the time you read these notes, another Harrogate Exhibition will have come and gone along with the Federation's Spring Rally.

Well, I think that is all for this time, I hope to see you all during the season – several of our regular rally or exhibition invitations have already been received, and so it looks like another busy season.

Brian Thompson



SOUTHERN FEDERATION ANNUAL AWARD

Andy Clark of Polly Model Engineering Ltd. presents the Southern Federation Annual Award to Rhys Sully, of Cardiff Model Engineering Society.

Rhys also received the Polly Model Engineering Award, a voucher to be redeemed for model engineering tools, materials, etc of his choice.

Well done, Rhys!

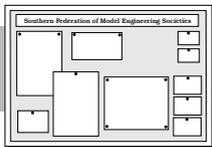


Photo: Mike Leahy

This year's winner, Rhys Sully, although only 12 years of age, is a very active member within his club, Cardiff Model Engineering Society. On Club open days, he helps to run Gauge 1 locomotives, acts as a guard on passenger hauling duties, has passed his drivers test, although at present he is not permitted to haul members of the public; in addition he helps to prepare his father's 7¹/₄" gauge A4 prior to public running.

On Club maintenance days, he is only too willing to cut the grass using the tractor mower, the onerous task of tidying up leaves, and generally keeping the club site clean and tidy. He is an accomplished handler of a wheelbarrow and shovel, whether it is to move sand, aggregate or just plain muck and rubbish.

So what has Rhys achieved away from his club activities? Ably assisted by his father, he has built from scratch a Gauge 1 Derby 4F which is affectionately known as the "Project". This included the boiler, machining the various castings etc. for the wheels and cylinders, and then painted it to a very high standard. Just to prove he achieved this for himself, he then put pen to paper and did a write up of the exercise for his club's magazine.



NOTICE BOARD

www.southernfed.co.uk

Although the Federation's website has been up and running since last September it is still very basic in content and needs some further input. Many clubs in the Federation now have their own website and it is hoped that a link to these sites may be established. If your club has a website please send details of it, via e-mail, to Ivan Hurst, the Federation's secretary, at <ivanatshed73d@yahoo.co.uk> or alternatively through his e-mail envelope on the website. Details of rallies and exhibitions will also be posted on the site. An electronic version of the *Southern Federation News*, in pdf format (about 800K in size), is also posted on the website about a month after publication. However, because of issues that may arise under the Data Protection Act some pages are omitted in the website version.

DIRECTORY SUPPLEMENT NEW EDITION

A new edition of the Directory Supplement has just been published. The Supplement gives up-to-date information about Club/Society secretaries and details of clubs/societies that have recently joined the Federation. Publication for the 2007 edition had been deferred to May to enable the changes of secretaries that take place during the AGM season to be recorded.

The Supplement is available at £3.30 incl. p&p from:

Federation Sales, 35 Rivershill, Watton at Stone, Herts. SG14 3SD

Please make cheques payable to SOUTHERN FEDERATION OF MES.

Owing to the change in the structure of postal charges, and the fact that any letter over 100g now falls into the Large Letter category, it is proving impossible to send out the *Southern Federation News* and include a large number of flyers advertising club rallies, etc. without the Federation incurring considerable extra costs. To minimise cost, it was overwhelmingly agreed at the AGM that in future such flyers will be sent out as a separate mailing at the beginning of each running season and that a charge of £7.50 will be made to any club wishing to partake of this arrangement. (Yes, it's actually cheaper to make a separate mailing!) Recently, Clubs will have received this year's mailing and details of the schedule, etc. of future mailings will be advertised in this

magazine in plenty of time to enable clubs/societies to make adequate arrangements for printing and despatch.

The *Revision to the Boiler Test Code with regard to Small Boilers* published in the March edition of *Southern Federation News* is now available as a separate printed sheet for insertion into the Test Code booklets. Anyone wishing to receive a copy/copies should send a C5 size, stamped self-addressed envelope to Federation Sales (see address in previous page), indicating the number of copies required. A maximum of 25 copies can be sent in an envelope stamped for Letter Rate.

Footman James, the Federation's insurance broker has recently been acquired by the Aon Corporation, a leading broker in the classic car insurance market. Immediately, it was confirmed that the award-winning Footman James brand will continue exactly as before and the move has no effect on existing policies and client service will remain uninterrupted. Footman James was named Insurance Broker of the Year in the UK Broker Awards 2006 in recognition of the quality of service and product provided to the classic vehicle market. Contact with Footman James should, in the first instance, be through Angela Orford, Tel: 0121 561 6210

It has been reported that some visitors wanting to run at other clubs have presented the blue Test Record Cards as proof of holding a current Boiler Certificate. As it states on the card, 'The Boiler Record is NOT proof that a valid boiler certificate exists and therefore MUST NOT BE ACCEPTED IN LIEU OF CERTIFICATES when their presentation is required', The reason for this is that these cards can be subject to abuse and fraudulent entries, much the same way as the old style certificates were. If you present a Test Record Card at a club as proof of holding current boiler and steam test certificates don't be offended if you are refused permission to steam your model. To prevent fraud the 'new style' paper certificates are deliberately designed to have a life of only the periodicity of the certificate; they should, however, be retained for the historical provenance of the boiler. If photocopied they will not reproduce accurately.

Fraudulent entries on old style certificates continue to be found, particularly for models that are sold on eBay with a 'current certificate'. By the end of 2007 these old style certificates will no longer be valid, and so, hopefully, the problem will go away. If you ever need to check the validity of one of the 'new style' certificates this can be done through the Federation's Boiler Registrar.

SUBSCRIPTION SERVICE

Did you know that as an individual subscriber you can receive your own copy of *Southern Federation News*? The present subscription rate is UK - £7.50 (incl p&p) for four copies each year. Overseas - £11.50 in Sterling (incl airmail p&p).

To subscribe please send a cheque payable to SOUTHERN FEDERATION OF MES, together with details of your name and address to

The Membership Secretary

Mr J Walker, 23 Redwing Close, Stratford Upon Avon, Warks. CV37 9EX

Problems continue to arise over the filling-in of Boiler Certificate slips that are being returned to the Federation's Boiler Registrar. Many are received incomplete or include ridiculous errors. If these errors and omissions reflect the information that is entered on the certificate then there are many certificates out there that could be construed as invalid.

Areas of concern are:

- Serial No: A major problem is that quite a few boilers still appear to have no serial number or identification mark. The Test Code specifies what information should be shown on a certificate and one of the requirements is that *'there should be a means of identifying the equipment that the certificate relates to'*. A serial number should indelibly be marked on the boiler in a position that can readily be seen. Failure to have a serial number on a boiler means that you can never prove a certificate relates to a particular boiler. In the event of there being an accident, the insurance company could decline to settle a claim, where such a locomotive, road vehicle, etc is involved in the accident, as the model not having a valid boiler certificate. **YOU HAVE BEEN WARNED!**
- Bar-litres: The bar-litres entry seems to be a difficulty for some. The figure is derived from multiplying the total internal volume of the boiler (in litres) x the working pressure of the boiler (in bars) – to work out the bar figure, divide working pressure in psi by 14.504. Some do not show a number in this entry. Perhaps its because they haven't bothered to ascertain the volume of the boiler to enable the calculation to be made? Remember, you only ever have to do this calculation once in the life of the boiler - unless it is ever decided to down rate the boiler. A number of slips received have obviously been miscalculated, usually by multiplying litres x psi, but when one receives an entry showing a 5" gauge LNER B1 boiler with a bar-litre capacity of three (3) one wonders if the boiler inspector was awake when doing the test. Our insurers have asked of us 'how many boilers are there out there and what size are they?' This is the reason for wanting to know this figure. Rest assured, there will never be a list of boilers submitted to the insurance company, but a statistical analysis may at some time be required.
- Test Certificate No: It should show the Hydraulic Test Certificate (SF) No. NOT the Steam Test Certificate (ST) No.
- Expiry date: A number of slips show an expiry date longer than the permitted time allowed for a particular type of boiler e.g. copper - five years. It may be just a clerical error – please check all entries.
- Description of model: One of the reasons the Boiler Register was set up was to help in tracing stolen models. When describing a locomotive please give wheel arrangement (e.g. 4-6-0) and class or design of model (e.g. Britannia, Simplex, GWR 14xx) - 'locomotive' will not suffice. For road vehicles please give prototypical details (e.g. Foden Steam Wagon, Burrell Traction Engine) - 'lorry' will not suffice. If a freelance model then please say so.

Please be vigilant when completing certificates and slips.

The question of the validity of professional boiler test certificates has been brought to the Federation's attention. For new boilers the manufacturers certificate is accepted, providing it and its accompanying paperwork comply with the requirements of PER and that the boiler is CE marked and endorsed by the Notified Body, if required to be so. Test certificates for professionally manufactured boilers are for the hydraulic test only and the model will subsequently have to have a Steam Test Certificate issued before it can be put into use. If a new, commercially manufactured model is sold as ready to run then it should have a certificate(s) showing that it meets all requirements with regard to both hydraulic and steam testing. Please note that the validity of commercial certificates may not be for as long a period as that permitted by our Test Code.

However, some retest certificates issued by independent boiler inspectors do not appear to comply with the requirements of our Test Code, particularly with regards to the steam test. It is suggested that such certificates may be accepted as proof of hydraulic test but that a steam test should be undertaken to check the efficacy of the safety valves. Correct operation of water gauge, pressure gauge and means of water feed arrangement should also be checked.

Tonbridge MES have notified the Federation that there is an individual who continues to pass himself off as a member of their Society, having been asked to leave the society some four years ago. Concerned that the individual might bring the Society into disrepute, we are informed that Tonbridge MES members ALWAYS carry their official, up-to-date membership cards with them when visiting other tracks. Clubs/societies should be particularly careful if a membership card (2007 colour is green) cannot be produced.

SOUTHERN FEDERATION AUTUMN RALLY

at the

CANVEY RAILWAY & MODEL ENGINEERING CLUB

SOMNES AVE, CANVEY ISLAND, ESSEX

Saturday, 15th September 2007

Open Day - Sunday, 16th September

The Australian Association of Live Steamers Trophy competition
will take place during the rally on the Saturday

3½" & 5" raised track – 1,500 ft 7¼" ground level track – 4,200 ft

Refreshments available

On site camping and caravan space available

Pre-booking for sites is essential – ☎01702 512752

For further information contact:

Brian Baker ☎01702 512752 or Greg Ridgewell ☎01375 373402



Polly Model Engineering Limited

Incorporating Bruce Engineering

For all your model engineering requirements.

Polly Model Engineering is pleased to be able to support the Southern Federation

Manufacturers of the renowned **Polly 5"** gauge passenger hauling, coal fired **steam loco kits**, which are easily assembled with hand tools and minimal skill. **Polly loco kits** provide an ideal introduction to the model engineering hobby. Latest **Polly VI** illustrated. **Kit price only £5995** inc VAT.



Manufacture is complemented by our Bruce Engineering Model Supplies business, giving a comprehensive range of steam fittings, accessories, materials, books, etc. We specialise in the supply of quality injectors (JC, Chiverton), pressure gauges, etc.



Stationary engine kits: We produce a wide range of over 45 different models, including designs by **Anthony Mount**, our own large R & B gas engine, etc, and supply the full range of **Stuart Models**.

Practical Scale: Drawings, castings, lost wax parts, laser cut frames, CNC rods, CNC platework, etc for the range of locos designed by Neville Evans and serialised in the Model Engineer.

Whatever your model engineering needs, from nuts and bolts to locos, it is probable we can supply. See us at exhibitions and rallies or find these and other items in our :



Supplies Catalogue £1.75 posted UK. \$5 worldwide
Polly Loco Kit catalogue £3 Stuart Models Catalogue £5



Polly Model Engineering Ltd (inc Bruce Engineering)

Bridge Court, Bridge St., Long Eaton, Nottingham, NG10 4QQ

tel: 0115 9736700

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www.pollymodelengineering.co.uk

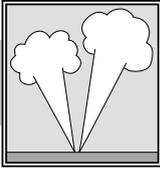
MASTERCARD

A number of pages from the printed version of Southern Federation News, which is circulated to all clubs/societies affiliated to the Southern Federation of Model Engineering Societies, have been omitted from this electronic version as they contain information that is either confidential or subject to the Data Protection Act.

The final part of the 'Keeping the Fire Alight' series has been delayed until the next edition.

Newsletters have also been received from:

North Norfolk MEC - Chichester & District SME - St Albans & District MES - Bedford MES - Northolt MRC
Harrow & Wembley SME - Plymouth Miniature Steam - Maidstone & District MES - Saffron Walden & District SME
Luscombe Valley Rly - Kings Lyn & District SME - Bournemouth & District SME - Chesterfield & District MES
Norwich & District SME - Malden & District SME - Southampton SME - Cornish MSVC - Tyneside SMEE
Ickenham SME - East Surrey 16mm Group - Pinewood MRS



BOILERS CAN FAIL!

Vernon Lidstone at the Pike House Railway, Gloucestershire describes, first hand, an incident that fortunately had no devastating consequences.

On Saturday, March 25th 2007 the Pike House Railway Steam Day was well under way with some twenty enthusiastic visitors, their grandchildren and some excellent visiting locos. Penny's cottage pie had gone down a treat and I was building up steam on my 5" gauge B1 'Mayflower'.

The water gauge was showing around 'half a glass', the pressure was approaching 80 psi - working level - and the safety valves beginning to blow. We were just getting ready to put the engine on the track when a large cloud of steam blew out of the right hand side of the boiler. It blew the cleading out which fortunately deflected the steam downward. (See photo below). Recovering from the surprise I opened the blow-down valve and dropped the fire.



According to the inscription on the boiler, it was built in 1980 by 'TW' who is thought to be a professional. The engine was apparently sold by a shop to the previous owner who only ran it some ten times before selling it to me a couple of years ago. Because it had no paperwork it was tested at Cheltenham SME last year at double working pressure (160psi) and certified as having passed both hydraulic and steam tests. It ran satisfactorily, last year, on a number of occasions on the Pike House Railway .



The boiler was removed from the chassis, photographed and taken to Trevor Tremblen, of Swindon Boilers, who examined it. Later the same day two CSME boiler inspectors came and also examined the boiler. They all arrived at the same conclusion that "the silver solder had failed to penetrate the firebox stays". The firebox stays were measured and were $\frac{1}{8}$ " diameter, in accordance with the drawing, had rivet heads inside the firebox and were at $\frac{3}{4}$ " centres. Trevor also spotted that the crown of the firebox had come down about $\frac{1}{4}$ ". You can see from the photo above that a dozen or so firebox stays have pulled out. It has been pointed out that crown stay arrangement is not according to Martin Evan's drawings, which shows a girder stay rather than rod stays. Trevor Tremblen also said that there would be many more crown stays when building a B1 boiler today.

All the correct procedures were followed and it is hard to know what could have been done differently, thankfully the boiler failed relatively safely, it did not split and the cleading deflected the steam effectively, so that fortunately no one was hurt.

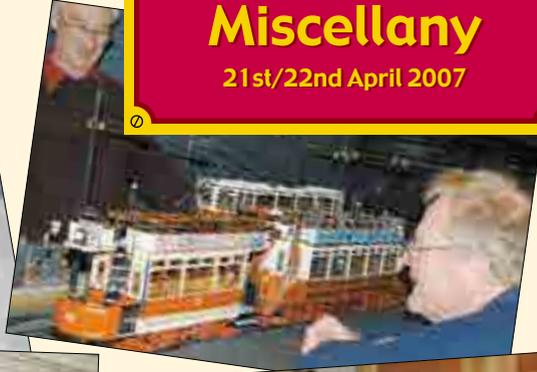
People have been very supportive despite this serious failure and Swindon Boilers have kindly agreed to build me a new boiler very soon. Many thanks to all involved.

Remember, when you are building your next boiler, do pickle your stays and ensure there is enough space for the silver solder to penetrate thoroughly!



Milestones Miscellany

21st/22nd April 2007





A view of the steaming bay with T Wall (Leeds SMEE) preparing his 4-4-0 American.

SOUTHERN FEDERATION SPRING RALLY 2007



This Class 37 loco, belonging to local member M Higgins, negotiates the triple track section.



F Stubbs (Tiverton & District MES) with his 5"G Lion.

Perhaps it was the weather forecast or perhaps it was because it was the Cup Final at the new Wembley Stadium; the Spring Rally at Oswestry MES was poorly attended. It must have been very disappointing for the club, having put in a lot of time and effort to ensure visitors would be made most welcome.

Although the day started off with some very heavy showers, weatherproofs in place the hardy ventured out of the clubhouse to start preparing their locomotives, and it soon turned to bright sunshine. For those who made the trip with a locomotive it gave them plenty of opportunity to have as much time on the track as they wished. The Oswestry track endeavours to get a quart into a pint pot and the convoluted twists and turns means that at one point there are three lines of track side by side as the photographs clearly show.

A number of modellers, with caravans in tow, regularly make an appearance at Federation's rallies and travel considerable distances to attend, and this year was no exception; many of them staying overnight to attend the club's Open day on the following day.

A big thank you to the ladies who ran the catering unit during this event, and also to the visitors who attended and supported Oswestry MES.



D Mayall (Bracknell RS) with his 3 1/2"G Derby 4F.



5"G Princess of Wales - J Walker (Birmingham SME).



Simplex 'Will Scarlet' - B Andrews Leeds SMEE)



Maurice Bennett (Wolverhampton & District MES) passes the turnout with his Class 08.

Harrogate Highlights
 11th–13th May 2007



5" G 7-plank 10-ton Coal Wagon – D. Capel



5" G E44 Electric Locomotive – M Voight



A very nice single cylinder Burrell



Triple Expansion Engine – G Aisthorpe



A pair of 1/8th scale Type 35 Bugattis – S Atkinson



1/3rd scale 2-6-2 2-foot gauge Baldwin – B Rogers



1/4 scale DH Goblin 35 Turbo Jet – J Heeley

Photos: Mike Chrisp (6) – Mike Leahy (1)

AROUND THE CLUBS

Much of the content of this section of the magazine is gleaned from the various club newsletters, journals, e-mail magazines, etc, submitted to the Federation. Not all clubs have a magazine but that shouldn't stop you from letting others know about your activities. Reports from clubs are most welcomed. Please submit your article or magazine to the Editor.

NATIONAL CLUBS



Members of the **Maxitrak Owners Club** are reminded of of the forthcoming Maxitrak Meet on **24th June**, to be hosted by the **Saffron Walden & District SME** at their track adjacent to Audley End House.

Writing in the club's magazine *Road 'n' Rail* their Chairman, Bill Reynolds, relates problems at his own track when the January gales caused havoc and brought down a number of trees causing considerable damage to rails and points. Luckily the largest tree just missed the turntable; repairs are now complete and he looks forward to the forthcoming summer running season.



Writing in the magazine of the **Model Steam Road Vehicle Society**, Tony Putterill reminds us that the workings

of a safety valve that are a nice fit when cold will sometimes stick when it is hot, usually resulting in the valves lifting suddenly, releasing vast quantities of steam and causing great concern to those in close proximity. While acknowledging that this is basic knowledge, it is surprising how often it is overlooked.

23rd/24th June sees the Annual MSRVS Rally at Tewkesbury which is now one of (if not) the largest rally of miniature/model steam road vehicles in the UK. 60 plus engines in steam or on show, Model Tent displays, road run, etc - all in all, two days of fun and serious model engineering.

In the attempt to create a nationwide branch network, a group are endeavouring to form a branch in the Warwickshire/North Oxfordshire/Northamptonshire area. For further details contact Chris Stubbings, Tel: 01926 815305 (evenings only).

It is nice to see the report in the *Journal of Society of Model and Experimental Engineers* with regard to the award of the Society's Kennion Shield to Mike Chrisp. Well-known as a past editor of *Model*



Outgoing Chairman, Andrew Mawson, congratulates Mike Chrisp on being awarded the Kennion Shield

Photo: Richard Dedman. Courtesy of The Journal of the Society of Model and Experimental Engineers.

Engineer, Mike is one of those indefatigable guys without whom our model engineering clubs and societies would cease to exist. Apart from being actively engaged in the Training Sessions at Marshall House, the Society's headquarters, Mike is also a guiding light in the North London Society of Model Engineers and for his sins has

recently been elected to the committee of the Southern Federation - you can't keep good man down. Well done, Mike! It's nice to see you on the receiving end, having written so many words in the past about worthy recipients of other awards in the hobby.

NORTH OF ENGLAND



In anticipation of having a stand at the forthcoming Model Engineering Exhibition at Ascot, 7th - 9th September, the **City of Sunderland MES** have had to bring forward the date of their Open Day to **2nd September**.

At a recent, well attended Bits & Pieces

afternoon Peter Russell described the planning and building of a model hovercraft. The problems to be overcome in designing and manufacturing this superb model are not readily recognised by pond side observers. Rudder dimensions, the design of two and three-bladed props for the lift and propulsion

motors and their power requirements relative to battery weights were points well described. Paper patterns need be created to be used when cutting out the hovercraft skirt material, which then has to be pieced together to give the required lift. Peter concluded his talk with a demonstration of the crafts lift and manoeuvring capabilities even though the size of the model almost filled the table top. A very informative and most interesting talk from one who knows his subject.

Over the past few months, Geoff Shackleton of **Leeds SMEE** has scanned hundreds of archive photographs in order to create a pictorial history of the Society. The work is nearing completion and there are now around 900 pictures stored which will be made available on two CDs. Volume 1(1935-1982) includes shots of the early days at Salem Chapel, exhibitions at the Corn Exchange, construction, operation and the eventual demise of their first permanent track at Temple Newsham Park and the construction of the new track at Eggborough Power Station; Volume 2 covers numerous events since 1982, up to 2006, including IMLECs and other steaming days. The discs will interest not only members of Leeds SMEE but also the many visitors who have run at their tracks over the years. The two-disc set is available at £5.00 + p&sp. Contact Geoff (tel: 01977 798138) if you would like a set.

Considerable civil engineering work has taken place at **Stockholes Farm MRS** over recent months. The goods circuit has now been extended and a run round loop incorporated and was used operationally for the first time at the end of April. Their Rally Weekend is **30th June/1st July**, and you are also invited to run on August

Bank Holiday Monday, **27th August**, and Bonfire Night, **3rd November**.



Bethany Forsyth, driving Joshua Hague's 11105, became the first person to travel over the new goods circuit at Stockholes Farm Miniature Railway

A WORKSHOP TIP

Having placed my latest creation in the scrap bin I thought it reasonable to clean the Myford. I should say at this point it is one of my better buys and I am still more than a little pleased to be the owner of a Super seven.

When I removed the top slide I discovered to my utter dismay most of the cast iron I had turned off a set of wheels recently. What was not there was anything that resembled oil; seriously put out I removed the cross slide, ditto repeat, lots of iron very little oil. Deep dissatisfaction – I have long been aware that the oil situation on both cross and top slide shears was less than perfect, but had fooled myself by squirting up and under.

A solution had to be found. The initial ideas were all abandoned, feed screws being in the way and oil cups on the top slide didn't appeal. Then the eureka moment. Others will no doubt think otherwise.

There's a little dimple on the top of the bolt that holds the tool holder, so drill down through the bolt into the cavity below the top slide. Drill down through the top slide into the bell shaped cavity that is the lower part of the protractor. A reasonable countersink in this surface to guide oil falling onto the surface and bingo. When I squirt oil through the toolholder it floods the shears of both the top and cross slides. I feel a lot better about my power feed now.

John Brady
Newsletter - York City & District ME

The cylinder head of the 1/3rd scale Bentley engine, being built by Mike Sayers of the **Pickering EE&MS**, is in one piece with the cylinder block. The problem was that with a fixed cylinder head arrangement it was impossible to machine the internals of pent-roofed chamber and the four valve seats in each chamber. He could see no effective solution until he read L C Mason's book on model 4-stroke petrol engines, where he mentions the silver soldering of cast iron pieces. Until then Mike had been unaware that this could be successfully accomplished.

Test pieces of cast iron were prepared and trials carried out with the grade of silver solder and flux to hand. These were then cut up and carefully examined and appeared 100% successful. Subsequent enquiries of one of our silver solder suppliers elicited the correct solder and flux to use.

Encouraged by these experiments it was decided to fabricate the cylinder block. Construction was broken down into eleven parts, the most complex being the cylinder head, all machined from SG iron. All details were machined before assembly, including all bolt bosses, ribs, ports valve seats, etc. The bores were honed to size, at this point, while it was still possible to pass completely through and ensure parallelism.

Then all parts were carefully assembled and coated with HT5 flux, excepting the cylinder head which was left 'dry' at this stage, but used to locate the cylinders. With a weight on top and temporary securing bolts in place the whole assembly was placed onto an electric cast iron hot plate and surrounded by insulating bricks. The temperature was raised by the hotplate alone to 430°C. The insulation bricks were then removed one at a time and an oxy-acetylene torch (No 5 jet) was used to heat the joint



Finishing the valve seats prior to dry assembly



Dry assembly prior to fluxing up.

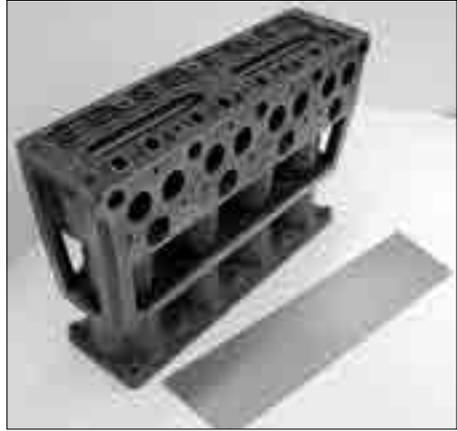


Cylinder to baseplate joint after the first soldering operation.

areas until 42% silver solder flowed easily around each joint. Once the silver soldering was complete, and the bricks back in place, the hotplate was turned down incrementally



After the second soldering operation.



Almost finished cylinder block and water sideplate.

over the next two hours until cool. Once the cylinder block was cleaned it was again married with the cylinder head and flux applied and the process repeated.

After a major clean-up the assembly was placed on a surface plate and found to have distorted no more than 0.003" over the length and twisted no more than 0.001". The finished valve seats and bores were shiny

black but not scaled. Subsequent machining operations finished the outer shape and the bores were polished. While this cylinder block has not yet been tested as a running engine, Mike is of the opinion that it will be possible to use this pre-fabrication method to produce an assembly of almost any complexity.

Photos: Mike Sayers

THE MIDLANDS & EASTERN COUNTIES



The *Kinver Link*, the newsletter of the **Kinver & West Midlands ME**, reports on one of the most exciting initiatives within the club for some time. 2008 sees the two hundredth anniversary of Richard Trevithick's famed locomotive *Catch Me Who Can*. Those of you who can remember your history lessons at school will probably recall that this engine is reputed to be the first railway locomotive in the world

to convey fare paying passengers. What is perhaps not so well known is that like many of Trevithick's engines, this one was built locally, in Bridgnorth; a fact soon to be celebrated by the Severn Valley Railway who are currently building a full size replica of it. This is to be prepared in time for the celebrations in July next year. The club has resolved to design and construct a 5" gauge replica of the engine in time for that event.

This will showcase the club in a very special event with plenty of media interest and, it is hoped, will promote new membership. Members are being invited to take part in helping to build the model. The Society's popular Diesel Weekend will be held **25th/26th August**.

Much activity has been taking place over the winter months at the **Cambridge MES** tracksite. Sections of track have been relaid in a larger section rail, a new diamond crossing has been laid and a new car park constructed. Although the car park has a grass surface, a plastic mesh has been laid over it and pinned down; hopefully this will stop cars sinking in and help give traction. A new level crossing is being constructed off site, completion expected by the end of the year enabling it to be installed next winter. Additionally, the construction and fitting out of a new workshop is also currently being undertaken.



The new level crossing gates under construction.

A new magazine to land on the desk of this editor is the *Newsletter* of the **Birmingham SME** – talk about a quart into a pint pot – it is twelve pages A4 tightly packed with a potpourri of articles. Having applied for for a National Lottery grant the Society has recently been awarded £6,500 through the Awards for All

THE RIGHT DRILL FOR THAT TAP

Many companies producing thread making taps often stamp the correct drill size on the shank, but many will only show the diameter and the pitch of the teeth and reference has to be made to a set of tables. In the event of the absence of such tables there is a rule of thumb that will give a satisfactory result in all but the most critical of cases.

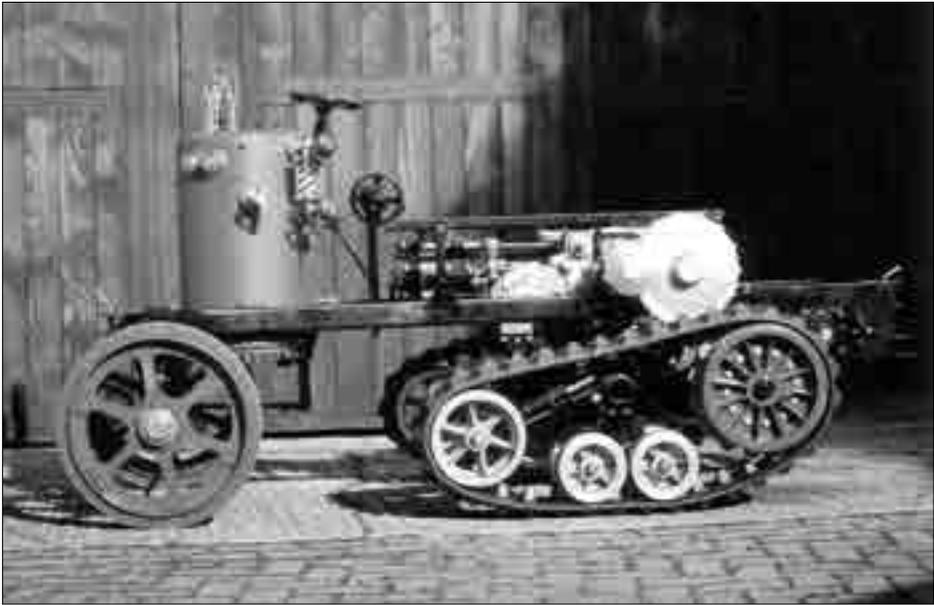
Look at the given pitch and deduct it from the diameter of the thread, this will give you the drill size required. For example, we require to drill and tap a hole to fit a $\frac{3}{16}$ " BSF bolt, this tap will have 32 threads per inch of length (tpi) and so the distance between the teeth will be $\frac{1}{32}$ ". Deduct $\frac{1}{32}$ " from $\frac{3}{16}$ " and we have $\frac{5}{32}$ " - a $\frac{5}{32}$ " drill will give us a good $\frac{3}{16}$ " BSF thread. Exactly the same principle applies to metric threads – a 6mm bolt has a pitch of 1.0mm, deduct 1.0mm from 6.0mm and we have a drill size of 5.0mm.

It may be necessary with some Imperial threads to convert the pitch distance and diameter to decimals, deduct as before and convert back to fractions.

Stephenson Link - Chesterfield & District MES

programme. It will be used to fund the building of a new footbridge over the raised level track and to complete the refurbishment of the clubhouse. Their National Locomotive Rally will take place **8th/9th September**.

An interesting article by John Sanderson about the building of his Sentinel 'Elephant' Roadless Steam Tractor appears in the latest edition of *Club Chat*, the newsletter of **Peterborough SME**. Starting from a few photographs he has to date made drawings, had his own patterns cast for engine components and wheels, had steel for the chassis folded to the correct section channel and researched information regarding the mechanism for the Roadless tracks. The majority of the chassis, engine and drive components are now built and assembled as can be seen in the photograph. Not wanting to suffer the squeaking noise



John Sanderson's Sentinel 'Elephant' Roadless Steam Tractor

Photo: John Sanderson
Courtesy of Club Chat – Peterborough SME

of the tracks, apart from having to fabricate the great number of components, he has located a set of rubber tracks for a mini-digger that will suit his purpose admirably. The boiler was designed with the co-operation of a local boilermaker and has recently been installed in the chassis. No doubt this model create great interest once completed.

The *Newsletter of Halesworth & District MES* is another new publication to be received in this office. A new venture for the club, it is ably edited by Michael Ovenden and, though early days, looks to be a promising publication. Like all good editors, Michael pleads for the membership to contribute articles to enable the magazine to flourish. Additionally, their editor is also the Society's webmaster and their website, still under construction, can be viewed at www.hdmes.co.uk



A page from the Birmingham SME Newsletter.

LONDON & THE SOUTH EAST



Shortly after **Crawley ME** started one of the members took some 8mm cine film of their activities, This was continued over the next 20 years, or so, by another member and was later re-recorded onto video tape. These tapes have now been transferred to disc, edited and a sound track added. Although the picture quality is not spectacular the images are evocative of the period. Producing DVD discs is now quite cheap, using modern computer techniques, and so it has been decided to give every paid up member a free copy.

John Wilkes is a prolific builder of strange locomotives and recently brought to the track his latest creation. A Sturrock Class 400T, with two cylinders on the locomotive and two in the tender it looks a very nice model with its wooden clad boiler. John has soon found that having two chimneys protruding upwards at the back of the tender needed an adapter to divert the exhaust. This resulted in steam cleaned trousers and a shoe full of hot water - so back to the drawing board! Knowing the superb models that John makes, he will no doubt solve his problems, and we look forward to seeing it on the Rally circuit during the forthcoming running season.

Work continues apace in constructing the new track of the **Ascot LS** at their Royal Ascot Racecourse site. 51 sections of railings, 57 posts and 100 metres of kerb have been erected in six months,

consuming 45 bags of cement and 7 tons of ballast. Then, it's all got to be painted; so a lot of paint will be required also.



Railings by the mile at Ascot

Writing in **Worthing & District SME's Newsletter**, John Fuller gives us an insight into Lithium batteries. Lithium Polymer (LiPo) batteries are the latest technology and offer several times the capacity/run time of previous generation Nickel Cadmium and Nickel Metal Hydride batteries, with reduced weight and size. The latest generation cells have a low internal resistance and so are able to provide high amp draw for powering high-performance and even large-scale models. LiPo batteries are very different from previous generation batteries and require a very different charge method than other types of cells. It is imperative to use a charger designed specifically for LiPo batteries and it is necessary to correctly

select the cell count (1,2 or 3 cells) manually. **If LiPo batteries are improperly charged they can cause an explosive fireball!**

Fortunately, several good chargers are available – if you use a good quality charger, these batteries are totally safe.

If you are considering using this type of battery, you are well advised to research their characteristics and charging methods before doing so.

The **North London SME** is a club of many facets and, in order to coordinate the many interests, each particular following has its own section to organise their respective activities. Many members have an interest in more than one area. Sections include

- Locomotive Section
- Stationary Steam & Traction Engines
- OO Railways
- Slot Cars
- North American HO Railroad
- Marine Section
- Video Section
- Junior Section
- Garden Railway
- Ground Level Railway

The last section was newly formed in October 2006 to manage the proposed track extension on the ‘new’ land that the Society had recently acquired. Much has been achieved in a very short time. Forty-three new track panels, totalling 860ft, were made over the winter months and currently there is a running distance of 3,182ft. A Carriage Shed has been relocated and roofs have been installed over the Ground Level Terminus and steaming bays, thus providing some shelter from the elements. Meanwhile the Loco Section has continued to maintain the raised level track. A rail

replacement programme continues, along with the affixing of anti-tip rails and work progresses in the marking out of an extension of the raised track onto the ‘new’ land. That’s not to say the other sections have been as equally productive.

An advertisement in the Society’s *News Sheet* gives details of a company able to service, repair and calibrate all types of gauges. www.miniaturepressuregauge.com

Commenting in *Prospectus*, the journal of **Reading SME**, their President, Les Dawson, observes that so far 26 locomotives have been tested under the new boiler testing procedures and questions why more are not seen about on ‘play days’ – after all that is what it is all about, having a good time in this wonderful hobby of ours. (*nuf said – others make similar comments elsewhere - Ed.*)



Beaming faces all round - the last beam on the raised track is installed. L to R Keith Taylor, Les Dawson, Peter Martin, Brian Hadman and Tony Giles,

The final beam on their raised track has been renewed after a major effort, the job being started in 2003. In all, 187 beams have been replaced.

Replacement locos have now been obtained by **Docklands & East London MES**, after the theft, last year, of their previous locos from the storage facility

SCALE PRESSURE

Greenly states that scale pressure is simply the full size operating pressure multiplied by scale, e.g. 225psi x 1/11 (for 5"G) = 20psi. Clearly insufficient for our needs, so lets look at scaling tractive effort. For a two cylinder engine the formula is:

$$TE = (B^2 \times S \times 0.80P) \text{ divided by } D$$

B = cylinder bore in inches

S = cylinder stroke in inches

P = boiler pressure in psi

D = driving wheel diameter in inches

0.80 = factor to give mean effective pressure

TE calculations for a Simplex using scale pressure equate to 13.5lb. A rule of thumb says that 1lb of drawbar pull will haul a train of 30lb on level track, so from this example the load that can be pulled is 405lb, hardly sufficient for our needs. Increasing the pressure to 80psi, the load that can be pulled rises to 2097lb; equivalent to nine average adults and a couple of riding trucks.

In practice it would be less than this because the above formula for TE is approximate only and does not allow for mechanical losses. However, the analysis is a possible explanation as to why model locomotives operate at 80 - 90psi.

One important factor that has to be considered when selecting steam pressure is the relationship between tractive effort and adhesive weight, and in general it is considered that tractive effort should not exceed 1/3rd of the adhesive weight. This is the reason why higher steam pressures are not necessarily practical because it becomes impossible to transmit the forces to the rail.

The advantages of keeping the pressure high are less liability to 'prime', higher tractive effort for a given size cylinder, higher cylinder thermal efficiency and improved draught. However, the disadvantages of higher pressure are heavier and stronger boiler required, leakage of steam past pistons, valves and glands is more likely, and lubrication is more critical due to higher steam temperatures.

It would seem that the selection of 80 - 90psi as the steam pressure for model steam locomotives is primarily to give the required tractive effort, but also to meet the balance between the advantages and disadvantages detailed above.

Tony Dewynter

Newsletter – Welling & District MES

(a secure shipping container) at their tracksite. To prevent a repeat occurrence happening, locomotives will no longer be stored on site.

One of the members of the **G Scale Society – Kent** is Edward who has Aspergers Syndrome. Aspergers Syndrome is a form of autism, a condition that affects the way a person communicates and relates to others. He has developed a great interest in steam propulsion and has taken opportunities to drive steam locomotives and steam traction engines and is, at the moment, building a steam locomotive. He has built a railway at home – the Lilac Line – which at present consists of one circuit of the garden, but will grow as time and funds permit.

It is interesting to learn that he has sought out other Aspergers who have an interest in Railways and has just started a club – The Aspergers Rail Club. Already he has nine members. With staunch support from his Mum he is talking about holding a get together in the hope that he would find others who share his interest. G-scalers have shown an interest in helping him, and the event will be on **22nd September** at the garden railway of a member of the G Scale Society. This will not be an event open to the public. However, other Aspergers (and their guests) are most welcome and it is hoped they may show an interest in joining Edward's Aspergers Rail Club. The event will be advertised in the *Newsletter* that is produced by and written for people with Aspergers Syndrome, under the auspices of the National Autistic Society.

Having successfully completed an assessment at college, Edward is due to start an automotive engineering course this September. Edward and his family are

SOUTHERN SHORTS

Guildford MES 40th Steam Model Steam Rally and Exhibition at Stoke Park, Guildford. 21st/22nd July

Track refurbishment of the main circuit at **Frimley & Ascot LC** is now within 500ft of completion.

Romney Marsh MES has commenced construction of a swing bridge section in the track to enable vehicles to have easier access to their site.

delighted that he will be joining his mainstream contemporaries at the college. We wish him well in his endeavours. *(Anyone wanting further information about the Aspergers Rail Club or the meeting in September should make enquiries through the SFed Editor who will forward your details.)*

Jim Elliott writing in *Criterion*, the magazine of **High Wycombe MEC** relates a problem with a *Speedy* boiler. One day, cleaning the boiler after a run he noticed horrible blue powder of copper corrosion. The cladding was removed and the boiler eventually removed from the frames to reveal thirteen patches of corrosion around various joints. It was condemned on the spot. At the time he had built the boiler he worked for a refrigeration company, and there was a lot of silver solder lying around which he used. On investigation he found that this contained phosphorous which over the years caused a bad attack of electrolysis and consequently the leaks. A lesson learned the hard way. It took a year to build a new boiler, modified in the light of experience, and needless to say, this time, he used silver solder from a reputable source.



WALES & THE SOUTH WEST



Cardiff MES member, Mike Jones, has been appointed Assistant Editor of the *Model Engineer* magazine.

The club has started to relay the raised level track with profiled rail but, unfortunately, work has had to stop for the summer



David Bentley, Alan French, Ken Stoat and David Calli are shown re-laying the raised level track with profiled rail at Cardiff MES.

because of a shortage of rail. The steel rail, made in Switzerland, is rolled in batches only when there are sufficient orders available to justify an economical production run – and currently there are insufficient orders for such a run. However, more rail should be available before next Winter.

The club will be holding the 17th Welsh Locomotive Rally on the **9th/10th June**. Additionally, a number of Open Days will be held throughout the Summer. (See Events Diary or Tel: Don Norman, 01656 784530 for details)

Bristol SMEE will be holding a 3¹/₂" Gauge Rally on **30th September**. For further details contact Alan Church, <alan.church3@btinternet.com>. Only 3¹/₂"G locos on the day, please.

Guernsey MES are celebrating 20 years with a massive show on **16th September** at Oatlands Craft Centre in St Sampsons. As well as their Society there will be displays by some of the other model clubs in Guernsey. They will have their portable track in use and would love to see some visitors from the UK, you can even take a loco with you to run on the track, if you wish. Our boiler certificates are valid in Guernsey.

For a very small Society they will be putting on a surprisingly large display of models. For further information contact: Dave Simon, Tel: 01481 251017 Email: <davesimon@cwgsy.net>. If you are on holiday on the island, at the time, please go along and give your support.

ABOUT TURNING SMALL DIAMETER STEEL

When turning very, very small diameter steel, for the final cut, drop down a speed and use spit (saliva, if you were brought up properly) as a lubricant - it works, I kid you not. It also works when drilling very small holes.

Mark Davis

The Oily Rag – Taunton MES

IS THE INJECTOR FAULTY? – Peter Parks

The miniature injector supplied by reputable dealers these days can be relied upon to do the job it is supposed to do, but there are some do's and don'ts that should not be ignored.

- (1) The injector must be supplied with all the steam it needs without restriction.
- (2) It must be supplied with all the water it needs without restriction.
- (3) The water supply must be completely air free.
- (4) The injector delivery pipe must also be restriction free.

None of the above should be compromised or the injector will not work properly.

The internal cross sectional areas of the pipe work must not be reduced or restricted in any way. There must not be any flattened bends or blockages with over generous silver soldering. Don't worry about 90 degree bends provided the above comments about restrictions are observed, after all most check valves are 90 degrees aren't they?

Many of the problems that people experience are because they attempt to diagnose the problem by looking at the injector in isolation, whereas, the complete system must be considered. This consists of the steam supply from the boiler and most importantly its pressure, the steam manifold, steam valve, water filter, water valve, boiler check valve and all the pipe work. All these parts must carry the flows to and from the injector without restriction. All the above must be carefully checked and eliminated before blaming the injector itself. A point to note here is how accurate is the pressure gauge? If it is not reading correctly you might be trying to operate the injector outside its working pressure range.

The water supply to the injector must be air free, in other words it is vital that no air can be drawn into the injector with the water supply - the gland on the water supply valve is often a culprit. Also check that any flexible tubing, which may be part of the water feed, is not being sucked flat. There must be an adequate filter in the water supply.

In hard water areas, water left in the pipe work when an engine is stored out of use for some time, can evaporate leaving tiny deposits, which can block an injector.

Probably, the most likely problem area is the delivery clack valve. There must be sufficient annular clearance around the ball for delivery to take place and the design must make it impossible for the ball to enter the boiler. Many commercial clack valves are designed to allow the ball to lift too far. It should lift approx 1/32" and it is a good idea to put a shallow countersink in the underside of a new cap to stabilise the ball after it has lifted. If there is too much lift the ball can 'hover' causing the injector to splutter.

If an injector does not pick up, look at the overflow. If steam overflows you have insufficient water – if water overflows you have insufficient steam. If a mixture overflows then the problem is most likely the clack valve.

If having fastidiously checked all the above you should then have an injector which will work bone dry at the overflow, at the designed working pressure; steam or water on first. It should be self-starting with the steam and water valves fully open until the falling boiler pressure requires adjustment of the water valve to compensate.

One more thing, injectors do not like a hot water supply. If you have a tank engine then the water in the tanks can get too hot for the injector to work. If this is the case then re-arrange the plumbing so that a cold feed is delivered from either a well tank on the engine or a tank on the riding trolley.

A check that it is working properly is to turn the water on and when water dribbles from the overflow, turn on the steam. Watch the overflow, a squirt of water should eject from the overflow and then as the injector starts to work the overflow should be dry. If not adjust the water valve until it is.

The injector, clack valve and pipes will periodically require cleaning especially if you have been using hard water. Citric acid at strength of 1-2 ozs. to 2 pints of water should do the trick. Don't just leave the components in the mixture to soak - blow the pipes through once or twice so that fresh acid reaches the surfaces as it soon becomes exhausted. Don't mix up the cones; the one with largest bore (strangely) is the steam one.

If after all the above has been checked and double checked your injector still does not work, then is the time to send it back to your supplier or make one yourself.

The Journal - Newton Abbott & District MES

POSTSCRIPT

Always remember that you are unique. Just like everyone else.

The News Sheet - North London SME

EVENTS DIARY 2007

JUNE

- | | |
|-------|---|
| 2/3 | Vale of Aylesbury MES – <i>Traction Engine Rally, Quainton Road</i> |
| 2-10 | Brent House Railway – <i>Rally Week</i> |
| 9 | Amnerfield MR – <i>Diesel & Electric Open Day</i> |
| 9/10 | Sweet Pea Rally – <i>Scunthorpe Society of Model Engineers</i> |
| 9/10 | Cardiff MES - <i>17th Welsh Locomotive Rally</i> |
| 9/10 | Harrow & Wembley SME – <i>Open Weekend</i> |
| 9/10 | Peterborough SME – <i>Loco Rally</i> |
| 16 | Harlington LS – <i>Visiting Clubs Day</i> |
| 16/17 | Harrow & Wembley SME – <i>South African Live Steamers Meet</i> |
| 16/17 | North Wiltshire MES – <i>Gala Weekend</i> |
| 16/17 | West Riding SLS – <i>Annual Rally</i> |
| 16/17 | Bournemouth & District SME – <i>Open Weekend</i> |
| 17 | Canterbury & District MES – <i>Open Day</i> |
| 17 | Saffron Walden & District SME – <i>Open Day</i> |
| 17 | City of Sunderland MES – <i>Open Day</i> |
| 23/24 | M.S.R.V.S. - <i>Traction Engine Rally – Tewkesbury</i> |
| 23/24 | Eskvalley MES – <i>Midsummer Night Steam Up & BBQ</i> |
| 24 | Saffron Walden & District SME – <i>Maxittrak Owners Club Rally</i> |
| 24 | Maxittrak Owners Club – <i>Rally at Saffron Walden & District SME</i> |
| 24 | Cardiff MES - <i>Open Day</i> |

- 30 Amnerfield MR – *Steam Open Day*
 30/1 July Stockholes Farm MRS – *Rally Weekend*
 30/1 July Basingstoke & District MES – *Gala Weekend*

JULY

- 1 Canterbury & District MES – *Model traction Engine Day*
 7/8 I.M.L.E.C. – *Hosted by Llanelli and District Model Engineering Society*
 14/15 North Wiltshire MES – *Charity Weekend*
 15 National 2 1/2" Gauge Assoc. – *South East Area Summer Rally - Worthing & District SME*
 21 Chesterfield & District MES – *Opening of Track Extension*
 21 G Scale Society, Kent – *Model Railway Exhibition - Faversham*
 21/22 Guildford MES – *40th Traction Engine Rally and Exhibition*
 21/22 Sacrewell Traction Engine Rally and Gathering.
 21/22 City of Oxford SME – *Dreaming Spires Rally.*
 27/28 Canvey Railway & MEC – *Open Days*
 29 Canvey Railway & MEC – *Models Day*
 29 Cardiff MES - *Open Day*

AUGUST

- 10/11 Frimley & Ascot LC – *Open Days – Frimley Lodge Park*
 11/12 Leeds SMEE – *Rally*
 12-19 Model Engineering Exhibition – *Thornbury Leisure Centre, Bristol*
 25/26 Kinver & West Midlands SME – *Diesel Weekend*
 25-27 Harrow & Wembley SME – *Open Weekend*
 26/27 Cardiff MES - *Open Days*
 31-2 Sept Bedford MES – *Rally Weekend*

SEPTEMBER

- 1/2 Tyneside SMEE – *Spring Rally*
 1/2 Chesterfield & District MES – *Open Weekend*
 2 Wortley Top Forge ME – *Annual Open Day - nr Sheffield/Barnsley*
 2 City of Sunderland MES – *Open Day - **CHANGE OF DATE***
 7-9 Model Engineer Exhibition – *Royal Ascot Racecourse - **NEW DATE & VENUE***
 8 Northolt MRC - *Annual Exhibition & Open Day*
 8/9 Birmingham SME – *National Locomotive Rally*
 14-15 Northern Model Engineering Exhibition – *Pickering Showground, Yorkshire*

FEDERATION AUTUMN RALLY

– *Hosted by Canvey Railway and Model Engineering Club*

- 15/16 South Down LRS – *Steam Gala*
 16 Canvey Railway & MEC – **Southern Federation Host Society Open Day.**
 16 Saffron Walden & District SME – *Open Day*
 16 Guernsey MES – *20th Anniversary Exhibition – Oatlands Craft Centre, St Sampsons*
 19 Welling & District MES – *Gauge 1 Open Day*
 23 Cardiff MES - *Open Day*
 29/30 Luscombe Valley Railway - *Enthusiasts Weekend*
 30 Bristol SMEE - *3 1/2" Gauge Rally*

OCTOBER

- 12-16 Midlands Model Engineering Exhibition – *Warwickshire Exhibition Centre*
 14 Cardiff MES - *Open Day*



Photo: Mike Chrisp

ABOVE: The 1:3 scale Bentley Engine by Mike Sayers, described on p24/25 of this magazine, was exhibited at Harrogate, enabling us to see how much further construction has progressed.

BELOW: This Gauge 1 Derby 4 engine was built by young Rhys Sully, this year's winner of the Southern Federation Annual Award.(see p3)



Photo: Mike Leamy



www.southernfed.co.uk