

The Oily Rag!



Plenty of steam at the Creech Santa Special!
Photo Peter Nicholson

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The Taunton Model Engineers'
magazine

Contents

3. From the Editor
4. Chairman's Notes
5. News from Creech
6. Santa Specials at Vivary and Creech
7. Charity donations.
8. Vacating the Pavilion
10. Nomads 2017
11. The missing bits by John Pickering
An appeal for help with a club project
13. Tools and Trades History Society By Tony Waldis
More eccentric than model engineers?
16. Saint Andrew By "Turnip"
A local church with railway connections
17. Learning the road By Ray Rolt
This time what is outside the cab
20. The care of miniature injectors By John Walker
Advice on a perennial problem
22. My engineering hero Part 1 By Andy King
Introducing the subject
25. Building a small boiler inside out. By John Pickering
A different approach to stays
29. Of ships and things By Fireman MN. Retd.
The job goes up in smoke
31. Vivary Park running days 2017
32. Creech running days 2017
33. Meetings Programme

From the Editor

As members of the Taunton Model Engineers, I think it is true to say "we live in interesting times". with both of our tracks under threat. Our chairman outlines the situation in his report. I am sure there will be some lively debate on the way forward at the AGM. It is difficult to understand how one local authority will consider a miniature railway to be a valuable asset and to support the local club by allowing them space at minimal rents and even in some cases making grants for improvement Whilst we end up with two bodies which place no value on our contribution to the community whatsoever.

Despite an overwhelming vote to keep the railway by parishioners at the Creech village meeting a couple of years ago, the councillors wish us to leave. We have been told this is so that they can rotate the football pitch by ninety degrees to marginally reduce the slope. This seems a feeble excuse I wonder what the real reason is. If they have other ideas for the use of the field our presence as signatories of the Fields in Trust scheme could well be embarrassing and after all we are already almost surrounded by housing.

With the present turmoil there is more of your magazine this time devoted to reports, but we still have a wide range of topics to follow. I admit that I had no idea of the existence of Tools and Trades History Society, Tony Waldis corrects this. Having stopped the train I mistakenly assumed that was the end of Ray Rolts fascinating series. So I am pleased to say we have another part. John Walker of The Southern Federation has submitted an article on the care of injectors which I think you will find useful. The last article tells how Fireman MN retd. Singed the boss. I hope you enjoy this issue.

John

Chairman's Notes

By Mike Johns

I delayed writing these notes hoping that I might have some good news to report about our two sites which are both under threat now.

The present position with Vivary Park is that we are in discussions with Taunton Deane BC on the terms of a proposed 5 year lease. We have planning permission to install a new building opposite the steaming bays for which the Parks Dept. would lay a concrete foundation and run in water and electrical supplies at TDBC cost. However although we understand our basic rental terms will not change we know that the council is considering the introduction of Sunday parking charges for which we are advised that there would be no dispensation for TME members operating the railway.

There is also the question of the terms to apply as on Mondays-Saturdays there is a time limit on 3 hour's parking which is inadequate for our purposes. In the circumstances there will be no action on the new building unless we can agree on terms that we can recommend to our members. Meantime the intention is to operate from April as best we can.

On 24 February we received 2 documents from solicitors instructed by Creech St. Michael Parish Council – a Notice to Quit by 30 September next and a proposed new lease to apply from then on for a 5 year term. We knew from the PC minutes that some action was in the offing but in spite of repeated requests to meet and discuss their proposals, only now do we know what is intended. They wish to reduce the amount of land we occupy which would render the railway inoperable, restrict the use of the pavilion and increase the rent significantly. These changes cannot be recommended to members and we shall be consulting a solicitor about how to take

matters forward. The railway will open in April as planned.

Clearly there are serious issues to be resolved. We intend to discuss the actions to be taken on each site at our forthcoming AGM when you will have a chance to learn what progress has been made. We hope to table proposals that the members can endorse to ensure TME can continue its activities.

News from Cræzeh

By Mike Johns

Unfortunately we suffered a series of derailments at the end of the 2016 running season so in the period since working parties have concentrated on improving the track where it had deteriorated and ensuring that vehicle suspensions behave as intended.

David Hartland's calibration trolley has been used to check the track and thanks to the efforts of the Thursday working parties some 120 feet of track at the summit of the climb through the cutting has been completely relaid and much re-sleepering has taken place elsewhere where the old sleepers had rotted and needed re-packing with ballast. John Pickering, David Hartland and Mike Johns considered the flexibility under load of the vehicle bogies as a result of which John is trying a modification to the spring arrangements on our 6 'new' bogies while Mike is upgrading the spring ratings of our 6 original bogies. The results of tests under load and at speed have been positive so far.

This essential work has delayed John Pickering's completion of the two new locomotives. For "Robin" Tim Hims has offered a brand new hydraulic drive unit to the club to replace the present one but the input drive rotation appears to be of the opposite hand. Whether

the unit can be fitted and the engine re-mounted to enable it to be used is now being considered. Once we decide what to do Tim Griffiths will be able to get on with this project.

The machine tools are operational and an initial training session has taken place at Creech with some 6 members. Owing to the limited space available Dave Wood has kindly invited them to use his workshop (under supervision!) with its greater range of tools – and it is warmer! Our thanks go to Dave for taking on this activity on behalf of the club.

Andy Cooke has completed the control cabinet for the hydraulic lift while Tim Hims has fitted a solar cell unit to keep the battery charged. It will be interesting to see how effective it is in the British weather. Thanks go to Tim for all his help with this project.

As ever there is always plenty to do around the site requiring a variety of skills and abilities. If you feel like joining in please contact David Hartland to be included on his weekly mailing list.

Santa Specials at Vivary & Creech

By Diana Fathers

It worked! Julie (Harvey-Smith) and I wanted to make the word "Santa Special" really mean it and we each bought 200 presents, wrapped them – that was a labour of love! – and put them into boxes for boys, girls or either. In return, all we asked was that the drivers and helpers made an effort to wear something Christmassy. The men joined in the spirit of the occasion, with decorated locos and appropriate clothing (mostly), with Phil really doing the honours by wearing a proper Santa outfit.

We decorated Vivary Park station as best we could and the queue stretched round the pavilion. The weather was excellent for December and both children and adults enjoyed the efforts that had been made. Donations for The Creech St Michael School Garden Project were generous and raised a total of £266 (last year it was £200).

Julie and I had thought that 400 gifts for the two Specials would be ample but we got through 300 at Vivary so we both spent the week buying and wrapping more in time for Creech.

The following week the weather was much colder but still good but, somewhat surprisingly, were not so busy. However, we still raised another £150 for the school. We now have a good many presents left that will keep for 2017 (I have even been out in the January sales buying more) as we are determined to ensure that this new "tradition" becomes a regular event that the public can look forward to and of which the club can be proud.

I would like to thank everyone who made the effort to support our idea, especially Julie, for helping to make the Santa Specials so special.

Charity donations.

By Diana Fathers & Phil Mortimer

Further to my report on the Santa Specials, Phil has sent me a breakdown of all the donations we have made to charities in the thirteen years since we began. I found it interesting and thought others might also like to know how much we have raised and how the money has been spent.

Vivary Park track did its first Santa Special in 2004, raising £152, of which £76 was donated to the Children's Hospice South West and the rest to Club funds. Creech joined in with its first run in 2008, raising £23, which was added to the Vivary collection of £110 and £75 was donated, also to the Hospice.

Over the years the figures for both tracks have increased as the Santa Specials have become more popular and more widely known; and since 2009 the total amount raised each year has been given to good causes, instead of splitting it with Club funds. In all, Vivary collections have totalled £2,072, and in the nine years since Creech has been operating another £561 has been added, making a total of £2,633 raised. The Children's Hospice has received £1,242, BIBIC £540, Barnardo's £325 and Creech St Michael School £416 – a total of £2523.

The Santa Specials have operated despite flooded tracks and bitter weather – and occasional fine days! - and have become something both regular visitors and newcomers really enjoy. Well done to whoever first thought of the idea and thanks to everyone who has helped to make the Santa Specials such a worthy cause.

Sending this report, I'm feeling rather proud of Taunton Model Engineers and glad I joined!

Vacating Pavilion

By Phil Mortimer

On the 17th December 2016 a large group of willing members gathered at the pavilion in Vivary Park to begin the vacating of the pavilion in accordance with the notice we had received from TDBC.

Within the three hour time slot of allowed parking the pavilion was emptied and cleaned with all the equipment transferred to the green container with the intention of sorting and organising at a later date.

The later date was 2nd March when a group of very willing members, including Mark with his trailer, arrived at the Green container to start sorting, reorganising and servicing the riding trollies.



The new “Mezzanine” for storing spare staff
(shouldn’t that be stuff?)

A mezzanine floor was installed at the far end of the container for storing equipment on and this included “the kitchen” because the café is still not up and running to supply members with the free teas and coffees. Mark’s trailer took away a lot of “stuff” because it was broken or no longer required. It took some of the members all day to carry out this work and they even extended the sorting of the Box in the steaming bay.

I would like to extend a very big thank you to all the members who helped on both days for every thing they did. The weather shone on us for both days.

Nomads 2017

By John Pickering

I have received two requests to run the portable track during this spring and expect two more during the Summer. We may even do the Creech Flower show in the Autumn but that rather depends!

The first event is the Stockland Village Fete. This is held on the Spring Bank Holiday each year, this year that falls on the 29th May. This will be the third year we have run at this popular event.



Bob Richards about to pull away at Ferne Animal Sanctuary.

The next is a similar event at Coombe Saint Nicholas to be held on the football field and as we all know these should always dead level! The date is 10th June which unfortunately clashes with the Didcot visit so we may have to decline.

Later in the year we will probably run at The Ferne Animal Sanctuary Family Fun Day and at the Dalwood Village Fete. Dates to be set.

These are fun events and although things can get quite hectic I think those who have been involved in the past have enjoyed themselves. We generally divide the take between club funds and the charities selected by those organising the event. If you would like to be involved please contact me. (editor@tauntome.org.uk)

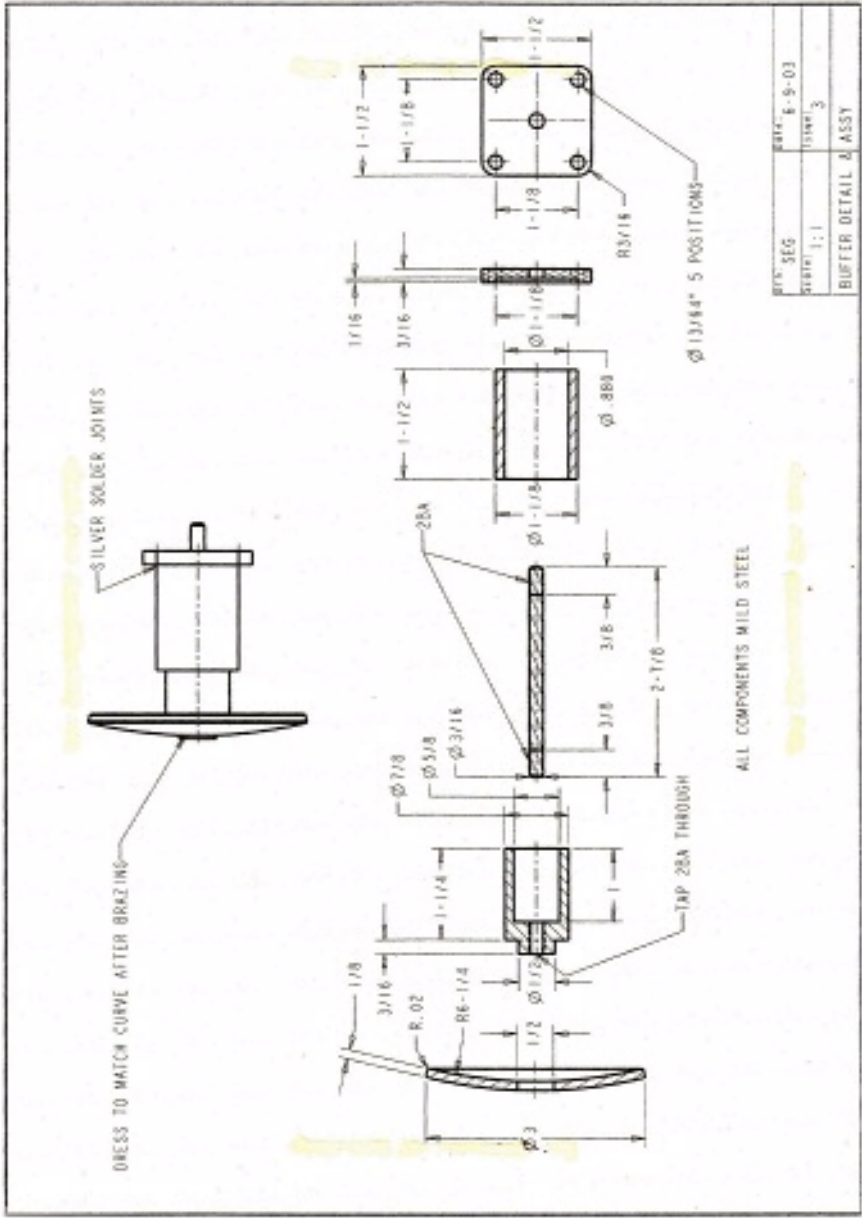
The missing bits.

By John Pickering.

Although the new carriages are in service at Creech they are not complete, here is your opportunity to contribute to what is seen as a club project, how would you like to make a buffer or several?

The buffer heads have been laser cut and pressed to shape but the rest of the work is yet to be done.

If anyone would like to take on this job please contact me for the pressed buffer heads you need. The final result should look a bit like the ones on the older stock shown in the second picture. We only need a total of 12 buffers so volunteer early to avoid disappointment.



We also require six brake vacuum actuators to be made. Once again the pressed parts are ready but I do not currently have a full set of drawings, more next time!

So if you miss out on the buffers all is not lost!.



Finished buffers on the old stock

Tools and Trades History Society.

By Tony Waldis

Do you ever raise your head from the lathe long enough to wonder who invented the slide-rest that makes your work so accurate? Ever give a thought for the young boy who spent all day turning the 'Great Wheel' that powered some of the early wooden lathes?

If you do have an interest in the history of tools then you may be interested in the Tools and Trades History Society (TATHS for short). TATHS was founded in 1983 and has about 480 members worldwide. The aim of the society, which is a Registered Charity, is to further the knowledge and understanding of hand tools and the trades and people who used them. We have a website at www.taths.org.uk and produce a Newsletter 3 times a year together with other publications, the latest of which was a booklet on Gimlet Patterns and Manufacture.

There are Regional Groups with regular meetings and visits to places of interest. We have a Tool collection, which is open to the public at Amberley Museum and Heritage Centre, near Arundel, West Sussex and a library of over 1100 books and trade catalogues which can be viewed in the reading room at the Museum of English Rural Life at Reading, Berkshire.

TATHS members have written books on many aspects of tool and trade history and tool collecting including wooden planes, saw making, rules, adjustable spanners and early decorated European tools, to mention a few. Our members include academics, teachers, tradesmen, historians, dealers and tool collectors but if you think this all sounds a bit too highbrow don't worry; most of us are just ordinary tool nuts and almost as mad as 'model engineers'.

The photograph below shows the 'metal' end of my workshop. The fact that the walls above the lathe are covered with sundry adjustable spanners proves my point.



If you saw the 'wood' end with the wooden planes, old braces and hammers you might be forgiven for thinking there are people even crazier than model engineers.

Amongst our members we have someone with a collection of 6000 billhooks (no, that is not a mistake), another with 1200 hammers and someone who collects lawnmowers. In fact we probably have collectors of just about every tool you can think of including lathes.

I came into both metal working and TATHS by accident. I have always been interested in wood turning and a neighbour gave me the following tools that he thought were for turning.

Having discovered they were slide rest tools I got enough interest to acquire an old treadle lathe and was amazed to find that I could draw curly shavings off an old mild steel bar just by holding these on the hand tool rest. Next thing I had purchased a copy of “Hand or Simple Turning”, which happened to have a TATHS leaflet inside, and the rest, as they say, is history.



If you are a serious tool collector or historian or just have a mild interest in old tools and disappearing trades then TATHS would welcome you. Membership of TATHS is a mere £33.00 per year, which is less than the cost of a length of 1” diameter phosphor bronze and I promise we won’t bore it out 2 thou’ too big!

Tony Waldis

Hon. Secretary

Tools and Trades History Society

Saint Andrew

By “Turnip”



St Andrews's Church Taunton was Built to serve the bustling community of railway workers close to the station – “The Railway Parish” church was Consecrated in 1881. In a window of the North Isle is this splendid stained glass work by local artist Clare Maryan Green. Dedicated in December 2002, it depicts Saint Andrew GWR locomotive 2913 entering Taunton under the now demolished “Forty Steps”. Well worth a visit if you are in the area.

Learning The “Road”

By Ray Rolt

This was an important factor for footplate crews and a lack of knowledge of a route they had to travel over, if travelling over another line on a through working, required a “pilot”. The fireman had to know when to start preparing the fire in advance of the start of a climb and allowing for the operation of the injector on reaching the summit to avoid excessive blowing off from the safety valve when descending the gradient the other side.

The other important factor was the sighting of signals and speed variations required at certain points and when the negotiation of junctions and trackworks at stations and goods yards was involved.

Hearing was as important as sight. Sometimes on late summer turns, the last part of the journey was in darkness, when Ron was in full control. In the pitch dark, with no moon, the sound of passing through a cutting, over a bridge or under a bridge as well as going round curves, mapped out in the brain exactly where we were. This in turn indicated where to look for signals.

Though my driving tuition was restricted to the branch line, sometimes the passenger trains continued on the mainline to Templecombe as ‘empty stock’, running into the Loco Depot. This resulted in an ‘unbalanced’ working as we made our way on foot up to the S & D platform of the Southern station to catch a train back to Evercreech, ‘on the cushions’, finding an empty compartment. When we got to Evercreech, we took over a branch line train there and took it back to Highbridge.

There was usually a “Bulleid Pacific” hauling this train, and though Ron didn’t “go much on them”, knowing my interest he approached the driver and, on the second occasion, he was successful in arranging a footplate trip for me! The driver wore a black beret and goggles, just like the French drivers, so that he could lean out of the cab side window! An interesting ride.

I also travelled on the mainline twice on the “milk train” from Bason Bridge, just outside Highbridge, which ran through to one of the transfer loops in Templecombe Station. This demonstrated the “teamwork” between driver and fireman. On the sweeping curves up the bank to the station, the fireman leaned out on his side and “sang” out “Number 1 off, Number 2 off”. This signified that we had the “signal” for the junction into the Loco Depot and for the junction where the single track to Bournemouth diverged, giving a clear run into Templecombe. With a “righthand drive” loco the driver was unable to see these signals.

On one of my early trips, I failed to stop the train exactly on the platform at Bason Bridge, the first stop out from Highbridge, where the United Dairies milk factory was located. This was literally a Halt with a two coach platform length, no margin for error! It was a standing joke with the train crew that they often outnumbered the passengers! This was just such a day, but with non corridor coaches the one person wanting to get off was at the front of the train! We had to set back the train to let her get off.

The reason for this was because the loco was “right hand drive” and the platform was on the left! Though you could see the platform approaching the station, when you got to it you “lost” it, hence my misjudgement. Ron pointed to a telegraph pole on the right hand side that was opposite the end of the platform, which I used as a marker for all future stops. A simple example of “knowing the road”. Examples of this occurred all along the line!

The remarkable thing is that though all this occurred 60 years ago, with steam coming to an end, anyone who is fit and of a suitable age can do the same thing today officially! Thanks to lines like the West Somerset Railway, there is the opportunity to try your hand at driving on one of the "Driving Experience" days and if you like it you can sign up as a volunteer and work up from a cleaner to fireman and finally a driver over several years if you are prepared to do this on a regular basis. The preserved railways are always looking for new volunteers to fill the vacancies caused by the "retirement" of existing footplate staff at 70. If this article encourages you to give it a try, then it has been worth the effort of writing it! In any event, I hope that it has given an insight into what is involved in working on the footplate anyway.

82 Burnham Rd
Highbridge
4.1.74

Dear Raymond

many thanks for
your card and letter
I note you are still busy with
W.S.R. Co. also your own layout
I often think of the trips we had
on the Locos, they were happy times
Ray. You could handle the
shoulder and Brake very effient
I am sorry the days of steam are
declining very fast, I am wishing
you and the family
a Happy New Year
P. Andrews

This needs no explanation.

The care of miniature Injectors

By

John Walker (Southern Federation)

Cleaning

The most effective cleaner for injectors is Citric Acid; this can be obtained from most chemists.

Making the solution

Obtain a one pint milk bottle to keep the solution in and label it. Measure out 2/3 pint of water into the bottle. Dissolve 50g or 2oz of citric acid in the water. Add four or five drops of the strongest household bleach to stop the bugs growing.

Cleaning the injector

Remove cap and ball valve from the injector. Decant some of the solution into a small jar. Immerse the injector and swill around to ensure the solution is in all parts. Leave the injector for at least 4 hours or even all day it will come to no harm. Remove the injector and wash out under the tap with cold water. Blow dry with compressed air to clear out all passageways. DO NOT use high pressure; you may blow out one of the cones. Clean the ball valve and ensure that it has a perfect seat. Reinstall the injector and it should now be working again.

To ensure that the injectors are reliable they should be serviced after every use; not left with water in them for the rest of the year.

Other requirements

Over the past decades the reliability of the miniature steam injector has gone up by leaps and bounds and in the larger gauges we see only injectors being fitted. Even with this high degree of reliability we still see drivers struggling to get one of these small injectors to work. Here are a six items you could have a look at:

Size of piping. On 3 ½” gauge use 5/32” diameter thin wall copper tube for water and steam pipes. On 5” gauge use 3/16 ” diameter, 7¼ ” gauge use ¼” diameter copper tube.

Steam Valves. These must be capable of passing a lot of steam. Make the size of the ports through the valve the same size as the bore of the tube, or very close to it.

No sharp bends. All the pipe work in nice sweep bends, all fittings to have bore size equal to the bore of the pipes.

Water valves. The best type of water valve is the quick action plug cock. These have a 90 degree operation and the port can be made the same size as the pipe. The spindle must be sealed to prevent the ingress of air into the water.

Tender filters. These must have ample capacity and easy to remove for cleaning. The best type of filter is squat, large in diameter, with a solid top to prevent air being drawn down into the filter when the water level is low. Clean filters in the water tank are essential.

Feed bags. These are the flexible tubes between the tender and locomotive. These can leak air into the system, ensure that they are tight fitting. Plastic goes hard when cold so it may be better to use rubber or silicon, or even have screwed fittings.

Problems. If you are having problems with injectors picking up, try reducing the boiler pressure a little, say from 90 psi to 80 psi. It will not affect the running of the locomotive.

If you want to know more about injectors there is a very good book written by D.A.G. Brown, "Miniature Injectors Inside and Out", obtainable from TEE Publishing.

There is also the excellent book "All You Need to Know about Miniature Injectors and Ejectors". by Bob Bramson, C.Eng., MIET, and published by the TME details on our website (Ed.)

MY ENGINEERING HERO.

Part 1

By Andy King

When I had just turned 10 in 1958, my family moved from Bristol to number 1, Cape Road, Warwick. For a small boy it was an ideal location – there was a large, slightly unkempt park in one direction where we played football, cricket, collected conkers, went sledging when it snowed and generally got up to no good. In the other direction there was a humped back bridge over the railway line, with a convenient post and rail fence on which to perch. Looking in the “up” direction you could see Warwick station in the distance, with a banker simmering in the bay platform. It was usually a GW large prairie, although occasionally something more exotic would appear. In the “down” direction, heading towards Birmingham, Snow Hill, is the climb up Hatton Bank, 2.5 miles mostly at 1 in 105. The railway runs close to the Grand Union Canal where the flight of 21 locks raises the canal 146 ft.

The vast majority of motive power was of course, ex GW locomotives. The “Kings”, by then equipped with 4 row superheaters and double chimneys, were used on the Birmingham 2 hour expresses, and very impressive they were blasting up the bank with 12 or more coaches in tow. The named trains included “The Cornishman” and the “Cambrian Coast Express”, were usually headed by “Castles”. At one time “Bristol Castle” was in charge of the up CCE for about 9 months and we got sick of the sight of her, “Halls” were two a penny and almost beneath our notice! “Granges” were seen occasionally, “Manors” were very rare, probably en route to Swindon for overhaul, or returning to Wales. We did get the occasional “Black Five” on passenger or freight turns, and a “Patriot” or “Royal Scot” on red letter days. Stopping trains were handled by big prairies and GW 43xx Moguls. Sadly I never got to see a “Saint” or a Churchward 47xx.

There were still a great many freight services, from pick-up goods headed by pannier tanks, to very long trains of loose coupled stock headed by GW 28xx 2-8-0s, or sometimes Stanier 8Fs, WD Austerity 2-8-0s, and as time went on, BR standard 9F 2-10-0s. The size of trains all these engines could handle was mind blowing, 600 tons behind the tender was not unusual. GW 43xx moguls were also used on freight trains, sometimes with loads that looked ambitious for their modest size. Most freight trains were banked towards Birmingham.

When I was eleven I was packed off to boarding school, Shebbear College, which is hidden away in the depths of North Devon. The train trips to and from school were fascinating and almost made up for the purgatory in between. Going there entailed a stopping train from Warwick to Stratford, then “The Cornishman” via Cheltenham and Bristol to Exeter St David’s. In those days there were proper dining cars with 2 sittings for a 3 course lunch, and waiters in smart uniforms brought coffee to you in your compartment in silver coffee

pots emblazoned "GWR". At St David's the motive power depot was visible from the platforms, and as well as ex-GW locos there were plenty of ex Southern types too. So I had my first view of King Arthurs and Bullied Spam Cans, before leaving behind a Maunsell mogul, or a Light Pacific to make our way up the "Withered Arm" through Okehampton, to Halwill Junction, where the train divided and we headed for Bude, getting off at Dunsland Cross. It literally was the middle of nowhere. Returning home was much more pleasant, back to Exeter, then Castle hauled to Bristol Temple Meads where I changed trains. For the run up to Birmingham New St there was usually a Jubilee at the head of the train, occasionally a Scot or a Patriot. New St was filled with ex LMS locos, and I saw my first Stanier Pacific there. Then I had to walk to Moor St to catch the stopper back to Warwick.

Gradually diesels started to appear, Warships, Westerns, Hymeks etc. They are quite handsome machines, but nothing like as fascinating as steam of course. The prairies on the stopping trains were replaced by multiple units, until the dreadful winter of 63 when they all failed, somehow BR managed to find enough steam locos to keep some sort of service going.

But with all this variety before me, the GW locos were, and still are, my favourites. Although they looked a little old fashioned with their inside valve gear they certainly performed well. I had no idea at that time how much all these designs owed to George Jackson Churchward. The 28xx were a new Churchward design in 1903 and were built over the next 40 years with some detail changes by Collett including an improved cab. The Halls were a 2 cylinder version of the 1903 Saints with 6ft driving wheels. Other locomotives were enlargements of the 1907 4 cylinder Stars. The engineering policies and standards that he established would last some 60 years.

Building a small boiler inside out

By

John Pickering

When LBSC was writing most of the locomotives he described were in the smaller scales and as a result had relatively small copper boilers. This was a time when virtually all model engineers would build their own boilers. He told many how to do this in his inimitable way, with the detailed step by step instructions which gave even rank novices confidence to tackle the job. Basically his method and that of most of his contemporaries, was to build the outer shell and the firebox using hard solder, assemble the two parts and then do a low pressure test to make sure the result was water tight. The next step was to drill and tap all the rod stay holes and screw in threaded copper stays. The final stage was to caulk the stays with soft solder. Although this technique is still used by some today and can produce a perfectly viable boiler, soft solder caulked boilers are now very definitely out of favour. The problem is that simply replacing the final stage with a further stage of silver soldering to produce a "fully silver soldered boiler" can be difficult, particularly with a smaller boiler where access can be restricted and the difference between a good job and reducing all your previous work to a pile of scrap can be a little too much heat in the wrong place.

Today a high proportion of model engineers buy commercial boilers. Someone who builds boilers every day will long since have mastered the skills required but the average amateur who will probably only need a handful of boilers in his model engineering career often regards boiler making as a black art best left to the professionals.

I believe the principal problems are joints which are difficult to make and more important cannot be easily inspected and rectified if faulty. In particular the rod stays around the firebox. I came up with a way in which these could be fitted to the firebox before it was assembled to the outer shell. The idea was put to one of our boiler inspectors who was happy with the approach so when it came to finishing my father's "Tich" boiler I decided to try this technique. I am by no means the first to believe that a different approach is needed to fitting these stays, in his classic book "Building The Shay", Kozo Hiraoka silver solders phosphor bronze rods to the firebox to become the stays. Clearly with these in place you cannot slide the firebox into a normal wrapper, so he made the sides of the wrapper as separate sheets. These were drilled at the same time as the firebox sides so that they would fit over the rods. The firebox could then be slid into place, silver soldered and checked before the plates were fitted and the boiler completed.



Fig 1 Showing the stays projecting from the firebox sides

My approach and I am sure I am not the first to think of it, was to build the firebox and the boiler shell much as described by LBSC. but with the front and two side of the foundation ring fitted to the firebox. The firebox was then fitted temporarily into the shell and holes drilled from the wrapper sides right through the firebox wall to take the stays. These were the tapping size for the threads on the stays. The stays were threaded from both ends, those which ran along the axis of the boiler were of the normal length those which

projected sideways were short enough so that when assembled the firebox would slide into the wrapper. These were then silver soldered in place. The next move was to fit the fire tubes. The firebox at this stage is shown in fig1 with the stays clearly visible and the jig used to make sure the tubes were correctly aligned. The assembly and the outer shell were taken to the inspector to be checked, At this stage all of the internal joints are visible and any which are dubious are easily corrected.

The next move was to drill out the holes in the wrapper to accept nuts with a sleeve which projects into the water space, as in fig 2.

The nuts were turned from Colphos. The dimensions were such that the cross sectional area of the sleeve was at least as great as that of the phosphour bronze stays and the length was enough to engage a sufficient number of turns on the thread to give the same strength without obstructing the water space too much. The firebox was then fitted to the shell and the foundation ring, the crown stays and the stays on the front of the

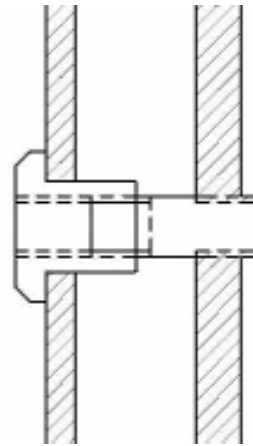


Fig 2. Diagram of the sleeve nuts
Not to scale

firebox silver soldered at one heat. Conventional nuts, also turned from Colphos were used on fore and aft stays. The rear bar of the foundation ring was attached to the backhead and the fit to the wrapper and the firebox checked before the backhead was soldered in place. The sleeve nuts were then screwed onto the stays and the nuts silver soldered in place. The final stage was to fit the front tube plate and complete the soldering. The completed boiler is shown in fig3. The sleeve nuts are shown in fig 4.

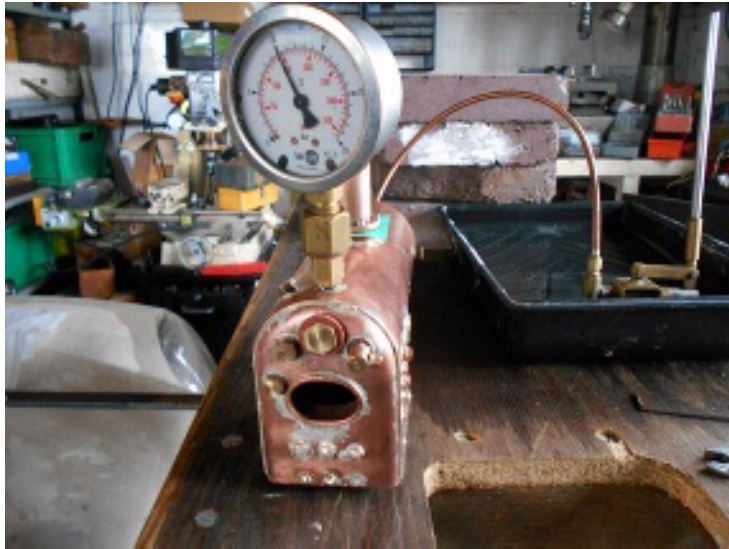


Fig 3. The finished boiler on its unofficial hydraulic test.

Since all joints with the exception of the front of the foundation ring and those on the front tube plate can be seen from both sides after they have been made they can be inspected thoroughly and if necessary rectified. A model engineer who can make a running chassis has the skill to make a boiler. I am sure only fear of problems which cannot be found until they show up on the hydraulic test and which cannot then be remedied stop more of us from building our own boilers.



Fig 4. Detail of the sleeve nuts

Using sleeve nuts removes several of the areas where these problems could lurk and gave me more confidence that the finished boiler would be useable. Proof that all was well came in the form of a successful, although currently informal, hydraulic test, now I will have to get on and finish the dam loco!

Of Ships and Things

By

Fireman M.N. Retired

As time went on I began to realise that perhaps this wasn't the best of jobs, the early start meant no night life to speak of but at least on a Friday night a crowd of us lads used to go up to Cricklewood to the skating rink where we usually picked up a few scrapes and bruises and then into the Irish pub next door. I think it was called the Galtemoor, at least the "black stuff" was on tap and cold, also you could rely on at least one good fight breaking out, joining in was optional. This was fine but it didn't make an early start any easier. Also it didn't seem right for the floor (deck) to be staying still.

Parting with this job came about in quite a spectacular way a week later. The factory next door was the Celotex hard board works. As well as hardboard they produced a lot of waste which the smart-arse chief engineer said we (me) could burn for them. He did at least mention it to me and when I said this coal is bad enough and you won't get anywhere as much heat out of that stuff, then the stupid man said just put more on the fires. I told him straight it was a bad idea but I agreed to try it. Next day a tipper load turned up and the "new fuel" was tipped onto the coal heap, with misgivings I gave it a try.

There was more dust than board and most of it fell off the shovel, eventually I got the hang of it but it was hard going, then the steam pressure started to drop so I put on more coal and after a while it stopped falling but on trying the waste again no way could I get it to rise, in fact it started to drop again. Then the phone rings, Jones here! the pressure is falling, is it really! I said and hung up. Two minutes later the chief storms down followed by the works manager, both shouting the odds.

So I let them calm down and then said “I told you there would be no heat in it and there you are”. “It’s the way you are firing it he said” so I put on a stupid face (it usually is anyway) handed him the shovel and said show me.

He dug the shovel into the heap swung it round and most of it fell off, next he managed to get the shovel full of dust, I could see what was going to happen so I stood to one side as he pitched it into the fire, whoosh “blowback” a great ball of flame shot out setting fire to the sleeves of his overalls and singeing most of his hair off, I threw some water over his arms to put out the flames and then put some coal on the fires to keep them going. This was when the fun started, he was ranting on about how it was all my fault and how I should have done things differently, then he picked up the shovel and took a swing at me, that was when I decided he was not a nice man to work for, so without saying a word and with as much dignity as I could muster I took my coat and dinner bag off the hook on the wall and slowly walked off leaving them to it.

Subscriptions

Ordinary Membership is £30 with a further £5 for spouse or partner. Family membership £35 Junior Membership £5

**Membership Secretary contact details—see inside front cover.
If renewing by post, please enclose S.A.E. for Membership Card**

Vivary Park Running Days 2017

April	Sunday 2nd	1400-1700
	Sunday 16th	1400-1700
	Sunday 30th	1400-1700
May	Sunday 7th	1400-1700
	Sunday 21st	1400-1700
	Sunday 28th	1400-1700
June	Sunday 4th	1400-1700
	Sunday 18th	1400-1700
July	Sunday 2nd	1400-1700
	Sunday 16th	1400-1700
August	Friday 4th	Taunton Flower Show
	Saturday 5th	1100-1630
	Sunday 6th	1400-1700
	Sunday 20th	1400-1700
	Sunday 27th	1400-1700
September	Sunday 3rd	1400-1700
	Sunday 17th	1400-1700
October	Sunday 1st	1400-1700
	Sunday 15th	1400-1700
December	Sunday 10th	Santa Special 1200-1500

Creech Running Days 2017

April	Sunday 9th	1400-1700
	Monday 17th	1400-1700
	Sunday 23rd	1400-1700
May	Monday 1st	1400-1700
	Sunday 14th	1400-1700
	Monday 29th	1400-1700
June	Sunday 11th	1400-1700
	Sunday 25th	Creech Miniature Steam Gala
	Provisional date, details to be announced later	
July	Saturday 8th	Party in the Park 1400-1700
	Sunday 23rd	1400-1700
August	Sunday 13th	1400-1700
	Monday 28th	1400-1700
September	Sunday 10th	1400-1700
	Sunday 24th	1400-1700
October	Sunday 6th	1400-1700
	Sunday 22nd	1400-1700
December	Sunday 17th	Santa Special 1200-1500

The views and articles featured in this magazine do not necessarily represent the views of the Committee, Officers and Members.

Meetings Programme 2017

Tuesday April 4	AGM
Tuesday April 18	Aerial photography for Scientists, Engineers and Boffins Tony Beardsell
Tuesday May 2	The Fairey Barracuda project Dave Morris (Yeovilton)
Tuesday May 16	Trophy Night
Tuesday June 6	XYZ Machine Tools (CNC) Burlescombe – presentation, factory tour and demonstrations
Saturday 10th June	Great Western Society Depot at Didcot, coach trip.
Tuesday June 20	Visit Isle Abbots Railway Martin & Barbara Rickitt
Tuesday July 4	Visit Newberry Rail
Tuesday July 18	Barbecue at Creech St Michael
Sunday July 30th	ClubLEC.
Tuesday August 1	Gauge 1 Marsh Top Garden Railway - Nigel Gettings
Tuesday August 15	Visit Shute Railway
Tuesday September 5	Bits and Pieces / open forum? – Chairman's Night



Photo Peter Nicholson

Roy, Diana and of course Chloe with their new diesel



Photo David Hartland

Members of the "track gang" relaying the track in the cutting