



# LIONSHEART



Number 78

Web Site: <http://www.lionlocomotive.org.uk/>

December 2013



Photo 1 That's the way to do it! Norman Barber's set-up for machining the various cut-outs in Lion's brass 'haystack'

Photo N Barber

Coop. Addresses

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**Dates for your Diary**

**LONDON MODEL ENGINEERING EXHIBITION**

Friday 17th January to Sunday 19th January 2014, Great Hall, Alexandra Palace, Alexandra Palace Way, London, N22 7AY

<http://www.londonmodelengineering.co.uk/>



Photo 2. LBSC's in trouble again! Photo: R Hayter  
Bob Hayter gets to grips with his water pumps.

**On behalf of the Executive Committee  
may I wish all readers a  
Merry Christmas and a Happy New Year**



## Welcome to New Members

In this issue we extend a warm welcome to two new members:

Mr Dave Forrest, from Blackburn, who joined in September.

Mr Ralph Tilley, from Dewsbury, who joined in May.

Welcome to OLCO and we hope that your membership will bring you benefits and items of technical interest. We look forward to meeting you (and current members) at forthcoming events – see Dates for your Diary on page 1. Mr Forrest has already been chasing me for more realistic details of Lion and we look forward to hearing from you both within these pages before too long.

Sadly, I also have to report the passing of Mr John Moore, of Birmingham, in mid November.



### Cover Story – Models under Construction (1)

Way back in December 2011 I received an email from Norman Barber. It ran as follows: “...As the editor of my own Club's magazine I know that it is not easy to persuade people to write so thought the attached letter may be of interest. If you don't like it I shall not be offended if you bin it!! Most of my drawings are prepared in A2 format and I only have an A4 scanner so the assembly drawing attached is a bit scruffy. I hope you can do something with it. ...”

Well, I didn't “do something with it”. Not because I binned it. I think back then things in the editorial office were a bit complex and some letters got put back to a later issue. But, as the old saying goes: ‘Tomorrow never comes’ and I fear that Norman's letter got completely forgotten, for which I offer my sincere apologies. We've been in touch since and I'm pleased to say that there has been much progress. An email from Norman dated 12th August states:

“Further to our recent exchange of e-mails I attach hereto some notes about progress on my LION. My last letter to you (ie, that of December 2011- Ed) was with particular reference to valve gear modifications which I have made and was stimulated by the letter from Barrie Larke in the December 2000 edition of LIONSHEART. ... as far as I can recall you included some photographs and the valve events diagram but not the drawing of the modification. I was a little disappointed since I felt that the drawing was the most important feature of the contribution! For your interest I am attaching a number of pictures with this contribution. I leave it to you to select any which you may feel suitable for publication.”

On the same day Norman wrote: “In December 2011 I wrote to you concerning modifications to the original LBSC design valve gear which I have incorporated in my own version of “LION”. Since that time good but slow progress has been made and with the exception of fitting the wooden lagging the locomotive is now complete. The chassis for the tender is complete with building of the body (tank) remaining before painting. It is my practice to complete construction of my locomotives before any painting is attempted. The engine is then run on compressed air at full working pressure before completely dismantled and painted. I do not attempt to steam my models before painting because I feel that adequate cleaning after steaming is very difficult.

Most of the detail follows the LBSC design with a few significant exceptions. One of these is, of course, the valve gear which does away with the horrendous slotted link and die block drive to the valve spindle. The outer end of the valve spindle is now supported in a bush in the motion plate and the drive is via links which apply negligible side loads to the spindle. The mechanical lubricator is located out of site under the foot plate, the drive being taken from an extension to the end of the left hand valve spindle. Oil is fed into the main steam pipe just before entry to the steam chest.

The space available for boiler feed clacks of prototypical appearance is very limited. The actual non return valves for my own boiler are situated between the frames below the boiler. The features on the boiler barrel itself serve only as connections for the pipe work. Three clacks are provided, one each for the cross head pump, injector and tender hand pump. The injector is sited under the foot plate and shares the left hand connection to the boiler with the hand pump.

The smoke box incorporates a flat “floor” enabling the steam and exhaust connections to pass through close fitting holes in the floor. No messy sealant is required and the smoke box/boiler assembly can be lifted off easily. I have adopted this arrangement on two previous locomotives and found it most satisfactory.

I am well aware that my interpretation of LION is by no means a true scale reproduction of the Old Lady but hope it will prove a reasonable representation and look forward to being able to attend a Lionsmeet in steam in the not too distant future.”

*(And I hope I can now put the record straight by including Norman's drawing and some of his photos – Ed)*

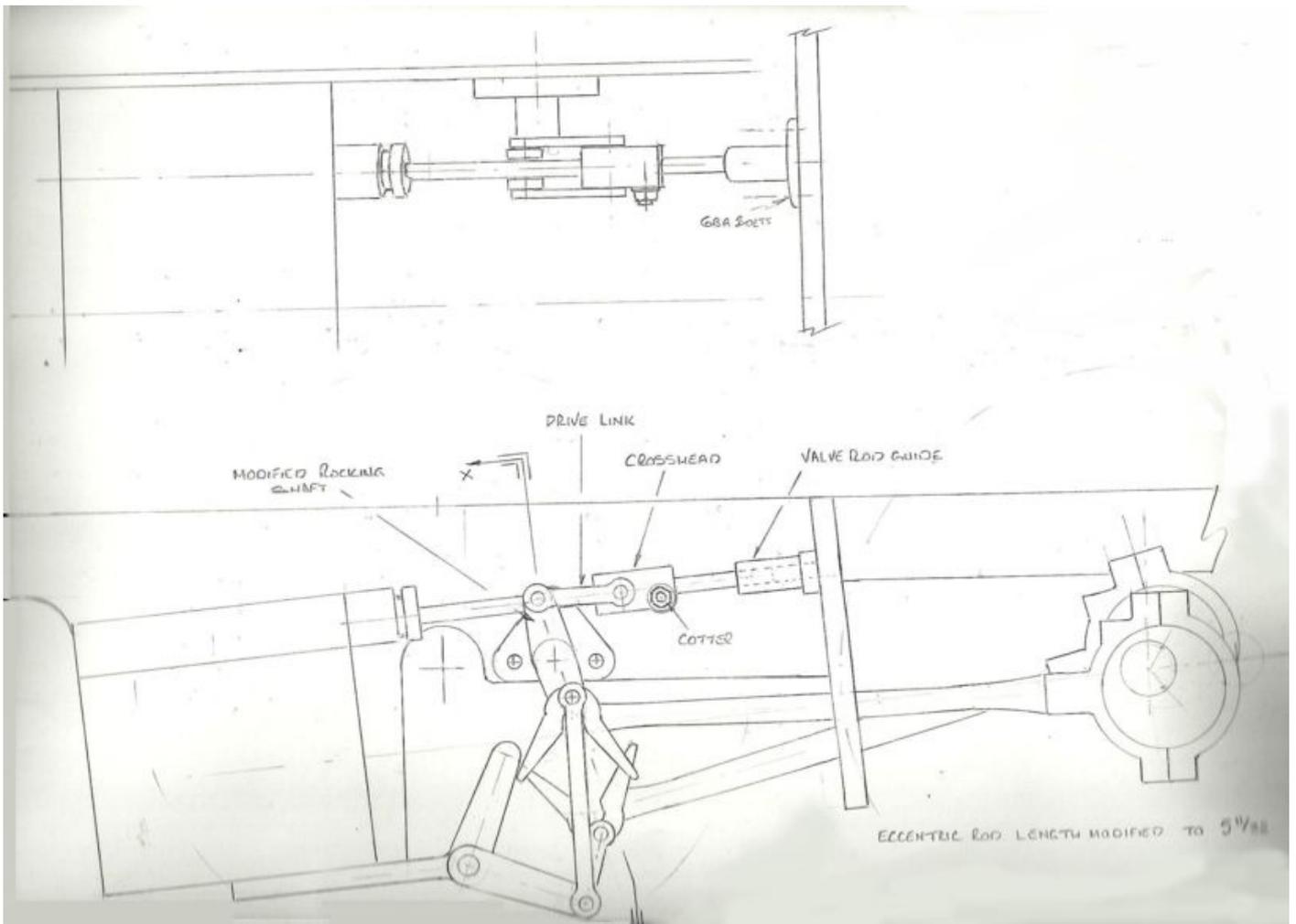


Figure 1. Norman Barber's sketch of valve gear modifications to his Lion.

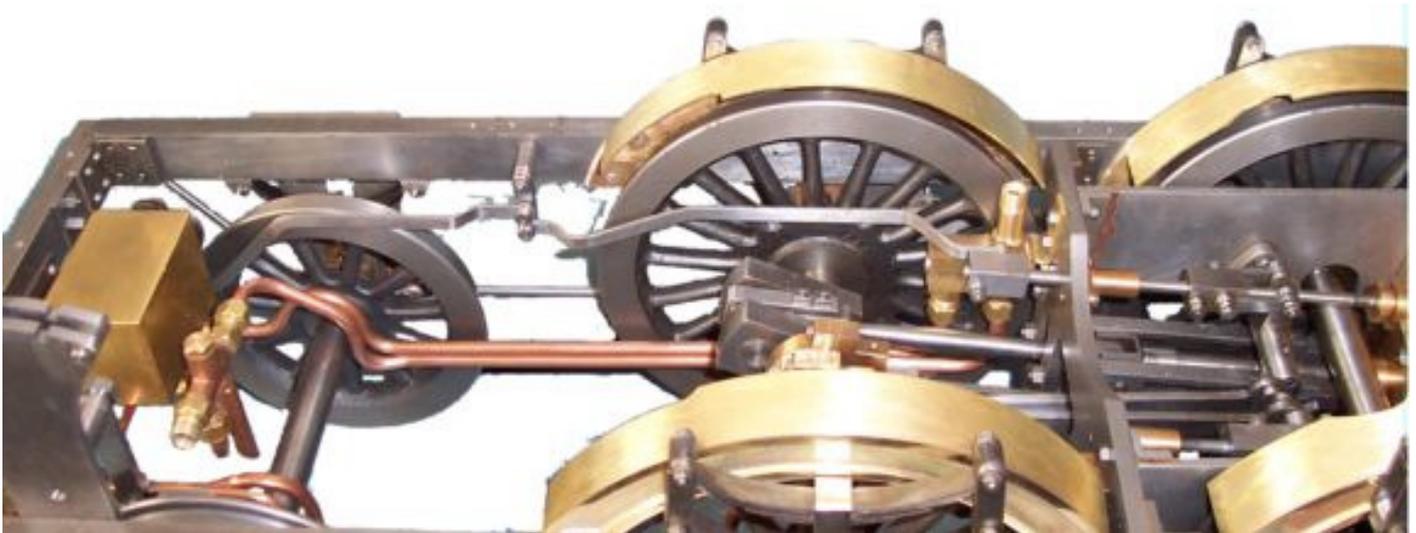


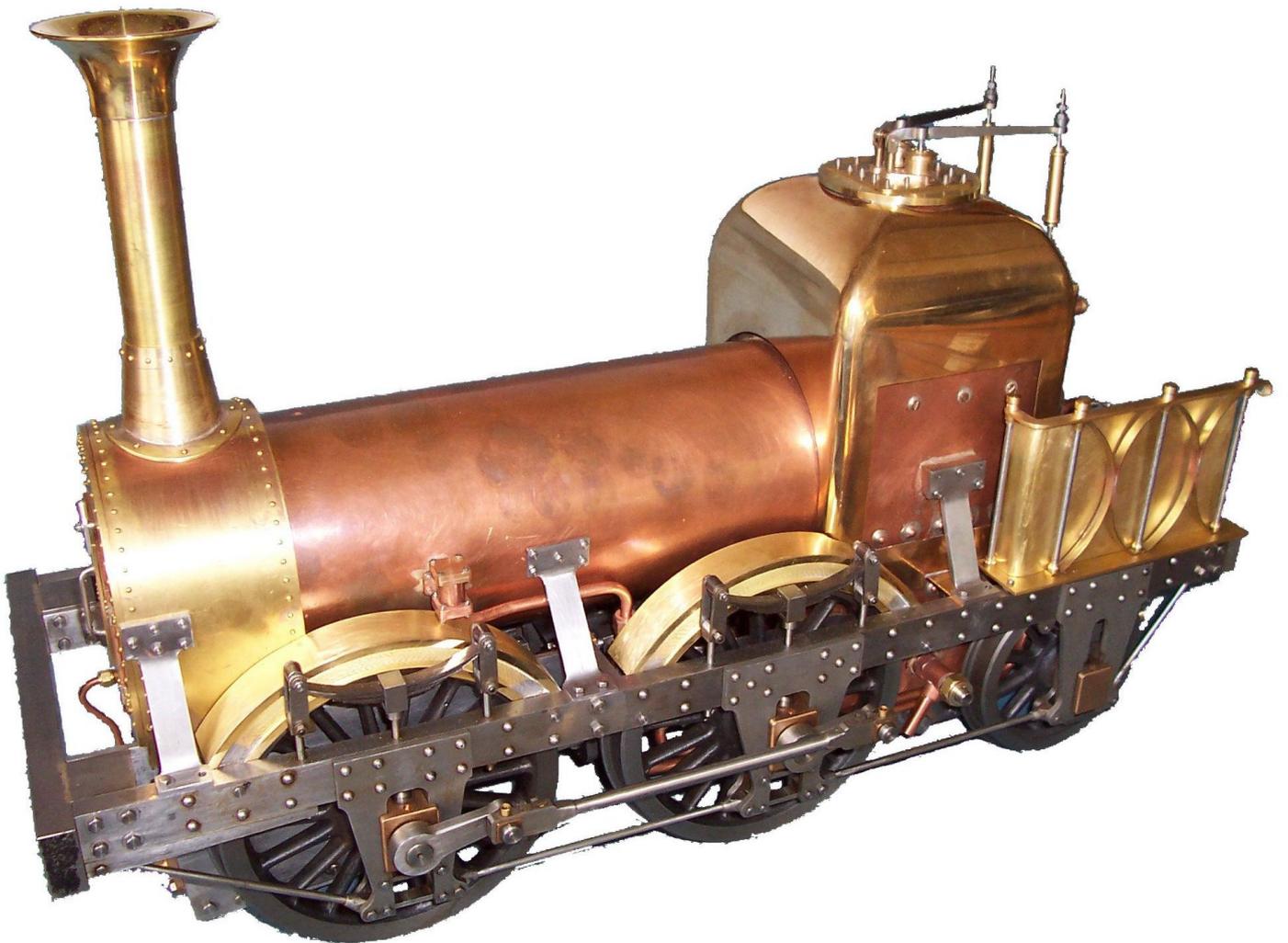
Photo 3. The pipework from the under-footplate lubricator and injector. Note the mechanical drive to the lubricator from the rear of the extended left valve spindle

Photo N Barber



The most demanding (for me) feature to produce was the fire box cleading. I had been dreading making this from day one of the project! As you will be well aware, because the cleading is polished any defects are not only very visible but tend to be magnified by the polishing. Having worked out the development of the shape for cutting out the flat sheet I made a trial corner to check the proposed procedure before embarking on the actual job. The cleading was formed over a shaped wooden block which also served to facilitate holding the unit during machining of the various apertures in the finished fabrication. The material used was gilding metal, which is more ductile than brass, with silver soldered corner joints. Care was taken to ensure that the joints fitted closely in order to minimise the width of the silver solder seam. I attach a series of photographs showing the various stages in fabrication and machining.

*Photo 4. Can't see the join here. A very nice piece of sheet metal work by Norman Barber for his Lion. Photo N Barber*



*Photo 5. The almost completed article. If it goes as well as it looks ...*

*Photo N Barber*



## Models under Construction (2)

### A modified crosshead pump for a 5" gauge Lion by Bob Hayter

#### The problem

A few years ago I bought a well used 5" gauge Lion (LBSC's Titfield Thunderbolt) and renovated it to running order. Over 2 years of running the performance of the crosshead feed pump dropped off. So when it came time for the next annual steam test I reseated the pump valves and checked the gland seal on the operating rod. The improvement was negligible and with a defunct injector it was not possible to re-certify my loco. A thorough examination of the pump was made. All appeared to be as designed but on test the pump delivered little pressure. In discussions round the Rochdale Club it was observed that the pump is not mounted horizontally and the valve block is positioned roughly half way along the pump body as shown in Fig 2 and Photo 2 (page 1). The pump is of the displacement type with no tight fitting piston. Its operation relies on the piston shaft reducing the volume inside the pump body and thus increasing the pressure forcing water through the outlet valve. The theory that best fitted my problem is that the pump was partly filled with air and this was simply being compressed and trapped in the upper blind end of the body. The proof was made by running the loco on compressed air but with the tender full of water. Initially the problem was as before but on tilting the loco so the pump was horizontal or sloping the opposite way resulted in water being pumped correctly.

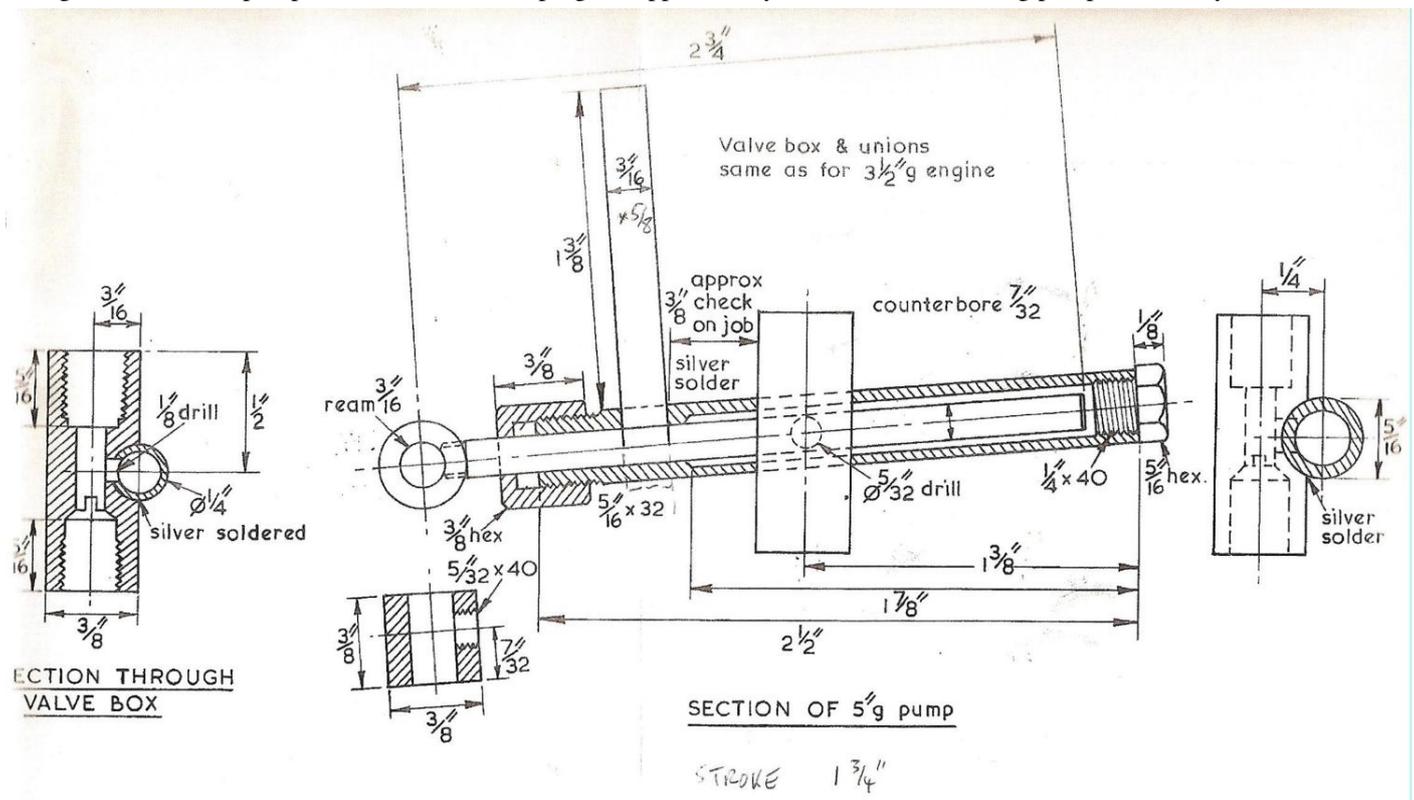


Figure 2. The LBSC designed water pump

#### The solution

One suggestion was to fit an air bleed connection to the blind end of the pump, however space is very limited around the pump and I didn't want a non standard control. A careful examination of my Lion showed that it should just be possible to fit the pipework in if the valve body was moved to the blind end of the pump body as shown in drawing 2, allowing any air to escape. This required removal of the boiler from the frame to access the pump and connecting pipes. The design retains as much of the original as possible, especially the mounting angle and pump stroke. So I made a pump to Fig 3 and proceeded to fit it. Photos 6 and 7 show the pump and the clearances to the motion. You may also notice that my Lion has slip eccentric valve gear, fitting a similar pump may be different with Gab valve gear.

#### The test

Once again I ran the loco on air and fitted a pressure gauge to the pump outlet. Oops! It worked so well that on the first few strokes the gauge hit the end stop at 150psi and wrecked the gauge! I should have opened the bypass and closed it slowly and perhaps put some kind of receiver in the line.

Under steam the pump delivers more water than required so for the first time I have to use the bypass to control boiler water level. Now to fix that defective injector..... but then the original Lion wouldn't have had an injector – they hadn't been invented.

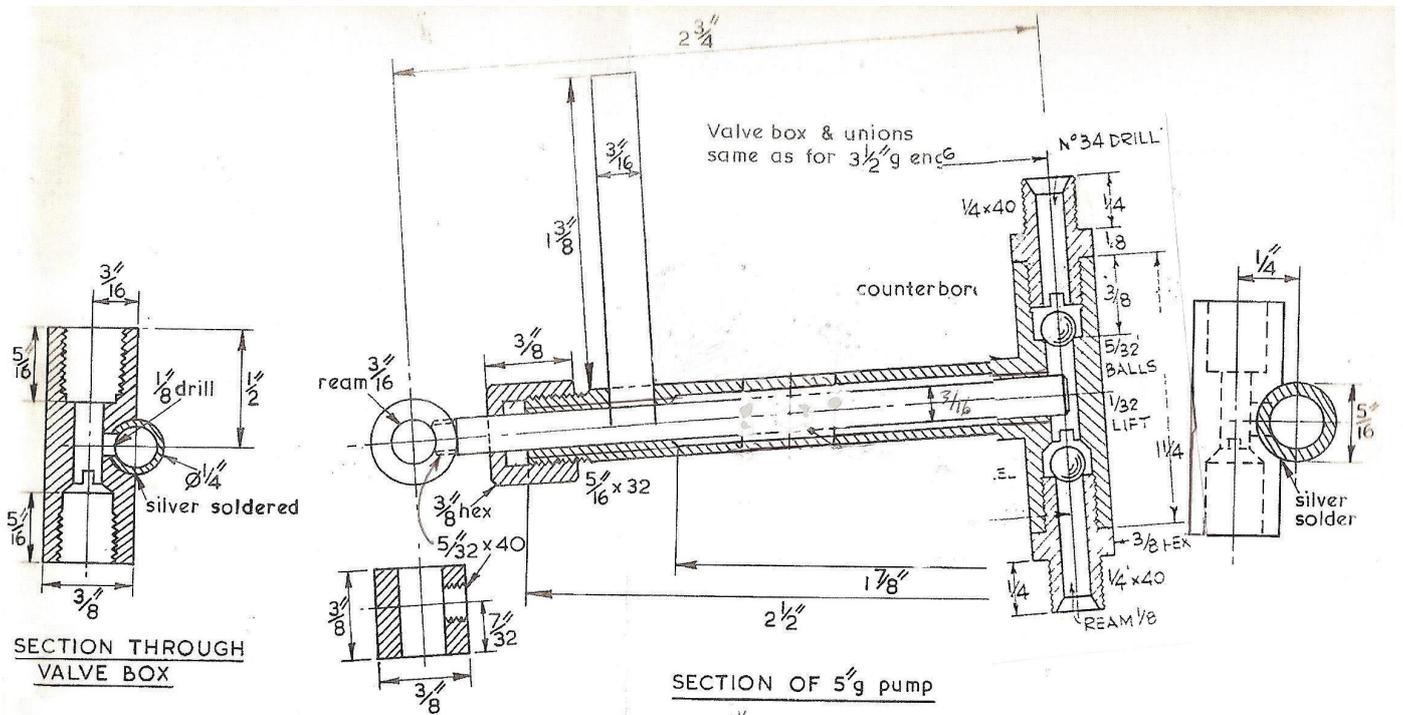


Figure 3. The revised design

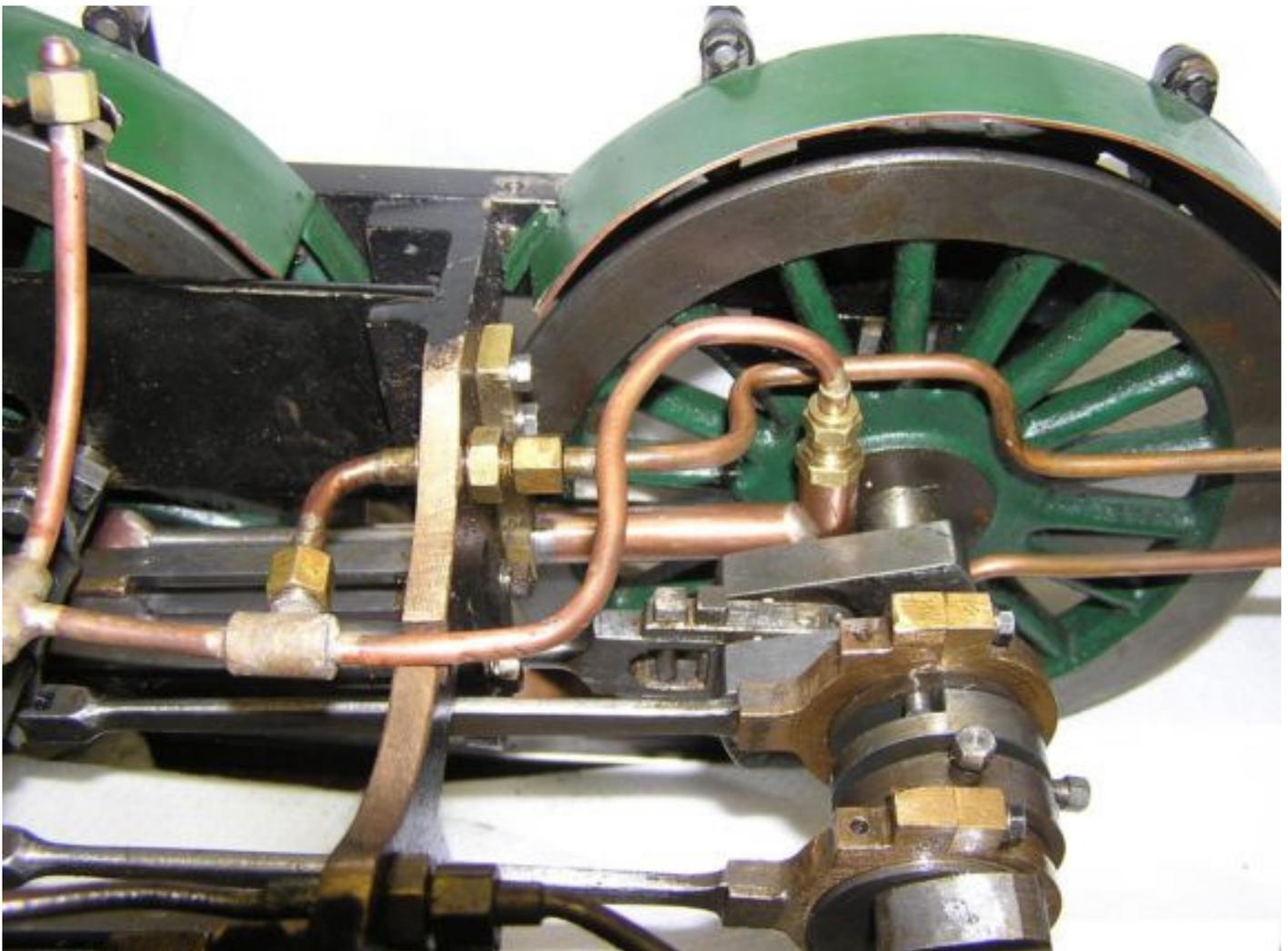
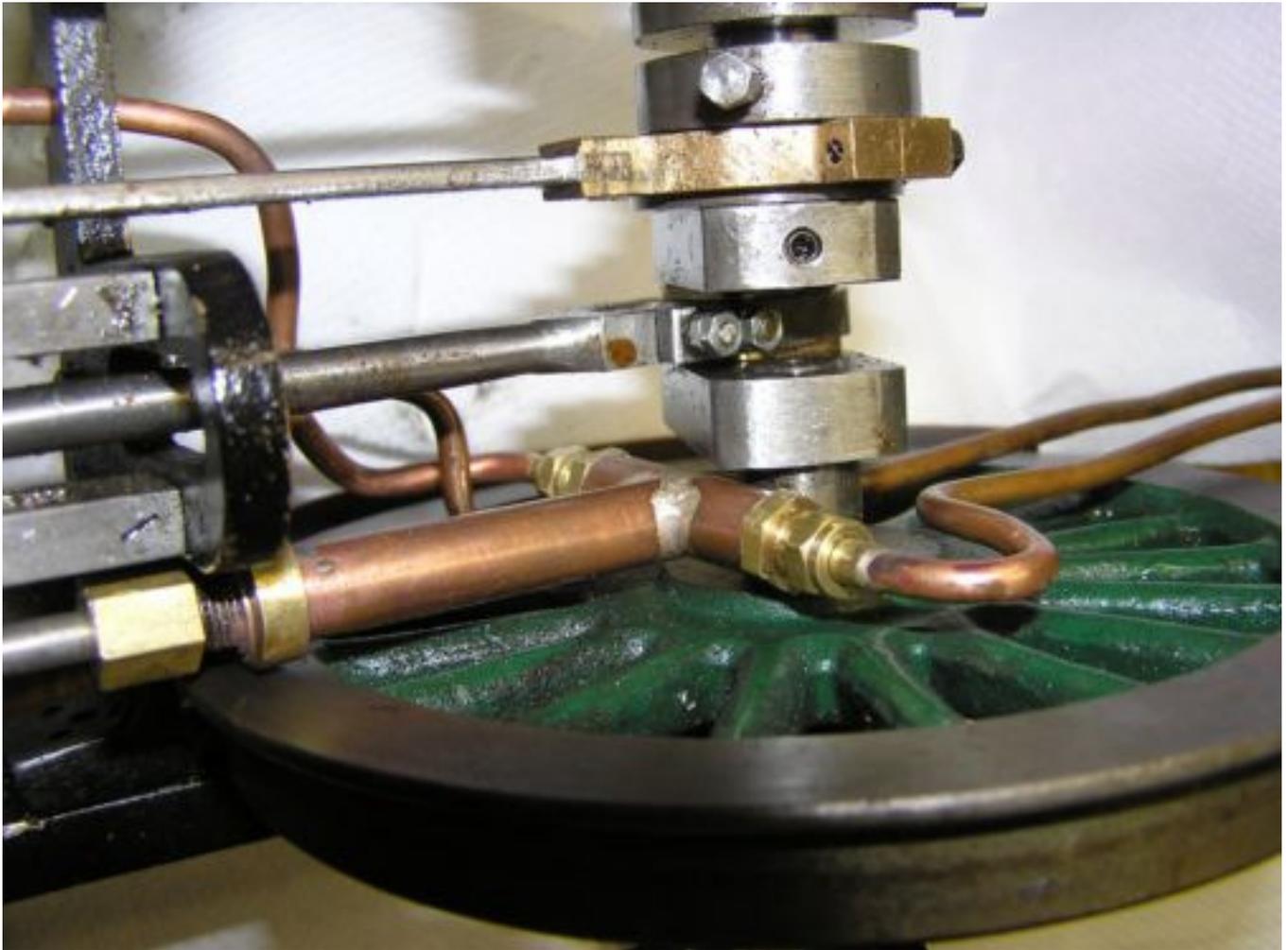


Photo 6. Looks a bit tight ...

Photo: R Hayter

## Conclusion

There is no doubt that in my case this modified pump has solved the problem. What I don't understand is why did I have the problem? when asking around the club and internet searches don't turn up any references to anyone else having this problem.



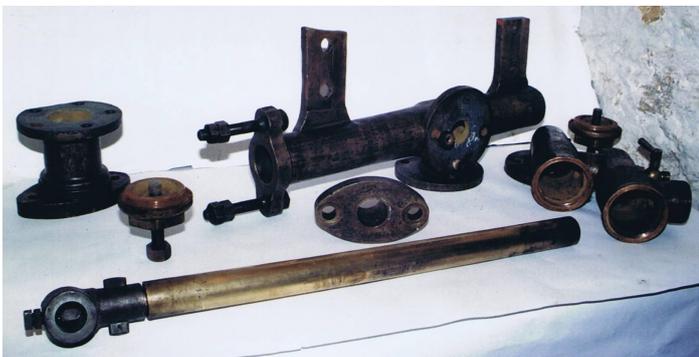
*Photo 7. And it is tight!*

*Photo: R Hayter*

## Footnote

On visiting the Liverpool museum for the OLCO AGM I looked carefully at Lion's pump. It slopes just as on the LBSC design but I couldn't see the exact location of the connection to the valves and I don't know if it is a displacement or piston pump. Perhaps somebody can enlighten me.

*(Well, I think it's displacement. When assembled, the 1 7/8 dia plunger passes through the stuffing gland, then a 1 7/8 dia short bore in the pump body, ( ie, a bearing) then into a larger (2 1/2 dia) aperture running the rest of the bore length. - ED)*



*Photo 8. Pump parts. Plunger is 1 7/8 dia. Pump bore is 2 1/2 dia.  
Photo John Hawley*



*Photo 9. Pump assembly. The squiggly pipe just ends in fresh air, so may be an air bleed for the lower chamber*

*Photo John Hawley.*



## Square Headed Bolts

We've long dreaded making all those square headed bolts that are such a distinguishing feature of Lion. They seem to be everywhere, but they can be a real problem to make. During correspondence with David Royle I promised to investigate and list them all. Daft idea! However, lets see what's come up so far. There are:

36 along each of Lion's main frames, 1 1/32" across flats; – Sub total = 72  
6 on front face of fwd buffer beam, 1 1/2" A/F – Sub total = 6  
2 on top of fwd buffer beam, 2" A/F; – Sub total = 2  
12 on rear face of drag beam, 1 1/2" A/F – Sub total = 12  
2 on rear face of drag beam, 1 5/16" A/F – Sub total = 2 (it's getting complicated)  
2 (size unknown) holding each spectacle plate to the underside of its respective boiler support bracket – Sub total = 4  
2 on each eccentric strap, 1 7/8" A/F, holding the split halves together – Sub total = 8  
2 (sizes vary) securing each tie rod to its coupled wheel hornplate – Sub total = 8  
2 (size unknown) holding reversing lever quadrant to footplate – Sub total = 2  
1 (size unknown) to secure reversing lever pivot bracket to underside of footplate – Sub total = 1  
4 (size unknown) holding each cab handrail to footplate – Sub total = 8  
1 (size unknown) at each forward corner of footplate – Sub total = 2  
2 (size unknown) fixing each side sloping support bracket to main side frame – Sub total = 12

That's 139 so far. Then there's the tender:

12 along each of the tender's main frames – Sub total = 24

18 on front face of fwd buffer beam – Sub total = 18

24 on rear face of drag beam – Sub total = 24

And 66 for the tender (though there are quite a few more hidden away)

So, the grand total is at least 205. That's a pretty exhaustive list (and exhausting!) This list may appear to be 'over the top', but I've at last got most of the info in one place! It's taken ages of looking at notes, drawings and photographs to compile and it's not quite done yet. What remains for me to do, in some spare time, is to document the sources of this data, so that there can be no doubt as to where all these square heads are located.

Most nuts are hexagonal, I believe, but that's for another day ...

I've three suggestions as to how the bolts can be produced:

**Option One** Harrye Frowen (Cardiff), maker of the most lifelike miniature Lion to date, in any gauge, suggested, on 25th July:

In reply to your enquiry on square head bolts these are not available from ME suppliers or nut and bolt stockists, these will have to be made as required by the Loco builder.

Here are some tips on producing these items; firstly the round rod can be obtained from spent welding rod ends these being 0.098 or 2.5 mm ideal for 7 BA. The old metal coat hangers these being 0.088 dia for 8BA bolts. The square bar can be obtained from ME suppliers 1/8, 5/32, 0.187, 0.25, and so on. Where scaling is required DIY stores stock square steel bar in 3, 4, 5, and 6mm.

To produce the square nuts and bolt you can either turn the bar down to size and thread with a die though this can be very time consuming.

The easiest way is to part off and tap the nuts, then use the nuts for the heads of the bolts. Screw the round bar, fit the nuts and braze on the heads and finish the heads in the lathe. Collets come into their own with this type of work. The smallest bolt on Lion is 0.068 A/F.

**Option Two** Now, interestingly, David Royle (Oadby) wrote, on 30th July:

"... Whilst writing this email, I had a phone call from an engineering friend of mine who has a small CNC lathe. He may be able to help with the different sizes of square bolts that are needed for the Lion in a small production run, if we can come up with a clear specification, preferably in metric, as small square steel section is difficult to get hold of in imperial. What do you think that we should specify and what would be appropriate for any of the other Lion builders that we have association with. He says he could produce samples for us to consider before a small production run ..."

Now, not all bolts are the same size, either in diameter, across flats or length. David's email suggests that his friend may be able to help with the different sizes. It could help if all the bolts were made to the maximum length required, fully threaded, so that we just cut to length as required.

**Option Three** A third idea is that we take commercially made small bolts and file the hex head to a square. For instance on 'Big Sister' the main frame bolts are 5/8 Whitworth with 1 1/32" across flats square heads. (Lengths vary, according to what the bolt is clamping) On the 7 1/4" gauge Lion, (1/8th scale, or better still, 1/7.85) the main frame bolts would be 5/64" dia with 0.129" A/F Sq. heads. The nearest commercially made bolt would be an M2 (Yuk, metric) of 0.078 dia, but the head, at 4mm A/F is too small. The next size up is M2.5, which has a thread dia of 0.098 and is 5mm A/F. Alternatively, a 6BA of 0.110 dia and 0.193 A/F hex would do.

So, you get the idea and have three choices. What do you think? Please get in touch with me with your comments and suggestions. If you like the sound of option two, please advise, stating quantity and size. (David's friend may wish to standardise a bit, so there may be a bit of coming and going before we settle the final sizes.)



## The Editor's Bit

Firstly, I would like to offer my sincere thanks to all who came and helped me on the OLCO stand at the Bristol exhibition in August. Many thanks to John Brandrick, Harrye Frowen, Alan Bibby and John Corkett. The latter has done sterling work on Lion patterns on his 3D laser printer, which we'd hoped to have operating at the show. However, a last minute glitch rendered that unattainable.

Alan Banks, our ever resourceful web master, indicates that he is progressing with putting past news letters on to the OLCO web site: <http://www.lionlocomotive.org.uk/>, as noted in para 9b of AOB in the AGM 2013 Minutes.

It has long been a wish by Keith, son of the late Charles Taylor-Nobbs, to contribute to a means of recognising his father's many years of work towards our current understanding of Lion and her anatomy. To that end, good progress is being made by Bob Hayter in the design and production of the 'Charles Taylor-Nobbs Memorial Medal', 'an annual award for the best authentic model of 'Lion' as determined by "an ad-hoc panel of experts appointed by the Committee".' (para 9h of the above Minutes)

Meanwhile, I've been working on the proposal mooted in Para 9c of those Minutes: Members' details. In the last issue, I canvassed for your thoughts on circulating a List of Members, with brief contact details. I received no objections, some positive comments and a suggestion that some idea of where members live should be included. The finished results are on the final pages of this newsletter. I trust that this will enable people to come together and discuss like problems, find solutions and provide mutual support. Naturally, I hope that if you come up with useful ideas, you'll share them with others through the medium of Lionsheart.

I have recently caused surprise and dismay among some of my friends by purchasing a part completed 5" gauge Lion. This action was much against my own wishes, but I seem to be so busy that there was no way I could build a loco from scratch. I had hoped that I would be able to get on with work following the election of a new Editor at the AGM in May, but that all came to nought. (Budding Editors please note – there's a vacancy here if you'd like it – or even if you wouldn't!)

This loco was to be advertised for sale by its builder, Michael Lee, in issue 77 of Lionsheart. He was also willing for it to be displayed on the OLCO stand as 'For Sale' at the Bristol ME exhibition in August. The loco is built to the LBSC design, so I'll have to face the problem of modifying the valve gear as so many others have done. I'll keep you posted. Meanwhile, here are a few pictures. The following three photographs by Mike Lee:



Photo 10. Boiler, grate, chimney and smokebox front.



Photo 11. Wheels, frame and springs.

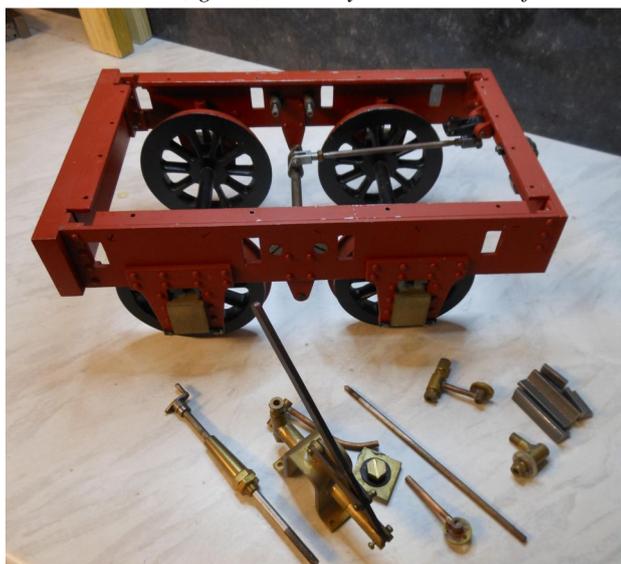


Photo 12. Tender frame and various components

Michael also introduced me to the story of the Antikythera Mechanism, a very complex and ancient assembly of spindles and gears which was recovered from the sea bed by Greek sponge divers in 1900 and placed in the National

Museum of Archaeology in Athens. Being encrusted in marine deposits it remained unexamined for a couple of years. It was then observed to contain what looked like a gear wheel. Detailed examination was carried out in 1951, but it was not until 1971 that it was X-rayed and its complexity began to be revealed. It is believed to have been made in about 87BC, but was soon lost in a ship wreck. The X-ray examination disclosed that there were some 30 bronze gears, the largest of which is about 5.5" dia, having 223 teeth.

Who made it? How was it made? Why was it made? Was it the only one of its kind? It is believed to have been a device for calculating and indicating the relative positions of the sun, moon and the five planets known at the time. Michael tells me there was a TV programme about it called The Two Thousand Year Old Computer, but I can't get it to play on BBC iPlayer. You can find out more though, by entering 'The Two Thousand Year Old Computer' or 'Antikythera Mechanism' into a search engine.



## Readers' Letters

From: -Jon Swindlehurst, (Wirral)

Lion in Isle of Man

13<sup>th</sup> Jul '13

You may remember I took my Lion to the IOM last year and ran twice at the track in the Wildlife Park. It's ground level and over 1/2 mile long through a swamp.....they have a few plastic alligators strategically placed to gives the kids a thrill. On my second visit someone forgot to change the points for me and I derailed, snapping off one of my draincocks.....painful !!!!!

From: -David Neish, (Great Bookham)

Lion, Curly Bowl

12<sup>th</sup> Aug '13

There was some discussion at the Irby Mill dinner, at which three LION winners of the Curly Bowl were mentioned.

In fact there have been no less than 5, starting with Peter Taylor in 1982. List attached.

Regards - David Neish. Note: This is a useful web site for Curly Bowl info: <http://curlybowl.co.uk/>

### CURLY BOWL PAST WINNERS

1981	2 1/2"	Green Arrow	Fred Eaton	1996	3 1/2"	Bantam Cock	Steve Eaton
1982	5"	Lion	Peter Taylor	1997	3 1/2"	Britannia	Philip Holdroyd
1983	3 1/2"	Britannia	Bill Linfield	1998	3 1/2"	Princess Marina	Mike Styles
1984	5"	Pansy	Ian Jameson	1999	2 1/2"	Netta	Peter Barbar
1985	5"	Pansy	Pat Care	2000	5"	Speedy	Jim Elliot
1986	3 1/2"	Maisie	David Green	2005	3 1/2"	Juliet	Mike Law
1987	5"	Lion	Alan Jacobs	2006	5"	Lion	John Mills
1988	3 1/2"	Virginia	Geoff Wigzell	2007	5"	Maid Of Kent	John Richardson
1990	Class IV		David Mayall	2008	2 1/2"	Helen Long	John Bagueley
1992	3 1/2"	Doris	Derek Perham	2009	2 1/2"	Southern Maid	Dennis Eade
1993	2 1/2"	Austerity	Steve Eaton.	2010	3 1/2"	Maisie	Adrian Hinchcliffe
1994	3 1/2"	Princess Marina	Joe Middleton	2011	3 1/2"	Betty	Andy & Martin Turner
1995	5"	Lion.	John Swindlehurst	2012	5"	Lion	David Neish

The 2013 result is not on the web site yet, but David Neish very kindly informs me that: "The 2013 Curly Bowl Competition was held at North West Leicester M.E.S. on Sunday 1st September 2013. The winner was John Barr with his 3 1/2" gauge Black Five"

From Harrye Frowen (Cardiff)

Lion - Kit of Parts

20<sup>th</sup> Aug '13

... John Corkett and I have now completed a kit of parts for our Lion and I enclose a photo of the display board, and with your permission I would like to display the board on the stand at the Bristol show showing the parts and casting patterns that are now available to anyone wishing to build this Locomotive in 7.25 inch gauge.



From Harrye Frowen (Cardiff) John Corkett Patterns 2<sup>nd</sup> Oct '13

I feel compelled to give a mention to John Corkett who has now successfully remade most of the early patterns in plastic for Lion in 7.25 gauge using his 3D printer that he only purchased in May of 2013 John always enjoys a challenge

I asked John two weeks ago if he could produce a pair of patterns using John Hawley's excellent drawings of the cross head pumps after receiving an enquiry from one of our readers, these I found very hard to produce by the fabrication process John made up the pumps in 4 component parts the pump body, flange body, flanges, and brackets.

The finished patterns handed left and right can be seen on the Web site [Lionlocomotive.co.uk](http://Lionlocomotive.co.uk) photo's by Dave McCarthy. All the available patterns and Cnc machined parts that John and I produced during the winter months when the weather was too cold to visit the work shop can also be seen on the web site.

I am now looking for someone to produce the smaller parts by lost wax process if someone would like to take on the work, they can contact me at [harrye.patriciahotnai1.co.uk](mailto:harrye.patriciahotnai1.co.uk).

John and I hope to start on the wheels patterns during the winter months; these could be the last patterns for Lion in super scale, 1/7.8.

Article by Harrye Frowen. 3D drawings by John Corkett.

*Photo 13. The kit of parts for the 7 1/4" Lion. Some are laser cut and some are patterns built up on John Corkett's 3D printer.*

*Photo submitted by Harrye Frowen*

From: -John Brandrick (Bury)

Bristol Exhibition

2<sup>nd</sup> Sep'13

'... I am glad you acquired Mike Lee's Lion. I think it gives you a good psychological start and at least it is tangible and something to look at. I tend to think of all the unfinished Lions out there as little orphans who need a good home. I am sure people will forgive you especially if you start making a few bits for the larger version as you go ... '

'... I went with a couple of friends yesterday to the Welshpool & Llanfair Railway's Autumn Gala which included an indoor exhibition of garden narrow gauge stuff and a few booksellers. One of these proved to be Simon Castens who wrote the little book about the film and runs a bookshop in Bath called The Titfield Thunderbolt (3A Lambridge Street, Larkhall-just off the A4 east of the city). I had a long chat with him and he is keen to join OLCO so I have sent him an application form and cheekily a few more to display in his shop. He has an Aster G1 Lion. He is hoping to do a reprint of his book which sold 2,500 copies( I think we sold a few for him). I mentioned we have discussed a new Yellow Book or similar ...'

From: Dave Forrest (Blackburn)

What colour is Lion?

2<sup>nd</sup> Sep'13

Dear Sir,

I am new to model engineering and my first attempt is to be a 5" gauge model of "LION". I have done quite a bit of research and visited the Museum of Liverpool to see "LION" in all its glory. My intention is to make the model as authentic as possible and I would be most grateful if you could provide advice on the COLOUR SPECIFICATIONS for the various parts of Lion.

Thanking you in anticipation

Regards - Dave Forrest

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To which Alan Banks (Sandbach) replied, on 2nd September 2013

Good evening, As webmaster the only colours I know are those that one sees in the Museum. Knowing the group as I do there has probably been a great deal of speculation on colour. As far as I am aware the colour one sees is that decided at Crewe during LION's original restoration. May I suggest one joins OLCO and get access to the writings of the group since its inauguration. I am in the process of trying to get these online for members only. One could also write to our mag asking for advice from a wide range of knowledgeable folk. In the mean time I will pass on your request to a few members. Also as LION was repainted by Liverpool Museums they probably have a colour spec available. Regards - Alan Banks

*(Yes, I'm sure there's been some research on this, especially the green. Can anyone help, please? Ed)*

From: -Peter Mountford (Birkenhead)

First steam train in 50 years arrives at Robertsbridge

22<sup>nd</sup> Sep'13



Photo 14. The last public steam passenger service ran on the line in 1961  
Photo submitted by Peter Mountford

Related Stories (*Click these or type into search engine – Ed*):

[Extended steam railway's first train](#)

[Railway welcomes restored loco](#)

[New steam engine for railway line Watch](#)

A 141-year-old steam locomotive has returned to a town in East Sussex for the first time in more than 50 years.

The return of the passenger service to Robertsbridge is a major step forward in the reopening of the Rother Valley Railway between the town and Bodiam.

Shuttle services along half a mile of newly relaid line from Robertsbridge station to Northbridge are running this weekend to commemorate the event.

The last public steam service ran on the line in 1961.

It is part of a long term project to reinstate a total of three miles of line and link to the Kent & East Sussex Railway (K&ESR) at Bodiam. Passengers will then be able to travel between Tenterden in Kent, and Robertsbridge.

From: John Griffiths (Wirral)

A little bit of Lion

23<sup>rd</sup> Nov'13

John,

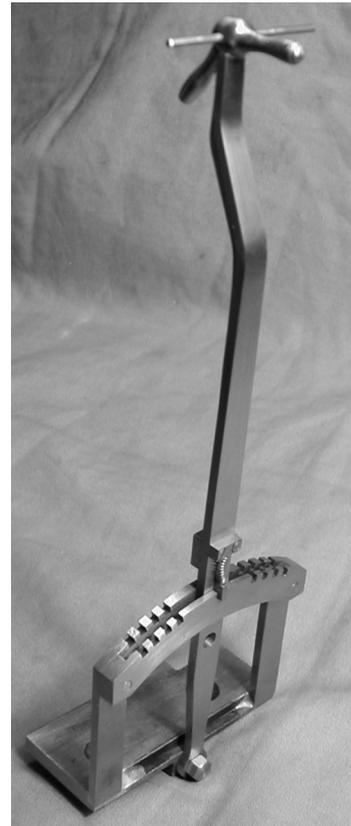
You may already have seen this: <https://www.youtube.com/watch?v=UusbDp3sv2Y> Cheers - John Griffiths

*(Thank you John. I've not seen it before. This 1937 film, made by the LMS to publicise the new Coronation Scot service to Glasgow, shows snippets from: the Coronation of King George VI: the building and running of Stanier's streamlined Princess Coronation class; and a little bit of the joint running on three parallel tracks near Colwyn Bay, North Wales, of Lion (1838), the L&NWR Coronation (1911) and the new Coronation. Most interesting to see these events in context and all accompanied by Elgar's inspiring music. But, for a laugh, just switch on the English (automatic captions) facility. Here we read that the new loco runs between 'Houston and Glasgow' at speeds up to '185 mph'. Houston would certainly have had a problem! Seriously though, there are some fascinating films thrown up on the Internet when you watch something like this – it's partly for that reason that Lionsheart takes about six weeks to produce! - ED)*

Hope you are well and deep in swarf production. (*Ha! You must be joking. – Ed*)

The latest bits I've made for my 7 1/4" g Lion did not make too much swarf but I have achieved my ambition to make a proper scale working reversing lever. Thought you may be interested in the photos

*Photo 15 (Below). 'The handle at the top is one of the fiddliest jobs I have ever done, but very satisfying to see working when finished. The handle lifting pivot pin is 1.6mm dia. ( and will be shortened on final assembly). The latch-rod lifting pivot pin which is in a slot inside the handle is only 1mm dia.'*



*Photo 16 (Right). 'The notches in the stand are for the Stephenson valve gear and I have included a small compression spring to help keep the latch in place as there isn't sufficient weight to rely on gravity alone like big sister.'*

*(Once more Jon throws down the challenge to future builders, though, to be fair, I'm sure I've seen a pretty good representation of the reversing lever before and on a 5" at that. Anyone want to own up? – Ed)*



**Tailpiece** – Seen in a French market.

Next year, perhaps? Photo John Hawley

### Editor's Contact Details

If you would like to contact the Editor on any issues raised in this newsletter, or for any other reason, the details are below:

I'm always glad to receive your notes, comments, articles, pictures, etc. Please consider that all or part may be published, although I reserve the right to edit them. In descending order of preference they should be:

- a) typed on a computer and emailed;
- b) typed on a computer then printed and sent by post;
- c) typed on a typewriter and sent by post, or
- d) if you want to find out how desperate I am, try a good old fashioned handwritten letter.

Just run a spell checker over your computer work first though and always read through what you're sending, even if hand written, to avoid subsequent misunderstandings. I am not keen to receive contributions via floppy or CD

As for photos, the advantage of sending them by email is overwhelming – I can put them straight into the document, scale them, crop them and all sorts, getting a 'first generation' print. If you send a photo by post, then I have to scan it (losing quality) and possibly send it back, which I cannot guarantee. Photos which have been printed onto plain paper and sent to me don't really work, especially via the scanning process. When sending pictures, please include the photographers name, or details of the publication from which it was taken, so that I can bestow the proper accreditation.

Also, please, if you change postal or email address, don't forget to let me know. *Ed.*

Thank you for the many kind comments regarding LH. I'm sorry if I've not replied if you wanted one, but perhaps you could send me a reminder. If you've missed any recent issues, let me know. I may be able to reprint.

I wish you all a warm and peaceful Christmas and a happy and prosperous New Year.

**John Hawley, Rock House, Downside, Backwell, Bristol, BS48 3DH Tel: 01275 472023. Email: [ringjph@talk21.com](mailto:ringjph@talk21.com)**

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Please check that your own details are correct and, if they are not, contact me ASAP with the corrections.

You will note that there are some phone numbers and email addresses missing:

- **If you could please supply your phone number, I'd be grateful.**
- **If you would be willing to try taking delivery of Lionsheart by email, then please supply your email address. This system of transmission has several advantages:**
  - a) No paper to file;
  - b) No back issues to lose;
  - c) All photos are in colour;
  - d) It gets to you more quickly than by post;
  - e) You can zoom in to study details in photos;
  - f) You can zoom to the size of print that suits you most;
  - g) It's a lot cheaper for OLCO, therefore keeping costs (and membership fees) down;
  - h) It's less trouble to me, avoiding the use of petrol and time in going to a copy shop, waiting for copies, returning home, collating, stapling, filling envelopes, printing and sticking address labels and stamps, then more petrol and time going to post the copies to you. And some of these operations involve queuing!
  - i) For the technical, the average size of Lionsheart by email is 4.5MB. (This one's 4.85MB)

Now, looking at item i), I do have a problem: Lionsheart is produced using Microsoft Word 2000 (9.0.2720). I take your photos and crop then resize them using Nero PhotoSnap Essentials SE, Version 1.6.1.0. The cropping cuts out surrounding areas, enabling me to concentrate on the important details of your photo; the resize changes the size of the picture to fit the page. Both processes reduce the file size of the original photo. It is then inserted into the required position in the news letter. The completed newsletter has a certain file size and it is normal to convert a document like this into PDF format. (I use PDF995) That renders it unalterable and should reduce its file size (thus easier to email). The most dramatic demonstration of this was in LH76 – the original file size was 38.3MB, but only 4.6MB in PDF format. It doesn't always work though – LH77 was 4.97MB as produced, but it *increased* to 7.17MB when converted to PDF. Can anyone tell me why/how this happened? Am I doing something wrong? Is PDF995 out of date? I would be pleased to hear from you. By the way, this, LH78, was 4.39MB as typed and 4.85MB as a PDF. So it's got bigger. Help!