

SOUTHERN FEDERATION NEWS



SEPTEMBER 2007



Photo: Greg Owen

ABOVE: 20mph – You must be joking! Seen at the MSRVS Road Run in Tewkesbury.

BELOW: Detail of the 'engine' of a freelance 7¹/₄" gauge Shay being built by Alan Beasley of Chelmsford SME.



Photo: Francis Rogers

FRONT COVER: The MSRVS Road Run through Tewkesbury town centre in June.

Photo: Greg Owen

SOUTHERN FEDERATION NEWS



September
2007

Editor
MIKE LEAHY

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

EDITORIAL

WITHOUT A DOUBT the weather has been the main topic of conversation this year.

Many Societies have suffered flooding at their tracksites/rally fields, sometimes with disastrous consequences, rallies have had to be cancelled or curtailed and many report having to abandon Running Days, often a number in succession. Obviously, this is having an adverse effect on finances, in either having pay out for repairs and damage or because of a reduction of income from fare-paying passengers. Many projects are having to be curtailed or abandoned until better times.

Surprisingly, a number of clubs are now reporting poor attendance of the public whenever there is Grand Prix racing or another major sporting event on television. Funnily, my own club always expects lower attendance when the weather is hot and sunny, due to the draw of the local beaches – a cool, slightly overcast day being the best for us.

The last couple of Federation Rallies have been poorly attended, so why not make a date in your diary to attend this year's Autumn Rally on 15th September. I'm assured the weather will be fine!

The future of our hobby is the encouragement we give our younger members; please ensure your club nominates a youngster for the Southern Federation Annual Awards

Mike Leahy

August 2007

www.southernfed.co.uk

Items for inclusion in the December 2007 edition should be sent to the Editor

by

28th OCTOBER 2007



From the Chairman

Welcome to another rendition from the Chairman, the Editor's lead time appears to be getting shorter for every publication.

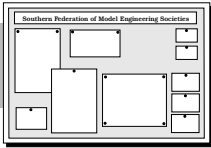
So what has been happening out there on the Southern Federation front? Sadly, eight organisations have declined to renew their affiliation fees for 2007/08; some have disbanded because of a declining membership or have lost their facilities, others have decided that the grass is greener on the other side. To date we have only received two enquiries about membership, it could well be a disappointing year membership wise.

By the time you read this 'chat' we will have supported the Vale of Aylesbury Traction Engine Rally, which over the week end saw the largest road vehicle entry they ever had since the event was first introduced. Sadly, the Guildford Traction Engine Rally and Exhibition suffered, due to the prolonged down pour on the Friday, and again on the Saturday morning, this certainly curtailed the activities in the traction engine field – when was the last time every body had to be towed off site by tractor or four-wheel drive vehicle on the Sunday evening? The recent Bristol Exhibition was again the well organised and supported event that we have come to expect over the years, with plenty to see and admire.

With the evenings starting to draw in, it indicates that another running season is drawing to a close, though the Federation 'Road Show' still has few more events to support; the Centenary Model Engineer Exhibition (7th - 9th Sept), the Federation's Autumn Rally, hosted by Canvey Railway and Model Engineering Club (15th Sept) and the Midlands Exhibition (12th - 16th October). Unfortunately, circumstances have dictated that we will not be able to support the Birmingham loco rally this year.

I look forward to meeting so many of our friends at the forthcoming events.

Brian Thompson



NOTICE BOARD

www.southernfed.co.uk

GUIDANCE. Gossip and small talk often finds its ways back to the Federation's committee and of concern is the perception that the Federation is 'always busybodying' and laying down the law. It would make life much easier for the committee members, of both the Federation and the other national organisations, if they ignored new legislation and just spent their time enjoying the hobby. But, of course, they would then be accused of not keeping the hobby properly informed, particularly if something went wrong and there was a resulting prosecution.

PLEASE DON'T SHOOT THE MESSENGER! The Federation is only doing the job it was set up to do. With regard to legislation it can only advise, it's up to you whether you act accordingly; but you can ignore such advice at your peril.

SAFEGUARDING VULNERABLE GROUPS ACT No doubt many of you will have seen, in both the national and hobby press, reference to the Safeguarding Vulnerable Groups Act. The Act broadens the type of activities that require CRB checks and integrates the various lists held by different Government bodies to bar certain individuals from working with children. Additionally, it will now include further categories in relation to other vulnerable people, such as those with mental illness and the elderly. Though it received Royal Assent in November 2006 it has yet to be fully implemented, and this is unlikely before Autumn 2008. Unfortunately, trying to find a definitive answer as to whom it may affect is proving to be near impossible task, as there are so many contrary opinions. The Federation and the other national organisations are actively pursuing the matter, but would appreciate help from anyone who is professionally involved in this sphere.

That definitive answers are proving so hard to find, it must surely mean that this legislation has been poorly thought out, however good its intentions. If you want to find out more, much is written about it on the Internet, including the full wording of the Act (see http://www.opsi.gov.uk/acts/acts2006/ukpga_20060047_en.pdf), but, as to whether it applies to our activities is not clear. Failure to comply may lead to those whose job it is (club officials?) to be liable for a fine of up to £5000 or imprisonment. We suggest that clubs may wish to contact their local MP for an opinion - if you do then please let us know the outcome, by informing the Federation's Secretary, Ivan Hurst.

You may ask 'what has it got to do with model engineering?' Well, in addition to the children who may regularly ride at our railways on public running days, many of our clubs/societies have junior members with whom the senior members have regular contact, and this would seem to be the crux of the matter. Most clubs are actively encouraging younger members, for this is the only way forward with our hobby, but this may, in the end, be working against us.

SAFETY STATEMENT Societies are reminded of the importance of being able to show that a suitable Safety Statement has been made and operating procedures are in place and being implemented. There is the need to ensure that these are a formal written document. The need for these is amply proven by the fact that whenever officials, be they from the local council or the HSE, visit a club, as a result of an incident one of the first things they ask for is sight of such documentation and proof as to whether it is being implemented. Obviously, all of the Society's members should be know of the existence of such documentation, should have ready access to it, and be aware of its content.

Societies are reminded, that in terms of safe operation, there is no difference between private and public running.

PREPARATION OF BOILERS FOR TESTING In the course of preparing the *Southern Federation News*, the Editor has sight of many Society's magazines, newsletters and journals. Boiler inspection still remains a topic of conversation, if for no other reason than the need for boilers to be prepared prior to them being presented for testing. Boiler inspectors voluntarily carry out their duties and give up their free time, and there is nothing more frustrating than to be presented with a boiler that still has the residue of the last firing in the grate and it doesn't hold water when pressure is applied. The boiler inspector needs to be able to see the ends of tubes in the smokebox, so spark arresters need to have been removed, and he needs to see into the firebox to examine joints around both tube ends and stays, so the grate should be removed - contortions with a mirror and a torch through the fire hole ring are not ways to win brownie points with the inspector.

Leaking whistle and blower valves, clacks that fail to seal and regulators that pass by all prevent the boiler from being pressurised. Most models are fitted with a hand pump as one of the water feed arrangements and this can be utilised to pre-test your boiler at home, prior to the boiler examination and hydraulic test. No need to take it to full test pressure (but you can if you wish), just pressurise the boiler sufficiently to satisfy yourself that there are no leaks, before taking it along for testing.

Section 3.7 of the Test Code states:

It is the responsibility of the owner to prepare the boiler for testing. For boilers which have been steamed the combustion spaces and surfaces should be thoroughly cleaned and all tubes/flues brushed through.

SOUTHERN FEDERATION ANNUAL AWARD Societies are reminded that nominations for the Annual Award, sponsored by Polly Model Engineering Ltd, must be submitted before the 20th January 2008. A nomination form is included in this edition of the magazine. The aim of the award is to encourage young persons to actively participate in the model engineering hobby. Those nominated shall be 24 years or younger at the date of nomination.

The winner will receive the Southern Federation Trophy, suitably inscribed, which shall be retained until January of the following year; a miniature trophy will also be awarded, suitably inscribe, which is kept by the winner. Additionally, Polly Model Engineering Ltd

award a prize, usually in the form of a voucher which may be redeemed for model engineering equipment or supplies.

There has been a poor response in respect of nominations for this award. Surely, there must be many contenders out there worthy of this prestigious trophy and prize. Unsuccessful nominees from previous years may be renominated providing they fall within the age limit.

REVIEW OF BOILER TEST CODE It is nearly two years since the New Boiler Test Code was introduced and it was stated at the time that a review would be made in the light of experience, after a suitable period of time had elapsed. It is intended to commence this review in the Spring 2008. Any Society wishing to make comments or observations should do so in writing or by e-mail to the Federation's Representative on the Boiler Committee, Mike Leahy. (See address/e-mail details on page 36)

PLASTIC WALLETS A further supply of plastic wallets, suitable for holding Record Cards and Boiler Test Certificates enabling them to be kept clean, has been obtained. Priced 60p each + p&p they can be obtained from Federation Sales (see p6) or are available from the Federation stand at exhibitions and rallies.

We make no apologies for once again featuring, in our centre pages, the Canvey Railway & Model Engineering Club, as they are the hosts for this year's Southern Federation Autumn Rally. Have you ever considered submitting a similar article that features your club/society? Or for that matter, has your club ever considered hosting either of the Federation's rallies?

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

SOUTHERN FEDERATION PUBLICATIONS

The following publications may be ordered from the Federation. Prices below exclude packing & postage. Societies may prefer to collect orders from the Federation's stand at local shows and rallies – a limited stock of these items is carried at shows and exhibitions.

Directory **£2.50p**

Lists all affiliated Clubs and Societies, giving locations and description of facilities.

Directory Supplement **£3.00p**

Updates the Directory, with facility/location details of clubs that have recently joined the Federation, and gives contact details for all affiliated Clubs and Societies. Issued annually.

Boiler Testing:

Examination and Hydraulic Test Certificates **£5.00p**

Certification for recording examination report and hydraulic test. Pad of 50.

Annual Steam Test Certificates **£2.00p**

Certification for recording annual examination and steam test. Pad of 50.

Record Cards **10p**

Required to keep a history of all hydraulic and steam tests.

Boiler Test Certificates are only available to bona fide club/society officials.

Boiler Test Code **40p**

Mandatory from January 2006, detailing Code of Practice for Boiler Testing. Prepared in association with the representatives of various Model Engineering Bodies, the Trade, the HSE and the Insurance Companies.

Revision to the Boiler Test Code with regard to Small Boilers **Free**

A single sheet for insertion into the Test Code booklet. Please send a C5 size Stamped Addressed Envelope. A maximum of 25 copies can be sent in an envelope stamped for Letter Rate.

Boiler Test Documentation Introductory Pack **£13.50p**

Includes: -

- 5 copies of the Code
- 25 off Boiler Test Record Cards
- 1 pad containing 50 off Examination and Hydraulic Test Forms
- 2 pads containing 50 off Annual Examination and Steam Test Certificates

Wallets **60p**

Plastic Wallet to protect owner's documentation.

Cont

..... *Cont. Southern Federation Publications*

Guidelines: Copies of guidelines are usually sent to member Clubs/Societies on issue, if you haven't seen a copy please ask your Club/Society Secretary

Child Protection Act **20p**
Gives guidelines concerning children in a society environment, and precautions that may be taken to ensure their protection.

Disability Discrimination Act **20p**
Gives guidelines concerning Disability Discrimination, and how to ensure a friendly and safe environment for affected members and visitors.

Available from:

Federation Sales, 35 Rivershill, Watton at Stone, Herts. SG14 3SD
Tel: (01920) 830629 E-mail: brian.sfed@btinternet.com

Please check cost of packing & postage before ordering. Cheques payable to SOUTHERN FEDERATION OF MES.

SOUTHERN FEDERATION NEWS

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

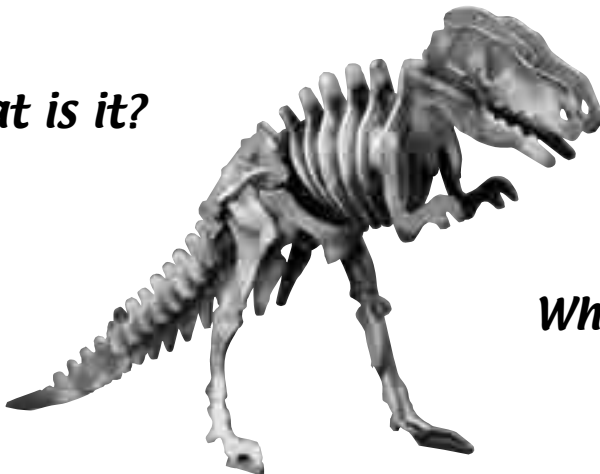
Newsletters have also been received from:

Chichester & District SME - Saffron Walden & District SME - East Surrey 16mm Group
Pinewood MRS - Bracknell RS - High Wycombe MEC - Crawley ME - York City & District SME
East Herts MRS - Dockland & East London MES - Kings Lynn & District SME

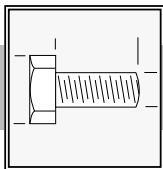
Unfortunately, the final part of the 'Keeping the Fire Alight' series has been further delayed.

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.

What is it?



Where is it?



NUTS + BOLTS

& SCREW THREADS

*This article by **Allan Goode** appeared in the COSME LINK, the journal of City of Oxford SME. It was originally written for members of the Oxford Bus Museum at Long Hanborough, Oxon, many of whom do not have an engineering background. It may, however, be of interest to a wider audience.*

A CAUTIONARY TALE

British Standards

In the early days of the Industrial Revolution each engineering company made their own nuts and bolts using proportions of their own devising. Then a man called Joseph Whitworth (later to become Sir Joseph Whitworth) decided that there would be economic and technical advantages if there was a single standard and he devised the system that now bears his name. He initially presented his findings and proposals to the Institution of Civil Engineers in 1841, and by 1860 these had been generally adopted throughout Britain. Basically, he examined the various options then available and tried to incorporate the best points of them all. That is he used a pragmatic, engineering, approach rather than a pure scientific one. He decided to standardise on a flank angle for his threads (ie the apex of the 'triangle' when viewed from the side) of 55° and the proportions of his nuts and bolt heads were rather 'chunky' by modern standards. The dimensions across-flats (ie the critical dimension for turning with a spanner) were those he considered appropriate for the function, and when spanners were produced they were normally marked with the size of nut (bolt diameter) they were intended to fit. When the concept of British Standard Specifications (BSS) was introduced, the Whitworth bolt and screw thread was incorporated as BS 28.

The Whitworth thread form is a relatively coarse one, intended for general engineering purposes. When Frederick Lanchester started to build cars he decided he needed a finer thread and proceeded to design his own. This did not come into general use as it was superseded by another system designed by Clement and Crompton, which eventually became British Standard Fine (BSF). When this new standard was devised it was realised that the dimensions of the nuts and bolt-heads could be smaller than the existing Whitworth ones. So, to avoid the need to create a new range of spanners it was decided to use the Whitworth dimensions corresponding to one size smaller. This explains the markings such as '3/16 Whit [or BSW] 1/4 BSF' on current spanners. The smaller sized nut saved metal; it also, potentially saved space. For example smaller nuts would allow the flanged joint between an engine sump and crankcase to be made narrower.

This was the position up to about the outbreak of the Second World War, when a combination of improved metallurgy and the need to economise on raw materials, led to the decision to reduce the BSW heads to their corresponding BSF size. This was



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

fax: 0115 9727251

VISA

www.pollymodelengineering.co.uk

MASTERCARD

done by cancelling BS 28 and replacing it by a new standard, BS 916. The result was that a spanner marked 1/4 BSW no longer fits a 1/4 inch Whitworth bolt - you need a 3/16 BSW one! The old sizes are sometimes referred to as 'Whitworth full'.

United States of America

The equivalent problem in the USA was solved in 1864 when William Sellers proposed a range of screw threads; this was adopted by the US government in 1868. This standard had a different shaped form with a thread angle of 60° (rather than 55°) and the across-flats dimensions of the nuts and bolts were rounded to fractions of an inch. The spanners were marked with their across-flats dimension, ie '7/16 AF'. The downside was that you had to know that a 7/16 AF spanner fitted a 1/4 inch nut; the up-side was that if you measured the nut you knew what sized spanner you needed. It was also more convenient when selecting the correct spanner for other items, such as sump plugs, with hexagon, or square heads.

Unified Threads

During the Second World War the UK acquired a lot of American equipment, through Lend-Lease and other means; these incorporated American National Standard threads. This caused some problems and a conference was held in 1943 which led to the so-called 'Unified Screw Threads', although formal agreement did not take place until 1948. The result was basically the American National Standard, but with a few detailed modifications to accommodate UK manufacturing methods. Coarse and fine thread forms were available, designated UNC and UNF.

In most sizes BSW and UNC bolts have the same number of threads per inch and, in such cases, a bolt from one can be fitted on a nut from the other, in spite of the 5° difference in thread angle; however this is not good practice. Where they differ the UN versions have marginally more threads per inch than their BSW/BSF equivalents - rather than the other way about. After the War the UK motor industry was ordered to concentrate on exports, so it adopted Unified threads while other industries generally kept to the traditional BSW/BSF ranges.

Detailed revisions to both BS and UN have meant that both nuts and bolt-heads are now thinner than they used to be. This is in part due to improved component metallurgy and in part due to the use of chrome-vanadium steel for spanners. These can be made thinner than the old carbon-steel ones without the risk of the jaws splaying out - unless severely abused.

British Association (BA) Threads

While BSW threads were available in 1/8 and 3/16 inch diameters there was not the range of small sizes required for scientific instrument and electrical requirements. This led to the British Association for the Advancement of Science (British Association, or BA for short) to produce their own design for these duties. While all existing ranges had increased in fractions of an inch -the increments increasing as the sizes increased - the BA, being scientists rather than engineers, decided it would be more logical to have a constant percentage change between each size, ie a geometrical rather than arithmetical progression. The range produced covered 0BA (6mm diameter) to 25BA (0.25mm diameter). The dimensions were in metric units, although most tables quoted

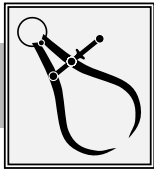
them in their decimal-inch equivalents. BA threads are unusual in having the rather 'sharp' thread angle of $47\frac{1}{2}^\circ$.

Metric Threads

A parallel development occurred in mainland Western Europe. For our purposes it is sufficient to know that there are now EU Standard for both coarse and fine metric threads. These have a 60° thread form and their associated spanners are marked with their across-flats dimension; for example a 10mm diameter bolt (generally referred to as 'M10') requires a 17mm spanner.

The Future

For general purposes the traditional British sizes are being gradually superseded by their nearest metric equivalents, as a visit to any DIY store will confirm. Unified sizes are likely to remain available from specialist suppliers - if only because USA has decided not to go metric. Unified sizes (rather than metric) are also widely used in the petroleum industry, given its American parentage. BSW and BSF are likely to become increasingly hard to obtain and we may well have to accept using Unified equivalents for restoration work in the future.



TOOL TOPICS

A SMALL SELF-CENTRING CLAMP FOR A ROTARY TABLE

John Tovey

CONCEPT. I found that to centralise and hold coupling rods on a rotary table when machining the outside of knuckles was a particular problem – hence the need for an easier and safer method.

DESIGN. The pictures and plan are self explanatory. They show my version to suit a VERTEX rotary table, but can be altered to suit any other arrangement.

CONSTRUCTION. All the items for the clamp are made from BMS bar with the exception of the taper, which is from round stock. All the work is straightforward milling, drilling and tapping. The taper is fastened into its hole with Loctite. All the fastenings are 5mm cap head screws, although any thread could be used.

It is important to mark the centre line on the base item, as this is used for centring the work piece.

BUTTONS. These are used in the centre hole of the taper.

1. The Centring Button – to centre the rotary table on the mill table
2. The Workholding Button – to centre and hold the work piece securely on the clamp

Both consist of a 5mm thread to screw into the hole in the taper, with the second having a top to the internal diameter of the connecting rod.

USE. The tee piece is inserted into the slot in the rotary table and the clamp is secured with the two cap-head screws, the taper on the clamp fitting into the hole in the rotary table. Using the tapered button, the table can be centred under the mill headstock.

Cont overleaf

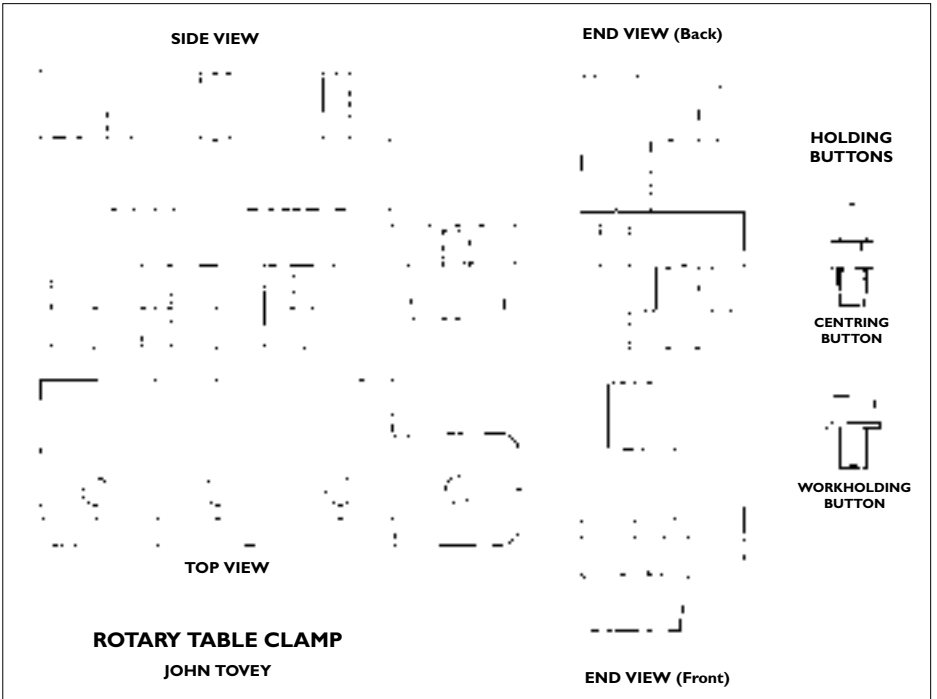
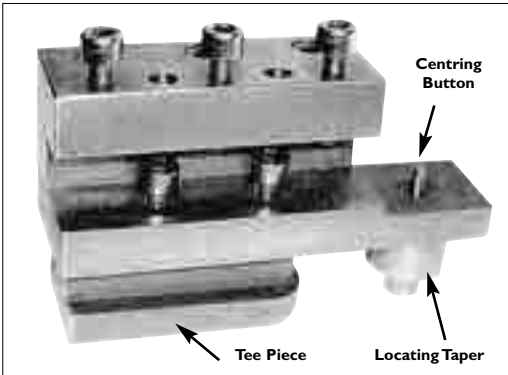
Next remove the button and replace this with a button of the correct size for the internal diameter of the work piece.

Position the work and clamp on the centre line of the base. By moving the mill table to the outside edge of the work piece, the outer diameter can be formed.

CONCLUSION. Until I used the internal diameter buttons, there was the possibility of the work piece moving. This has not happened since.

Hope you enjoy making and using this simple project.

The CARDIFF MESsenger – Cardiff MES





CLUB PROFILE

CANVEY RAILWAY & MODEL ENGINEERING CLUB

Situated on Canvey Island, in the Thames Estuary, their tracksite is typical of the surrounding area being somewhat flat, low lying and crossed by a dyke. This has enabled track construction to proceed without too much need to consider gradients. However, this does not to say the site is without its features for, as the diagram overleaf shows, full use has been made of the



terrain to give an interesting ride on the tracks. A substantial bridge takes the ground level track across the the dyke and the planting of a considerable number of trees gives a tunnel like effect on part of the elevated track.

Ample room is available in the centre of the ground level track to operate miniature traction engines, steam rollers, road vehicles, etc.

Through the hard work of the membership (they have a very persuasive press gang), their facilities have been built up over the years and include both ground level and elevated tracks, a carriage shed, storage

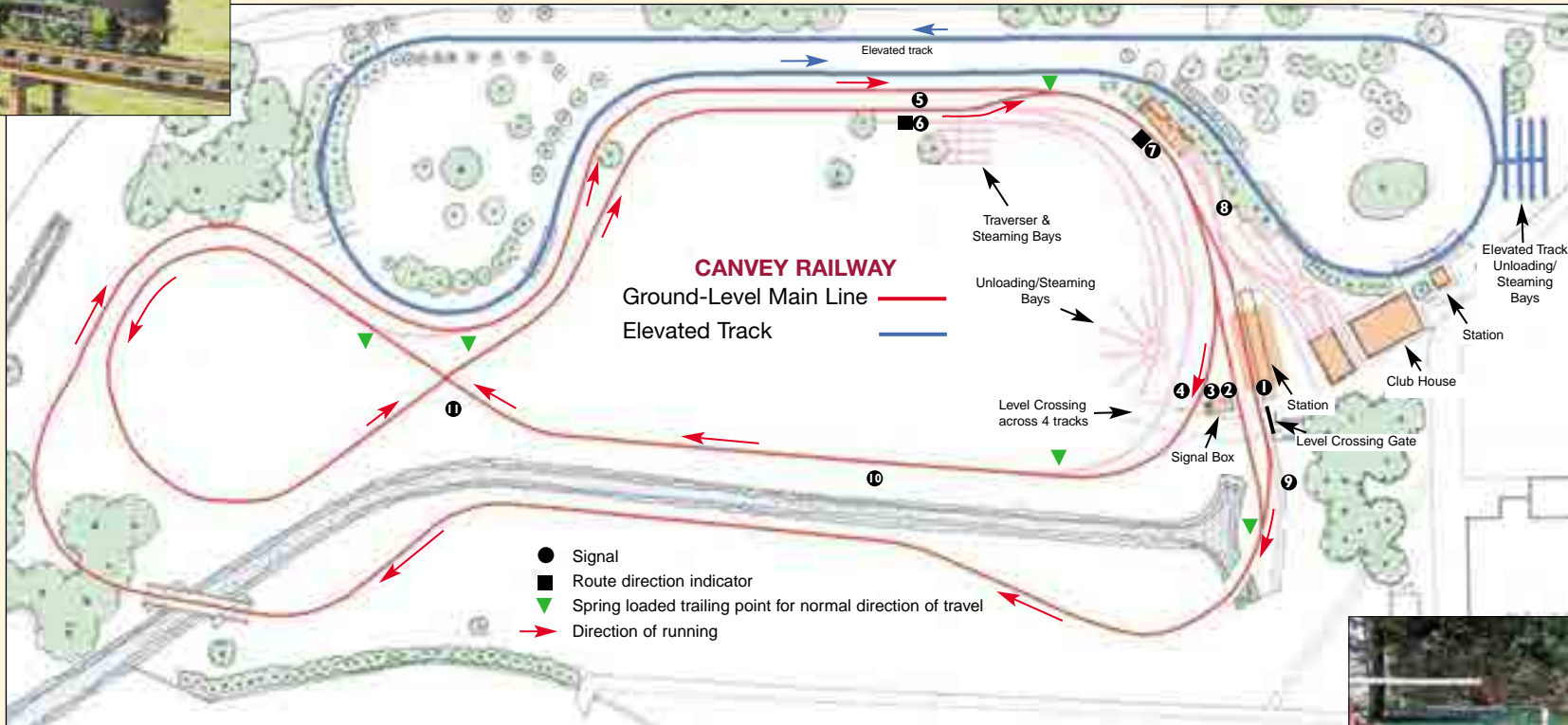
sheds, and various turntables, sidings and steaming bays, together with a pleasant club house. Work undertaken during the past months has been to extend the station canopy of the elevated

track and to add to the signalling system of the ground level track. The operation of the signalling is activated by magnets attached to the train, usually to the locomotive to permit

light running. Rolling stock is also fitted with magnets which can then be put behind visiting locomotives enabling them to run on the system.

A very active club and although railway interests predominate there is a following among the membership (now over 100) of nearly all the other disciplines that are found in the model engineering fraternity. Visitors are always welcome, whether just to stand and stare, to operate their models or to attend meetings.

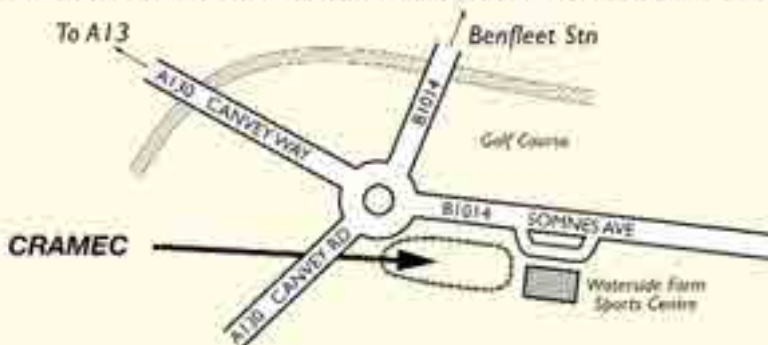
The photographs show some of the visitors to the club at their Open Day at the end of July.



CANVEY RAILWAY AND MODEL ENGINEERING CLUB

Location of premises	The Clubhouse, Waterside Farm Sports Centre, Somnes Avenue, Canvey Island, Essex	
Permanent Track	Yes	Yes
Elevated/Ground Level	Elevated	Ground Level
Length of Track/Gauges	1,500 feet, 3 1/2" and 5"	2,000 feet, 5" 4,200 feet, 7 1/4"
Maximum Gradient	–	–
Minimum Radius	55 feet	60 feet
Voltage available	12V (Car Battery)	12V (Car Battery)
Public/Private ground	Public	Public
Parking/Distance	Yes – adjacent	Yes – adjacent
Public Running	Yes – Sundays	Yes – Sundays
Club Running	Some Saturdays	Some Saturdays
Track	Steel on Plastic sleepers	Steel
Guard Rail fitted	Yes	No
Width over Guard Rail	10 inches	–
Min Ground Clearance	10 inches	–
Trolleys for Visitors	Yes	Yes
Distance from London	35 miles	35 miles
Club Meetings	First and Third Fridays of each month – 8.00pm also Working Parties most Wednesdays – daytime	
Additional Information	Extensive space to drive Miniature Road Vehicles	
Website	www.cramec.org	
SatNav Location	Postcode SS8 9RA	
Club Secretary	Mr Greg Ridgewell	Tel: (01375) 373402

The best approach is from Sadiers Farm Roundabout, Junction of A13 and A130



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



Work continues apace on the restoration of Marshall House, the headquarters of the **Society of Model and Experimental Engineers**. The work referred to includes the complete re-wiring of the workshop and installation of the new machinery from the Col. Hitch bequest, the installation of new windows throughout the building and the major refurbishment of the exterior including the new roof.



The roofing works, stucco restoration, brickwork repairs, rainwater gutters with downpipes and soil stack replacement are now complete, except for a small amount of brick pointing that will be completed before the decorators start in July. Weather

permitting; all the scaffold related work would be completed by the end of July on time and within the agreed budget.

To recognise the completion of all the work that has been undertaken at Marshall House it is proposed that we have a Formal Opening occasion. The date proposed is **1st September**, the ceremony to take place at 1.00 p.m.

The SMEE Training Courses have proven so popular over the last two years that it is proposed to run the courses again over 2007/2008, commencing **15th September**. The Society offers two courses. Part 1 is designed to take an absolute beginner through the stages of setting up a workshop and acquiring the necessary equipment to build engineering models. Part 2 covers the processes needed to actually build a working steam driven engine. The courses of 3 days and 6 days respectively are held on one Saturday a month. This gives the student the time to personally carry out the processes he is taught at each session; eventually ending up with a finished model. Age and experience are immaterial, all that is necessary is a desire to learn. The



Students and tutors proudly display a line up of working steam driven engines built during the last course at SMEE.

students in the picture include doctors, dentists, vets, businessmen and accountants. These courses amply demonstrate that SMEE is not an elitist organisation and that anyone who wishes to take up model engineering will find friendly help, encouragement and advice, even if they are complete beginners. For details please contact: The Training Secretary, Marshall House, 28 Wanless Road, London, SE24 OHW, Tel: 01442 266050 or view www.sm-ee.co.uk

A new magazine *The Model Engineer and Amateur Electrician* appeared in January 1898. Edited by Percival Marshall, this magazine quickly gained an enthusiastic readership which culminated in a meeting being arranged for amateur engineers. This meeting was held on October 4th 1898 and resulted in the formation of the Society. Since these early days the Society has always been actively involved with the Model Engineer Exhibition and this year's

Centenary Model Engineer Exhibition is no exception.

They will have a large stand at the Ascot Racecourse venue and plans are now well under way for what is hoped will be their best stand ever. The theme for the stand will be Past-Present-Future. The Past will be represented by static models and photographs – the Present will be represented by working models, workshop demonstrations and clinics, lectures and their Courses. The emphasis being the SMEE is a society that has a large breadth of experience in model engineering, and that its members are willing to share it with like-minded individuals – the Future will be represented by CNC, CAD, use of microprocessors, e.g. robots etc. A ground level track will be located in an outside area, demonstrating both historic and new locomotives and rolling stock, as well as giving train rides to visitors.

Despite the damp, soggy and often wet conditions, the **Model Steam Road Vehicle Society's** Annual Rally went ahead in June. Saturday morning went more or less as planned. The Borough's mayor opened the show early before going on the Caravan Club road run, where they helped us to raise funds for the County Air Ambulance.

Both the live steam section and the model tent were again very well supported, but, due to the inclement weather, outside exhibits had some of their activities curtailed. The road run around Tewkesbury town was, as usual, a great success with somewhere in the order of 30 engines taking part, excellent considering the conditions. The afternoon concluded earlier than normal with a grand parade of engines. and the day was rounded off with the Hog Roast and a social gathering out in the open as the rain eased off for a while.

Sunday morning can only be described as a rally organisers nightmare. Overnight and early morning rain presented us with some very wet ground. A hasty committee meeting ensued, the decision was that all arena events should be cancelled and movement on the field kept to a minimum,

For many years Bram Lane was a keen supporter of the MSRVS using the facilities of the Tewkesbury Rugby Club. It is with deep regret that the MSRVS learnt the news that Mr Lane and his son Christopher Lane both died while trying to drain flood water from the Tewkesbury Rugby Club premises during the recent floods. The Members and Committee of the MSRVS wish to convey Sincere Condolences to the family.

but both road runs went ahead as scheduled.

The M J Cup was won by Paul Ennis with his immaculately turned out 3" scale Allchin General Purpose T/E. This engine has for many years attended the rally, and it looks



Paul Ennis receives the MJ Trophy from the Mayor of Tewkesbury at the 2007 MSRVS Rally.

Newsletter – MSRVS

just as good now as it did five years ago. Well done Paul! This year a new trophy was presented to the society by Margaret Brown, in memory of her late husband Andy Brown. It was her wish that this shield should be presented to anyone under the age of 18 who had contributed the most to the well being of the Society. This year's winner of the shield was a well deserving member of the society Roy Barker-Stubbings. The Rally finished early due to the worsening weather conditions.

The Maxitrak Owners Club has recently heard of a case where one of their members was turned down from joining his local Model Engineering Society on the grounds that *Maxitrak locos were banned from their track due to damage caused by spinning wheels and spreading of the track, caused, apparently, by the way Maxitrak loco wheels are machined flat to try to get more*

grip. He was, however, offered membership if he was able to run a non-Maxitrak loco, which he was unable to do. The club would like to hear of any similar situations. (*It surprises me that ownership of a locomotive is a prerequisite to joining a Model Engineering Society/Club. Comments anyone? – Ed*)

Battery powered locomotives are usually to be found in the larger gauges but a diminutive 2½" gauge 0-6-0 diesel-electric shunter surprised everyone by its performance at the **National 2½" Gauge Association's** National Rally at Rugby MES in June. David White's loco, powered by a 12V DC battery within the loco was capable of hauling a 16-stone driver and



David White and his battery-powered 2½" gauge loco at the Rugby Rally. Photo: Gerald Chandler

driving car up a 1 in 70 with no slipping. Please note that the date of their forthcoming South Eastern Area Autumn Rally, at the Surrey SME's track at Leatherhead, has been changed to **22nd September** and that Northern Area Autumn Rally is **7th October**, at Chesterfield & District MES.

SMALL PIN EXTRACTOR

by Geoff Gillett

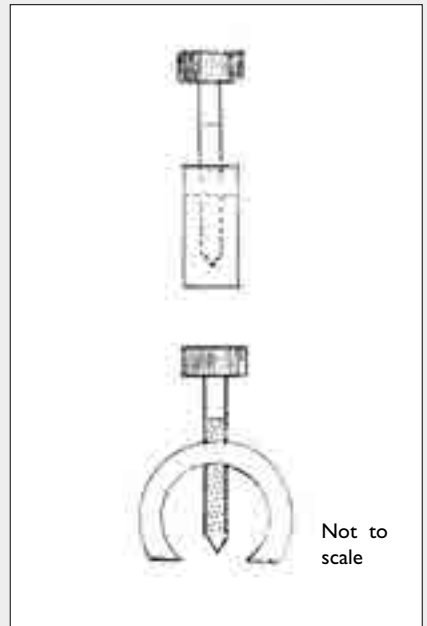
This gadget I find useful for the extraction of small pins from linkages. It is, I believe, in common use in the trades for the removal of clock and gauge hands without the recourse to the usual, somewhat crude method of levering them off with a pair of screwdriver blades. For small loco linkages it alleviates the necessity of resorting to the hammer and punch and the damage sometimes caused.

Mine is ½" outside diameter, bored 5/16" and tapped 6 BA. It can be as crude or as posh as you like - it's easily adapted for a particular job and doesn't take up much room on the shelf! Don't worry about a good fitting thread - a bit of slack will aid alignment, but don't overdo it.

Incidentally, when making pins I like to give the ends a touch with a No.1 centre drill to give the extractor tip a location point, should it have to come out at any time.

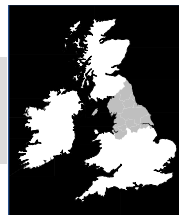
Steam Chest

National 2½" Gauge Association



Not to scale

NORTH OF ENGLAND



Railway Devastated by Flooded River Don

The devastating impacts of the recent flooding in South Yorkshire on families, homes and businesses have been well covered in the media. Understandably, and rightly, there has been less focus on the impacts on leisure activities and societies. **Wortley Top Forge Model Engineers** are well known not just for their miniature passenger-carrying steam railway but also for the beautiful and tranquil setting of their site alongside the River Don near Thurgoland.

They suffered devastating damage from the recent flooding and it will be some considerable time before things are back to near normal. Bridge timbers were washed away, trackwork and ballast has been destroyed, the clubroom itself has suffered severe flooding and, worst of all, much of the rolling stock and some engines have been badly damaged having been submerged under more than two feet of water. One of the railway carriages was rescued from half way up a tree several hundred metres away from the site, and a wooden carriage shed was completely washed away into the swollen river.

The Society has also lost out financially as a result of two village fetes being cancelled due to the flooding where the portable track and trains would have been in attendance.

Through the Herculean effort of the Society's members they have managed to replank the bridge and reinstate a sufficient length of track to enable them to once again operate trains, albeit steam only, as the electric motive power was severely damaged. See the Society's website at www.wortleymes.com to see how things used to be.

The Society's Annual Open day will still take place on the 2nd September.

To encourage members to display models on the Society's stand at the Harrogate Exhibition the **Tyneside SMEE** awards a number of trophies for the various categories of model on show. This year the trophy for Best Overall Exhibit was won by Eric Lonsdale for his 5" gauge 0-4-0 Ajax Tank

Engine. The days of young people building models is unfortunately a rarity, so it was nice to see Stuart Blackburn's 3 1/2" gauge 3F under construction. The Society's Late Summer Rally will take place **1st/2nd September**.

To enable 2½" gauge locomotives to run, **Warrington & District MES** has just added a fourth rail to their track, and are proud to claim that it is the longest 2½" gauge track in the UK (unless you know otherwise), at over 1700 feet. The project has begun in May 2007 and progress has been at a meteoric rate, some 700 ft being installed in one week alone. The final screw holes were drilled by Ben Williams (aged 6) and the final screws were driven by Callum Boles (aged 13).

The Society is planning a formal



Callum (left) and Ben (right) placing the last screws in the 2½" gauge rail at the Warrington & District MES track.

Photo: Barry Harrison



Barry Harrison sets off for a test run, with his 2½" gauge Crab, on the Warrington & District MES track, 8th August 2007.

Photo: Roy Allen

inauguration event for Sunday, **23rd September**. This will be a 2½" gauge only day at the track and visitors are encouraged to bring their engines and see what they think of it. It's in a secluded woodland setting, facilities are fairly basic, but previous open meetings have met with enthusiastic approval.

Notice the change of date of the Open Day at the **City of Sunderland MES**, which is now the **2nd September**. This is to enable the Society to support the Centenary Model Engineer Exhibition with their stand, during the following weekend. Sounds like a very busy time for the members.

A number of **Pickering EE&MS** members recently visited the Abbey Pumping Station Museum, Leicester. There was something for everyone's interest, from cycles of a bygone era to vintage cars, horse drawn carriages to a large steam digger. A narrow gauge railway was running with a 0-4-0 steam engine and a number of steam rollers were also in operation.

The owners of Eggborough Power Station, where the **Leeds SMEE** tracksite is located, have decided to rigorously enforce the on-site 20 mph speed limit. To this end they have installed a solar powered road side monitor, with two-foot high illuminated characters which tells you if you are exceeding the limit. Anyone exceeding the limit could be banned from the site. So, if you are visiting their track, strictly adhere to the speed limit and thus spare the club of any embarrassment an infringement may bring.

THE MIDLANDS & EASTERN COUNTIES



Northampton SME visited the privately-owned 5" gauge ground level track at the **Pimlico Light Rly**. The significant feature of this line is the severe gradients; 1-in-60 climbing on a curve out of the station, 1-in-70 downhill behind the house, with signals for the diverging routes at the bottom, 1-in-125 up the upper circle to the summit, and 1-in-50 down to the crossover and into the station! Only the station and its bypass are level.



*David Packer approaches the double-gantry signals at the Pimlico Light Rly
Photo: Chris Orchard*

Thirteen visitors attended, with four locomotives giving a wide representation of traction techniques. Pete Squire's 0-4-2 GWR 1400 was in Pimlico Light Railway's home livery and driven also by Graham Hardwick. Andy Waller's battery-powered Growler *Sarah Siddons* circulated happily in his and Howard Bowling's hands, following a rebuild after stripped motor gears. New member David Packer was running his Simplex; perhaps unusually, this is in BR black livery and looks most attractive, with a very impressive smokebox cast numberplate.

The Pimlico Light Railway is affiliated to

the Southern Federation, and public running is on the fourth Sunday – May to October. Apart from the members enjoying themselves, a purpose of the railway is to raise funds for the local church's charities, specifically the purchase of cows for African farmers, and Open Days are regularly held

at which visitors are encouraged to contribute. Imagine if you would for a moment the vision of an African farmer, on taking delivery of his new cow asking how the money was raised and on being told, with a look of utter disbelief on his face exclaiming "... they did WHAT?" Northampton SME willingly gave a donation to PLR's chosen charity.

Northampton SME has a number of events lined up for the later part of the running season and visiting locomotives are most welcome (see Events Diary on page 35 for details).

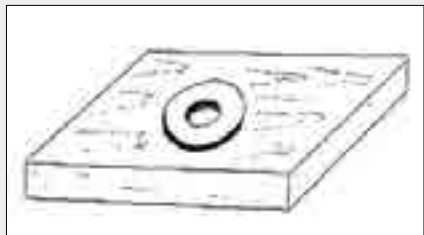
A return loop on the ground level track, at the Eaton Park tracksite of **Norwich & District SME**, was completed ready for

THINNER WASHERS

Sometimes when we are fitting a washer to an assembly which is locked with a castle (slotted) nut, it is impossible to turn the nut to the next slot without overloading the assembly. If no shims are available then it is quite acceptable to take a little off of the face of the washer; the problem is how to hold the washer?

Take a small block of wood about 3" x 2" x 1/2" thick. stick the washer to the wood with a little grease and using the vice press the washer into the wood for about half of the washer thickness. By placing the wood in the vice you can now file a little off of the washer, checking as you go.

Stephenson Link - Chesterfield & District MES



the Easter weekend making operations much easier. Locos now run continuously without having to be turned, enabling passengers to be loaded and trains dispatched much quicker than previous. The construction of two additional passenger cars was completed in time for the commencement of the running season. Meanwhile, re-assembly of the Society's 7¹/₄" gauge LNER A3 has begun in earnest and hopefully it will be in steam before the end of the running season.

Work continues in developing the tracksite of the **North Norfolk MEC** at Holt Station, on the North Norfolk Railway. Their station Holt Minor is now in service and with new notices and signs looks very impressive. The turntable and new point now work well, after a few minor problems with expansion were sorted out - a temporary solution being to get a double-decker bus parked alongside to create a shadow!

LONDON & THE SOUTH EAST



This year the weather has been diabolical and **Bedford MES** has had to abandon two consecutive running days for the first time ever. One of them was during their Traction Engine Rally weekend in May, which was a complete washout. However, some intrepid traction engine owners did manage to get up steam on the Saturday. Let's hope the weather will improve for their Annual Locomotive Rally, **1st/2nd September.**

In response to a question about terminology used by railway crews, in a recent *News Letter* of **Welling & District MES**, the late Dave Wooderson gave some answers, a couple of which are as follows –

Birds' Nests: It was, and is, common practice for the white-coat-boys to measure the calorific value of various fuels, and this can be useful at times, but loco men were much more interested in the physical nature of the coal; size, and especially, the amount

and nature of the ash produced. Some coals produce a fine ash which melts to a thin liquid in the heat of the firebed. This gets picked up by a strong blast' and is 'sprayed' on to the relatively much cooler tube-plate (because it has water at maybe 380F on the other side). Here it at once 'freezes' into a hard, fibrous mass, looking exactly like fossilised bird's nests, hence the name (also used in France). This has to be removed by careful chipping, so as not to damage the copper, once the boiler has cooled sufficiently and part of the brick-arch has been dismantled - not the best-loved job on shed!

Other types of coal can produce ash which melts to a thick, sticky mess, which trickles through the fire-bed until it 'sets' in the cooler air coming up through the ashpan, forming a solid cake that can, in total, block off as much as half the grate - no good for free steaming!

Jimmy: This was a thick wire, or metal strip fixed across the top of the blast-pipe to reduce its area and sharpen the blast; another quick-fix for poor steaming. It had to be fitted with some care; if it slipped it might deflect the blast back down the tubes, sending flames onto the footplate round the necessarily loose-fitting firedoor. Very

1001 USES FOR OLD HACKSAW BLADES (Well, a few, anyway!)

by Peregrine

What a wonderful friend is the common hacksaw blade! Properly looked after it will go on removing many times its own weight of metal. Even after it has become too dull for normal cutting or, more disastrously, become broken by fair means or foul, it can still have some further uses. It's a matter of life after death, perhaps.

We should already be aware that broken pieces of blade could be ground to make narrow parting tools. Given adequate support they can also be ground to make special form tools for light duty applications. With the teeth ground off and a suitable handle fitted you then have a versatile knife to hand - the blades also take quite a nice polish, too! Grind the end to a chisel point, or any other desired shape, and you have a very useful multi-purpose scraper. Use it as a deburring tool by scraping it diagonally across the edge of the work, whatever the shape.

One use I had not seen or heard of before came to light when I had to clean up some buffer heads. How could I pick up the radius of the head if I tried turning in the lathe? Beyond my skills, I'm afraid, and the use of a file against the revolving work just produces a scratched and uneven surface. Emery cloth was also not on as all this appeared to do was put a polish on the imperfections. So I arrived at a scheme that would probably fill a Health and Safety inspector with apoplexy. Taking one of my trusty pieces of hacksaw blade with a keen square edge, I held it at a slight angle and gently rocked it against the face of the rotating buffer head. Hey presto! Swarf came off like bundles of very fine cotton wool and a very fine finish was achieved. Provided the blade is held lightly but firmly against the downward rotation of the work, any tendency for the blade to dig in or snatch is minimal and it would tend to knock the hand away from the work. The choice of spindle speed did not seem to matter greatly, but it should not be too slow. I've since tried the technique on materials other than mild steel, such as stainless and silver steel, and similar results were obtained.

The Coupling – Bedford MES

(Please be careful when using hacksaw blades for purposes other than they are intended, particularly those hardened right though, as they can easily shatter.- Ed)

dangerous indeed. It also had to be readily removable, as ‘authority’, understandably, frowned on such makeshifts, partly for safety reasons, as described, and also for a dislike of anything ‘unofficial’ anyway.

A model engineer visitor from Japan, Mr Kimio Hoshino visited the **Frimley & Ascot LS** during their June Run. He is from the ‘Japan Coupler Friends Club’ and amongst the locomotives he has built are two British designs – a Speedy and a Simplex.



Mr Kimio Hoshino at the controls of Peter Gardner's Titan at Parkside Station on the Frimley Lodge Miniature Railway. Photo: Peter Gardner

The Milestones Model Engineering Show was on the home turf of **Basingstoke & District MES** and so the club and its members pulled out all the stops to put on a good display. As this was the first Model Engineering show which many of the members have exhibited at, B&DMES did themselves proud. Their

SOUTHERN SHORTS

Cyril Carter, the founder of the **Romney Marsh MES**, sadly has died after a long illness.

David Wooderson, a member of **Welling & District MES** since 1946, and the Secretary of **Kent MES** has recently died.

display ranged from hot-air engines, Stirling engines, miniature static steam engines, right through the railway gauges culminating in two work-in-progress Gresleys, displayed on innovative work holding stands. Malcolm Duckett even managed to provide a live demonstration of his Quorn grinding machine in action, probably the first demonstration of its kind ever at an exhibition. Outside they managed to run five electric locos and one steam engine hauling passengers on both days.

Harrow & Wembley SME made a ‘weekend of it’ for their Club visit to Bristol. This enabled them to visit a number of venues and guided tours were arranged for the Clifton Suspension Bridge and the S.S Great Britain. A glass roof at water level has been built around the ship, with a few centimetres of water on it giving a realistic effect. One can go under this roof into the dry dock to view the hull. Evidently, the iron on the bottom of the ship is so heavily impregnated with salt that the only practical way to prevent further corrosion is to keep the ship’s bottom at 20% humidity, roughly the same as the Arizona desert.

A recent evening meeting at the **North London SME** was a ‘Bring and Run’ evening, the items in question being stationary engines of one type or another;

Cont p32

THE LARGEST DIESEL ENGINE IN THE WORLD – Roger Stephen

I was working on my model boat the other day, thinking about the best way to install the tiny little electric motors that will eventually power it. I had protected the dining room table by covering it with old newspapers and my eye was drawn to a 'Questions & Answers' column on one of the pages. Someone had written in asking about a large marine diesel engine. Now this suddenly became more interesting than my model boat and I turned to the internet for more information. The article concerned the Wartsila-Sulzer RTA96C turbocharged two-stroke diesel engine fitted (if that's the word) in the world's largest container ship, the *Emma Maersk*.

The Wartsila-Sulzer RTA96C is the most powerful and efficient prime mover in the world today. It is available in a range of 6 to 14 cylinder versions, all of which are in-line engines. The cylinders have a bore of 960mm (37.8") and a stroke of 2500mm (8' 2 1/2"). Each cylinder displaces 1820 litres (111,143 cubic inches) and produces 5720kW (7780 horsepower). The total displacement of the fourteen cylinder version is 25,480 litres (1,556,002 cubic inches) giving a maximum power of 80,080kW (108,920 horsepower) at 102rpm. The whole thing weighs 2300 tonnes (the crankshaft alone is 300 tonnes), is 27.1 metres long (89') and 13.4 metres high (44').

Fuel consumption is rather frightening at 13.73 tonnes per hour at full power (roughly five litres or one gallon per second!) but drops to a slightly more respectable 10.9 tonnes per hour at maximum economy, which is 85% of full load. At maximum economy the engine has a total thermal efficiency greater than 50% which compares with a rather disappointing 25 to 30% for a modern car engine. What is more, the fuel is cheap because the engine uses heavy fuel oil which is basically the treacle-like residue left at the oil refinery when every other useful crude oil product has been removed. However, this does need to be kept hot so that it can be pumped, filtered and sprayed into the engine cylinders.

The construction of the engine is rather more like a marine steam engine than your average car engine. The piston rod is connected to a crosshead running between a pair of guides, with a separate connecting rod fitted between the crosshead and the crankshaft. This has at least three advantages over direct connection of the piston to the crankshaft; firstly, the lubrication of the combustion area is separated from the crank case oil, which does not then get contaminated with combustion products; secondly, side loads from the connecting rod are not transmitted to the piston, reducing wear on the piston and cylinders, and; thirdly, it allows the descending piston to be used to compress inlet air for the adjacent cylinders, which also serves to cushion the piston as it approaches bottom dead centre and to remove some load from the bearings.

The longest, fourteen cylinder, RTA96C engine went into service on 1st September 2006 in the *Emma Maersk* which was widely reported in the press to be 'bringing Christmas to Britain from China'.

Incidentally, it seems that ship owners like a single engine and single propeller design for their larger ships. This would appear to make them very vulnerable to being wrecked in the event of an engine failure. Do any members know why a single engine and propeller is preferred in large ships like tankers, bulk carriers and container ships? Surely two or more engines and propellers would be safer?



The photographs show a 10-cylinder version of the engine under construction.

Far left: The crankshaft sits in a gondola style bedplate, the workmen giving it scale!

Left: The cylinder block. The cylinder liners are of die-cast ductile iron.

The Gazette
St Albans & District MES

ten exhibitors showing a total of 18 engines. One of the items, made by Derek Perham, was a test rig for for a lubricator. This had been made specially to analyse the problem Robert Oldfield was having with one of his locos with twin lubricators. They were of the clutch-operated variety and when he got above a certain speed one of them stopped rotating the pump. Derek built his rig and mounted the offending pump, and sure enough it was as Robert had said. Derek tried various tests and eventually found that the shaft had worn about 1/2 thou too small; one had been made in stainless and the other in mild, which had worn. Derek remade it in stainless and all was well.

In October 2000 it was announced that realignment of the 'Straight Mile' at Ascot Racecourse would mean that the demise of the **Ascot LS** tracksite; with a final track run just prior to Christmas 2003. It wasn't until July 2004 that planning permission was given for a track on a new site and work commenced September 2004. The first Members Steam-Up is proposed for 26th August 2007, a 'track running-in turn' for operating as a supporting event for the Centenary Model Engineering Exhibition at the adjoining Ascot Racecourse.



Above: Terminus Station taking shape at Ascot LS.
Photo: Ascot LS

In anticipation of a large number of visitors to the forthcoming Southern Federation Autumn Rally, **Canvey Rly & MEC** have installed a traverser and additional sidings on their ground level track. Meanwhile, work continues in extending the canopy of their elevated track.

Thanks to a bequest and substantial donations from a couple of club members, **Reading SME** have been able to acquire a brand new locomotive for the club. Built in South Africa the new engine arrived in July. The 1 1/2" to the foot scale



Mick Jones driving the new Reading SME club loco.

Photo: Jim Brown/RSME

is based on a Baldwin 0-6-0 Narrow Gauge switcher so although 5" gauge is quite large and should prove to be a very capable passenger hauler.

With the bogies, brakes and the frames finished and painted work proceeds on the new 7 1/4" gauge club trolleys at **Sutton MEC**. The bodies are based on a GWR Siphon G bogie van, used for general freight and milk carriage and 5ft long black vinyl seats are shaped to look like a prototypical roof. Passengers will be relieved to know that the prototypical central roof vents have not been included!

WALES & THE SOUTH WEST



The delivery of a container, for additional storage at the tracksite of **Southampton SME** caused a little concern when the artic lorry delivering the container slipped to one side, interlocking with the HIAB now holding the container aloft. The lorry was eventually extracted from its position and the container lowered onto its plinth.

Bournemouth & District SME were hosts to two parties of children from Chernobyl during July/August and the local paper made a short video of the event which is posted on

<http://www.bournemouthcho.co.uk/echo/videonews/index.var.6158.0.0.php>

Over the last nine months a band of helpers has steadily been constructing a 16mm Narrow Gauge track and apart from some cosmetic work still to done is now finished. The official opening, by the Mayor of Bournemouth, will take place during August.

The Editor of B&DSME News, Dick Ganderton, reports that the latest edition is a short Newsletter - this due to the Editor's left hand having had an unfortunate meeting with the rotating propeller of his Super 60 radio-controlled aeroplane. With only two thumbs and four fingers operational, working on the computer is a lot slower than normal. The good news is that the surgeon managed to reassemble it all and he should be able to count up to 9^{1/2}!

He warns "It just shows that one small mistake, or lapse of concentration, can have very serious consequences when operating rotating machinery. So, be extra careful in the workshop". (*Dick - Let's hope you are soon on the mend - Ed*)

Plymouth Miniature Steam have recently endured extreme opposites in operating conditions at their tracksite. A torrential downpour caused the total abandonment of the club Sunday at the beginning of May. For once, the drainage gully at the edge of their car park was serving its purpose, carrying quite a volume of water and the 'lake' which is usually dry due to the 'good drainage', actually had water in it, almost 2 feet deep! This flood came just a week after an extremely dry period had ended and with that end came another kind of difficulty, gorse fires. On two occasions, fire broke out in the gorse and they are as sure that these were deliberately set. The first was quickly quelled, but the second, in almost the same place, did threaten to get out of hand. Thankfully they managed to get it extinguished using beaters and water, before the Fire Brigade arrived, although achieving an adequate supply of water was not easy. The Fire crew agreed with their suspicions, that the incidents were almost certainly malicious, as several other fires had been started during the previous week.

After patting themselves on the back for carrying the highest ever number of passengers on the Easter Bank Holiday **Bristol SMEE** had the opposite on the May Bank Holiday Sunday – the absolute opposite!

A band of (t)rusty members prepared the track for running – the locos were all waiting in the shed ready for when the rain stopped ... but ... it didn't stop and not a single passenger turned up. Not one! Nobody!! Another record for the summer of 2007!

Members enjoyed a recent club talk, about Silver Soldering, given by Keith Hale, CuP Alloys. During the course of his talk he gave a number of tips with regard to brazing:

- The alloys that 'we' use like a gap of about 3 - 4 thou but won't go down below 1 1/2 thou. Lack of penetration is one of main reasons for joint failures.

- When mixing flux take the powder, add two drops of detergent and then mix with water to a thick, yoghurt consistency. The

detergent does three things; it helps to make it into a paste, it makes it stick to the work piece and it can always be re-mixed. If you want a flux that doesn't 'boil up', mix it with meths. The flux tells you the temperature. When it goes colourless, it is about 50°C below the melting temperature of the alloy.

- A brazeable form of copper must be used, tough pitch or electrolytic copper contains oxygen which will cause steam-cracking of the copper.

- When jointing stainless, use nickel bearing stainless steel to prevent corrosion at the interface, the 300 series are fine. Some stainless steels are not stabilised and carbon and chromium combine and the stainless becomes *non*-stainless.

- If you must clamp things together to hold them, centre punch to keep the plates apart. Use a soft pencil to prevent the solder running everywhere. Be wary of burrs, these are beautiful alternative capillary paths.



POSTSCRIPT

Why does mineral water that has *trickled through mountains for centuries*
have a 'use by' date?

The Blower - Northampton SME

EVENTS DIARY 2007

SEPTEMBER

- | | |
|-------|--|
| 1/2 | Bedford MES – <i>Annual Locomotive Rally</i> |
| 1/2 | Tyneside SMEE – <i>Late Summer Rally</i> |
| 1/2 | Chesterfield & District MES – <i>Open Weekend</i> |
| 2 | Wortley Top Forge ME – <i>Annual Open Day - nr Sheffield/Barnsley</i> |
| 2 | City of Sunderland MES – <i>Open Day - CHANGE OF DATE</i> |
| 7-9 | Model Engineer Exhibition – <i>Royal Ascot Racecourse - NEW VENUE</i> |
| 8 | Northolt MRC - <i>Annual Exhibition & Open Day</i> |
| 8/9 | Birmingham SME – <i>National Locomotive Rally</i> |
| 14-15 | Northern Model Engineering Exhibition – <i>Pickering Showground, Yorkshire</i> |
| 15 | FEDERATION AUTUMN RALLY
– <i>Hosted by Canvey Railway and Model Engineering Club</i> |
| 15/16 | South Down LRS – <i>Steam Gala</i> |
| 16 | Canvey Railway & MEC – <i>Southern Federation Host Society Open Day.</i> |
| 16 | Saffron Walden & District SME – <i>Open Day</i> |
| 16 | Guernsey MES – <i>20th Anniversary Exhibition - Oatlands Craft Centre, St Sampsons</i> |
| 19 | Welling & District MES – <i>Gauge 1 Open Day</i> |
| 22 | National 2 1/2" G Assoc – <i>South Eastern Area Autumn Rally - Surrey SME -</i>
CHANGE OF DATE |
| 23 | Cardiff MES – <i>Open Day</i> |
| 23 | Warrington & District MES – <i>2 1/2" gauge Rally</i> |
| 23 | Northampton SME – <i>Club Efficiency Competition - Visiting locos welcome</i> |
| 29/30 | Luscombe Valley Railway – <i>Enthusiasts Weekend</i> |
| 30 | Bristol SMEE – <i>3 1/2" Gauge Rally</i> |

OCTOBER

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|-------|---|
| 5-7 | Brent House Railway – <i>Loco Rally (5" gauge only)</i> |
| 7 | National 2 1/2" G Assoc – <i>Northern Area Autumn Rally - Chesterfield & District MES</i> |
| 12-16 | Midlands Model Engineering Exhibition – <i>Warwickshire Exhibition Centre</i> |
| 14 | Cardiff MES – <i>Open Day</i> |
| 14 | Northampton SME – <i>Sunday Steam-up - Visiting locos welcome</i> |
| 27 | Northampton SME – <i>Night Run - Visiting locos welcome</i> |



Photo: Worthing & District SME

ABOVE: We include this picture to show that the sun did, in fact, shine in 2007! Worthing & District SME operated their portable track at this year's Sompting Festival. Charles Weatherly with the Egytian Dancers 'Sahari-Zari-Super-Zars' as passengers.

BELOW: Sylvan delight. With the addition of a fourth rail, allegedly, Warrington & District MES now has longest 2¹/₂" gauge track in the country.



Photo: Warrington & District MES website

