

CINDERBARRADW FLYER

**The Newsletter
of
Lancaster & Morecambe Model Engineering Society**

Newsletter 9 November 2015



Testing times for our new coaches. Full story on page 4.

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Chairman's chat

As chairman this is my first go at putting my thoughts down on paper. Following Geoff is not going to be easy; as I am sure you would agree, he has done a sterling job over the last six years.

I would like to see Lancaster and Morecambe have a more active membership. We do have quite a few members that never come to Cinderbarrow, which is a pity; you do not need to own a loco to enjoy the railway and helping run it can be quite a lot of fun.

One member did mention that there is a lack of the *Engineering* side to the society. The only items we have on the calendar is *Project Night*. and our monthly *Informal nights*. I must admit I do not attend the informal nights very often. If you have any ideas on how to improve the engineering side please let the committee know.

Our Halloween night proved a great success with more visitors than last year which helped our takings increase by more than £100. Many comments were made by the visitors on how much they enjoyed the event; another well done to all concerned.

As a committee we will be arranging the calendar for 2016. We need speakers for four of our evenings in the summer so if you have any ideas please let the committee know.

Members are currently upgrading the carriages so that the 5inch Gauge loco owners can haul passengers. To achieve this the new rolling stock is shorter and lighter. The original idea behind the new carriages was for single carriage operation without a guard. However after an interesting debate at the last committee meeting it was decided that running without a guard was not in the best interest of the Society's safety record, which is very good. The work involved has been considerable, so thanks to all those involved.

Martin Sams

Chairman

*Driver under instruction -
your new Editor*



Notes from our AGM 11 October 2015

26 members were present at the meeting and these notes are intended for those who weren't at the meeting and who would like to know what went on before the official minutes are circulated shortly before the next AGM.

Geoff gave his retiring speech as circulated with the Agenda.

Geoff and Stan stood down from Chairman and Vice-Chairman respectively. Martin Sams was elected Chairman. Mike Hirst was elected Vice-Chairman.

David Wilson was elected Secretary. Adrian Dixon, Stan Jackson and Geoff Martell were elected to the Committee. All other officers continue in their existing positions.

Tim Cotterell resigned from being joint Auditor and Janet Hirst was appointed joint Auditor.

Bevis gave some details about rides in 2015 as well as during previous years:-

Year	Rides	Income
2007	13000	about £3500
2014	5632	
2015	5610	£3516

Generally running more trains means more rides as most young visitors want to ride behind every engine.

All proposals were approved.

We have 77 full members and 6 junior members. Membership is slowly increasing.

Notes from recent committee meetings

All members are entitled to receive copies of the committee meeting minutes by email. Please contact our Secretary if you would like to receive them.

Here are just a few issues that have been discussed and decisions reached recently:-

In the interests of equal opportunity and to prevent any discrimination within the Society it was agreed at the Committee meeting on 26 September that there will not be any five inch only running days in next year's programme. It is hoped there will be more five inch engines running on normal public hauling days with our new shorter carriages.

High visibility jackets are now only required to be worn by the crossing keeper.

It has been proposed that Tregoss and Aquarius are sold and a new electric engine purchased. This will be a 'Vale of Ffestiniog' from Phoenix Locomotives Ltd. For more details see the link <http://phoenixlocos.com/products/model-locos/vale-of-ffestiniog/725-inch-specification/>. A final decision will be made at the November Committee meeting.

Tony Marshall is to take over newsletter responsibilities from Martin Sams.

A list of winter jobs including the steaming bay canopy fascia and platform canopy have been included in a list circulated separately from this newsletter.

Membership subscriptions are now due

If you have yet to pay your subscription for 2016 Ken will be delighted to receive your payment (£32). Also please notify Ken of any change of address details and/or change of email address.

Editor's excuses

Welcome to this 9th edition of 'Cinderbarrow Flyer'. After very ably editing the previous eight editions Martin Sams saw an opportunity to pass the job on, and using the excuse that he couldn't be Editor and Chairman he decided to pass it over to me well before the AGM, presumably just in case he didn't become Chairman. Anyway, first apology for it being left in the sidings for longer than planned, but that is the way things go sometimes.

Many thanks to those of you who have supplied interesting and well illustrated articles for this newsletter. They have left less space for me to try and fill, which has to be a good thing. I will be delighted to receive articles for future editions. They needn't all be about railway engines. We are a model engineering society so a greater variety of articles would be nice to have.

Those who know me are aware that I know rather more about wildlife such as butterflies and bats than I do about railways, steam and engineering so I apologise in advance for my lack of knowledge and perhaps rather naïve questions on occasion. We all have to start somewhere. I have already spent long enough in the signal box to learn how to stop trains in the wrong place and send engines the wrong way. Happy days! I look forward to many more of them next summer.

Our new passenger carriages - shorter carriages for smaller engines

Hopefully many of you will now have seen some of our new carriages and very smart they look. They are shorter than our old carriages which means that many 5" gauge engines will be able to pull them. This will hopefully result in a greater variety of motive power being active on Sundays during the summer. The public and our members generally appreciate and enjoy a busier railway so more participants will be beneficial to everyone.



Geoff, Mike and Bob contemplating the "Mug" problem

Good progress was being made during final assembly of our new carriages until an emergency meeting had to be convened to resolve an unforeseen design flaw – "Where does the guard put his mug?". After lengthy discussion in various committee meetings, practical trials and suggestions inappropriate for this newsletter, the issue may have been resolved – don't have a guard!

However the Committee have decided that guards will be present on all trains so please forward suggestions as to where the guard should put his mug to the construction team.

Tony Marshall

A stalwart member reflects

I have been a member of the LMMES for some time now and been on the committee since meetings were held in the wooden hut the other side of the track. I remember John Wild telling me "that the committee only meets every two months but at the moment it is every month while we have a lot to do". It's still monthly!!

In that time the facilities of the Society have grown beyond anyone's dreams at that time. We now have probably the best clubhouse in the north west of the country and certainly the best track - all of that work carried out by members with only minimal paid help.

I have now stepped down from the committee and want to join Geoff in thanking all those who have contributed to the success of the Society. I will of course be staying very active in society events and hope to do so for many years to come.

Some very active members have unfortunately passed on to the railway in the sky. We all do eventually, and new members have joined. We always need new members, the more the better, and the membership has maintained at about 70 in all that time, although I cannot remember an event with more than half the membership attending, and even with a very good, interesting and relevant speaker, we would be lucky to get 25 attending. Most Sundays there may be anything from 6 to a dozen members, and on maintenance and work days anything from 2 to 6 turn up.

I want to make a plea to all our members to take more interest in their Society and to get involved. We have some older members that have done their share in the past, but even with 70 or so members we still have to twist arms to get sufficient to sit on the committee; volunteers are much better.

It may be that the activities the society plan in the programme are not of interest to you - well get involved and get it changed. If you do like what the Society does, get involved and support it, but please do not continue to sit back and ride on the backs of those few people that do all that they do to make your Society the great success that it is.

Stan Jackson

(Since writing this article Stan has kindly agreed to stay on the Committee – Editor)



Stan with 'Cumbria' enjoying the fruits of his labours.

GL5 weekend 18-20 September

This event was not quite so well supported as we had hoped but with a selection of goods trains running most of the time as well as passenger carrying on the Sunday the site felt quite busy and lively and everyone seemed to enjoy the increased activity.



A fine range of trucks in our sidings.



There were some superb models on display and running during the day. The detail in this Colman's van was fantastic. Note that the Coat of Arms has been wrapped round the steelwork.

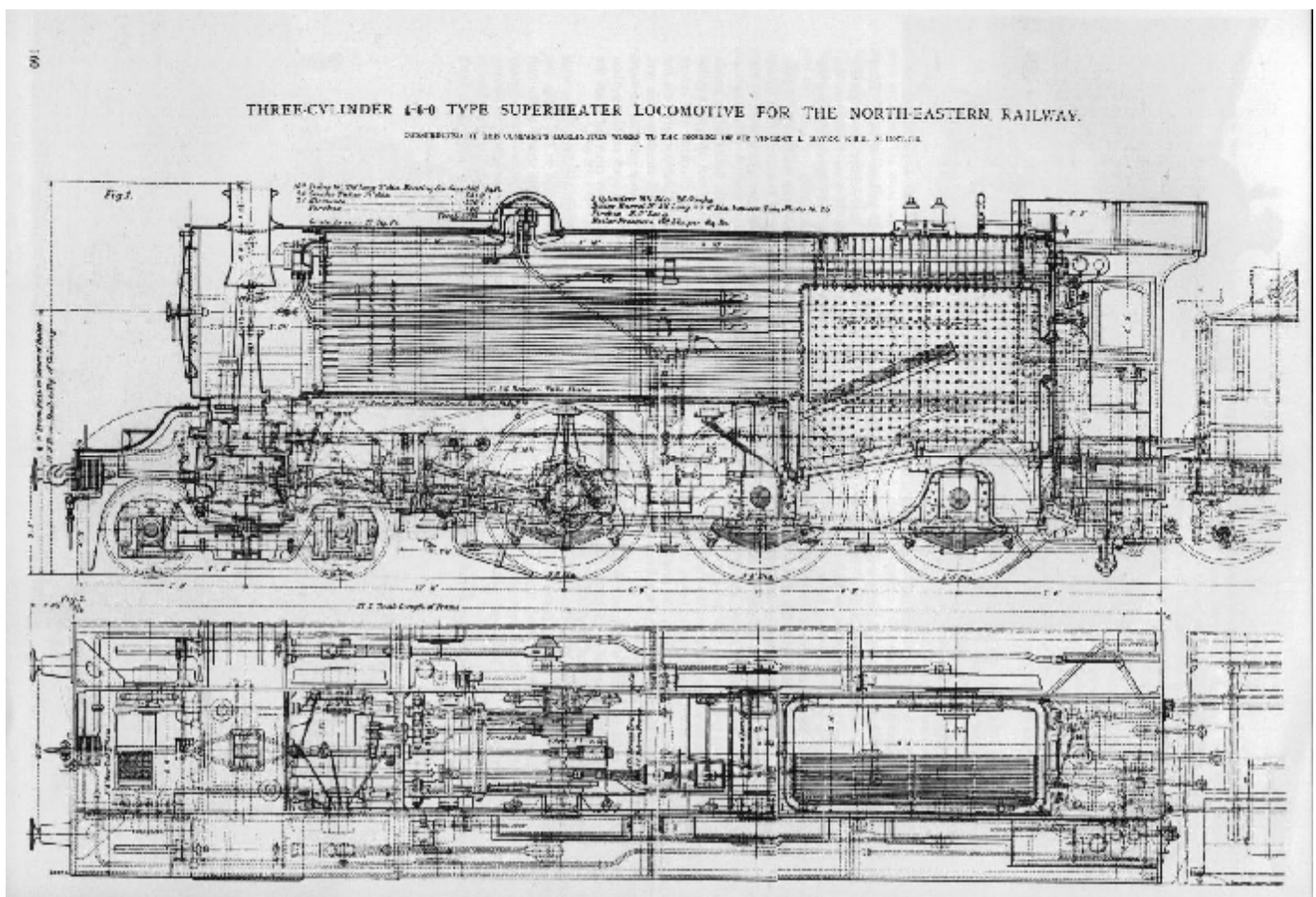
Many thanks to all those who brought engines and rolling stock to the event. Although attendance was not quite as high as had been hoped everyone present seemed to really enjoy themselves.

There is always the opportunity to learn more about model engineering and prototypical running at these events. Apparently cattle wagons should always go immediately behind the engine when in a goods train. Why? Polite answers on an email to LMMESeditor@gmail.com please. The right and worst answers may be included in the next newsletter.

Tony Marshall

Designing and building a 5" L N E R B 16 4-6-0

After the Grouping in 1922 the S 3's had their boiler mountings reduced to conform to the LNER standard loading gauge. I therefore chose this version as I wanted to finish the model in BR mixed traffic livery rather than NER black livery. When designing the J 71 and G 5, I was able to obtain G A drawings from the NRM at York, but unfortunately they did not have a G A drawing of the S 3 (B 16), however I did get a weight diagram and a G A diagram for the Tender. Purely by chance I found a plate of the G A in our library at LMMES. Mike Glegg kindly scanned it for me, and from this I was able to generate my Autocad drawings. The advantage of having a computer was the ability to zoom the G A picture and use it to scale the dimensions, and also check clearances to try to avoid any fouling on assembly.



General Arrangement (G A) drawing of the S 3.

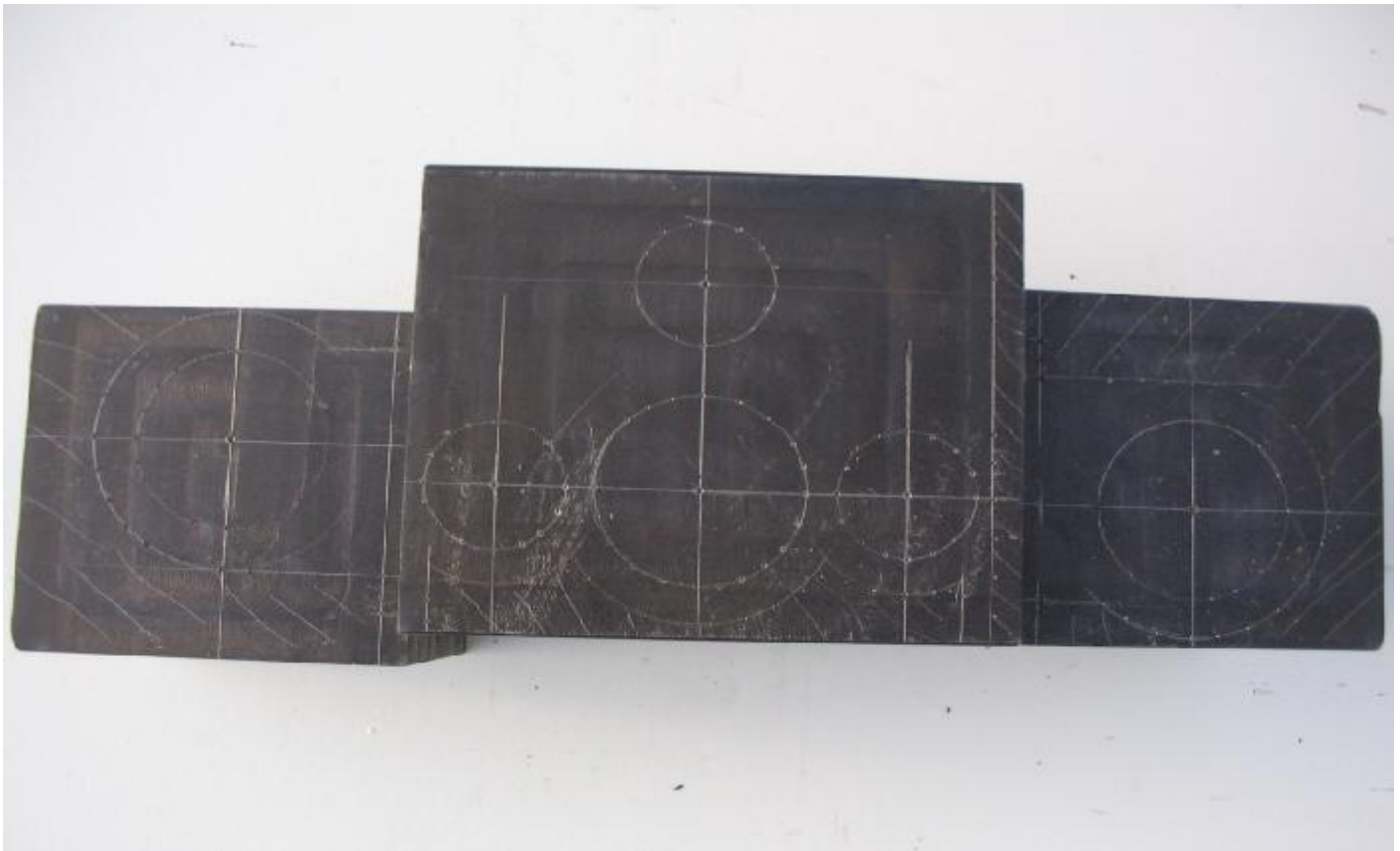


Raven Class T 3 (L N E R Q 7) 0-8-0

Sourcing of Materials

As this was a scratch built loco it was necessary to see what items could be obtained from the trade. There was no chance of obtaining cylinder castings so these had to be machined from solid C I blocks for the cylinders and round C I sections for the cylinder covers, PV covers, PV liners and P valves. These were obtained from M – Machine who chopped them up nicely for me. I was able to adapt Martin Evans “Enterprise” Driving wheels, Driving horns and Bogie horns. The 12 spoke Bogie wheels and Bogie Horns are from Michael Breeze’s Class B 17 4-6-0 “Sandringham” (see below).





Malcolm High Lasers did my Con-rod and Coupling rod blanks. From Reeves I sourced 6 Prince of Wales Eccentric straps for the Valve gear. The Smokebox ring and door came from the M E Springbok Smoke-box castings. Geoff Martell had an associate who was able to laser profile the engine and tender frame plates for me. In retrospect, I think I would have had them profiled by Water-jet as there was considerable distortion which took ages to straighten out. From Geoff Hill I obtained some surplus frame stretchers and Drag box castings from an Alcocks Jubilee which are similar to those on the B 16. All other components were pre-fabricated. For the Tender it was only necessary to obtain "Netta" Wheels, Axle-boxes and Horns.

The boiler was basically a Martin Evans "Springbok" boiler with slight variations such as tube layout and back head bushes. This was quite acceptable to our boiler inspector at Fylde SME.

Development of the working drawings

When designing using "Autocad" I did not use the technique of "Layering" and did all sub-assemblies on the one page. By using this method I could see the big picture and was easy to make each sub-assembly as a Block which could be moved onto the Frame drawing at will to check for any obvious foul ups, it works well for me. However, I did separate detailed drawings of major sub-assemblies such as the Bogie, Cylinders and Boiler, The Tender was treated in the same manner. I don't intend to illustrate all the working drawings as there are far too many and are too complex so I will concentrate on the progress of the assembly.

In Part 4, I shall progress with the design, manufacture and assembly of the loco frames and Valve Gear (V G).

(www.indianalivesteamers.org)

In May, I visited my family in the States. We were in Indiana, so decided to visit a miniature railroad called 'The Indiana Live Steamers' in Edinburgh, IND. I wrote to the clubs' chairman, Dan Goins, and the members very generously offered to open the track for a visit.

November 2015



McLain Depot and coaling tower



The layout's impressive 'over and under' bridge



A hopper converted to hold ballast for MoW



The diamond crossing being installed for Phase 3



'Broken Toe' bridge



The new wooden bridge as part of Phase 3

To see a video of the track please visit Indiana Live Steamers May 2015 at
(www.youtube.com/watch?v=Cc9um3taV10)

A Tyreing Job

By

Martin Sams

While in the process of updating my Romulus 2-6-0 "Thor" to Walshaerts Valve gear, I had removed all three axles. The rear axle showed signs of overheating, to the stage of the shaft going blue. As the shaft ran directly in the cast iron wheel box, I decided that it would be better to fit Oilight bushes, with new shafts made from EN 8. The job was going well until one of the wheels fell off the bench; this removed part of the flange, when it made contact with the concrete floor.



Tyre fitted before final machining of rim.

After much debating I decided to re-tyre the existing two wheels on that axle. This was a job I had not undertaken before. I decided a discussion with my technical adviser was in order (Graham Duffy). He directed me to the Leyland MES web site, which lists a nice article on how to carry out the process. Graham also suggested purchasing a Temperature stick with a range of 275 centigrade, which would ensure that the ring would not be overheated while shrinking it on to the wheel. Overheating will expand the material too much and stop the ring shrinking back to its original size (in very simple terms).

The steel I used was EN3 BMS. It was 7.25" by 1.5" plates, which is a reasonable chunk of metal. Turning it down was carried out on a friend's Colchester Triumph lathe; what a wonderful machine for cutting lumps of metal quickly. Having got the rings to a rough size, the two wheels were machined with a recess on the outside, which allowed the tyre to located against a positive location.

Working on a shrink fit of 0.001" per inch of diameter the tyres were machined out accordingly. Now I got to the interesting part: following my technical adviser's advice I purchased a temperature stick with a value of 275 degrees centigrade. This was the calculated temperature required to expand the tyre without over doing it. In use it was just a question of heating the tyre progressively and rubbing the stick onto the metal. It's a bit like a crayon to use; when the stick melted the tyre had reached the correct temperature. With some trepidation I fitted the wheel into the tyre and waited for it to cool. After about ten minutes I lifted the wheel and tyre from the hearth and with a hammer hit the tyre quite hard. Success - the tyre and wheel rang like a bell.



Rear of wheel. Note mandrel for holding it while machining.



The final product.

After fitting both tyres, it was back to the lathe to complete the job of shaping the rim and flange. It was an interesting exercise and seems to have worked very well. My only concern is that the picture on the Leyland MES site showed the ring to be blue. I never reached that sort of temperature, with mine being a very feint straw colour.

7 ¼ Phantom 2-6-0 Frame problem overcome

Recently I started Phantom and after having the frames water cut at K Cut in Morecambe (Great Job) I set about marking and drilling the associated holes. A problem soon arose when I realised that the frames needed a 30mm hole in them for boiler blowdown.....What to do?

After scouring my workshop for my biggest drill it became apparent that the biggest I had was 1 ¼ MT3 - Great.....No my milling machine only takes MT2.

Now what? Well I did have a drill at 53/64 (21mm) with the right MT2 taper, hole drilled.... fantastic....progress at last. But how to enlarge it to 30mm?

Not being one to be stuck I scratched my head and had a cup of tea then I set about looking for something to machine the hole out. I came up with a Flycutter. Too big I hear you say....

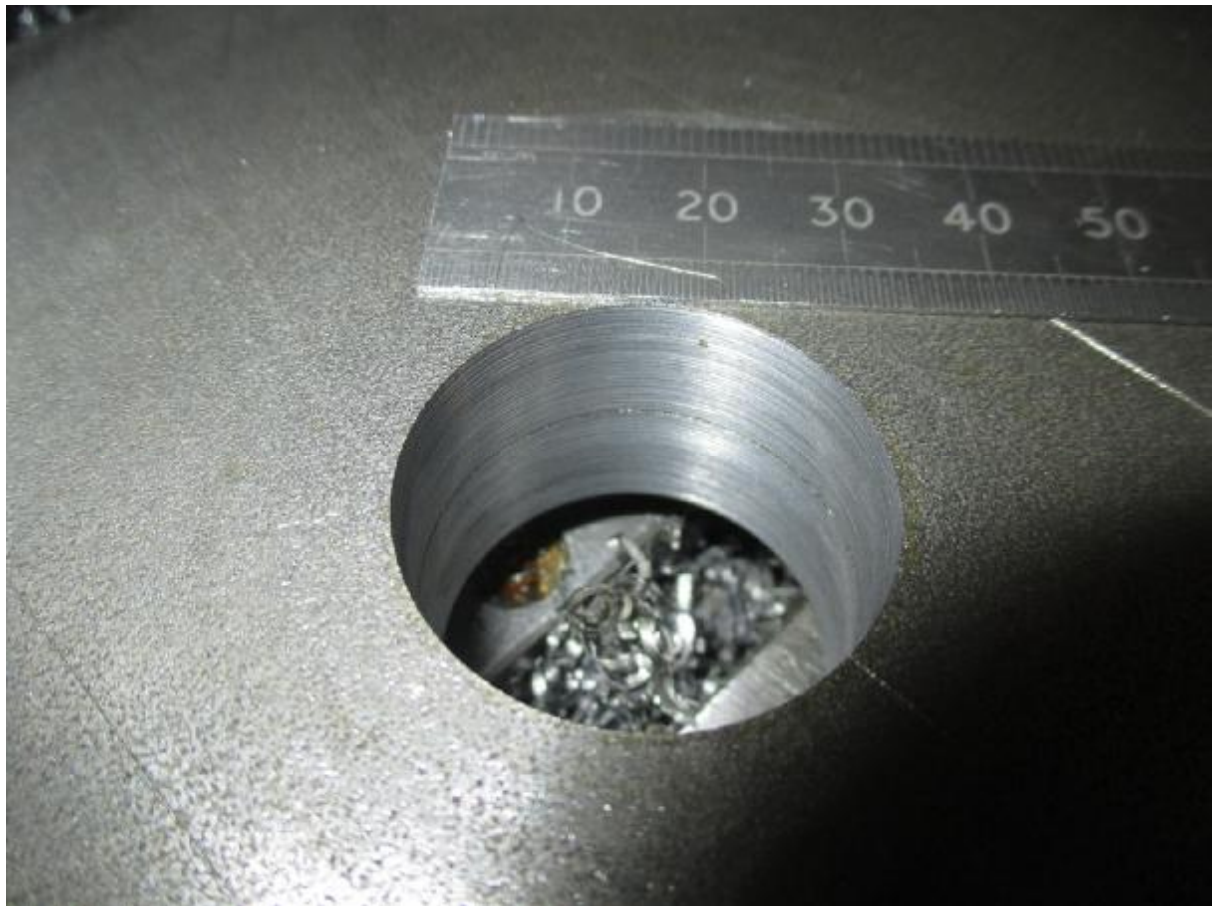
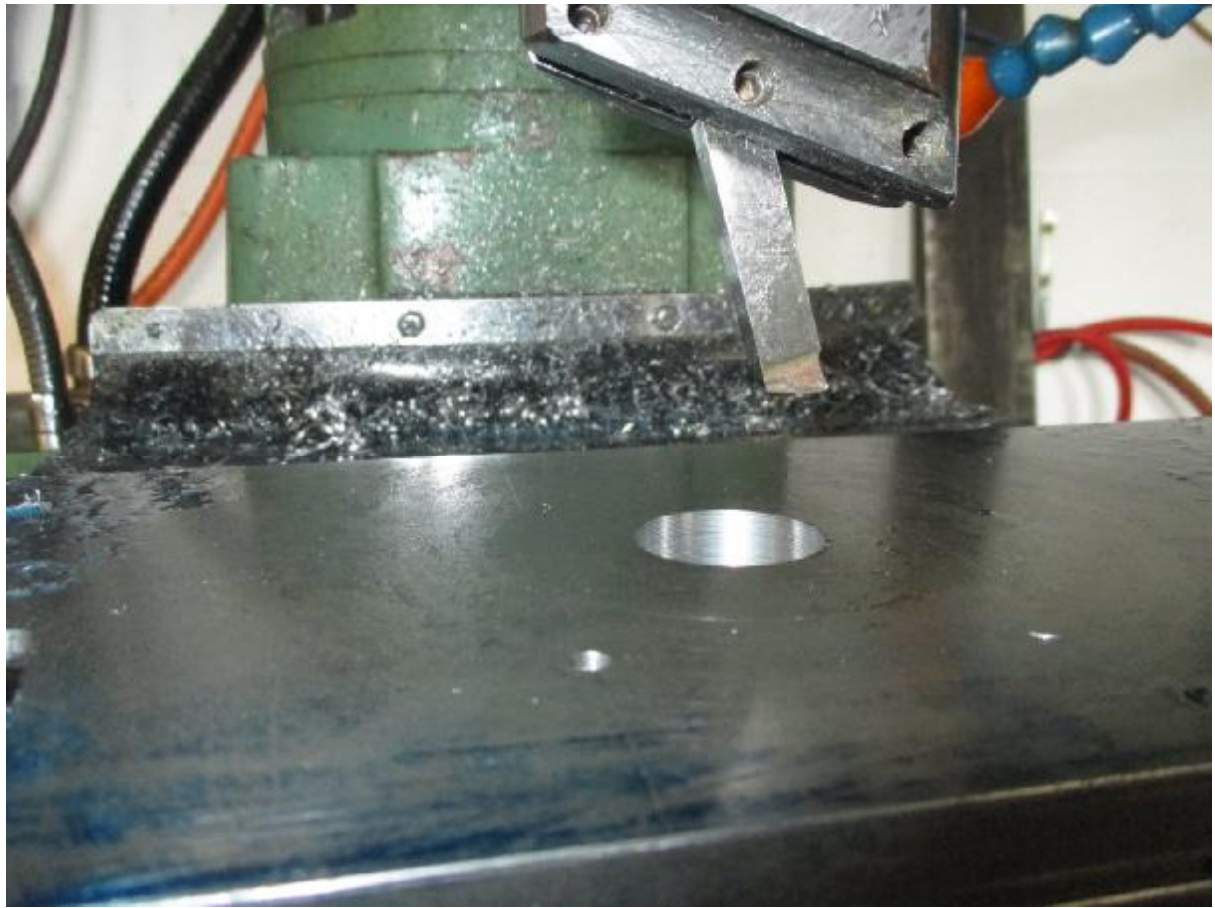
The flycutter was set in the machine and a piece of 3/8 HSS tool Steel duly ground with clearances and locked to place with the central grub screw ONLY! (Not for the faint hearted), the milling machine rotated by hand to check for snags then I gingerly tapped the tool steel sideways to represent a cut being put on.

The 1st cut was about 1/2mm per side and I slowly passed the tool through the hole, steady as she goes.....success. Larger cuts were taken up to 2mm per side each time by tapping the tool steel. This continued with the addition of Rocol and a final small cut; I am rather pleased with the result.

This is not a terribly accurate process but for a drilled hole it would suffice, just goes to show you what you can come up with if you put your mind to it.



R8 Flycutter & HSS Tool Steel



Hole cut to size



Frames General view

Mike Hirst

Dates For Your Diary

Events beyond Cinderbarrow

November 2015

21/22 Sat/Sun **Workington Model Show** - one of our members, Nicky Clifford, is hoping to run his loco on a portable track on the Sunday. Link <http://www.solrail.co.uk/>

February 2016

27/28 Sat/Sun **Manchester Model Engineering Exhibition** at the Middleton Arena.
Link <http://www.mmex.co.uk/>

May 2016

20/21/22 Fri/Sat/Sun **Doncaster show** - Harrogate show next year will be at Doncaster Racecourse and at the later dates of May 20/21/22.
Link <http://www.theharrogateshow.com/>

Events at Cinderbarrow

Our Society's programme of events in 2016 will be published soon.

Please note: Any comments or recommendations in this newsletter are not necessarily those of Lancaster and Morecambe MES Ltd management committee.