

Narrow Gauge Locomotive Efficiency Competition 2013

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On the weekend of 15th & 16th June 2013, the South Cheshire Model Engineering Society hosted the N.A.M.E. Narrow Gauge Locomotive Efficiency Competition. This was the second time our society has organised this event and I'm happy to report that, thanks to the help of our members (and the weather) over the weekend, it was a complete success.

Early morning both on Saturday and Sunday, members got together to prepare the rolling stock, the track and the clubhouse for the event. We were very fortunate with the weather during the weekend with Saturday being quite sunny, seeing only one shower during the afternoon and, as for Sunday, we had sunshine throughout. All the competitors turned up early morning on both days and were signed in and organised in brisk fashion.

Amongst the many visitors over the weekend was John Arrowsmith representing the sponsor magazine, Engineering in Miniature, taking photos and details of each of the competitors in preparation for his article. John told me he used to live in Crewe many years ago when working for the railways but has since moved back home to Herefordshire; he is an active member of the Hereford Model Engineering Society.

Frank Cooper, Chairman of Northern Association of Model Engineers, was present on the Saturday enjoying the event, but unfortunately unable to attend on Sunday due to other commitments. However, on Sunday the Treasurer of the N.A.M.E., Richard Guthrie, was in attendance overlooking proceedings and handing out the awards at the end of the day's event.



1

Saturday's proceedings were started by Nigel Thompson from Erewash Valley MES.

Nigel, who had built the locomotive, had a faultless run with his 3½" Gauge 0-4-0 Conway 'Betty', which won best 3½"G at last year's event at Southport. Completing his run, Nigel turned in an overall efficiency of 1.196%.



2

Second up was young Tim Jenkins from the Southport MES driving his 5" gauge Polly IV 0-6-0 'Katie'.

From my recollections of the day, Tim had somewhat overloaded his train, taking something like 12 loaded wagons which meant he had problems on the first curve finding his feet, and had to lighten his load. A number of wagons removed, he set off and had a trouble free run turning out 1.560% efficiency.



3

Our third competitor was last year's winner of the event, Marcus Peel, from Southport MES with the same loco, a 5" Gauge Kerr Stuart 0-4-2 'Edward Thomas' pulling 10 wagons.

Marcus started the run in fine style but unfortunately said he had trouble steaming the engine and after a short time had to retire.



4

Horace Doncaster from Erewash Valley MES was next up with his Walschaerts valve gear Sweet Pea. Unfortunately on the day Horace was confined to a wheelchair so Peter Hardy was at the regulator for the run.

I am not sure what problem Peter had but the run was cut short after just 2 Laps of the track and was marked as retired.



5

Another Southport member for our 5th run was John Williams driving his Polly 3 'Gwendoline'.

It was during this run that we had a rain shower and were expecting John to struggle with adhesion, but we need not have worried as he trundled round with a good load for the full time and turned in an efficiency of 1.848% ending up in 6th position.



6

The penultimate run of the day saw a return to the track of Marcus Peel, this time with his 3½"G 0-4-0 Conway.

Following his disappointing earlier run, Marcus had a faultless trip pulling a load of 5 wagons resulting in a commendable efficiency of 1.885% and taking the award for the best 3½" Gauge locomotive.



7

Finally on Saturday we saw Keith Tilbury from the Urmston & District MES driving his 5" Gauge 0-6-0 Polly IV.

Keith says that the locomotive is named only when it's working properly and that it doesn't have any superheaters. Well, there's an argument for putting superheaters in, as Keith went round with a load of 8 wagons and turned in an efficiency of 1.867% and coming 5th overall.



8

Sunday arrived with wall to wall sunshine, and the event started off on time with Alan Reid from the Fylde Society of Model Engineers driving his 20 year old 5" Gauge Sweet Pea complete with Bremme valve gear.

Alan had a difficult start: after 1 circuit of the track thought he would have to retire – saying to me: "hurry up and take a photo as I don't think I'll last!". I'm not sure what happened, but after saying this, everything seemed to go alright and Alan finished the course with efficiency of 1.178%.



9

The 2nd run on Sunday (Run 9 overall) was Trefor Milns from Shrewsbury MES & Derby SMEE with his massive 5" Gauge South African Railway NG6 'Joan'.

So big was the engine that he had to couple the tender up behind the dynamometer car and run water tubes along the side to feed the boiler. Pulling approx. 10 wagons, Trefor had a faultless run and recorded an efficiency of 2.649% and finishing 2nd overall.



The youngest competitor of the event Billy Stock, 13yrs old, from Urmston & District MES, was next up driving Dave Roberts' 5" Gauge Beyer Peacock 0-6-2.

I am told that Billy is one of the society's top drivers and he certainly showed his skill with his run. Taking approx.10 wagons, Billy had a superb run until the last lap when he was nearly out of steam – so rather than building the fire up and use more coal, he tactically stopped, uncoupled his train and finished his run light. The decision he made was perfect, and he turned in an efficiency of 1.935% finishing 3rd overall.



Run number 4 on Sunday saw the return of Tim Jenkins from Southport who ran on Saturday with his Polly IV.

This time Tim was driving his 3½" Gauge Conway 'Conwy' pulling 6 wagons. The locomotive worked hard throughout the run and showered the observer (me!) with ash. Sadly towards the end of his run it was all too much and he came to a stand on the back curve with little fire left. Tim tried in vain to resurrect the fire but to no avail and had to retire. When the smokebox was opened at the end of the run it was found to be completely full with ash and many photos taken of this anomaly.



(Ah! That's why it wouldn't steam!).



Our 5th competitor of the day (Run 12) was Mike Barnett with his 5" Gauge Atkinson Uniflow 0-4-0 'Jess'.

From just down the road in Stoke, Mike is a member of North Staffordshire MES and has had this loco in this event on several occasions, winning 3 of them. This locomotive made it look easy, with a medium load it just purred around the track with the observer frequently asking if Mike wanted any water to which the reply was "Nah, it will run for 40mins before any water is wanted". Also, believe it or not, obvious winner, Mike had an efficiency of

3.189% and took the award.



Run number 6 (13 overall) was Jon Milns from Shrewsbury MES with his Dad's 5" Gauge 0-4-0 Talyllyn No.2 (Dolgoch) named 'Pretoria'.

Jon had a faultless run, loaded with 9 wagons and turned in an efficiency of 1.812%. There is a short film of both Trefor & Jon running at the event over the weekend which has been uploaded to 'Youtube' [NGLEC 2013](#) (or type in - NGLEC 2013).



Our very own society member Melvin Bean was the 7th run of the day driving yet another 5" Gauge 0-4-0 'Dolgoch'.

Melvin has had this locomotive almost 3 years and has done sterling work at our track over that time. Melvin had a similar run to the other Dolgoch experiencing no problems with a medium load, and finished with an efficiency of 1.498% placing him 9th overall.



The final run of the competition (Run 15) was the second appearance of Mike Barnett with his 5" Gauge 0-4-0+0-4-0 K1 Garrett.

Both designed and built by Mike so as to fit into an average estate car. The only problem Mike had with his run wasn't mechanical but physical – as he was a little plagued with cramp in his right leg and needed to stop occasionally to stretch his muscles. Mike completed his run turning in an efficiency of 1.053%.

Not sure whether this has happened before with locomotives that completed the course, but did anyone else notice that Mike both won the competition and also came last with his locomotives.

With all runs finished and fires dropped, it was over to the clubhouse for the results and award of trophies and prizes. Our Chairman and Chief Judge for the event Paul Vidler took to the microphone to thank competitors for attending and competing in the competition and, as mentioned earlier, Richard Guthrie Treasurer of NAME was on hand to congratulate the winners and award the prizes:

- 1st - Mike Barnett, North Staffs MES - 5" Gauge Atkinson Uniflow 0-4-0.
- 2nd - Trefor Milns, Shrewsbury MES & Derby SMEE - 5" Gauge SAR NG6 'Joan'
- 3rd - Billy Stock, Urmston & District MES - 5" Gauge Beyer Peacock 0-6-2
- Best 3½" Gauge Locomotive - Marcus Peel, Southport MES - Conway 0-4-0



Mike Barnett collects the winners Trophy



Trefor Milns receives 2nd prize



Billy Stock receives 3rd prize



*Marcus Peel receives
Best 3½" Gauge Trophy*

[sic - And – just look at those braces – they deserve a prize of their own ! Website Editor]



I would also like to take this opportunity to thank the Ladies of our society for their time and supply of the excellent fare during the two days of the event. Elizabeth Vidler, Maureen Brown, Sue Riley, Kath Daw and Liz Mansell were there from early morning both days until the end of Sunday providing a superb service to everyone with food and drinks. John Arrowsmith was particularly impressed, and asked to take a picture of the catering staff to which the reply was: 'You can as long as the picture gets in the Engineering in Miniature magazine! We shall have to wait and see whether John gets clearance! (If he didn't, here's the next best thing).

All in all, the weekend event was a complete success and a credit to the South Cheshire Model Engineering Society. There are many people who have voluntarily taken up many hours of their valuable time to ensure that this competition ran smoothly and I would like to mention just a few.

Firstly, thanks go to the man who did the overall organising of the event Stuart Daw. Stuart spent many hours on the phone with sponsors, competitors, donators and a host of others, travelled many miles collecting and returning equipment, overseeing all the proceedings during the two day event, compiling the programme contents and a host of other necessary jobs, no mean task!

Thanks also to Mike Smith and Colin Mansell for their number crunching in the clubhouse to ensure accurate calculation of results and Paul Vidler for taking the onus of the position of Chief Judge. The members of the committee deserve a special mention for burning the midnight oil with a number of marathon meetings on the lead up to the event. But the biggest thanks should go to the members of the society who turned up on the days to help without whom the event could not have been staged. Thank you.

Finally, here is a copy of the official results table:

Run	Loco	Gauge	Competitor	Society	Distance - feet	Coal used (lbs)	Time	Work done	Average DB HP	Coal consumption lbs/hr	Specific coal consumption	Overall Thermal Efficiency %	Final Pos
							Min						
4	Sweet Pea' (Walsch v.g.)	5	Hbrace Doncaster	Erewash Valley MES	1310	0.094		9780	0.01	0.188	18.98	0.925	retired
11	Corwy' Hunslet 0-4-0	3.5	Tim Jenkins	Southport MEC	7469	2.238		235505	0.198	3.719	18.812	0.933	retired
3	Kerr Stuart 0-4-2 'Edward Thomas'	5	Marcus Peel	Southport MES	2482	0.644		95870	0.097	1.288	13.295	1.32	retired
15	SAR K1 Beyer 0-4-0-0-4-0	5	Mike Barnett	North Staffs MES	6311	1.888	28	224230	0.241	4.009	16.667	1.053	12
8	Sweet Pea	5	Alan Reid	Fylde SME	6621	2.463	29	327450	0.332	4.944	14.89	1.178	11
1	0-4-0 Conway 'Betty'	3.5	Nigel Thompson	Erewash MES	7475	1.756	32	236930	0.218	3.201	14.677	1.196	10
14	Fletcher Jennings No 2 'Dolgoch'	5	Melvin Bean	South Cheshire MES	9940	2	31	338170	0.33	3.861	11.71	1.498	9
2	Polly IV 'Katie'	5	Tim Jenkins	Southport MES	9952	1.831	31	322330	0.315	3.544	11.249	1.56	8
13	Fletcher Jennings 'Pretoria'	5	John Milns	Shrewsbury & Derby SMEE	11185	1.631	34	333510	0.297	2.879	9.684	1.812	7
5	Polly 3 with tender	5	John Williams	Southport MES	9940	1.975	33	41900	0.376	3.573	9.494	1.848	6
7	Polly 4	5	Keith Tilbury	Urmston & District MES	8722	1.631	27	343690	0.381	3.579	9.398	1.867	5
6	Corway 0-4-0	3.5	Marcus Peel	Southport MEC	9956	1.606	30	341680	0.342	3.186	9.308	1.885	4
10	La G & C Railway Venezuela Beyer Peacock 0-6-2	5	Billy Stock	Urmston MES	7471	2	30	436740	0.43	3.902	9.067	1.935	3
9	SAR NG6 'Joan'	5	Trefor Milns	Shrewsbury & Derby SMEE	11205	2.213	31	661250	0.646	4.282	6.625	2.649	2
12	Jess' Atkinson Uniflow engine Sentinel outline	5	Mike Barnett/Ron Painter	North Staffs MES	11187	0.894	30	321640	0.325	1.788	5.502	3.189	1