

7¹/₄" GAUGE NEWS



WINTER 2015 ISSUE 155

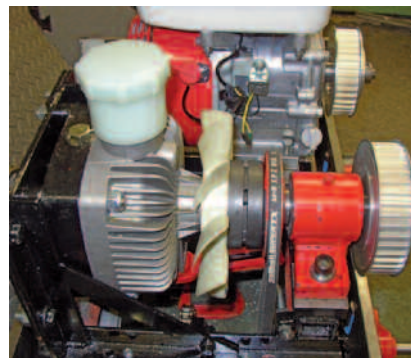


Geoff Baxendale driving Afon Glaslyn at Hereford AGM

In this Issue: Awards; The 2015 National Model Engineering Exhibition Harrogate; Eaton Drives; 7¹/₄ AGM at Broomy Hill Railway, Hereford; 7¹/₄" C Stock; Hints, Tips and Snippets; The Goods Yard & more....

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MEMBERSHIP

of The 7 1/4" Gauge Society
ANNUAL SUBSCRIPTION -
DUE 1ST JANUARY
Full UK £25,
overseas plus £10 postage (£35),
eMember £17.50,
Young members £6
Pay to: 7 1/4" Gauge Society Ltd
(Cheque or BACS to the
Membership Secretary), or
debit/credit card via the
Society website.

THE 7 1/4" GAUGE SOCIETY LTD REGISTERED OFFICE:

29 Tenby Avenue, Harrow, Middlesex HA3 8RU
Company registered in England & Wales Number 3955091

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PRODUCED, PRINTED AND DISTRIBUTED BY:

Imprint, New Road, Newtown, Powys, Tel: 01686 624137

PRESS DATES FOR NEXT ISSUE:

Advertisement copy to Trade Liaison Officer by 2nd January 2016, Articles, Letters, Hints, Tips and Snippets etc. Must be with the Editor by the 5th January 2016. Sooner eases the workload. Members' Notices (Events and Sales & Wants) should be put directly on the Website. Send written 'Notices' to the Secretary by 2nd February 2016.
Replacement copies £4.50

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From the Editor's Desk

It is my pleasure to take over Editorship of the 7¼" Gauge News but I realise that it is a hard act to follow. My predecessors have done a fine job in establishing the magazine as a link between members and a showpiece for the Society and I hope, with your help, I can continue in their footsteps.

In this issue we report on the award-winning stand at the Harrogate show this year and also the excellent AGM weekend in Hereford which was blessed with good weather. Both events witnessed a wide variety of fine locos as featured in this issue.

It is my hope that we can continue to publish a balance between standard gauge and narrow gauge locos, to report on activities at both the large and smaller clubs, to have some stimulating technical articles, and also to involve our younger enthusiasts.

All this depends on members supplying me with material to publish; all articles with associated pictures (with as high a resolution as possible) will be appreciated. However, if you are unsure, please contact me to discuss suitability.

Please note, subs will be due on 1st January and you will find a renewal form 'insert' with this issue (provided you have not opened it with too much haste and lost the loose sheet!)

We have also been notified that the National Model & Engineering Exhibition, usually held at Harrogate, will be a week later than usual next year, on 19-22nd May 2016, and will take place at Doncaster (racecourse). This is because of rebuilding of the Exhibition Hall at Harrogate.

Although mentioned elsewhere, may I remind you that the next AGM meeting will take place at Pecorama in Devon on 1st and 2nd October 2016.

We were sad to learn of the sudden death of Jeff Cogan and the picture on the back cover of this issue is yet another fine example of the work that he and Ken Bull so regularly gave to us.

Incidentally, I attach a picture of myself at the top, not through vanity, but to encourage you to approach me with material for future issues should you see me!

Nick Deytrikh



A Christmas Message from the Chairman



May I wish all our members and their families a Happy and Peaceful Christmas together with the wish that the New Year will be still enjoyable in this great hobby of ours.

Frank Cooper



From The President

My sincere Good Wishes to all members for a Very Happy Christmas and New Year!

With the lead in time between press date and publication I am of course writing this note some while in advance of the festive season. In fact it is not too long after the A.G.M. which I am sure you will all agree was an excellent weekend. The folk at Hereford certainly worked very hard on our behalf even to the extent of ensuring three super days of good weather – that takes a bit of doing!

The friendly spirit clearly in evidence at the A.G.M. is so typical of our Society and I am sure that Kathleen and I are not alone when I say that as a result of our membership we have built up a marvellous circle of very good friends.

Over the last couple of years your Committee has managed the affairs of the Society in order to consolidate our expenditure

within the reduced level of income that has come from a reduction in membership numbers and I feel in spite of being a bit smaller the Society is in good shape – however we can always do with some additional members which is often the icing on the cake to afford one or two things that would otherwise be outside our grasp and also we must not forget that we do not get any younger and want to do our best to encourage new entrants to the hobby and our Society.

So I am sure you are all like me and once Christmas is over you can look forward to another grand year of miniature railway operation not forgetting the winter maintenance programme that we all have to cope with!

My Very Best Wishes to all readers for a Happy Christmas and New Year.

Brian Reading

Awards



Brian Reading Award

It always gives me great pleasure to present this award, which helps to recognise the considerable model engineering skills, contained within our membership.

This year the award went to John Green for his Penrhyn Quarry Railway Hunslet 0-4-0T Blanche. John is to be congratulated on this excellent locomotive. It was also nice that the award went to a well-known and long-standing Society member.

Blanche is a model of one of three locomotives constructed by the Hunslet Engineering Co for use on the "main line" of the Penrhyn which until closure of the slate quarry ran from Port Penrhyn to the Quarries. I remember these locomotives very well and in my younger days I would obtain permission (in the days before the invention of Health and Safety always easily obtained) to ride up on the train from the port to the quarries to photograph the smaller Hunslets working on the quarry galleries.

When I was familiar with the railway one of the three was retired to the museum at Port Penrhyn (Charles) but the other two (Blanche and Linda) were still at work. Happily we still have the latter pair working on the Ffestiniog Railway, now with the leading pony truck and tender.

They were quite a bit larger than their sisters working in the quarries and with the massive inclined cylinders certainly looked it! The model that John has made is approximately one third full size and has come out as quite a large locomotive for 7¼" gauge. The cylinder bore is just over 3 inches in diameter with a stroke of 4 inches – boiler is 10 inches dia. the barrel being formed from ¼ inch copper sheet. The model is a faithful copy of the full size – complete with working sanders, but with a weight of approx ¾ of a ton I suspect rarely required!

A considerable project to construct – Many congratulations to John.

Brian Reading



Honorary Life membership

Brian Reading has served on the Committee as Trade Liaison Officer, Chairman, and now President for 23 years and in recognition has been given Honorary Life membership. He was also presented with the new Jonathan Clay book, *Locomotive Portraits*.



Charles Simpson Award

Colin Edmondson received the Charles Simpson Award for his innovative engineering skills and increasing the awareness of the Society, particularly in connection with being a category winner on "Shed of the Year" on Channel 4.

Junior awards

Last year there were no nominations for the Junior award but two very worthy candidates were nominated this year, so both Tom Moody from the Teesside Small Gauge Railway, and James Newby from Hereford, were presented with the awards by John Nicholson.

James is a dedicated member of the Hereford Society of Model Engineers, has passed his bronze award and was last year voted HSME's Young Engineer of the Year. He works in

the signal box, crowd control and drives the club's steam, diesel and electric locos. His ambition is to work as a Points Design Engineer.

Tom is a very committed member of the Teesside Small Gauge Railway and has been instrumental in the rewiring of the signalling system, runs the club website and publishes the club newsletter ('Trackerjack').

His aspirations are to work in Electronic Engineering.



Tom Moody



James Newby

The 2015 National Model Engineering Exhibition Harrogate

By Gerry Clarke



Traditionally, the NMEE at Harrogate has been the showcase for the 7¼ society; our stand is different from most club stands due to the physical size and quantity of our models. We are allotted an area approximately 6 x 12 metres, which means our display has to be set out in such a manner that the visiting public can look around the stand instead of observing it from the front. In setting out the stand you need to allow sufficient space for wheelchairs and mobility scooters to negotiate the route without too much difficulty. Thankfully we have an experienced team of members who appear at the exhibition on set-up day and very quickly put things into motion. I was fortunate this year to observe this team in action and what a great job they all did. This year turned out to be a successful exhibition for members of the 7¼ Society as Diane Carney, editor of the Model engineer reported, "The sun was shining on the 7¼ Society stand". It was fortunate that this year we had a good cross section of entries representing the ethos of our society and the high quality of exhibits showed what our members are capable of producing. In all we displayed 34 exhibits, mostly locomotives and rolling stock.



Figure 1 Louisa

We also had two operating displays: a display board with a pair of bogies entered by John Nicholson demonstrating fail safe air brakes, and a motorised point with sprung blades demonstrated by John Bailiss. Both exhibits created a lot of interest.

It is nice to see unusual models, especially reproductions of full size locomotives, and we had some on our stand. Graham Gain brought his 'Louisa', I have never seen a model of this Locomotive before and what a lovely job it is. 'Louisa' is the precursor to the later Quarry Hunslets that worked the galleries and ports of the North Wales slate quarries. Built by the Leeds based firm in 1877 it was delivered to Dinorwig quarry, where this diminutive saddle tank spent the first part of its working life. It was the first locomotive to ascend the tank inclines to gallery level. Later 'Louisa' was sold to Glyn Rhonwy quarry, the supposed reason being that, having only 5" diameter cylinders, it was considered too small to handle the increasing traffic at Dinorwig. The Alice class replaced 'Louisa'; they had 8" diameter cylinders and larger boilers. Graham explained he was going to build a Hunslet model drawn by his friend Alan Ruston but Alan's son David, who is busy recreating the full size Lady Madcap, suggested to him that he should build a model of 'Louisa' and supplied Graham with a works general arrangement drawing. It has taken Graham about sixteen years to build a pair of these engines, amidst many other projects. What a fantastic job he's made of them.

Another unusual model was an Andrew Barclay 0-6-0 well tank used for supplying the front line trenches during the First World War. Andrew Barclay built 25 of these locomotives in one batch and they were delivered to Flanders in 1917. The locomotives were very elusive and rarely appear in photographs; they were supplied to the Australian Railway Corps who liked them so much that they refused to part with them and took them with them when they were moved. This part-finished exhibit is yet another Paul Frank Loco typical in its uniqueness. How many engines has this man built?



Figure 2 Martin's Tin Turtle

Martyn Redfearn brought his Tin Turtle, another loco used for the same purpose during the war, so we produced a theme as a tribute to the railwaymen of the First World War by putting the two locos together and dressing them with poppies, pictures from the trenches and a poem by an ex-serviceman of that time. Martyn has described his Tin Turtle in a previous copy of the magazine; nevertheless, it was very interesting to see it in the flesh, so to speak.

There was another Andrew Barclay on display which was Roger Kent's very nice and very powerful 'Ailsa' a model of the Wanlockhead lead mine locomotive; the full size had outside frames unlike the larger gauge Barclay 'E' class. I have been fortunate to drive this loco on a very demanding track and it performed very well. This is another Paul Frank loco; does he ever rest from building?



Figure 3 Lord Rathmore

We were pleased when Eric Wright agreed to bring his LNWR Claughton 'Lord Rathmore' as many people had requested to see this magnificent four cylinder machine at the exhibition. Again an unusual model which, as expected, attracted a lot of interest. Before the exhibition had opened the boys from the LNWR society gave it a good going over. Although the original locos were scrapped some parts were used in the production of the later three-cylinder Patriot class. The name 'Lord Rathmore' was carried by a Patriot until 1962. Eric has made a wonderful job reproducing a Bowen Cooke's masterpiece.



Figure 4 King Charles

Vic Whittaker brought his GWR King Class 'King Charles 1', another great model of these much admired locos beautifully finished in GWR livery. Not only does this engine look good but it is a driver's loco with accessible controls and I am told has a good turn of speed. The loco is built to the exceptional drawings

of Trevor Shortland, which are as near to full size as you could get. Vic explained that after a discussion with Don Ashton, he has modified the rockers that drive the outside cylinder valves; this now has the correct offset for improved valve events.



Figure 5 Ivatt Class 2

The detail on Trevor Collier's award winning Ivatt 2-6-2 tank makes this model into an absolute miniature replica of the full size machine, and has to be seen to be appreciated. I believe Mr George Ivatt would be proud of Trevor's model.



Figure 6 Thor



Figure 7 Galah

We had a good display of freelance narrow gauge engines, 'Thor' by Martin Samms a Romulus variant and 'Galah' by Michael Duncan a Thomas II variant. Both Martin and Michael appeared to spend a lot of time talking to the visiting public, they must have spent hours answering questions about their locomotives. Mick Savage, Graham Prestwich and Paul Foster exhibited a Thomas II to the design of Rob Burnley. The three guys are pooling ideas and resources to make three engines using modern methods of manufacture; the part-finished chassis on display was very impressive. Dennis Halstead and Alan Frewin also exhibited their part-finished Tinkerbells. Mark Sharpshouse brought 'Hamish' a petrol hydraulic loco complete with a sit-on truck and two sit-on slate waggons.



Paul Frank's 'F' Class

Terry Robinson exhibited his part-finished Adams 0-4-0 B4 tank engine with an LNER 20t Hopper waggon; this was probably the smallest locomotive on display. When compared to Michael Duncan's 'Galah' it is hard to believe they run on the same gauge of track. Other standard gauge loco replicas were represented by Kevin Whiting with his BR 0-4-0 class 06 shunter and a part-finished Stirling single, exhibited by Jack Dibnah. We had a good display of standard gauge rolling stock; Walter Scott brought models of a 10t coal waggon, the full size version was owned by his family, and an ex North British Railway covered carriage truck painted in BR 1960s era livery. David Whiting's part-built LMS plank waggon, Keith Frewin's Midland railway 12 ton covered waggon and the late Alf Case's private owner's waggon rounded off a good display of waggons. James Kirby's very interesting part-finished model of a 75 ton Cowans Sheldon railway breakdown crane has been seen at Harrogate on previous occasions. Cowans Sheldon, known in their home town of Carlisle as simply 'the cranemakers', designed and manufactured cranes used for various applications and not just railway cranes. James displayed his crane holding Dave Whiting's part-finished LMS plank waggon. Along with the standard gauge rolling stock we placed a Semaphore signal and shunting dod exhibited by David Holden.

David Tedford had made some really nice GS & WR track side 'notice plate' patterns painted white with black lettering, we positioned them on a table nearest to the hall entrance along with a 1/3rd scale Lynton & Barnstable locomotive lamp. The size and colour of the notice plate seemed to attract

people onto our stand. Christopher Vine, although not officially on our stand, was positioned underneath an opening vent to allow him to steam his B1 Bongo if necessary. People who had visited Chris's stand also tended to drift onto our stand.

Jim Nolan had what seemed an enormous boiler for a 7 1/4" gauge model, it was for his South African Railways 25 NC. These very impressive 3' 6" gauge 4-8-4 non-condensing engines were designed by engineers from both South African Railways and Henschel & Son, a German locomotive company. Some members of the class were also built in Scotland by North British Locomotive Company. Jim displayed the boiler, smoke box and cylinder block; the model is a nominal 2" scale to run on 7 1/4" gauge. The design work for the model started in 2000 and the manufacture of parts commenced in 2006, the work to date looks very impressive.

Alan Cooper and his Darjeeling & Himalaya 'B' class locomotive attracted much attention. Alan supplied a DVD of the locomotive in action for us to play; after watching the DVD some people would then go and look at this powerful model. Unfortunately for us Alan was in attendance on another stand for the duration of the exhibition but at times would slip back to check on things. Alan is more than pleased with the performance from this fine machine.



Figure 9 Russell

We had four models depicting products from the Leeds based Hunslet locomotive Company on our stand, already mentioned is the earliest from 1877 which is Graham Gain's 'Louisa'. We also had Adrian Hinchcliffe's 'Bernstein', Chris Farrar with 'Russell' and Robert Marshall with 'Pandora'. As both Russell and Bernstein were entered for competition we needed to leave room within the display for judging, also the two locomotives were positioned and repositioned to make best use of the light. Eventually all was happiness apart from a sole photographer asking if we could move 'Louisa' so that all four Hunslets could be framed together. After obliging the request so that all four locos were in the frame of his camera, other photographers arrived and the noise of shutters clicking was quite apparent, even to your partially deaf author. Although 'Pandora' is the only one with a fictitious name it appears to be a good representation of a Hunslet Dinorwig quarry class. Robert's engine has a simple footplate layout with easy access to the driver's controls, the loco was displayed with his driving truck. 'Pandora' I am told is a good track engine.

When I heard Chris Farrar was entering Russell for competition, having already seen his model of 'Cackler' at the Betws-y-Coed AGM, I could not wait to see his new creation and I was not disappointed. Having worked on the full size 'Russell' myself I could not fault Chris's work. Even in areas you would not expect, authenticity to prototype has been achieved. The use of needle roller bearings running on a nitride hardened axle is a sensible departure from full size, as are the brass water tanks. Chris has made almost every part of this engine including patterns and even casting some of the smaller castings. The large copper boiler must have been difficult to handle yet Chris not only designed it but built it himself. The standard of workmanship on this loco is exemplary and it was a worthy winner of the best-finished model award. Well done Chris!



Adrian Hinchliffe & Chris Farrar

'Bernstein' by Adrian Hinchliffe is a superb model of a Hunslet quarry engine as used at Port Dinorwig. It was built from 30 works drawings dated 1898 to a scale of $3.625'' = 1\text{ft}$. The frames were cut using hand tools and finished on a milling machine; round head fitted bolts, as per the full size Hunslet practice, are fitted to the frames, beams, horns, stretchers and cylinder mountings. Adrian made his own patterns for the cylinders, steam chest, horns and the central casting for the balanced slide valves. The valve gear has been designed using Don Ashton's book on Stephenson's valve gear, and launch links have replaced the loco links with the suspension point moved to a more sensible position. The valves are to Bill Carter's design but use 'O' ring seals - the outcome is improved steam in exhaust out events. The mechanical design of the valve gear incorporates ball-race eccentrics, ball-race die blocks and needle roller bearings in all the links. The copper boiler was made to the design originated by Alan Ruston as used on 'Elidir' with a design working pressure of 100 psi. Adrian spray-painted the model using both cellulose and enamel to Midland Railway specification. This superb piece of workmanship was rewarded by being judged best in show. Congratulations Adrian!

To reiterate the words of Diane Carney "the sun was shining on the $7 \frac{1}{4}$ inch Gauge Society stand as usual (I often think they have the best spot in the building!)". Well Diane, we have, and that has been earned by hard work from Simon and Anne Hazelwood supported by the Harrogate team, plus the excellent standard of exhibits produced by our members.



Chris Farrar receiving the Precision Paints Award for best finished model



Adrian Hinchliffe receiving the Myford shield for best locomotive

A loco called Anna D A G Brown

My Manning Wardle locomotive seems to be well known now among the Society's members and, judging from the questions I am asked, there is a keen interest in its origins.

It was towards the end of 1998, when the old century had only a couple of years to run that I was sitting one day at breakfast in Brunel University where the SMEE was holding its centenary exhibition. A youngish chap sat down at the table, clutching a rolled up drawing, carefully avoiding unwanted contact with bacon and egg. My curiosity got the better of me and I soon discovered that it was Mark Smithers, who had become an authority on 18 in. gauge railways. The drawing was one left by his late father and the subject was the lovely little engines which Manning Wardle had built for the War Department to run on the 18 in. gauge lines at Woolwich Arsenal and Chatham Dockyard in the 1870s. Mark was looking for some sucker to turn the pretty, but accurate, drawing into a model project. I suppose that at that stage I was better known in SMEE circles for my work on tooling, in particular drill sharpening, although my Milner Hunslet was also well tried and tested and had the honour of hauling HRH The Duke of Gloucester during his visit to the exhibition.

I fell for the bait, with the proviso that it would be some time before I could undertake the design project. A few years went by before I could start the design, but eventually I was ready and rolled out a series of thirty five drawings and a couple of dozen articles of four pages each in *Model Engineer* between

2004 and 2006. I can assure you that this sort of commitment is not to be taken on lightly, especially as I believe in producing accurate, detailed and readable drawings, besides the thought and words that go with describing the manufacturing process stage by stage. As things progressed in my workshop I was able to elaborate on the details with another dozen instalments a year or so later to complete the picture. This assembled a really exhaustive story of the project which has enabled a good number of people first to buy a set of drawings from me and then to start construction.

The drawings are just the first stage; the next is to produce the castings and other materials, initially for my own use and then for others to take into their workshops. The gestation period for construction is even longer than that for an elephant, but the arrival of a new model into the world can be celebrated with much trumpeting, as I shall develop a little later in this article.

As things stand at present I keep in stock virtually all the castings and the many dozens of laser-cut components that speed up construction and make for repeatable accuracy. Luckily I have at the back of my garage a small room where I store all the patterns and the materials mentioned above. Furthermore I reckon to keep support going for anyone who takes on the project; nor do I shy away from parallel requests for support; thus, for instance I have populated the world with sundry buffer castings, including a set for a very distinguished Tinkerbelle at Shepton Mallet. All this has had to be worked in with my other major work, especially my book on injectors which a great many of our members seem to have purchased.

It surprised me that people were prepared to bite the bullet and take it on trust that the castings and other parts would be fit for purpose, but I do not think that they were disappointed. In a few cases we had problems with the castings, but using a local small foundry, we were able to sort out solutions to the problems; indeed a dialogue with the foundry proprietor has always proved valuable and I have every confidence in the quality of the components which I am able to supply. The same is true of the laser cut products which, if heed is paid to the written word, then things will fit perfectly.

Generally people embarking on construction pay a visit to my house, which is roughly in the middle of the country; they load up the car and if they time the visit right, might even be offered some sustenance! That seems to oil the wheels!

This brings me to an interesting story: one summer late morning I was picking some vegetables from the garden, when the phone rang: the voice at the other end announced: "This is John Rodham calling from Australia....." My first reaction was 'why are you not in bed?' After confessing that he was a bit of a late bird, he explained that he was reading my articles and that was keeping him awake. He ordered then and there a set of drawings, which matured into an order for all the bits and pieces for constructing the model. The question then arose: how could he get them delivered? I got some shipping prices for him and even acquired a suitable packing case from the scrap. Then John's lucky number came up: his son,



Figure 1 Pattern & castings storage



Figure 2 Set of materials in boot of Rodham's car

working in London, was returning home with a container full of personal effects, to which he could add his father's load of parts. He came and collected them and my next picture illustrates the load in the back of his car. It was a small vehicle and the load certainly made it sit up and take notice. Since then John has informed me of progress first with his new workshop and then with the initial construction. At this year's AGM meeting at Hereford I happened to be talking to a chap who informed me that he was chairman of the Newcastle Society, ('a little way north of Sydney'). Pricking up my ears and putting 2 and 2 together I pointed out that one of my customers lives there. 'Yes, I know him, and the loco is about 80% complete, having just got its boiler in duplex stainless to Aussie rules'. What a small world we live in!

On another occasion a Scottish voice was at the other end of the phone line, wanting to order some drawings and a price list. I asked him his name: "Russell Kingan" was the answer. Said I "That is a good South Western name", (meaning SW Scotland.) "How do you ken that?" "Because I used to live in a little village called New Abbey and our Kirk elder was called Ian Kingan." I replied. "He is my uncle and that is where I live!" You can't get away from coincidences.



Figure 3 Canopy tabbed & slotted for welding

Enough of the digressions, let us look at the construction of the model. Coming from the original in 18 in. gauge it works out at 3/8 full size, but the Manning Wardle product was really quite Lilliputian, although they used a number of their full sized components for standard gauge, including the buffers, sand boxes, hand brake column and the handrails. This application gives the engine its unique charm, as does the canopy round the cab, which seems to me to be straight out of the Raj. I just wonder if Manning Wardle happened to have some bits over in the stores from an Indian order, because why else should such an embellishment be fitted to a product of such an utilitarian nature for the War Department? The canopy, pictured here, is laser cut in three parts which are tabbed and slotted to fit snugly together ready for welding on the inside. The photograph shows how the excess material is left on top ready for trimming off after welding on the underside. I cannot imagine how long it would take to cut the pattern out from the solid – that was the way it used to be done.

My own construction of the loco took place concurrent with the design and publication, ready for the 2008 running season. It is worthwhile here illustrating it in its naked state, as I did completely finish it before stripping down for painting. Even here, it has not yet acquired its name or works plates, which is quite up to prototype practice I would maintain.

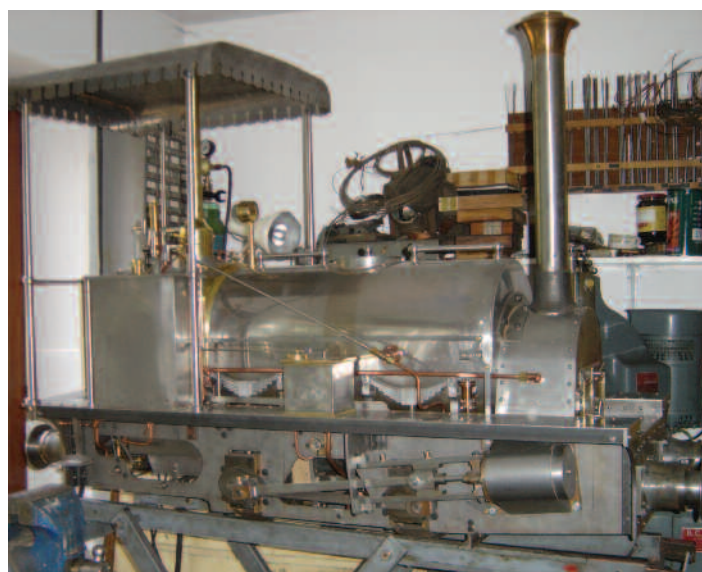


Figure 4 Anna ready for painting

Also in the undefiled state it is interesting to view the engine through the driver's eyes. It becomes apparent that I have made extensive use of stainless steel of various grades, not only for things like the tanks and footsteps, but also for the bright fittings supporting the canopy and the handrails themselves. I personally do not enjoy cleaning up rusted metal bits, so for the sake of modest cost and a little aggro in machining, that is the way I have chosen to go.

When it came to painting I took much of the advice from Christopher Vine's book, although I confess to not achieving the superb results that he has done! However I now have the right kit to do the job and I can but practise on further projects.

I knew one gentleman, a self-confessed farmer, who claimed to paint his model with a creosote brush – it did rather look like it!

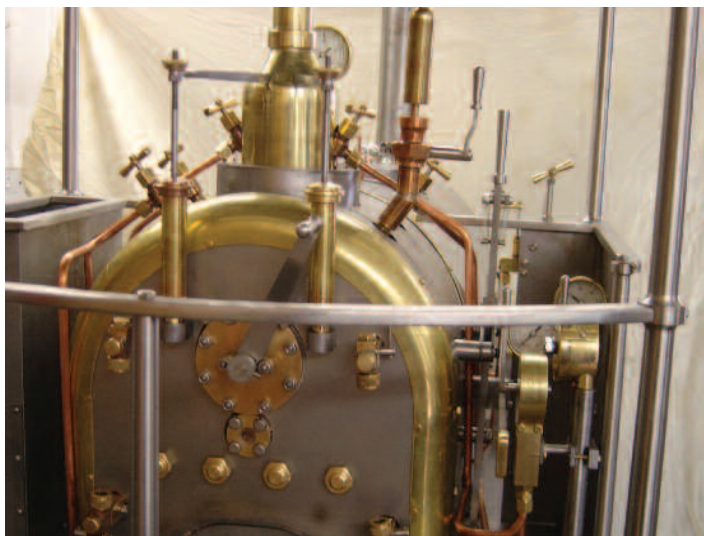


Figure 5 Finished loco driver's view

Although I had carried out air tests on the chassis, the engine was never steamed until it was painted and its initial steam test was on the premises of Michael Palmer of Station Road Steam, who was our local club's boiler inspector. In a video clip of this process he did make some gracious comments about it. The rest is really history, since it has taken part in several AGM gatherings over the past few years, as well as visiting a number of club tracks up and down the country. It was the subject of the DVD made at the Swindon meeting a couple of years ago, when it was loaded up with a heavy train following the cameraman on an electric train a few yards in front. This procedure I found rather nerve wracking, since I reckoned that his brakes were better than mine, even with the vacuum system working well. One thing which sticks in my memory is the sound effect, in particular as the train began to take the 1 in 55 gradient on the line. Anna's exhaust is fairly soft but this certainly made it bark with a load of twenty passengers; but what was equally fascinating in the sound track was the whine coming from the electric motor driving the cameraman's train as it began to climb the gradient. Although Matt Rainer probably had a directional microphone it certainly picked up his local noise as well.



Figure 6 In full flight on inaugural run

It is difficult to contrive to get photographs when I am driving the loco, so I normally rely upon the efforts of others. So the first picture of Anna running in public is an early shot at the Nottingham track, with Andy Clarke of Polly Models at the controls with myself in the leading vehicle, together with some near neighbours of mine in Rutland, having a whale of a time. For those wise about the Nottingham track, you might spot that the engine is apparently working 'wrong road'. Due to engineering works on the track we were operating 'out and back' via their charming little branch line, which actually added some interest to the operation.

The pictures which I like the best, however, come from birthday celebrations for one of my grandsons at the York Society's track, in one of which I am giving instruction to the little fellow on the footplate, while his brother and school friends are being cared for by their mothers. OK, the fathers were there too, but they were doing other things when the picture was taken.



Figure 7 Grandson No 2 under training

I think that in this view the essential mid-Victorian appearance of the engine is accentuated. In this regard I should mention that the original full-sized engines were designed essentially for yard operation and would probably never have seen human passengers, save for workmen hitching a lift during their working days. The distances run would have been modest and this would have affected their means of working. For instance, in normal operation the axle pump delivers just about all that is required to keep the boiler topped up, while the original Giffard injector was there for use in the idle periods.

The supply to the axle pump can be seen in this shot, with the operating lever extension from the cab passing diagonally down outside the saddle tank. This is merely an on/off control, with no bypass; should the valve be closed it might cause an airlock in the delivery whenever it is opened up again. In these circumstances a little bleed valve provides a way of clearing it and squirting the bystanders with water into the bargain. The Victorians thought of everything! On the left side of the tank assembly the Giffard injector is faithfully modelled and keeps pace with any excess requirements. If, however, you look at the dimensions of the machine, it becomes apparent that it is quite a long stretch from the footplate to the water control valve on top of the injector; I can barely reach it while driving; so I think it likely that in full size operation the driver would have descended from the footplate to set the injector, thereby

avoiding a stretch of about 3 ft. 6 in. from behind a rather hot backhead. Remember that in those days the average driver would have been little over 5 ft. tall.

Just a couple of Annas have been finished up until this year, but I have been pleased to inspect another two which have now come into commission. In both cases their stories are rather poignant and worth relating.

Chatham. John Crossman, a retired solicitor from Essex, has a 7 ¼ in. gauge track in his garden near Harwich and over the years has bought and enjoyed running a number of locomotives. As a young man he worked at sea for P&O, so steam is in his blood; his father had been in the Royal Navy during the second World War and had associations with Chatham Dockyard, insofar that one of the ships on which he served had been built there. Furthermore, from John's days as a naval reservist he has fond memories of Chatham Dockyard. So, when he bought a set of materials from me, it did not take long for his wife to suggest the name for the engine which he commissioned to be built by others. He even chose the works number 424, which was originally carried by Busy Bee, the first of the class at Chatham.

Two dedicated model building friends started more than seven years ago to build the model for John, while a copper boiler was ordered from Swindon Boilers. While one of the builders completed his allotted parcel of work in good time, the other's circumstances changed before he could deliver everything, so John was landed with a rolling chassis and many peripheral components including most of the platework, but few minor components, and no pipework.



Figure 8 A very happy John Crossman

So, three years ago, I met John at the AGM of the 7 ¼ in. gauge Society, and he was pleased to inform me that the completion and painting was going to be done by Andrew Robelou in Hertfordshire, who is a well respected builder and finisher of locomotives. No sooner had we got home from the AGM than I received the devastating news that Andrew's premises had been raided and the copper boiler stolen from his workshop. It is difficult to believe that such depravity could happen, especially in a decent country area. So it was back to the beginning for John's boiler, with a new one from Helen Verrall taking over two years to deliver, such is her popularity as a boiler builder.



Figure 9 John Crossman in full flight

I feel sympathy for Andrew, having to piece together three parcels of work from other people. Luckily the workmanship was good in all cases and he was able to make an excellent job of the project. The livery was a matter of deep consideration between John and Andrew, a most distinguished deep red being chosen and applied with great skill. It reminded me of the Metropolitan Railway livery.

John informed me that the locomotive's final acceptance test was being done one Saturday in the middle of July, so my wife and I set out for a pleasant afternoon's visit to Andrew's track, blessed that day with warm sunshine. I was able to enjoy a good drive of the new machine and, of course I needed no familiarity training with the controls! The builders had stuck rigidly to my drawings and it was interesting just how similar to the original it seemed to perform and sound. A long chimney gives it its characteristic deep voice, which is very pleasing to the ear. John had provided a driving truck from his home in lieu of the original tender. This is obviously quite acceptable, since the original full sized locomotives had no tenders, some sort of truck with a heap of coal on board being the norm for operation in Woolwich or Chatham. John's driving truck carries water to feed the rear (model engineering) injector, a wise precaution since the water in the saddle tank tends to get quite warm during long spells of inactivity, making operation of the Giffard injector unpredictable. In the next photograph John is driving easily around Andrew's track, enjoying every minute of it!

From Norfolk to Derbyshire

We now come to a very different story for the other recent completion in the Anna class. Nine months after John Crossman had collected his set of materials from my workshop, I had a visit from Charlie Fisk and his wife from the far side of Norwich; he also bought the complete set of castings, laser cut platework and the various springs and other pieces which I stock in my premises in Rutland. This is in fact, one of the joys of being involved in this sort of work: it is amazing the diversity of interesting people who arrive on my doorstep and go away home with the boots of their cars weighed down with metal.

Charlie soon set about construction in a workmanlike way, diligently following my instructions; I regarded him as a great



Figure 10 Trevor Scott at the controls

watchdog over the drawings, making sure that his interpretation was right. Many were the phone calls which he made for help and advice. He commissioned a boiler from Helen Verrall and was set fair to complete the model a couple of years ago, when tragedy struck and, after a short illness Charlie died, leaving his Anna (named Flo as a shortened version of the prototype Florence) almost complete.

Charlie's widow discussed with me how best to get Flo to a good home and happily it ended up going to Trevor Scott, whose house is adjacent to the Trent and Mersey Canal in Derbyshire. Trevor has made the finishing touches, keeping the bottle-green livery which Charlie had started, but building a shorter tender to his own design for reasons which will become apparent. He has also renamed it Pipit, but all the conspicuous items such as sanders, Giffard injector and axle-pump with its bypass are correct in every detail. As a nice

touch Trevor has provided a set of firing irons which sit comfortably on the two little cradles provided for them on the left side of the top of the saddle tank. In deference to the late Charlie, Trevor has even made an original 'Flo' nameplate to put in place when the locomotive is demonstrated in the near future to Charlie's widow.

My next door neighbour's daughter has a narrow boat on which she and her husband have been touring the canal network during the summer months; it was contrived that we should all meet up where the canal passes Trevor's house to inspect the model. As it turns out he and his next-door neighbour have a 7 ¼ in. gauge line around their gardens, on which they even move coal deliveries brought there by narrow boat. A good day was had by all and we were able to inspect the finished Pipit awaiting the completion of its tender. The final picture illustrates the tightness of the tender and engine on Trevor's short turntable; the original tender design is some 6 in. longer and just would not fit! One false move and you are in the canal!

So that completes the stories of two models to my original design, with their own tales to tell. It is good to see the class growing; it fills in a chapter of British narrow-gauge history, which is significant in our industrial heritage. There must be others of our membership who would like a challenge and fancy something a bit different from the endless procession of Romuli and Quarry Hunslets. Furthermore, with all the complicated maths already done ere laser strikes metal, the number of prepared components runs into three figures and these are available here in the country's smallest county, as befits the design of one of industry's little gems, which might otherwise have gone forgotten. If you would like further details of what is available, you can contact me on 01780 753162, or dag@brownmallards.org.uk.

D A G Brown.

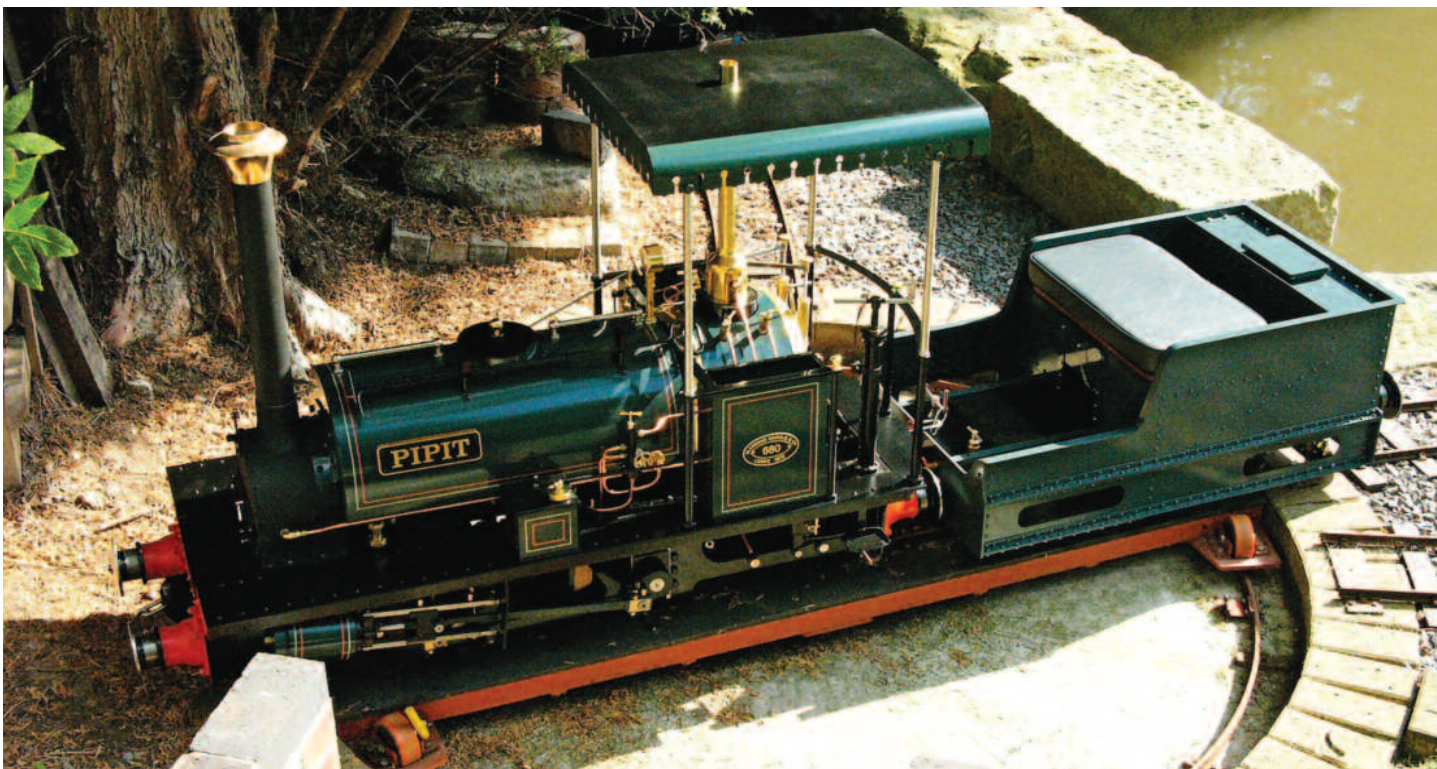


Figure 11 Short turntable - whoops and you're in the water!

SCAMP, a little 7 1/4" gauge loco with an 'electric gearbox'

Designed by Colin Edmondson June 2015

The initial brief that I set myself was to design a small loco that was easy to build and came apart into pieces light enough for one man to lift into the back of an average car, yet was still strong enough to do a decent job of work around the garden or at the club track. The only way to make a loco heavy enough to provide traction and braking and yet still keep it light enough to lift easily was to sit the driver on board, which also agrees with my 'minimal' outlook of a loco with the driver sitting on board rather than a scale(ish) model of a full sized prototype with the driver on a driving truck behind.

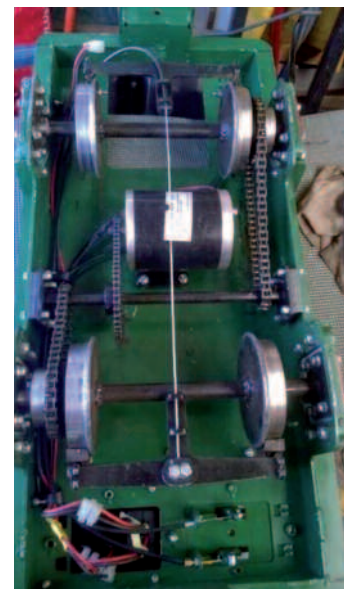
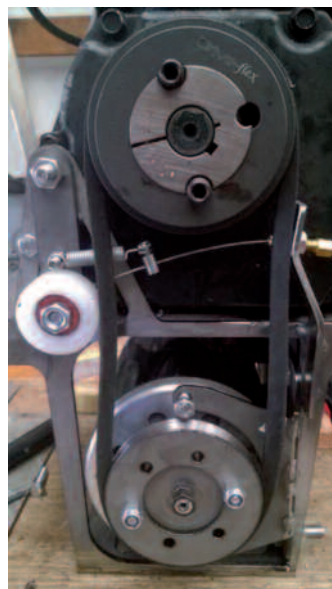


I initially chose to base the design on the ubiquitous Suffolk Punch lawnmower engine as there are a lot around and they are easily available at a sensible price (and I happened to have a couple under the bench).

As I was trying to keep the total cost of building a loco below £1000, I didn't want to go to the expense of using the Eaton hydrostat drive unit, common and reliable though they are. I decided instead to build the first loco as a test bed using two identical 1hp permanent magnet motors, one used as a dynamo and driven by the engine via a slipping belt clutch and another to drive the wheels.

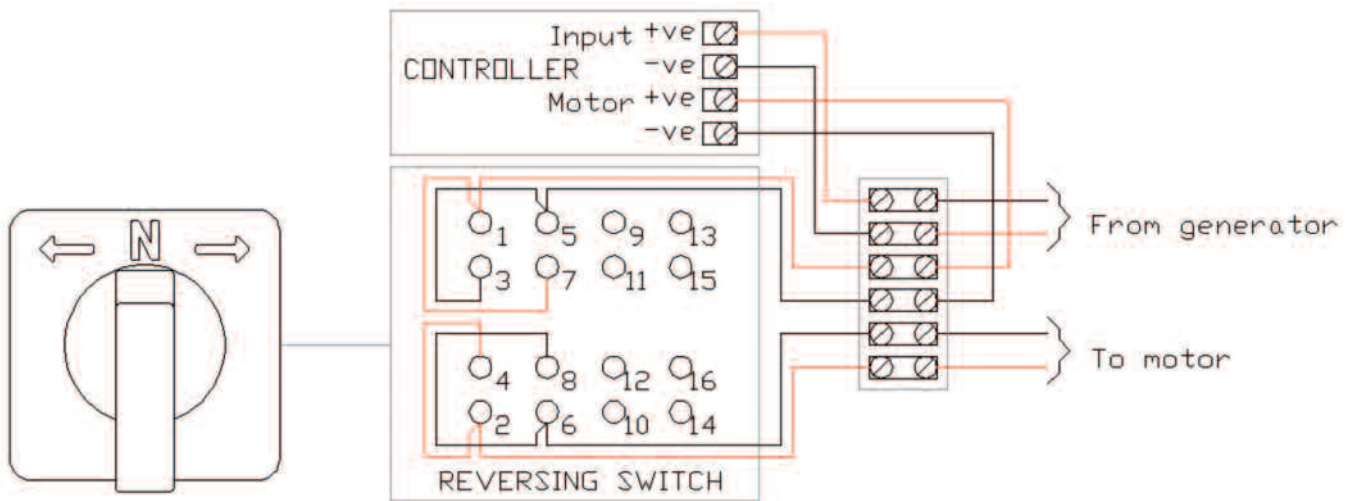
Adding a suitable reversing switch between them meant that equal speeds in both directions should be available, my fingers were firmly crossed. The germ of this idea came about when I was converting my first loco, DON, to petrol-electric using a converted car alternator as a power generator. In 'neutral' the reversing relay drops a dead short across the wiring to the four motors, which is very handy for an emergency stop. Just before I fitted the chains to the motors I happened to spin one of them slowly forwards, and the other three solemnly rotated in the the opposite direction. If this could happen at hand powered speeds then surely it could work if one motor was driven by a petrol engine, as long as a clutch was incorporated

in the design? To the best of my knowledge this method of transmission hadn't been tried in 7 1/4" gauge before, although I have seen video footage of a 5" gauge chassis similarly equipped and running well. Just in case the reason I hadn't seen a loco powered in this way was because it had been tried and didn't actually work I had a 'plan B' in mind, using a converted car alternator to provide power as previously used in DON. In fact the system proved to work even better than I could have hoped for and as built, geared for a calculated top speed of 6mph, the loco whizzed off at speeds that had me leaning into the bends with a manic grin on my face. Since changing the gearing to something a little more sensible SCAMP has proved to be quite a powerful hauler at the many tracks it has visited so far. The two 36 volt 800 watt motors cost me £45 each, the reversing switch was £18 and the 2000w controller £10, making the cost of the 'one horsepower flexible electric gearbox' about £120 including the wiring. This compares well with paying at least £400 for a hydrostat, although the latter will transmit more than 1hp. The 'gearbox' matches well with the approximately 1.5 asthmatic horses put out by the little Suffolk engine, and handles the 1.8hp input from the Loncin without any problems, the latter hardly noticing gradients that had the little Suffolk grunting a bit.

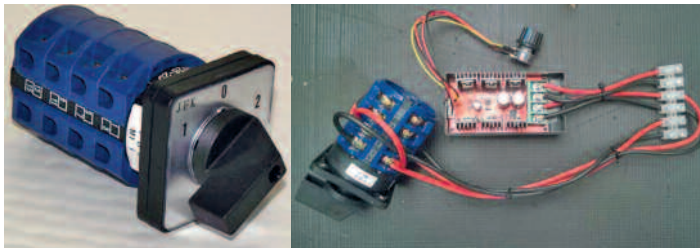


Left, the engine and dynamo/motor driven via a slipping belt clutch are mounted on a removable cradle which drops into a hole in the footplate. The pulley is specially made from three laser cut discs to suit the very short motor shaft.

Right, an identical motor drives the transmission. The speed control and reversing switch are mounted out of harm's way in the control box above the footplate. Brake shoes are PNP glass filled nylon, which keep the treads clean.



The change in colour of the wires coming from the generator is deliberate, it just happens that the direction of spin results in the black wire from the 'dynamo' being positive. This is best checked with a meter to avoid putting a reversed voltage into the controller.



£18 reversing switch, and £10 controller and reversing switch wired up and ready to install.

One advantage of using a petrol-electric as opposed to a mechanical drive system is the ease with which the loco can be broken down for transport. Undo one screw and the wing nuts holding the throttle lever and the bonnet is released, release two bolts, the clutch cable and the wiring connector and the complete engine and generator sub-assembly just lifts out. The seat is only held by two screws, then the frame, at 38kg, is fairly easy to lift into the back of a car. It is just possible for one person, easy for two. Maintenance is also far easier with the sub-assemblies on the bench, as the frame can be turned upside down to lubricate and adjust the chains.

Later additions were the option of a 1.8hp Loncin engine for those who want to build a brand new loco, and two other bonnet options. The bonnets are fully interchangeable and just slot into place.



Scamp Components



No Tea Cups on this Bonnet!



No. 4 (foreground) with No. 1

This bonnet was inspired by the Orenstein and Koppel loco, the sloping O&K design stops folk leaving cups of tea on the bonnet. This one is number 4, fitted with my own Scamp bonnet with optional brightwork. Number 1 lurks behind.

Scamp has certainly exceeded all my expectations, and has even been on its holidays to South Devon in the back of the car, visiting the South Devon railway, Beer Heights and Moors Valley.

A bogie loco frame is in the design stage, using a 5hp engine permanently driving two motors as dynamos, with the power fed to two controllers slaved to one potentiometer and then passing via the reversing switch (which has enough contacts to control two motors) to a 1hp motor on each bogie. The bogies are just shortened versions of the Scamp frame. Controls will be throttle, speed knob, direction switch and hand brake acting on the rear bogie. An electric brake might be tried, using a similar cheap controller dumping the power into a large resistor, a similar system used to be fitted to trams in the old days.

This loco is now available as a kit of laser cut steel parts ready for welding and comes with a full set of instructions and a shopping list. The intention is that eventually CMD Engineering will be able to supply fully built locos.

Contact; colin@colinedmondson.com



7¼ AGM at Broomy Hill Railway, Hereford



The 'Roundhouse'

It has been a long hard slog leading up to the AGM and we took it right up to the wire. Over the years, I have visited many AGM meetings and I have picked up on lots of small touches and ideas that have made it work for other clubs. My first problem was parking for over 100 cars. The easy part was asking the local Cathedral School if we could use their sports field. The stressful part would be if it rained we would have to park all the cars on the site.

In September 2014 the heavy work started by removing the redundant railway embankment; this would enable us to house the trade stands and marquees, and after the AGM leave us with extra parking. At the same time we had a team of men building four sets of 5" & 7¼" points and 51 metres of bypass line. The new boating pond was well on its way when we started building the bunker and the loading ramp. The ramp was requested by the two river class owners, and I think was well used over the weekend and now we have three methods of unloading from high to low level.

The last part was to build a half-covered roundhouse away from the main running track and this worked very well. Over night parking of engines was available for 25 engines in the main carriage shed, 8 in the tunnel and 8 in the station.

On the Wednesday of the AGM weekend, after a quick briefing to our team, the first caravans and locos started to arrive. On the Thursday the volume of traffic entering the site picked up, and this helped to break in our team slowly. On the same day there was free running on the track which continued until 11pm, and this left others who chose not to run to enjoy a good boozy time in the clubhouse. With the station fully illuminated and the

coloured signals around the track glinting off of the polished rails, one female loco driver described the site as looking magical.

On the Friday we hit the ground running and after another briefing, the unloading yard marshals emptied the trailers with super efficiency with only two vehicles waiting in the queue at any one time. As the drivers parked their trailers, our pilots moved their engines to the round house. As other engines had fired up, the pilots would back them up to the station ready to join the track for a free for all. At any one time, I could see 14 engines on the

track, moving in a well-choreographed motion of transit. By midday on Friday we saw the catering unit and bar manoeuvring into position. As the aroma wafted over the site, people drifted forward to form an orderly queue for food. By 6pm the clubhouse started to fill with members who had pre-booked their sit-down BBQ meal. The HME ladies managed to sit 80 members with comfort, and managed to organize a three-course meal with ease and in what I would describe as poetic flow. The un-booked members were provided for by the catering unit which continued to serve all night. The bar



Building the Bunker

enjoyed a good trade in liquid refreshment to the background sound of whistles, horns and steam as the night running continued.

Saturday brought more arrivals, caravans and locos. Unlike the previous two days' free for all, Saturday running was based on a roster between 9am and 5pm with a change every hour. Passenger carriages were offered on request. All was going well until 2.30pm when a Hunslet derailed at the river loop points. This resulted in the gauge being pushed out and one frog becoming bent. The track team sprung into action and within 10 minutes, the through line was repaired and fit for further running. Unfortunately, due to the damage, the river loop had to be isolated but the show went on.

Meanwhile, the ladies on the Black & White Villages tour were having a whale of a time, listening to Steve Turner's historical explanation of the area. Four ladies took up the offer of free transport into the city to visit the Mappa Mundi in Hereford Cathedral, together with a little shopping. In the late afternoon, most members moved to the Three Counties Hotel for the annual AGM. Those left on site continued to run on whilst the dinner guests glammed up for the evening dinner.

Sunday saw another day of rota running, and this was uneventful with the brass band playing in the background while another group of ladies were delivered back to the site laden down with shopping. Late-afternoon drivers loaded their trailers and parked in the centre field for collection the next morning.

On Monday our members started the big strip-down, lifting the turntable first, and then dealing with the station and the roundhouse marquee. On Tuesday a full complement of workers turned up to strip down the rest of the marquees to store them away while the weather held.

During the weekend, I received many compliments regarding the entertainment, catering and organisation of the event, (*and I fully endorse these comments – Editor*) and on a personal note, I have enjoyed every minute of this year.

Wally Sykes
Vice Chairman



The Turntable

Locomotives Running at the Hereford AGM 2015

Loco Owner	Loco Type	Name	
George Coles	Deutz Benzollok C XIV F	Fritz	4w PM
Ivan Hewlett	GE EMD F7 A+B	Sante Fe	
John Matthews	Romulus	William	0-6-0
J Dodd	Milner hunslet	Hunslet	0-4-0
Terry Robinson	LNER J70		4wPH
Andrew Meredith	GWR Prairie		2-6-2
Bruce Henley	Stafford	Kitty	0-4-0
Peter King	Hunslet	Elidir	0-4-0
Jonathan Green	Hunslet	Blanche	0-4-0
Dennis Billington	Feldbahn		0-6-0
David Jerome	Deltic	Meld	Co-Co
Peter Woodward	Bridget		0-4-2
Neil Edwards	Class 08 Diesel Shunter		0-6-0
Robert Pierce	Freelance Shunter	Oyolo	0-4-0
John Arnold	protype to replace class 17	David Bradbury	bo bo
Nick Moody	Milner Hunslet	Sundew	0-4-0
Dai Lewis	Hymek		Bo Bo
Mike Cave	River Class	Tarn Beck	2-4-2
Martin Sams	Romulus	Thor	2-6-0
Gillian Rainer	BR 2MT		2-6-0
Derek Brown	Manning Wardle	Anna	0-4-0ST
Tim Trotman	Hunslet	Pendle Witch	0-4-0 ST
Denis Mulford	Baldwin	Per Ardua	2-4-2
Micheal Pearson	Not stated	Reshucle	0-4-0
Bruce Harvey	LU Battery	Talpa	Bo-Bo
John Ferrier	Decauville	Asterix	0-4-0T
Graham White	GWR 14XX		0-4-2T
A Potter	feldbahn	Daisy	0-4-0
Gerry Clarke	River Class	Afon Glaslyn	2-4-2
Mick Savage	GEC U25B	Rio Grande	Bo-Bo
Nick Smith	Romulus	Smithy	0-4-0
David Hartland	Drewry 0-6-0		0-6-0
Neil Clayton	Romulus	Goliath	0-6-0
Nick Deytrikh	Hunslet	Jack	0-4-0
Alan Bibby	Romulus	Uncle Remus	0-4-0T
Colin Edmondson	Scamp	Scamp	4wPE
Terry Thake	Ng diesel	Rhondda	0-4-0
Richard Hutton	Railcycle		4-2
Jeff Brown	Black 5		4-6-0
Robert Major	Baldwin	Ann	2-4-2T
Robert Marshall	Quarry Hunslet	Pandora	0-4-0
George White	Black 5		4-6-0



Decauville 'Asterix' owned by John Ferrier, driven by Paul Frank. Photo – Nigel Freestone



4-6-0 Black 5 owned by Jeff Brown



2 River Class locos, Afon Glaslyn & Tarn Beck



GWR 44XX built & driven by Graham White
Photo – Nigel Freestone



Railcycle built & ridden by Richard White.
Photo – Nigel Freestone



GWR Railcar



George Cole



Hunslet 'Jack' driven by Nick Deytrikh
Photo – Nigel Freestone



Hunslet 'Pandora' built by Keith Parkinson, owned by Robert Marshall.
Photo – Nigel Freestone



Class 08 diesel shunter owned by Neil Edwards



American Petrol electric owned by Ivan Hewlett, driven by Roger Brown



's 'Deutz' driven by Doreen



Hymek owned by Dai Lewis

7¼" C Stock by Dan Floyd

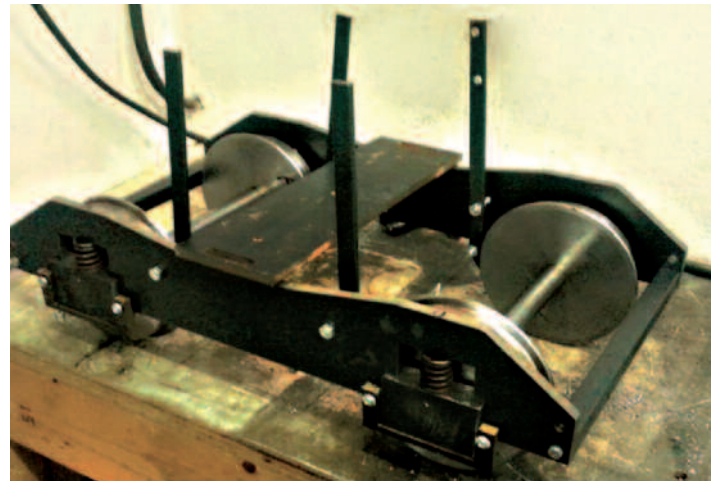
Here is a brief account of the construction of what I know is the only C Stock in passenger operation today! One year ago I decided I would like to build my own multiple unit. At the time I wanted something unique with which I could visit other clubs, and practically drive straight out of the van for ease of use. I have always been interested in the tube so drew up some schematics for working failsafe air brakes with through-train-piping; this started in July 2014. Once this was done and proven to work in theory, I set to work on deciding the stock to be built. I ruled out tube stock because someone has already done one, and also making something so low to the ground will inevitably cause backache after operating it for several hours. This left a few surface stock trains left. I was not old enough to remember CO/CP Stock, and other stocks (A & D stock) scaled down would be too large to fit in a small van. I don't have as much interest in the newer trains and that left C Stock! This was the very stock I worked on after I finished my apprenticeship on the Underground. (At this point I suppose I should also fill you in about my working life too).

I started working for London Underground at 17 as an apprentice. I spent the first year in a workshop learning electrical installation, electronics, bench work as well as turning and milling. After the first year I then spent the next two and a half years going round different depots working on a variety of stocks. In early 2013 I finished my apprenticeship and went to the Hammersmith Depot working on the Circle Line. I undertook lifting maintenance on C Stock, this included traction motor, wheelset, brake cylinder, shoe beam replacement and bogie strip down. 6 months after that I got a secondment onto the new S Stock trains undertaking maintenance at Neasden involving everything from exam work to air conditioning unit replacement. Gaining experience on the new trains, a promotion was offered and I am now an S Stock Trainer – training and assessing depot staff on the S Stock right from basic maintenance to fault finding. Two years ago I also became chairman of Harlington Locomotive Society, a position that is still with me today.

C Stock worked the Circle, Hammersmith and City and parts of the District Line and came in two batches C69 built in 1969 and C77 built in 1977 (to run on parts of the District line). Prior to refurbishment, the 69s were imperial and the 77s were metric (this required two toolboxes!) ; 77's could be identified by their grey roofs. After refurbishment there was barely any difference between the two.

Regarding the model itself, the three chassis were professionally welded. I originally bought some power bogies 'off the shelf' from Keith at Phoenix to go underneath the chassis but later changed my mind as the ride height was too high. This left me to build my own (and I am glad I did in the end, it taught me a lot about what works well and what not to do!). I managed to get all the drawings for the bogies off the system at work and spent several hours scaling them down at home. Once this was complete I set to work to draw them out on CAD. At the same time I also drew up the bodies so all the cutting could be done at the same time. With all the parts having been water jet cut, I got to work assembling the bogies just after Christmas.

The bogies are 8mm steel and the side profile is the same as the full size bogie. Using an interference fit to hold the side frames to the top plate via a cut-out I also added some screws to lock them in place. I machined up some axle boxes which hold double-row roller bearings, allowing angular movement of the axle. A small 1mm hole was also drilled through the axle box so that I could get a needle in there to grease them. The axle boxes slide up and down the bogie frame by a slot milled into the axle box. A square U bracket also holds the axle box from dropping out of the bottom when lifted and when running empty. A spring sits on the top of the axle box to a locating cut out on the bogie to act as suspension; I still don't think the springing is right but they can easily be changed without stripping the bogie. This means each wheel is independently sprung, thus allowing one wheel to be 5mm off the top of the rail height before it starts to tip the rest of the bogie and this will cater for all standards of track.



Axles and wheels were bought from the Engineers Emporium (24 wheels all in all). The brakes are pivoted by a 4:1 ratio on steel bars. A floating air cylinder between two adjacent wheels pulls the brake bars in at the top, which, when pivoted on a bolt on the bogie, then pulls the brake shoes out. A spring on the shaft of the cylinder pulls the brakes out so that when all the air is exhausted the shoes come off the wheel. I had to grind the bars back a little because when the bogie goes round corners it can rub on the bogie plates on the chassis. Once the bogies were perfected I took them apart and painted them one by one. Should the need arise, the whole bogie design is so simple to replace, a complete strip down would rarely be required.

Two bogies on the first car are motorised with two 250W motors per bogie. They are mounted back to back and a bar bolted to the top of the bogie frame stops the motors from rotating around the axle.

When the bodies (made from 1mm steel) arrived they needed deburring after being water cut. The profile of the train means I had to get the sides of the panels brake pressed to get a 173 degree bend halfway up the side just below the window, this was done by a local company who manufacture aircraft trollies! Unfortunately, due to the location of the windows the bends did not come out as hoped so I had to manually bend the area around the windows with a hammer and plate, a procedure that improved

once I had got my eye in. Interior ribs required drilling and were secured to the body by 25mm angle iron and these were countersunk so that they could be painted over. Repeating the process three times took quite some time!

The doors on the real train are known as pocket doors and are set inside the car body. I therefore had some side panels cut to be glued to the side which would create a 3D effect on the body panels.

By the end of February I had three complete bodies:



There followed a 4 month delay due to painting issues, and then, noticing excessive flex in the panels which were originally screwed, they were removed, welded and then repainted. At this stage all the bodies and panels were primed and painted white but the blue and red colours were the wrong shade and painted in the wrong places, so I took them to a place that restores heritage cars in Chiswick and they managed to get the RAL colours I wanted and the work was completed in 10 days. During this time I completed the traction and braking system wiring. 7 wires run down the train to provide for emergency brake, smooth brake, head, tail, interior and cab lights. The train is powered by two relays, one to turn the system on when a key is inserted and another, which when energised, makes contacts close so that head lights are on and the train goes forward. When the forward relay is de-energised the train will go in reverse and the directional lights automatically reflect this.

I then fitted the pneumatics which had been substantially modified since the drawings, to only have two brake steps rather than seven.

I also used some small fire extinguishers as reservoir tanks on the second and third cars. Two tanks on each car provide air for the mainline and for the brake system with a check valve in between, so should the train split while running the train will lose mainline air but the brake reservoirs will retain their pressure and with the loss of the electrical supply to the solenoids they will default to shut the brake exhaust valve (normally closed) and open the brake application valve (normally open) - this will cause the brakes to apply.

With the bodies now painted I glued the side panels on with polyurethane sealant. My dad also took dimensions to get the roofs built and he made them out of bendy ply with ribbed sections so that the weight was evenly distributed along the body.

I drew up the windows in CAD and these were completed by a company in the Midlands; they have been cut so that I can glue them in from behind thereby supporting them around the frame, as I know how much abuse the public can give carriages! I drew

up the car numbers and roundels and these are made of vinyl which should withstand the weather.

When I was an apprentice I took photos of the inside of the cab which I scaled down and printed to make the inside of the cab look more detailed. All the other detailing was done by drawing in CAD and getting them 3D printed in white nylon. These parts included a miniature whistle, grab handles, equipment covers, axle box covers and even miniature collector shoes and contactor covers!

The numbering of the cars is as follows. The driver's car number is 5721, which is a C77 car, currently preserved at the London Transport museum. The middle car is 5555 (C69 Stock); this car was always in the middle for maintenance reasons and in the model, it will always be in the middle too. The rear car, 5606, was bombed in the 7/7 bombings and rebuilt with this new number. So all three have some history. The picture below shows my model next to the real thing.



In retrospect, the whole project seems so easy, but in reality it was several hundred hours on the mill, lathe and computer and of course the bench work. The train was not built to a budget but was constructed so that when something goes wrong it can easily be repaired. The void inside the train houses tools and spares so should the need arise, I can pull into a siding and do repairs.

The initial comments I have received have been very pleasing regarding both the quality and uniqueness of the end result, and I am looking forward to visit other clubs around the country and Europe.

Access to a workshop is now quite limited due to current house alterations but hopefully soon I can then start work on my next project - Collett goods 0-6-0!

Eaton Drives By Roy O'Neill

Reading the latest article in the 7¼" News on the above subject I thought perhaps a little input may be of some interest to prospective builders of Hydraulic drive locomotives using Eaton Drives so herewith I offer the following.

I have noticed on locomotives using this system they usually use a belt drive rather than a direct drive to couple the engine to the hydraulic unit. Here is offered a possible 'improvement' that could be made to the installation for increased longevity of the unit.

The unit and the input drive to it from the prime mover, should ideally be mounted upon it's own welded sub-frame of substantial proportions. This should be such that it will not distort when the assembly is installed on a possibly uneven surface in the locomotive. As there is only one bearing on the input drive to the unit, radial loading imposed by a tensioned belt drive on the input shaft should be avoided. An external bearing assembly incorporating two bearings and provided with lubrication should therefore be included in the drive. A flexible coupling could also be included in the assembly between the external bearing output shaft and the Eaton unit input shaft. The loading of the tensioned belt drive from the prime mover is thus taken by the external bearing assembly and not by the Eaton unit input shaft bearing. The belt pulley from the engine drive and the coupling half to the Eaton Unit should both be keyed to the input and output ends of the external bearing assembly shaft. The other half of the coupling should also be keyed to the Eaton drive input shaft.

The Eaton Drive has a spigot machined on the castings face from where the output shaft protrudes. This face of the unit should sit on a machined mounting plate with the spigot a good fit in a machined hole in the plate. The four securing bolts to secure the Eaton drive to its mounting plate are for just that and not for alignment purposes. I have seen photographs of mounting plates for sale that appear only to have a laser cut bore for the unit and not a smooth machined register. It is not easy to see from the photographs the finish of this bore, whether or not it has been bored after laser cutting. The corrugated surface of a laser cut hole in the mounting plate is unsuitable for this duty; location only being point contact upon the crests of the corrugations in the plate left by the laser. If only the bolt holes are used for location, the radial loading upon the output shaft of the unit will attempt to pull it to one side due to the necessary clearance in the bolting holes. Thus,

if it does move it will be out of alignment with the input drive arrangements as described.

The extra input shaft bearing is mounted upon a pedestal in the welded sub-frame mounting assembly. It is then carefully machined to bring it into vertical alignment with the Eaton unit input shaft already mounted by the spigot into the mounting plate. Try to avoid fitting shims to this, as these are a potential source of problems. Alignment in the other directions is achieved by whatever means are available, ideally clocked by the use of a Dial Test Indicator (D.T.I.) temporarily attached either magnetically or by a special little clamp to one of the shafts being aligned. When correctly aligned, proper fitted dowels are installed in the foot of the new outboard bearing housing feet. Again, do not use bolts to maintain the alignment; they are only for holding the bearing down.



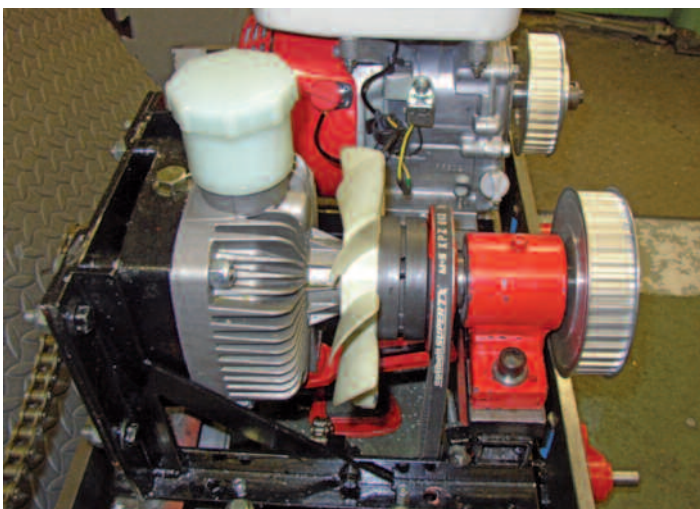
The Eaton unit is located upon its spigot in a machined bore and as the outboard bearing is dowelled, neither can move in relation to each other. The unit is now in complete alignment and the dowels will ensure that future dismantling and re-assembly will provide repeatable alignment. If a flexible coupling is to be used, then align the assembly before fitting the coupling. There are various types of these available but in the smaller sizes the rubber 'spider' type is adequate. Choose the correct coupling of adequate dimensions for the duty it is to perform. They have a misalignment tolerance quoted for the coupling but the nearer zero the misalignment, the better.

I hope the foregoing is of some assistance to builders. I built my locomotive to this specification and it ran without problem. I have only seen one other example of a similar installation. I have spent many hours, often frustrating hours, aligning machinery of all descriptions and accurate work pays off in the long run. Hydraulic units are not cheap to replace prematurely to due excessive wear caused from misalignment.

The power unit assembly can be seen in the two photos. The outboard bearing has not yet been dowelled to the pedestal and the "Vee" belt hanging down is for an alternator drive.

The red bearing assembly has two ball races inside with a spacer between and oil seals are installed to retain the oil filled from the Allen Screw filler on the top.

The grey flanges between the Vee belt and the fan are a flexible coupling. There is a rubber 'spider' between them inside.



Obituary - David R Priest 1970-2015



Photo – Brian Baker

It is with much sadness that I must record the passing of my dear friend, David Priest at the very early age of 45.

I first met David in 2002 at the Great Cockrow Railway where we both joined as members during that year. I had at that time just returned from two years working in Singapore and David had not been long back from living in Australia. David and I quickly became friends, probably due to the closeness of our ages. He soon had me driving Lord Rowallan, his father's Britannia, whilst he was driving 3154, my large Prairie Tank.

We both enjoyed a good laugh amongst our friends with David not minding if it was either he or I that was the victim of a prank. One night at a GCR gala weekend, he took the Britannia out for "one last lap" at about 1am (we had enjoyed a couple of "shandies" by then) whilst he thought that I was still finishing my drink by the campfire. The signals had previously been set on automatic but right after his departure, I crept in to the signal box, took manual control and sent him around on several extra laps. This was much to David's frustration and confusion until he finally caught me in the box some forty-five minutes later! He saw the funny side and we often recalled that evening together for many years afterwards. We had many happy weekends driving at the GCR and also on other lines, always being a relief driver for each other.

What I quickly learned about David was that he was always eager to help others if it would make life a little easier for them. He had a strong sense of justice. He was always quick to jump to the aid of an owner with a stricken engine and to help have a failure quickly repaired so that the owner could be back on the line again enjoying the drive. During a smokebox repair on 3154 when the regulator seal to the front tube plate had leaked, he quickly made a new main steam pipe after the original had broken when the superheaters had been removed, showing his strong engineering skills. Many may not be aware that in mid-2014, David selflessly repaired a Hampshire village monument that had been vandalised, using his outstanding metalworking ability to repair a broken metal sword from the monument to a better than the original condition. He often gave his time charitably, both inside and outside the hobby.

David was a perfectionist. In 2013, he decided to embark on a new career as a professional model engineer. To help David start, I suggested that he might like to rebuild my Prairie as the time commitments of my young family stood in my way. David took on the challenge, which was fortunate for me as the rebuild required a much greater level of machining work than we envisaged and any that I could have tackled. His precision on tolerances, and detail of finish, has produced a fabulous engine, as many will have seen. To that I will always be grateful. I am very pleased that he was able to spend a week running the loco at Hemsby this past May. We ran at the Echills Wood standard gauge weekend in June which was somewhere that he had been keen to run 3154 since recommissioning it in spring 2014. We pulled his rake of five excellently engineered Railfreight hopper waggons, a sight that gave him a rightful sense of pride.

We shared and enjoyed many railway weekends over the thirteen years that we knew each other and I will always miss my "relief driver". His larger-than-life character will be missed by many in the hobby. "Good on you mate" for all you have given in your too-short time with us.

Robert Tremaine.

Hints, Tips and Snippets

News items and tips from members on “How to do”

Some thoughts on making a slitting saw last longer Andy Cooke

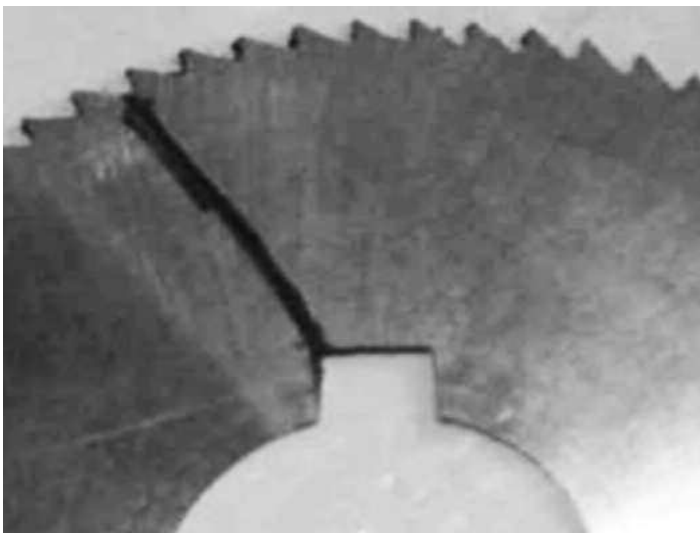
With the risk of “teaching Grandma to suck eggs” I pass on the following:

Much to my frustration I have had two slitting saw blades break in an identical manner after very little use. I run the blade on a commercially made arbor on a substantial vertical milling machine. The feed on the table is about right as are the revolutions of the spindle. Both blades failed whilst slitting steel with flood coolant being applied.

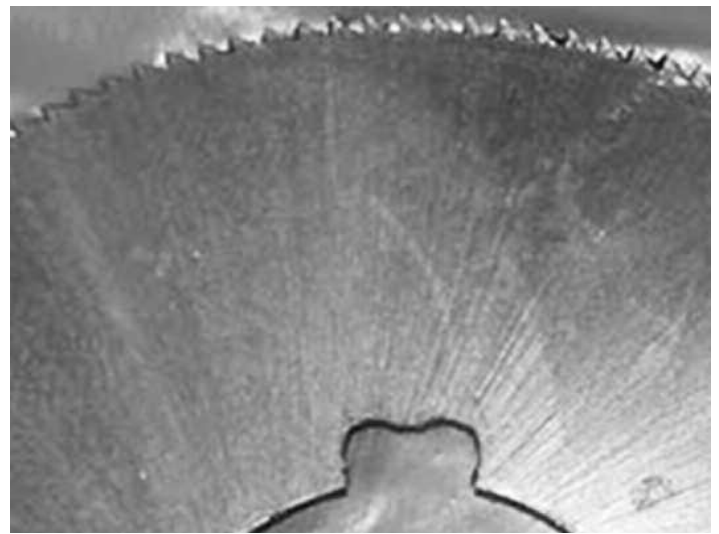
I wondered, is it the blade, is it me, or what is the problem?

Using an arbor on a vertical machine I have no need for the keyway slot in the blade, the square corners of which are an obvious stress point and this was actually the point of failure (see photo 1). I decided to take a Dremmel (a die grinder or similar would do as well) with a small cylindrical grinding tool (about 3mm diameter) to round off the corners of the key slot on the new blade (see photo 2) thus relieving the stress point.

I have yet to ascertain the effectiveness of this but unless you use the keyway slot, what disadvantage could there be?

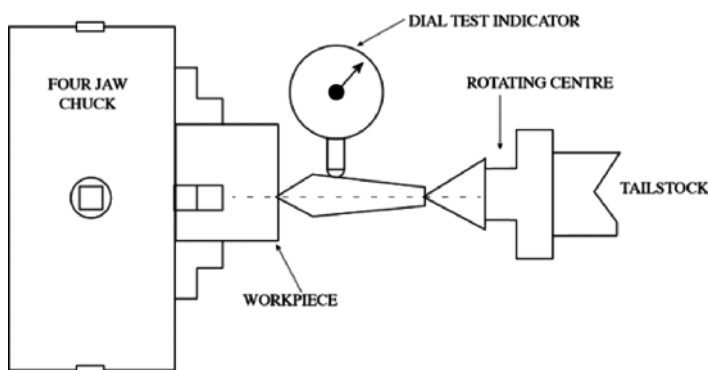


Broken blade



Stress-relieved keyway

Two Tips from Alan Priest



How to set up an off-centre object in a four-jaw chuck

If possible, always use a Vernier height gauge for marking out as the more accurate your centre punch mark is, the better. Mark out and centre punch where the lines cross, using a magnifying glass if necessary. If the dot turns out to be slightly out, adjust by pointing the punch (in the dimple) towards the correct place.

Set up in your four-jaw as closely as possible, centring the centre dot by eye. Locate a dead centre in the centre punch dimple and locate the other end on the tip of a rotating centre in the tailstock (see drawing). Using the chuck in the normal way, move towards true centre using a dial test indicator until a reading of zero is obtained when rotating the chuck by hand. This set up is only as accurate as your marking out and punching. Once happy with position, centre drill and check position with a Vernier calliper repeating the above process if necessary.

How to stop a drill from shuddering

When using large drills or even countersinking tools which tend to shudder, thus making a "rose pattern" rather than a nice smooth surface, try folding old emery cloth twice and put it under the drill point. With the drill pressing down on the emery cloth, start the drill and with a little cutting oil, away you go. If you do not have emery cloth then a good natural fibre like cotton will do, folded at least twice, and if you still get chattering then fold it once more. Man-made fibres aren't quite as good because they tend to melt when drilling, thus not achieving what you are aiming for.

The Goods Yard

– with Frank Sidebottom and Nigel Musson



Newent Bee Keepers display with Stewart Read

Members will now know of the recent appointment of our new 'News' Editor, Nick Deytrikh. It will be a great pleasure to work with Nick on the 'editorial footplate', and we wish him well in his 'Ed' role. Nick took over the position from predecessor Tony Gosling at the recent AGM at Hereford - we now have a look at some of the displays invited to the Hereford SME track in support of the gathering.....

Firstly, an unexpected and unusual display for our hobby, that of **Newent Bee Keepers**, manned by Stewart Read, himself a past Chairman of Hereford SME. Stewart had built two 7¼" gauge locos, a Romulus (1995) and a Thomas II (2003), more recently adding bee keeping to his interests. On sale was the Newent Bee Keepers' own local product, a very well-presented honey which was to be a tasty souvenir of an enjoyable AGM gathering!

Further information can be found by visiting www.bbka.org.uk/local/newent/index.shtml or by contacting Stewart via Hereford SME.

A small marquee had been provided for other exhibitors, where an enthusiastic Tom Hubble of the new firm **Little Western** (reported in a previous Goods Yard) showed an example of a passenger-carrying standard gauge outline braked bogie coach



Bogie Coach Components



John Keatley Metals Ltd display

Birmingham based **John Keatley Metals Ltd** (founded 1896!) brought a variety of non-ferrous metals, with plenty of brass sheet on display, although even this amount would form only a small part of the company's stock and services. A link to the company's website (www.johnkeatleymetals.com) is to be found in the Trade section of our Society website.



Tom Hubble of Little Western



Tin Turtle in camouflage!



Keith and Anne McDonald of Phoenix Locomotives

Phoenix Locomotives Ltd of Southport (see ad. this issue) showed the recently introduced 'Tin Turtle' WW1 loco, together with matching driving truck in an authentic Olive Drab livery. Although quite a bulky loco, its camouflage effect was such that one visitor had not noticed it, having enquired whether an example had been brought to the event! A further surprise was a brand new loco on show – 'Druid' – a new narrow gauge model just completed the day before the AGM weekend! Druid is modelled on a Motor Rail loco of 1941 which originally worked for the MoD, then, after working in various industrial locations was, from 1999, preserved and restored at the (now closed) Abbey Light Railway in Leeds. Several features give the loco a unique character, most noticeable being its massive centre buffers (see pic).



New Loco 'Druid' (destination Stonehenge?)



Ray Edisbury with his CNC milled Society Logo

The Goods Yard recently reported on Ray Edisbury's venture **Leading Edge Engineering** (CNC milling machining specialists), for which a change of address is now applicable. The new address to note is Unit 4A4, Gate Farm Enterprise Park, Wattenhall Road, Poole, Cheshire CW5 6AL, Tel: 07548 174481, email: leeng36@hotmail.com. Ray had produced a fine plaque of the Society logo specially for the AGM gathering to demonstrate this particular aspect of the firm's capabilities (see pic).

Paul Norman of **PNP Railways** was in attendance on the Saturday only, with several items on show from the large range of products now available for the 7¼" gauge market. Also in attendance was Chris Rayward, well-known for his 7¼" gauge Beattie Well Tank loco, serialised in Engineering In Miniature magazine. Chris is now enjoying retirement from the editorial post he held with EIM, but is nonetheless active in model engineering, ably demonstrated by the 5" gauge model he had brought for display – jovially commenting "It needs to be a bit more portable these days"!

Although without a fixed display, **Cromar White** nevertheless augmented the throng of products at the AGM site by appearing with a large trailer loaded with a loco and three stout passenger trolleys, all of which were en route to their respective new owners.

New to the 7¼" gauge market is a narrow gauge Diesel outline loco from **Dragon G-Scale** c/o Jeremy Davies 22 Maes y Ffynnon Llannon Llanelli Carmarthenshire SA14 6BQ Tel: 07510 353301. Of generic 0-4-0 design, 'Ellie' is of all steel construction (6mm frames, 12mm buffer beams, 2mm superstructure) developed from a g-scale design. With a 1HP 24v motor driving by chain to the rear axle via a lay shaft, then by coupling rods to the front axle, the loco includes controller, two liquid acid leisure batteries and spray paint finish in the launch price of £1800. Approximate measurements in mm are: L 820; W 440; H 615; wheelbase 335; wheels 140 over tread and 25 thick. Order to delivery time is understood to be approximately six weeks.



Ellie loco by Dragon G-Scale

Maxitrak reports that the R1 0-6-0T loco is now fully available in 7¼" gauge, also that the Hudson Diesel loco, with its sit-sideways driving position, has been redesigned with a much heavier chassis and a revised superstructure. A completely new addition to Maxitrak's 7¼" gauge range is the Drewry 04 Shunter, which would have been exhibited at the recent Midlands Model Engineering exhibition. All the above items and more can be seen on the company's website, which itself has a link from our Society website Trade Section.



New Drewry 04 Shunter



Hudson Diesel Loco



Maxitrak's R1 Tank Loco

As ever, The Goods Yard would like to hear from anyone who may have news of a commercially available item which could be of interest to the membership, so do please send any information, however modest, to our Trade Liaison Officer, Nigel Musson, whose contact details appear inside front cover – we will follow it up for potential future inclusion.

Meanwhile, we wish everyone Happy Festive Sevenandaquartering!

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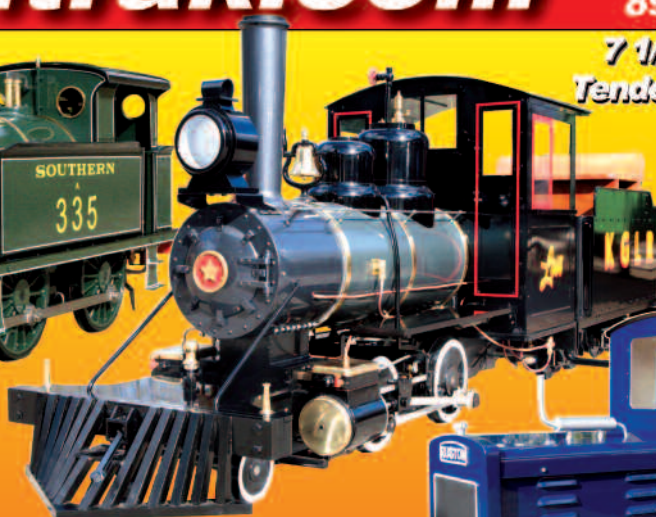
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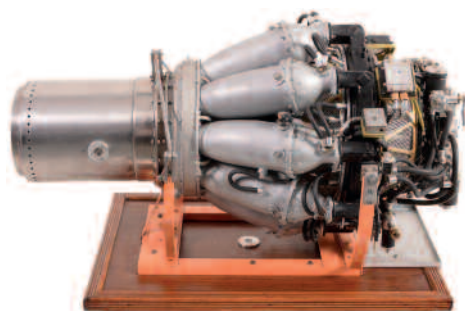
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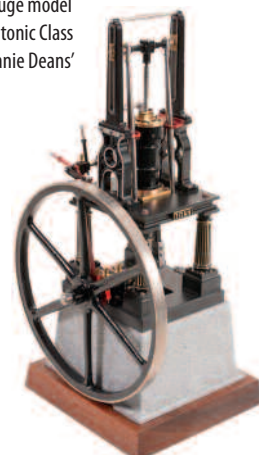
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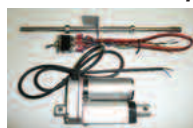
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www.littlethorpeminiaturerailway.co.uk (go to point motors)



LMR1



LMR2



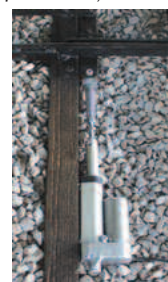
LMR3



LMR4



LMR5



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MEMBERS' NOTICES

Subscription Renewals – due 1st January 2016

Members are respectfully reminded that subscriptions for 2016 are becoming due and a Subscription Renewal Form is enclosed with this issue of the 'News'. Renewal can be made by post (please enclose cheque/postal order with the completed form), or with card payment via the Society website. Prompt renewal is very much appreciated as it eases workload, keeps administrative costs down and ensures continuity of receiving the next 'News'. Renewals can also be processed at the Alexandra Palace Model Engineering Exhibition ('Ally Pally') in January.

A 7¼" Gauge Society subscription would make a very nice seasonal gift!

All Change! Evergreen location beckons.....

Frank Cooper, Society Chairman (also current Membership Secretary) has relocated to 47 Holmes Road, Stickney, Boston PE22 8AZ Tel: 01205 481197. These details appear on the inside front cover of the 'News' but are repeated here as a 'useful reminder'. Members may have noticed that Frank's new address is not far from the popular Evergreens Miniature Railway and there are rumours that his move here is no coincidence!

Narrow Gauge North 2016 – Exhibits Wanted!

This long-running annual exhibition is now back – on Saturday 5th March 2016, after missing a year. There is a new venue, Pudsey Civic Hall, on the Leeds Ring Road. It has always been an enjoyable charity event, raising over £4000 each year for the Sue Ryder Wheatfields Hospice. **Please offer an exhibit for our Society display** – contact Frank Sidebottom for details. Tel. 01772 811266 or email fess7qtr@btinternet.com

All Change! Harrogate to Doncaster – Help Wanted

The 'Harrogate' exhibition, known as the National Model Engineering and Modelling Exhibition, has a new venue in 2016 for its 23rd annual event. Due to extensive rebuilding at the Harrogate Showground, the exhibition moves to Doncaster Racecourse for the 20th – 22nd May event. Our Society customarily has a display at this prestigious event and a Co-ordinator and exhibitors are now sought. The co-ordinator would collate an exhibits list for the Society display, liaising with exhibitors, helpers and the exhibition management. If this could be you please contact Frank Cooper (details above) for more information, help, advice and assistance. **Please offer an exhibit for our Society display.**

Hereford AGM DVD

Now available at just £8.00 inc p+p! Please send cheques, payable to **7¼" Gauge Society Ltd** to Frank Cooper (address details above).

Acknowledgements and Thanks

The Committee wishes to extend grateful thanks to **Walker Midgley (Insurance Brokers)** who have again generously sponsored our AGM to the tune of £1,000.

Also, many thanks to our printers, **Imprint**, who have supplied our Committee Officers with complimentary 7¼" Gauge Society business cards.

Events

DECEMBER

- 5th – 6th** Bedford MES Santa Trains. Visit www.bedfordmes.co.uk for more information.
- 5th – 6th** Thompson Park Miniature Railway, Burnley. Santa Trains 12noon – 2pm. Tickets £2 Pre-booking essential. Details from the Secretary 07957 714148.
- 6th** Pinewood Miniature Railway Santa Specials. Details from www.pinewoodrailway.co.uk
- 12th -13th** Eastleigh Lakeside Railway Santa Specials. Pre-booking essential. Contact/details from www.steamtrain.co.uk
- 13th** Pinewood Miniature Railway Santa Specials. Contact/details as above.
- 19th – 20th** Eastleigh Lakeside Railway Santa Specials. Contact/information as for above.
- 20th** Rugby MES Rainsbrook Valley Railway Christmas-themed event. Details from www.rugbymes.co.uk or email publicity@rugbymes.co.uk
- 20th** Barton House Railway, Wroxham. Full details and booking form from www.bartonhouserailway.org.uk
- 26th** Grimsby & Cleethorpes MES Boxing Day Charity Run 11 – 3pm at Waltham Windmill site, Briggsley Road, Waltham, Grimsby, Lincolnshire DN37 0JZ.. Contact: Secretary Dave Smith Tel: 01507 605901 or 07970 491567 email: dksp2@talktalk.net.

JANUARY

- 1st** Northampton SME New Year Day Club & Visiting Locos Run. 10 - 4 with cooked meal on sale at noon, tea and coffee all day. Visitors welcome - appropriate documentation, please. More at www.nsme.co.uk or secretary@nsme.co.uk

- 1st** Grimsby & Cleethorpes MES 11:00 – 15:00 For St Andrew's Hospice. All visitors welcome. Contact/details as above.
- 3rd** SMET New Year Steam-Up at Wester Pickston, College Road, Glenalmond, PH1 3RX. Details from Trevor Goody 01738 812479 or visit www.smet.org.uk
- 15th - 17th** London Model Engineering Exhibition ('Ally Pally'), Alexandra Palace, London N22 7AY 10am – 5pm. Details from www.londonmodelengineering.co.uk

FEBRUARY

- 27th – 28th** Manchester Model Engineering Exhibition. Details from www.mmex.co.uk

MARCH

- 5th** Narrow Gauge North 2016. Pudsey Civic Hall, Dawsons Corner, Pudsey LS28 5TA. 10am – 4pm. A popular venue for our members, our Society will again have a display (models required, please!) alongside numerous NG layouts and other exhibits. All for a very worthy cause. Contact/details from Frank Sidebottom (see Notice above).
- 27th** SMET Wester Pickston Public Running Day. Come and ride the trains 12 noon - 4pm, Wester Pickston, College Road, Glenalmond, PH1 3RX. Details from www.smet.org.uk
- 28th** Northampton SME Easter Monday Club & Visiting Loco Day. 10 am - 4 pm, Hot food at noon. Check with secretary@nsme.co.uk for details.
- 28th** Barton House Railway. 2.30 – 5.30pm. Contact/details as above.

For more events in 2016 see the 7¼" Gauge Society website.

Merry Christmas and a
Happy New Year



4" Little Samson Traction Engine, A J Bell steel boiler, full documentation. 22" W, 58" L and 36" H, weight approx 300kgs,. Safety valves set at 120psi, boiler is suitable for a WP of 150psi. Steam siren, firing tools, chimney extension, riding truck, 32 sheets drawings in A2. Ready to go. Price £10,500 Located Dorset Tel: 01305 835595 leslie.senior@btinternet.com

A rake of four coaches, each 8' long. Three bogies with vacuum brakes and recent new bearings, the others are servicable. All four coaches £1200. Located Lancaster. Tel: 01768 863708 email: msamsuk@tiscali.co.uk

Wanted: 4 axlebox covers for the 4 wheel wagons produced by Phoenix locomotives. Also a contact for making Narrow Gauge headboards for Christmas running, to suit Romulus or Thomas 2 size locos. Tel: 07804 126706 email: shawrichard@pobroadband.co.uk

Romulus boiler, retubed and refurbished by Bell Boilers, complete with banding, regulator, ash box, cast iron and s/s grates, two steam dome covers, firebox door, dome and firebox claddings. W/P 90psi, next hyd. Test due March 2016. Price £1400. Located Peterborough Tel: 01733 561016 email: brianparker3@hotmail.co.uk

Wanted: Keith Hartley type driving truck. Email Malc142@yahoo.com

Britannia 'Iron Duke' loco, extensively rebuilt from a Winson Kit, including a new Southern Boiler Works boiler (hydraulic cert to 2019, current steam cert). Trailer available. Demonstration in Norfolk to serious potential purchasers, by appointment. Pics by email. Price £38000 Tel: 01493 754112 email: leighsteamer@btinternet.com

5" gauge 0-4-0 Sweet Pea, hydraulic cert to 2018. £2,300 Located Burnley. Tel: 07970 758154 email: sparkyselectrical105@btinternet.com

7¼" gauge 0-4-2 'lengthened' Tinkerbell built CSW Engineering 1997. Little used. Recent commercial boiler (large marine) test. W/P 100psi, two injectors, vacuum fitted. Located Stoke-on-Trent. £13,000 o.v.n.o.. Tel: 01782 937351 email: Ajeffo@hotmail.co.uk

Sensible offers invited for some drawings and patterns for a 7¼" g New York Central 4-6-4 loco. Details on application. No tender side drawings but loco can be seen for measurements. Located Dewsbury. Tel: 07900 641212

7¼" gauge 0-4-2T Tinkerbell with free-steaming loco type boiler (certs: hyd. May 2017, steam May 2016), W/P 100psi. Built 1995, with two injectors and hand pump. View/demo Weds or Sats at Bath & West Railway, Somerset. Price £13,500. Tel: 07973 703191 email: ed.short@orange.net

For sale: 200m plus of 1" aluminium rail, mostly 19ft lengths, all straight. Not new but little wear to rail head. Located Andover £p.o.a. Sensible offers invited (email with contact info in the first instance), email: admin.admes@googlemail.com

5" gauge Pansy. Good steamer/hauler. Separate coal (with water) truck, firing irons, electric blower etc.. Certs: hydraulic to May 2019. Steam to July 2016. Located Kidlington. £4,300 o.v.n.o. Tel: 07585 806594 email: sam-weller@live.co.uk

Four sprung buffers 3" dia, 5" long, 3" square base plates. Located Kidderminster. £100. Tel: 07840714802 email: nobbym20@gmail.com

The Whippet 10cc 4-stroke petrol engine. Full set castings, timing gears, piston rings, spark plug etc with Minimag electronic ignition. Valves and guides made. Located Leeds. £160. Tel: 07746 183473 email: henshaweng@hotmail.co.uk

7¼" g Tram, 3-seats, approx. 8' L, 55" H. Heavy duty 2-motor bogies. Located Lancashire. £2250 o.n.o. Further details/pics - call 07906 058681 or email fess7qtr@btinternet.com

For sale - Maxitrak Pearl 0-4-2 kit just completed. Hackworth valve gear, mechanical lubricator, crosshead pump, hand pump and injector. L33" W15" H23.5". Coupled wheel base 8" centres (19" with pony truck). 3-slot coupling blocks front and rear. Copper boiler 90psi, Hydraulic test 2014, Steam tested March 2015. Nameplates available. £5,500. Located Tunbridge Wells. Tel 01892 823251 email s.mac3728@gmail.com

7¼" g turntable 93" long, will take 3/4 ton loco. £100. Pair refurbished 7¼" gauge u/b bogies, £300. Located Milton Keynes. Tel 01908 321020 or email mickpearson10001@hotmail.co.uk

Note: All reasonable care is taken in the preparation of these 'Notices' but the Society cannot be held responsible for loss or inconvenience arising from errors or omissions. Advertisements and announcements are presented in good faith – reliance on any content therein is the reader's responsibility. Events and Sales & Wants listings are mainly edited extracts from the Society website. If wishing to attend an event, it is advisable to contact the organiser in advance. Sales & Wants respondents in particular should satisfy themselves as to the suitability of any items pending transaction; the Society simply provides an advertising medium and cannot become involved in any matter arising between transacting parties.

Members having difficulty placing announcements on the Society website should contact Society Secretary John Nicholson, for assistance. Written Notices for the next issue of the magazine must be submitted to the Secretary by 2nd February 2016.



A PUBLICATION OF THE 7¹/₄" GAUGE SOCIETY LTD

Grange Class No.6868 "Pennos Grange" and Modified Hall Class No.6965 "Thriestaine Hall" pulling 15 coaches at Echills Wood Railway in July. Photograph - Copyright Jeff Cogan and Ken Bull.