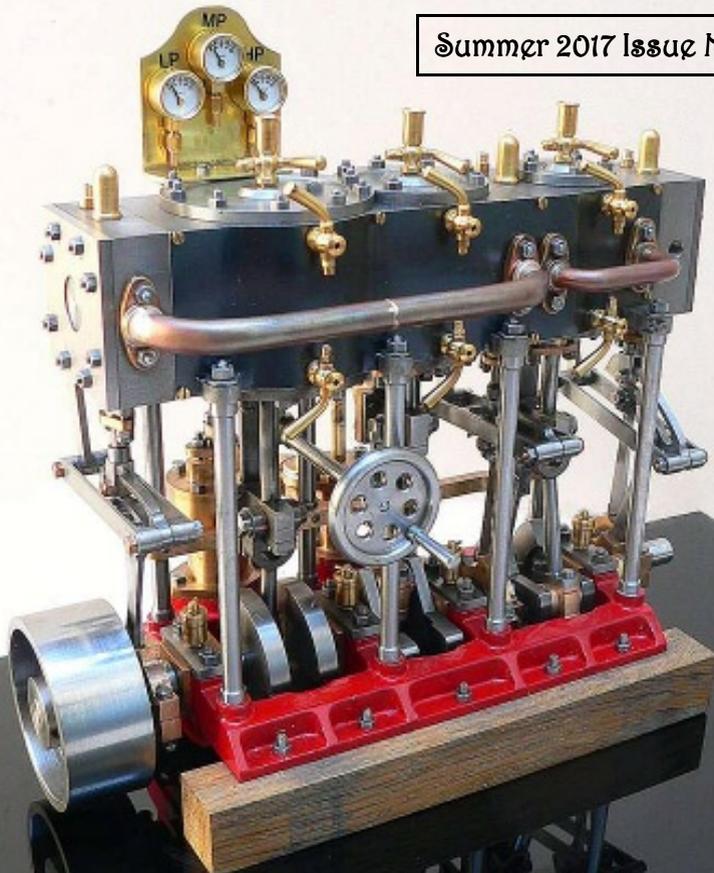


The Oily Rag!

Summer 2017 Issue No 130



The Taunton Model Engineers' magazine

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From the Editor

After years when their spells and potions have failed the black magic of the council coven has finally triumphed and we are being forced to leave our site in Creech. The behaviour of the council has always been illogical, erratic and dubious and their aims impossible to fathom. I only recently found why their actions were so difficult to understand and what was their secret mission.

Key members are also members of “CAMTAB” the “Campaign for Total & Absolute Blandness” and are committed to improving Creech’s greyness factor. They hate miniature railways which they consider woefully lack the essential dullness to be included in the grand plan for Creech. Their next target is thought to be the only other thing of interest in Creech, the canal, which will be filled in to give a site for cost effective prefabricated warehouses. Clearly deliberation on this matter will take many years. When complete this will enhance Creech’s status as one of the dullest places in the South West. The CCC (Creech Conurbation Council, parish is considered outdated) wish to further improve the greyness rating by changing the patron Saint to one more in keeping with their aims, ideals and ethos. A little known French Saint has been chosen, he is unique in that he was beatified not for any miracles performed in his name but for apparently leading a totally blameless life free from original sin and largely devoid of any worldly thought or action. In future reports from Creech we will of course respect their views and use the new name Creech St. Ennui.

On a serious note I am sad to report that after a couple of years of hope Alan Hall’s cancer has returned. With the help of a friend he is currently working on the triple expansion engine on the cover and the compound on the back. I hope he sees them both finished to his very exacting standards.

Chairman's Notes

By David Hartland

It is an honour to be voted as Chairman of this exciting and forward-looking Club. I must thank Mike Johns for leading us over many years, and for his hard work particularly in the struggles at Creech. So much of the labour is behind the scenes, involving paperwork and telephone calls, when we would all perhaps rather be in the workshop. It is not my first time as Chairman – I held the role twenty five years ago when we were faced with eviction from our home in Vivary Park, which we had occupied for the previous twelve years and held all our meetings there in the evenings. Taunton Deane wanted to enlarge the toilets, and insisted we shared what room was left in the Pavilion with the Park Ranger and the Police. We had to move our meetings elsewhere, and we retained just the kitchen and store room. I have therefore a strong sense of déjà vu with our eviction from the Pavilion at the end of last year – and still there is no work on a café conversion. If only our local council would support us as others do around the country.

As I write my skin is burning and my back aching after a tremendous weekend at the Creech Steam Gala. Saturday was a triumph of Club members running locomotives – 9 steam, three electric and one pedal power – and best of all, three of those were 5in driving at ground level.



Night time running on Saturday

The fact that five inch engines were able to negotiate the track demonstrates how much we have improved quality of running recently. There were also two goods trains running – one 5in and one 7¼, all with a great sense of informality and fun. The evening barbecue and night running was great, and the following day, with public running on the track and traction engines in the field, drew great crowds.

One unforgettable moment was our Secretary using his traction engine to pull his monster truck across the field. The event was not as formally organised as last year, but I must thank all who turned up to help, particularly Barry Baxter, Dave Wood and Mark Sweet who led the setup and dismantling work.



Starting young, Master Mills drives his father's traction engine

Our summer events are underway and I would encourage all to come along and support them. Keep an eye on the website and Emails for reminders of what is happening. This summer will be the biggest challenge the Club has ever faced. We are certain now to leave Creech and we have to dismantle the track, buildings, and fencing, and move to storage pending the acquisition of a new site. I appeal to members to help with this work, with more details emerging shortly. You can also help by passing to me any suggestions, however unlikely, for a new site – we need 3-5 acres, maximum 10 miles from Taunton, with road access. Keep your eyes and ears open!

News from Creech

By Tim Griffiths

Over the last few weeks running at Creech has been overshadowed by the fact that we have been given notice to quit the site. Although a new Lease has been offered, there being no negotiations and no attempt by the Parish Council to negotiate, even with a flat refusal to negotiate we have agreed to leave the site.

This is a great shame as the last few running days have been notable by the absence of derailments. A great achievement by the maintenance gangs on Sundays and Thursdays.

Dave Wood and I have taken on the task of the logistics of our orderly departure from Creech and look forward to everyone's assistance and support in achieving this in the time allotted. Storage and transport are the biggest requirements. Some storage has been offered and now has to be agreed with those good people. Any more offers of storage would be welcomed along with offers of transportation, labour. Labour will of course be available on Sundays and Thursdays, but additional days will almost certainly be needed as necessary. Full details when we understand our position better.

We will keep running as long as possible, however it does look as though our Gala and Party in The Park are likely to be our last operational days. Legal advice has been sought and a way forward has been agreed, let's keep our fingers crossed and hope that some good comes from of it.

Since starting to write this as many of you will now know there is no reprieve. We are making contact with the people that have

offered storage, so we know where we will be moving the Club equipment to. There will be a need for manual labour, full details will be published as we proceed.

Modification of the new coaches has been completed and they are performing well. There have not been that many passengers over the last few weeks but those that have come along have had a good time.

News from Vivary

By Diana & Julie

After a mammoth effort by Phil and his team of workmen in December work began again in March with both water and electricity being modified by a very capable member to provide services in the green container at the bottom of the track and enable our Catering Manager to keep everyone supplied with the required number of teas and coffees. A very grateful "Thank you" from those of us who did nothing to help but arrived for the first running on 2nd April to find the Vivary track was ready in time!

The "few" also regularly arrive early and stay late at the track to get everything set up for the afternoon and I know that they would appreciate some more help, especially at the end of the day as there is much to be done and no-one is getting any younger!

The weather was glorious and the crowds queued cheerfully for the trains the whole afternoon. Drivers were Phil with steam and Lionel, Jon and Dave Wood on electric and 303 rides were given. Barney came up trumps and kept us supplied with beverages; he must have walked miles backwards and forwards to the hut with trays of cups, cakes and biscuits. Thank you Barney, we'd be lost without you!

At the end of the afternoon Roy finally produced the 5" Charlatan "Kentish Maid" (I am a Kentish Maid!) he built for me and we both tried it out on the track where it ran very well. The second Sunday was a washout and no running was possible but the third was glorious and we sold 300 tickets!

Tuesday evening "fun runs" started on 9 May with a good turn out of members, including the Club's two new young members, Leo and Charlie, both aged 11, who had a great time driving Jon's "wedge". My Charlatan performed very well and Phil gave it a baptism of fire by loading it with sacks of coal which I transported to Barney in the hut. This is the last time Roy and I will be at the track for many months as Roy will not be able to drive, so I am handing over the reporting to Julie, who did it so well last summer.

Julie continues:

Over the first seven running days 1658 rides were given. On the second Tuesday evening event we were enjoying chat and rides when a 'Brown Owl' approached us. She asked if we would mind giving her Brownies a ride on the trains and we did, 29 Brownies which kept three drivers occupied for some time. Two of our younger members turned up and enjoyed their chance to drive 'The Wedge'. Both show great promise and we look forward to seeing them drive again soon.



On 2nd July Jon showed a nearly four year old lad, Sam, how easy it is to drive a train. We were unfortunately too busy the time to let him try but he was keen to have a go.

Sam and mum

The Creech Steam Gala

By Tim Griffiths

In preparation for our Miniature Steam Gala, on Sunday 25th July, we had an informal day of running for club members and guests on Saturday 24th July. This continued into the evening with a barbecue which I understand was enjoyed by all those who came along.



Revellers on the dining car

One of the most important features of Saturday was the number of 5 inch gauge locos running. This proved very successful with three locos and stock making several circuits without incident. Neil Evans, with freight stock in tow, took to carrying concrete blocks to keep the lightweight scale stock on the tracks.

Sunday saw the public enjoy our Railway and we had a constant stream of passenger many riding time and again. The railway performed well. On the far side there were displays of our modelling skills in several marquees. This included Mark Davis whittling and selling various bits and pieces in his inimitable style.



Neil Evans with the 5" gauge freight train

Mark Sweet had his Rolling Road in operation with his GWR Tank in steam, this always attracts a lot of interest.

Overall I feel that the day went well and we had a good show enjoyed by most of the public that came to see us.

Visit to XYZ tools, Burlescombe.

By Dr. Spin

Around 30 members arrived on a hot evening to tour this fascinating company, this year celebrating 30 years in business. We were shown into the board room for a few publicity videos, and a drink, and then toured the main workshops which were stated to be 35,000 square metres. No one understood what this meant but we could hardly see the other end of the factory, it was so big. The floors were spotless! XYZ works closely with a Taiwanese company where the machines are built, but all controls, programming, and design features are controlled by the 100 staff at Burlescombe.

In the shop were a large range of machines, from a 'small' training lathe, of the scale of a Colchester Student, right up to a five axis machine large enough to house some of our members' complete workshops within its frame. We were shown some machining of EN8 steel at high speed – a 50mm slab cutter rotating and producing a shower of blue steel chips with no liquid coolant – just a blast of compressed air. With such high speed metal removal, often the big issue is removal of the swarf and we saw several examples of swarf conveyors in action. Interestingly, aluminium still needs liquid coolant. Some of the machining we saw demonstrated in a few minutes would take all day in our home workshops.

One impressive example was described as ‘trachoidal’ milling, where an end mill rotating at high speed has a precession motion where its own axis follows a circular path and thereby the cutter machines a slot wider than itself. We saw a 15mm cutter producing a 25mm wide and 25 mm deep slot along a 150mm EN8 steel block in about two minutes – and still no coolant! It brought tears to our eyes to watch it in action.

We left all feeling very upbeat such a go-ahead engineering company in our area. It is worth noting that our guide, Mark Higson, reported afterwards that ‘it was a pleasure to show the group around. Such interesting comments and discussions from such a knowledgeable crowd of people’. That’s TME for you!



Mark Higson explains one of the “XYZ” machines to the TME members.

“Kim Lorraine”

From the Archives.

The Oily Rag of January 1991 contained a detailed article from Roy Taylor – a well liked member of TME. Roy passed away some years ago, but the very last of his workshop contents were only cleared last year by Mark Davis – you may have bought some of his bits and pieces at the last auction.

The article describes in some detail how he had recently completed a 16 foot long steam powered open launch, following drawings published by Glyn Lancaster Jones in “Engineering in Miniature” around 1983. He named it “Kim Lorraine” after his daughter.

Roy describes how he had to clear much junk from one of his sheds where he could lay down the building horse on which to construct the hull – this required ingenuity as the glue to be used (epoxy resin) needed to be used at a temperature of at least 80 degrees Fahrenheit (26C). Roy built a polythene tent within the shed to contain the heat required whilst applying the glue.

The motive power is a Stuart Turner Cygnet engine – a 2¼” x 2” single, which he also made. The boiler was a steel development of the marine firebox locomotive boiler for Sweet Pea.



Roy aboard “Kim Lorraine”.

The first trial on water in 1989 was not without incident; he reports that together with another member – Stan Joyce – they launched the boat at the Apex Centre near Burnham-on-Sea. Apparently they were set upon by the local youth fishing the lake who proceeded to throw stones at them! Roy says he would return with a cannon mounted on the prow next time!

Why choose to mention all this and remind us of a departed member? Well, it should be obvious from the photograph that Roy

had only one arm. He had lost most of his right arm in an industrial accident. Later in the same issue of “Oily Rag” there is a report of an event that TME used to hold – “Gadgetrapions”. Members were invited to show unusual items from their workshops – the more obscure the better. Roy won the event that year with his own prosthetic forearm which he had modified to carry a hammer head! So the next time we curse not being able to hold that clunky component in place whilst trying to carry out some really tricky procedure –remember that Roy did it single handed – literally. Following his death, his launch was sold. It is listed in the register of The Steam Boat Association website as being in France where it has been reboilered.

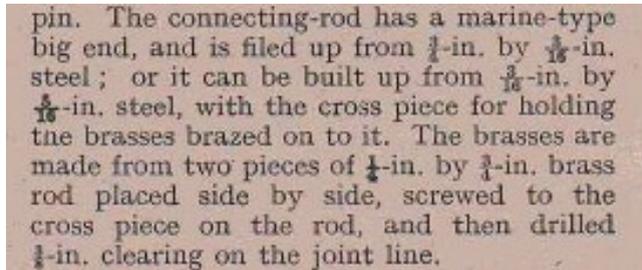
LBSC in the 21st Century.

By Cedric Norman

When the “2½ inch Gauge Association” needed someone to take over looking after the Construction Booklets for building LBSC 2½ inch Gauge locomotives, I volunteered, not knowing how much work might be entailed. There were in existence 63 publications available some which were good quality text with sketches, whilst around 20 (our original booklets) are just photocopies of the original article from the relevant magazine. Now the aim of the association is to make available to our members good quality booklets which contain clear text and where possible good sketches to support the articles; almost replicating “LBSC's” work 'word for word and sketch for sketch.'

There are two of us in the association working towards converting the remaining 20 photocopies into new good quality booklets, but the process is not easy.

I will give you some detail of what is involved: Each page has to be scanned into the computer and these not only have the text in two or three columns, but are intermingled with adverts and sketches; usually greyish in colour and poor quality resolution.



pin. The connecting-rod has a marine-type big end, and is filed up from $\frac{1}{4}$ -in. by $\frac{1}{16}$ -in. steel; or it can be built up from $\frac{3}{16}$ -in. by $\frac{1}{16}$ -in. steel, with the cross piece for holding the brasses brazed on to it. The brasses are made from two pieces of $\frac{1}{4}$ -in. by $\frac{1}{4}$ -in. brass rod placed side by side, screwed to the cross piece on the rod, and then drilled $\frac{1}{8}$ -in. clearing on the joint line.

A typical piece of text from an old “Model Engineer”.

OCR, is short for Optical Character Recognition, and is a software package that tries to convert the dots forming the text image into alpha-numeric characters that the computer user can work with (i.e. typed text). This is the next step where we OCR the text, which given the poor quality of some of the printed text from the early 1900s, can result in quite a jumble of words and hieroglyphics, not to mention the fractions which resemble ancient Egyptian script.

pin. The connecting-rod has a marine-type big end, and is filed up from f-in, by - $\$j$ -in. steel; or it can be built up from -&-in. by •Jjj-in. steel, with the cross piece for holding tne brasses brazed on to it. The brasses are made from two' pieces of J-in. by |-in. brass rod placed side by side, screwed to the cross piece on the rod, and then drilled f-in. clearing on the joint hue.

The same text as OCR “gobbelygook”.

We now have the text of sorts in the word processor and the editing begins.

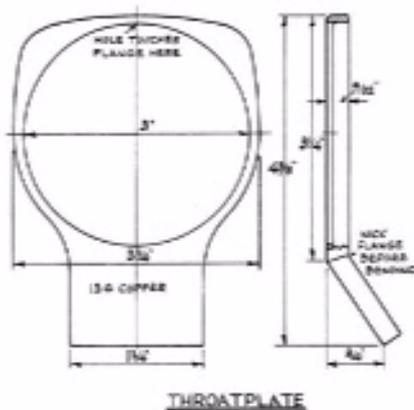
First up is to select the text and convert it into a readable and clear font that is capable of replicating text and fractions; for this we use “Cambria 12pt”. Next up is to go through the text word by-word, and try to correct the text to read the same as the article, which is cross-referenced continually to get a clear understanding of what “Curly Lawrence” was writing. This is what takes up the copious hours as the number of dimensions that are given have to be entered in as fractions. A simple 1/64" has to be changed to 1/64 inch for clarity. You could leave it as 1/64", but what happens when you get 1" and 1/64", do you type 1-1/64" or go for 11/64 inch? Fortunately using a word processor with an auto-correct feature it is possible to set-up a list of conversions so when I type 1/64-it is automatically corrected to 1/64 inch. Normally this feature is used to correct spelling such as 'teh to the' which is a quite common typo.

Now add to this the problem of aging! What do I mean by this? Well imagine in 1927 when “Curly” was building his loco, he might be building a boiler which would require a flux and brazing rod. So he refers to 'Boron compo paste' for the flux and 'easy running brazing strip' for the rod. Well obviously time has moved on and we use Silverflo55 and Easy flow No 2, so do we try to update this information? Likewise he used paraffin & petrol blow lamps, advised using petrol to wash down before painting, and asbestos ground into dust and mixed into a paste to seal joints. In the 1940s he stopped using the term 'German Silver Rod' and used 'Silver Steel' as we were then at war with Germany and in one article he referred to the porters at the railways station as “Arabs”. His very early boilers were riveted together and soft soldered and many fittings were screwed into the copper and sealed with plumber's paste, which is no longer acceptable. As well as this technology has moved on; small milling machines have replaced vertical slides on lathes in the main.

So do we try to modernise the construction method, remove hazardous materials and make it politically correct?

In the main, we try to keep it as authentic as possible! We would remove any reference to hazardous materials or offensive comment, but leave the construction the same. This demands that the builder

drawing. An ordinary hacksaw will walk through $\frac{3}{8}$ inch steel wonderfully easy, if a little cutting oil, as used for turning steel in the lathe; or even soapy water, is applied to the



top as possible, so that the hole touches the flange; clean the metal all around the hole. The next item needed is a stepped ring for joining the barrel to the throatplate. The best thing for this would be a ring of brass tube $3\frac{1}{8}$ inch diameter and $\frac{3}{8}$ inch thickness, with $\frac{3}{8}$ inch of it turned down to a tight fit in the hole in the throatplate, into which it is fitted; and the barrel would then fit over the full diameter, and butt up against the throatplate. Failing a piece of tube, the ring could be made by bending a piece of $\frac{3}{8}$ inch by $\frac{1}{2}$ inch brass strip into a ring and turning it as above; there would be no need to braze the joint, as the ring would be held in the "outside" jaws of the three-jaw chuck for turning the step, but the strip of brass should be well annealed before trying to bend it to the circle.

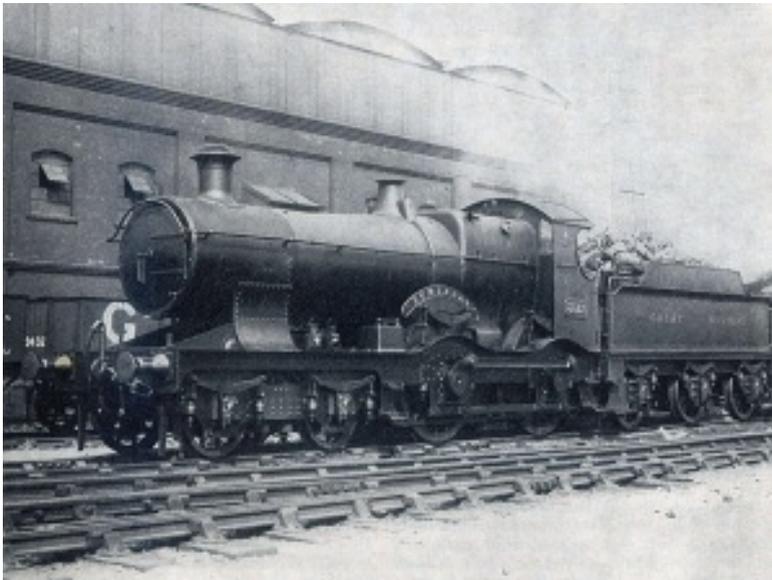
The final result, a sample from one of the booklets.

employ their brain power and knowledge to find a work-around for any obsolete methods or practices; working as they should very closely with the boiler tester when building a pressure vessel. Once the sketches have been tidied up using photo-imaging software, the whole lot is brought together in a publishing package that allows us to construct the booklet for printing. The whole process can take around 3 to 4 weeks, doing it in your spare time, but as members of "The National 2 1/2 inch Gauge Association" we believe it is worthwhile to prolong and promote the valuable work that "LBSC" contributed over so many years.

A Shaggy Bulldog Story.

By
Chris Orchard

The “Bulldog/Dukedog, a 5 in. gauge G.W.R. 4-4-0 locomotive” serial by Keith Wilson, began in the “Model Engineer” magazine on 17th February 1978; on the first page was a picture of Bulldog No. 3317.



No. 3317 “Somerset”

Reproduced by kind permission of the Editor of the “Model Engineer” magazine

I was immediately taken by the locomotive; it was GWR, was named “Somerset”, a county where I lived the early part of my life, and as the designer remarked “if ever there was a poll on the most attractive locomotive there is little doubt that the G.W.R. 4-4-0s would have a high vote”. He further wrote ...

“that in his opinion the best lookers of this type were the Dukedog/ Bulldogs”.

It was to be somewhat later in the last century that I finally made a start. I had heard the model was not for the faint-hearted, Keith himself saying, “this design is for the more experienced model engineer”. I really should have taken notice, especially when a fellow Northampton club member, when learning of my intentions said, “that’s a bit much for you in’it?” But was I not a more experienced model engineer? After all, I had already built two miniature steam railway locomotives, both of which worked, sort of, and a lot of workshop tooling most of which was accurate enough for my use. So a start was made with the front bogie and tender, and the same doubtful member gave me sufficient sheet steel for the locomotive’s double frames. It soon became apparent that all was not well with the drawings; I think I now know why, but more of that later. The last of the regular instalments of the “Bulldog/ Dukedog” serial was published on 18th June 1982, after which Keith started his regular “Keith’s Column” feature, a series that was to last until May 2010. This included details of the grate and ashpan on 20th January 1984, some eighteen months after the serial had ended; see what I mean about the drawings?

Keith’s next locomotive building description was the thirty five part serial for “Ariel”, A Rebuilt Merchant Navy Class Pacific Locomotive in 5 in. gauge”. One can only speculate on how he was persuaded to describe a non-GWR locomotive, but he was, and yes, you’ve guessed it, there were many mistakes on the drawings. So many in fact that a Captain Peter Lewis, in August 2001, started to write a seven part series in ME describing how he built his model, drawing attention to the many errors. Three hundred and eighty before one of his correspondents stopped counting!

Peter Lewis’ series prompted me to write a letter in November 2001 to the editor of the ME,

asking if anyone had listed the drawing errors for “Bulldog”. Among a few helpful replies, I received one from Alan Crossfield, the well-known model engineer and member of the Leyland club. He had inherited an abandoned “Bulldog” locomotive chassis originally started by a Bill Whittaker in 1978, and was in the process of partly rebuilding and completing this locomotive.

As part of our correspondence over the next few months Alan provided me with a number of photographs of his work on the locomotive, and many helpful comments and hints. I shall always be grateful for his help and encouragement and also that from Roger Thornber. Alan subsequently named his finished locomotive “Empire of India”, winning a Gold Medal and the Maskelyne Memorial Trophy at the 2008 Model Engineer Exhibition. He then wrote an eleven part serial in the “Model Engineer” magazine describing his work, again a useful reference for me. But, although gaining much confidence from these helpful people, my workshop activities then diverted into horology in the form of two skeleton clocks and a few other things, one of my efforts appearing on the cover of the Spring 2014 “The Oily Rag!” But work on the locomotive eventually resumed and my efforts in the form of partially assembled frames for the locomotive and the tender were there for you to see at the April 2015 Trophy Night. This exhibition resulted in a request for some written description of the work from you know who! I have tried but found it difficult to describe building a miniature locomotive; my effort ended up as “drilled this bent that, milled the other, bolted them all together”. But I recently made something a little bit unusual, which I’ve not often seen on a miniature locomotive - a tender water scoop.

On the “Bulldog” this unit is made up of four items. The very top one is but a slightly tapered double flanged pipe, which I made by forming sheet brass with a set of bending rolls, and then adding the end flanges. Below this is what amounts to a curved pipe, round at

one end but rectangular at the other, followed by the actual hinged “scoop” made of two pieces, the main body and a sacrificial bottom. I pondered long on various ways to make these. There are castings available but not necessarily the correct shape for a late nineteenth century Dean tender, I could carve them out of the solid and not bother with the hole up the middle (no one is ever going to try and use it are they?), but finally settled on folding sheet metal over formers. Here they are.



The completed scoop

Now, for me sheet metal work is a little bit like repairing a miniature copper boiler; cure one leak and another one appears somewhere else. Get a bit of brass sheet to fit around one side of a former and an unwanted bulge appears on the other! I initially thought I could wrap one piece of brass sheet around the



The formers

first former (top right), but as I progressed realised I wasn't going to be able to get the former out when I'd finished! and then found part way round I couldn't get the former out to anneal the metal! So that one is made in two parts. The top part of the scoop (the middle former) was made in one piece because it is mostly open at the bottom, with the sacrificial

bottom part being bent around the aluminium former (bottom). In the real world this sacrificial bit could easily be replaced when the locomotive fireman forgot to wind the scoop up, and it hit the next set of points!

And this is the finished article in place on the tender with the associated operating linkage, support bars and 'gunge' trap.

In real life, the use of the associated water troughs undoubtedly shortened journey times, but they were expensive to provide and maintain. They were often installed in rural areas probably with a steam driven water pump and associated buildings, dead wildlife needed to be cleared from the trough in all weathers and the ice broken in winter. And it was standard practice for the train guard to make sure all the windows were closed in the leading train

carriage to prevent the passengers being soaked or even hit by the odd piece of flying coal, such as the chaotic water turbulence during pick up, which also tended to wash away the track ballast.



Water scoop in place (lowered)



The scoop in the raised position



Filling the trough.



And yes it did work!

A few paragraphs ago I questioned whether anyone would ever want to use a miniature water scoop for real. Well of course they did, and at Taunton ME. David Hartland wrote about these activities in the 'Model Engineer' of 17th July 1998. It is the only article in that magazine on the specific use of a miniature water pick up, although the then editor does mention the effort made at North London SME.

Earlier on, I professed knowledge of why errors occur on the drawings published as serials in our magazines. My previous two locomotives were both built from designs in the ME and each had fewer mistakes than has "Bulldog", probably because they were simpler.

I may be last in the world to realise it, but I believe one of the designers' aim, at the time, is not to produce a complete set of drawings, but to meet the next publishing deadline. I doubt the publishers had the time nor resources to do an in depth check for errors, and if they had, then the cost would have put us off buying anyway. To give the designers their due, they did publish corrections when errors were pointed out to them, but the originals had already been published and the drawing sets you can buy today are merely reproductions. It would seem the way to avoid most of this bother is to build to a description of a locomotive that has already been built.

It is a pity we model engineers shy away from telling anyone when a drawing mistake is found; we just sort things out and get on with it. But in spite of now having six A4 sides of errors listed, I'm still finding this "Bulldog" design challenging and sometimes feel quite pleased with myself when I find a drawing mistake before I've made a part and thrown it away. Many of my listed mistakes may of course be the result of my misunderstanding the drawings; perhaps I really need to be a more experienced "more experienced model engineer"!

I have no wish to be too critical of Keith Wilson nor other designers. They do things I could not and Keith certainly lived his model engineering life to the full; designing things for ME was not his only occupation. Peter Lewis described him as being "somewhere between a genius and ... oh dear"! An apt description I think.

So how is the rest of the locomotive progressing? Well, the boiler is nearly finished, the tender chassis nearly finished, the front bogie nearly finished, the locomotive frames nearly finished, so only the cab and plate-work, some running boards and a bit of pipework to do. Ah, and the connecting and coupling rods, and valve gear, and boiler fittings, and tender body, and smokebox, and ... ! Should be there in the year 20??

Celebrating the Hymek Project Completion

By Gopher

Several years ago a decision was made by our Club committee to build a general purpose loco to support the running of the 7¼" gauge railway at Creech. This was to be in the form of a Hymek (British Rail Class 35) type loco. Also, member Martin Rickitt wished to have a similar loco for running on his own railway and commissioned the Club to build a second. Thus a requirement for two Hymeks came into being; all that was needed now was someone to build them!



John 'Two Hymeks' Pickering with both locos.

Essentially most of the credit must go to two people, Steve Gosling and John Pickering. Steve did most of the mechanical work including designing and producing the bogies and the initial design for the sole plates. (1) John took over from this point designing and building the bodies and the electronics. (2) aided and abetted by other club members mainly by lending their body weight whilst

shaping some of the body panels around a variety of formers such as gas canisters and lamp posts. The final touches were made by Jerry Mills who did an excellent job on the paintwork on both Locos.



Lowering the second sole plate onto its set of bogies.

But it is fair to say that recently the bulk of the building work has fallen to John who volunteered to design and build the Hymek bodies including all of the internal electronic control systems. He was keen from the start that the bodywork parts should be made from laser cut steel sheets. Having first produced a set of computer-aided design drawings, John was able to produce as many kits of parts as he needed by submitting the drawing output files to a laser cutting company for processing.



One of the bogies



Two sets of driving cab ends

Slowly and painstakingly the locos have taken shape over the last three years or so, until finally complete in time for a double header ceremony at this year's June visit to the Isle Abbots Railway.



Photo Peter Nicholson

The Double Header, resplendent in the late evening sunshine.
The driver looks rather bored!

(1) :<http://www.tauntonme.org.uk/oilyrag/images/winter2012web>.

(2) :<http://www.tauntonme.org.uk/oilyrag/images/summer2013web>.

Tunnel vision.

By John Pickering

In the "Oily Rag" issue number 119 our chairman describes his foray into battery electric locos and urges those who's interest is mainly in steam to give them a try. In an earlier article I said that diesel outline battery electric locos were more like Hornby Dublo scaled up than real life scaled down which gives an idea about my feeling for the type. Do not get me wrong I have nothing against IC, engines, being one of the few members who have actually built one indeed if someone turned up at Vivary with one of E.T. Westbury's 1831s or at Creech with a Deltic with a delta form IC. engine I would be very impressed but somehow even a crude, simple, poorly made steam engine which works seems to me to be more honest than a fine diesel outline loco with innards which bear no relation to the prototype.

So how, as a retired electrical engineer, do I justify building a battery electric loco? Easy build a battery electric model of a battery electric prototype.

The more you look into this type of engine the more options become available. These locos have been around for more than one hundred years and cover everything from the very basic mine loco to the locos such as those used by London Transport. I initially decided this was to be a quick project. I found three photos of a derelict on an Australian website. These were good enough to get a good idea of the shape using CAD and since this was to be a "quicky" that was as far as the research went. In practice a project which was supposed to take a few days has been taking up space for 18 months and a bit more research would have produced a scale model rather than something which I think is close to scale without even knowing for certain what that scale is nor knowing when or who built the prototype!



The frame "flat pack" as cut



and temporarily assembled to check the CAD.

The CAD design allowed laser cut parts of the frame to be ordered very early on.

These are shown in the first pictures, the parts were tabbed to make assembly easy so a trial assembly only took a few minutes. If I had stuck to the original concept a "7.25" gauge engine which can be built in 7.25 days" may have been possible by using take up units rather than scale like bespoke axle boxes but these did not look right so the design deviated from the concept very early on. The motor is a 1KW electric bike motor fitted with a chain sprocket. I decided to use this as supplied which required a two stage reduction. All the chains, sprockets and housed bearings this involved came straight off the "net" which saved a lot of time and was surprisingly cheap.

The easily available leisure batteries were a little too tall for the "scale" battery box, so the battery box has no bottom and the batteries sit on a bearer inside the frame. This also supports the lay shaft for the reduction gear. The brake gear is clearly visible in the photos of the prototype and was copied, the hangers and levers being part of the first laser cutting order. I have used PNP glass loaded nylon brake blocks with complete success elsewhere and decide to use them on this loco. Parts of the brake gear are also supported on the battery bearers.

Working from photos with no other information is a challenge. At the top of the battery box there are features which look like half of a hinge but they were far too large to be hinges for the lids, what were they for? Photos on another website showed a loco with a strong family resemblance but the "hinges" were missing at the same time it looked as though there were wheels at the base of the battery box, could these have been to allow the battery box to be rolled sideways onto a bay for recharging? Suddenly the penny dropped all locos of this type have some method to change battery boxes for charging the "hinges" must be for the lifting system! There were several other points in the project where an engineering approach had to be taken to interpret the photos. I just hope my guesses were right.

With the exception of the axle boxes, the tram controller and brake parts the build was almost entirely a welding job, with the 8mm plate used for most of the frame stick welded and the 1.5mm sheet for the battery box etc. welded using a MIG welder. I do not have a set of rolls which would roll 3mm steel so the bow ends were something of a challenge. The laser cut plates were made over length with holes for 10mm studding. Using brackets temporarily bolted to the frame the ends were pulled round and tacked inch by inch to give the final shape, as shown in the third photo.



The method used to form the bow ends

The final photo shows the incomplete loco on my building stand. With the imminent loss of the Creech site and nowhere else to run it may well languish in my workshop in this state for some time to come.

After all there is no point in buying items, such as batteries, with a limited life if that life is to be spent in idleness and without these it is going nowhere!



Unusual yes but pretty it ain't!
The “steering wheel” operates the brakes.

Of Ships and Things

By

Fireman M.N. Retired

After two months ashore and no work to get on with I thought it time to be off again, so I went up to the docks to see what ships were in, there was a Canadian Pacific beaver boat or Shaw Savills “Bardic” she was an ex American “liberty ship” but after the trip on the “Persic”, once bitten twice shy. So I went home, after all a couple more days wouldn’t matter.

Three days later I went off again to seek my fortune. The “Rhodesia Castle” wanted a main greaser to sail that afternoon, just as well I had my gear with me, a quick phone call to the lady next door, tell Mum I won’t be home for tea. The Rhodesia castle was a 17,000 ton twin screw steam turbine driven ship and being a sister ship to the “Kenya Castle” the engine room layout was about the same. We left London on 21st Sept and in no time we were in the channel and heading for the Bay of Biscay then through the straits of Gibraltar with a brief stop for mail and then off for Genoa. More sports cars for Cape Town dockers to play with.

When we got to the Suez Canal the sunken ships had all been removed. An interesting aside to the canal blockade was that as the oil tankers had to go down the Indian Ocean and round the cape adding a considerable mileage to the operating costs, it was sensible to build bigger ships and this was the dawn of the Super tankers of today. The Egyptians answer to that was to widen the canal. This had to be seen to be believed, it was like a Cecil B Demille epic film. There was this ancient steam driven dragline crane scooping sludge from the bank and dumping it behind, then this was transferred by hand into shallow baskets which were hoisted onto the heads of porters, both men and women who ran slipping and

sliding up the bank and tipped it out and then ran back for a refill. The muddy water which ran down over their bodies served to cool them down and keep the sun off so they were able to keep going all day, there were about one thousand of them. Just like ants, virtually the same technology as when the pyramids were built.

Next down the Red Sea to Aden and the Indian Ocean. One thing that I sorted out earlier was the east African cocktail. As that was a happy accident on the “Kenya Castle”, this time as the layout of the two ships was the same, I hoped that the work practices were the same and luckily they were, so the bedtime drink started much earlier on the trip. As with all the other mail ships there was the sports and social club, this time I was partnered with a young Chinese girl called Kim which was luckily was easy to say, she was hopeless at most of the activities but then so was I so we got on well together. All the bigger castle boats had a well fitted out laundry always down aft. below the poop deck. They weren’t operated by merchant navy personnel but were put out to tender on a franchise basis and more often than not it was Chinese who ran the job. This is where Kim came in, there was three sisters, two brothers, Mum and Dad and Mum’s sister and they were fun to know. They provided all their own food cooked up in a little galley the size of a cupboard. Many times I was invited to eat with them, that’s where I got the taste for Chinese food, this was the real thing not the sort that some restaurants get away with.

When we got to Cape Town the “Edinburgh Castle” was in port, at 28,000 ton one of the big ships, so the usual rivalries reared up, football, cricket, boxing etc. Our engine room challenged theirs to a rowing match in one of the lifeboats. We got soundly beaten twice but at least they took pity on us and we went on board for a beer or two in their pig! (pig and whistle the name for the Crews bar). I have to say that ships lifeboats are big beasts and they take some shifting, that’s my excuse and I am sticking to it!

Salgs and wants

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Vivary Park Running Days 2017

July	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

No further running days are planned

Meetings Programme 2017

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

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Alan Hall's compound nearing completion

A couple of pictures from the "Steam Gala" to fill the page.



Getting up steam



Mark Sweet under way