



Formed 1929

IMLEC 2012



Nottingham Society of Model and
Experimental Engineers Ltd.

present

The International Model
Locomotive Efficiency Competition

for the

Martin Evans Challenge Trophy

**THE 2012 INTERNATIONAL MODEL LOCOMOTIVE
EFFICIENCY COMPETITION**
for the
Martin Evans Challenge Trophy
on
Friday 13th July, Saturday 14th July and Sunday 15th July 2012

**Prizes will be presented by Councillor Irving Korn,
The Mayor of Rushcliffe.**

The Overall Winner will be awarded, by courtesy of Model Engineer magazine the Martin Evans Challenge Trophy and £200.

2nd Prize £150.

3rd Prize £100.

The best 3½" gauge winner (if more than two completed runs by competitors) and not the overall winner will receive £75.

Winning Junior (if not the overall winner) £50.

*Wooden spoon prizes include:
Lowest efficiency, a bottle of champagne.
Burnt most coal, a bottle of champagne.*

*Page 3
IMLEC Chairman's Welcome.
Page 4
A Brief History of IMLEC.
Page 7
The Rules (abridged version).
Page 11
Previous IMLEC Winners.
Page 12
IMLEC 2012 running order for Friday and Saturday.
Page 14
N.S.M.E.E. Site Plan.
Page 16
IMLEC 2012 running order for Sunday.
Page 19 — 26
The IMLEC 2012 Competitors.
Page 27
Acknowledgements.*



*Front Cover:
Ben Pavier winner of the 2011 IMLEC
with the Martin Evans Challenge
Trophy.*

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Chairman's Welcome

Doesn't time fly – it seems like no time at all since ME asked Nottingham SMEE to host IMLEC. It is 43 years since the first IMLEC but this is the first time NSMEE as played host to the competition.

During our preparations we spoke to previous hosts and competitors, armed with one hundred facts you should know about IMLEC we started our preparations In the blink of an eye here we are on competition day with a collection of familiar engines and competitors.

At this point we would like extend a warm welcome to you all and welcome you to our home at Little Ruddington. We are aware that many of you have travelled a long way and this may be your first visit to NSMEE; within the pages of this programme you will find a variety of information, but if there is something you would like to know just ask one of our members or myself I will be on site on Saturday and Sunday.

To the competitors my thanks for coming along, I am looking forward to watching you in action, this is my first IMLEC and having read many articles of past IMLEC competitions I am really looking forward to the next two days.

Sue Marquis *Chairman*



A Brief History of IMLEC

The history of the International Model Locomotive Efficiency Competition - or IMLEC, as most model engineers have come to know it - dates back to 1959 when a meeting was called at the Model Engineer magazine offices to discuss the possibility of organising an annual event to test the efficiency of miniature steam locomotives. However, its true origins can be traced back to around 1903; long before it was to become recognised as a competition in the true sense of the word: More of this later.

However, to first return to the origins of the competition, proper: In 1959 LBSC was consulted and later - in typical LBSC fashion - remarked that although he had been consulted, his views had been ignored. The then Editor of Model Engineer replied by saying that his response to the proposal had been negative. It is fair to say that LBSC was clearly against efficiency trials when he quoted a story about two fictitious friends who took part in a club trial and then fell out afterwards over the result. Of course, most model engineers would say that he was possibly missing the point. However, he was heard to say that; "Aim for efficiency, by all means; but do it for your pleasure and don't parade it at the other fellow's expense! I would rather see all so-called 'efficiency trials' abolished and the time better spent in giving joy-rides to children!". The following years have shown that both can co-exist for both the benefit of those interested in competition and those that derive pleasure in using their locomotives to give pleasure to children - plus adults too!

Despite this, soon a formula was agreed that was seen at the time as being an accurate way of measuring the efficiency of both 3½" and 5" gauges - the more common gauges of the time. This method was then drawn-up into a set of formulas and recommended for general acceptance by the various societies up and down the country. At this time, though, these rules did not take into account the calorific value of the fuel.

Printed alongside these published formulas was an indication that Model Engineer magazine was also considering the establishment of an annual national efficiency competition for passenger hauling steam locomotives of 3½" and 5" gauges based around these formulas; where it was expected that societies would hold their own individual trials early in the season and submit their two most efficient locomotives with drivers as entries in this national competition.



John Drury. Winner of the first IMLEC 5th September 1969.

Model Engineer magazine were to sponsor the competition as well as provide prizes for the winning entry – a tradition that continues to this day.

When this idea was published several societies indicated their interest in adopting the proposed efficiency formula; whilst some others went further by expressing their interest in Model Engineer magazines' proposal for a national competition. The proposal went even further by suggesting elimination contests to be held on society tracks, with the winners going forward to represent their respective societies at regional or national finals, with a trophy and a cash prize of £25 being awarded to the winning society.

Despite all this talk it is interesting to note that it was a further ten years before anything further happened and on March 7th 1969, Martin Evans, the then Editor of Model Engineer, announced that a locomotive efficiency competition to be known as The Model Engineer International Model Locomotive Efficiency Competition was to be held.

The first IMLEC was hosted by the Birmingham SME in July that same year. With a fine silver cup together with second and third prizes being donated by Model Engineer magazine, it was hoped that most of the major model engineering societies would enter. Some individual entries would also be welcome. A further announcement on 21st March that year confirmed that twenty locomotives of 3½" and 5" gauges would compete for the Martin Evans' Locomotive Challenge Cup and £25, a second prize of £10 and a third prize of two years' subscription to Model Engineer. For the time, quite generous prizes!



Ben Pavier. Winner of the 2011IMLEC.

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Saturday
9.00am – 1.00pm

Rules and Organisation : Abridged

(a full set of rules can be viewed in the exhibition tent.)

Preparation for the run

Competitors should arrive at the track at least one and a half hours before their run and report to the steaming bay reception. At this point the competitor shall :-

- a. Present the necessary documentation including boiler certificate
- b. State the amount and grade (size) of coal required for the run. The coal will be weighed and allocated in presence of the Driver.

Ample preparation time shall be allocated to the competitor and the competitor shall be ready to run at his or her allocated time. Failure to run on time may be regarded as a retirement. The Judge shall use discretion and make the final decision.

The Driver shall use his or her discretion with regard to the appropriate time to light up. (The Driver will be notified of any foreseeable delay to the running time before lighting up.)

The Driver will be provided with as much dry, or paraffin soaked, charcoal and wood as is required to raise steam. The Driver may use his own *wood* for lighting up purposes but this must be approved by the steaming bay Marshal

Any coal used during steam raising will be from the measured allocation.

The Driver may decide when to start to use coal but the locomotive must be burning coal before leaving the steaming bay.

The train will be prepared for the Driver with the dynamometer car at the front and sufficient passenger cars to carry the number of passengers he or she requires. For safety reasons this must be limited to a maximum of 28 persons including the Driver and Observer. (For practical reasons it may be necessary to limit the load or number of carriages pulled in the contest.) The train will be made ready before the locomotive leaves the steaming bay.

The Driver will be allocated an Observer. The Observer will oversee all procedures between and including raising steam and completing the run.

The Observer shall give an instruction to move to the start line at an appropriate time. The Driver shall advise the Observer of the number of passengers he/she wishes to take.

All coupling and uncoupling of the locomotive must be carried out by the host club Marshals, to the Driver's satisfaction.

The Observer will record the initial dynamometer car readings in the presence of the Driver.

The Driver shall inform the Observer when he is ready to start the run and the Time-keeper shall give the Driver permission to start.

If the Driver is unable to commence the run within a reasonable time of the designated start time he/she will be deemed to have retired.

The run

The run length is nominally 30 minutes.

- The Timekeeper shall inform the Driver when he has been running for a) 15 minutes and b) 20 minutes.
- The Driver will be notified when he/she has completed 25 min of the run, at which point the Driver can either finish the run at the finish line or continue for one (or more, if time permits) further lap but in any event the Driver must start the last lap no later than 30 minutes after the start time.
- Recording will commence and conclude at the Start/Finish Line. (A slight over-run at the finish line will be disregarded.)

In the event that the Driver does not complete his/her run, he/she shall be deemed to have retired. ("Completing the Run" means bringing the train to a stand upon reaching the Finish Line, the locomotive having reached the Finish Line entirely under its own steam.)

The total period the train may be stationary during the run will be eight minutes. If this is exceeded then the competitor will be deemed to have retired.

Water will be provided in suitable containers during the run to enable locomotive water tanks to be topped up without stopping. The amount of water used shall not be recorded or limited in any way.

Additional coal will be available to the Driver during the run and its use recorded.

Unused coal will be weighed and recorded in the presence of the Driver upon completion of the run. This will be debited to the recorded coal consumption.

Only the total weight of coal burnt will be used in the calculations. No allowance will be made for any unburnt coal in the firebox.

Maximum speed.

The host club shall have discretion in respect of safe operational speed limits and make them known to each Driver. The dynamometer car shall provide a speed indication at the Driver's position. The Observer will issue a warning to the Driver of the speed limit if necessary. Three such warnings may result in disqualification. The Observer will have the power to end the run should the Driver be considered to be driving unsafely. In the event of a disagreement the Judge's decision will be final.

The use of a hand pump is not permitted once the run has commenced. However, it may be used in emergencies when all other means of water feed have failed and in which case the locomotive must be retired and the run terminated immediately.

The Driver may elect to set down passengers during the run but only when the train is stationary and it is safe to do so. Passengers may not be picked up at any time. In the interest of safety, the guard may, at his discretion, instruct that passengers be redistributed throughout the train.

No external assistance is to be given to the train in any way whatsoever, at any time during the run.

The Driver shall have access to a train brake *for emergency use only*. Any use of the brake under non-emergency conditions may result in disqualification. This includes use of the brake to slow the train at any point. The brake may be used to stop the train at the end of the run.

The use of sand to improve adhesion will be at the discretion of the host club. Any Driver may *request* that the track be sanded. (If the host club has a strict policy on the use of sand on the track, this shall be made clear on the application form.) However, any locomotive fitted with working sanders shall be allowed to use them for the purpose of sanding the track.

The host club will endeavour to post the results of each run as soon as possible following the end of the run.

In all matters relating to the competition, the decision of the Judge is final.

Calculations and results

The dynamometer car measures and gives readings of the 'Total Work Done' in foot-pounds and 'Total Distance Travelled' in feet. In addition the 'Overall Run Time' in minutes and 'Weight of Coal' in pounds are recorded.

From these parameters the following calculations can be made :-

$$\text{Overall Thermal Efficiency \%} = \frac{\text{Work Output} \times 100\%}{\text{Heat Input}}$$

The calorific yield of the coal is assumed to be 14,000 B.T.U. per pound.

The number of ft-lbs per B.T.U. is 778. Thus :-

$$\text{Overall Thermal Efficiency \%} = \frac{\text{Total Work Done} \times 100}{\text{Weight of coal used} \times 14,000 \times 778}$$

The locomotive that returns the highest thermal efficiency is the winner.

Additional calculations

These calculations shall be made public alongside the Results Table for interest only.

$$\text{Average Drawbar Horsepower} = \frac{\text{Total Work Done (ft-lbs)}}{\text{Overall Running Time (mins)} \times 33000}$$

$$\text{Coal Consumption Rate} = \frac{\text{Weight of Coal Used (lbs)} \times 60}{\text{Overall Run Time (mins)}}$$

$$\text{Specific Fuel Consumption (SFC)} = \frac{\text{Coal Consumption Rate}}{\text{Drawbar Horsepower}}$$

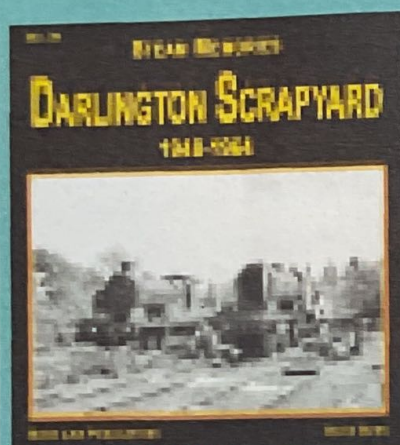
$$\text{Average draw bar pull} = \frac{\text{Total work done}}{\text{Total distance travelled}}$$

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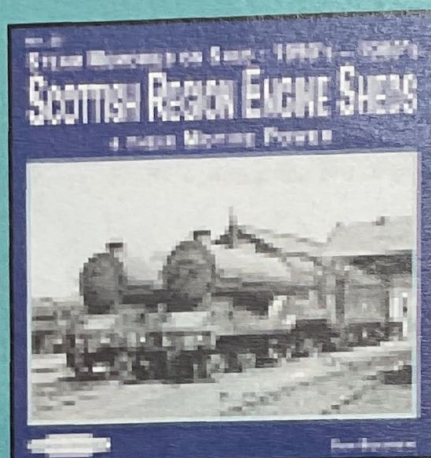
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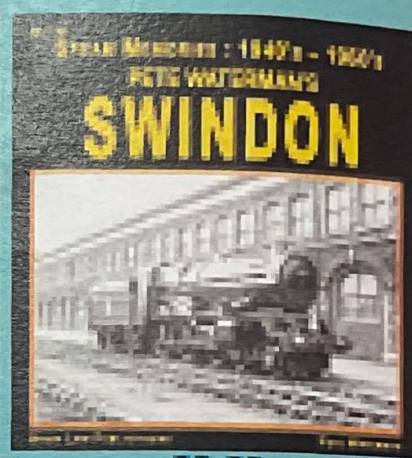
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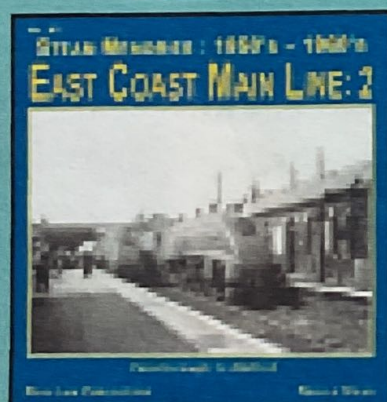
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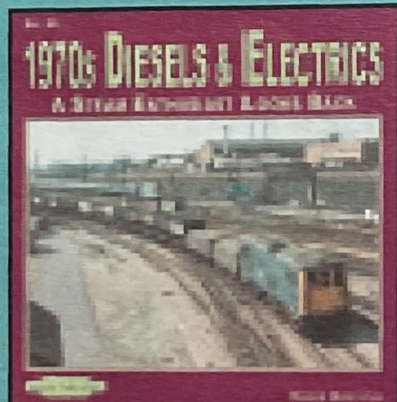
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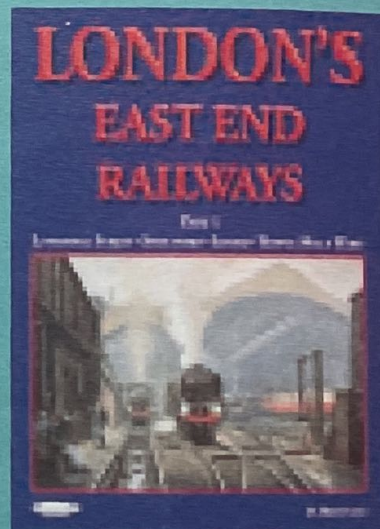
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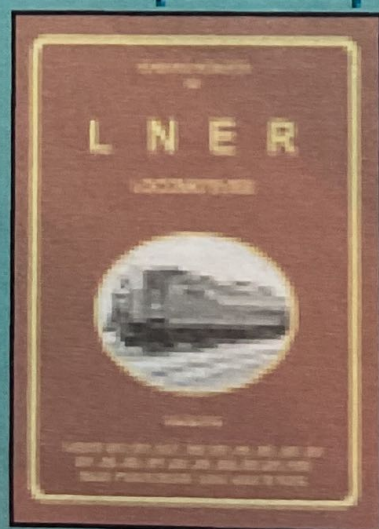


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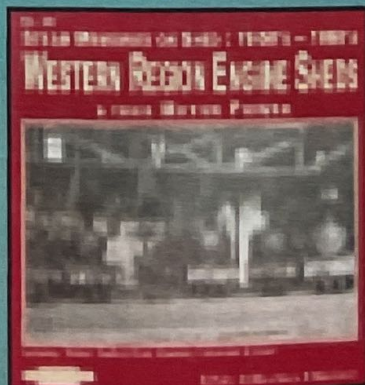
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- 1969 Birmingham - John Drury 5" Royal Scot
- 1970 Witney - Len Labram 5" Firefly
- 1971 Southampton - A. Haydon 5" GWR Dean Single
- 1972 Tyneside - Norman Spink 5" GWR 57XX
- 1973 Chingford - Pat Killian / B. Longstaff 5" LNER L1
- 1974 Bristol - Fred Winsall 5" Nigel Gresley
- 1975 Tyneside - Laurie Joyce 3½" GWR King
- 1976 Kinver - Bill Perret 5" Speedy
- 1977 Chingford - Bill Perret 5" Speedy
- 1978 Guildford - Percy Wood 5" Maid of Kent
- 1979 Bristol - David Morris 5" Sterling Single
- 1980 Bedford - Percy Wood 3½" BR Class 7
- 1981 Bournemouth - Percy Wood 5" LNER J39
- 1982 Leyland - Roy Armsbury 5" GWR de GLEN
- 1983 Guildford - Les Pritchard 5" Royal Scot
- 1984 Bristol - Les Pritchard 5" Royal Scot
- 1985 Urmston - Alan Crossfield 5" Nigel Gresley
- 1986 Bournemouth - Alan Crossfield 5" Nigel Gresley
- 1987 Birmingham - Kelvin Moonie 5" LSWR Adams
- 1988 Leeds - Lionel Flippance 5" BR Proposed 2-8-2
- 1989 Leyland - Lionel Flippance 5" BR Proposed 2-8-2
- 1990 Guildford - Lionel Flippance 5" BR Proposed 2-8-2
- 1991 Bristol - Kevan Ayling 5" BR Proposed 2-8-2
- 1992 Leeds - Dave Sutcliffe 5" S&D 7F
- 1993 Leyland - John Heslop 5" Stanier
- 1994 Gravesend - John Heslop 5" Stanier
- 1995 Kinver - John Heslop 5" LNER Class P2
- 1996 Northampton - Alan Crossfield GWR Manor
- 1997 Llanelli - Len Steel 5" Britannia
- 1998 Kinver - Kevan Ayling BR Proposed
- 1999 Northampton - Jim Elliott 5" Speedy
- 2000 Leyland - Lionel Flippance 5" BR Proposed 2-8-2
- 2001 Cancelled
- 2002 Leeds - Geoff Moore 5" B1
- 2003 Bristol - Geoff Moore LBSC Minx
- 2004 Kinver - Glyn Moore 5" 01 2-8-0
- 2005 Northampton - Ballan Baxter 5" K1
- 2006 Fareham - Les Pritchard 5" L&Y 0-6-0
- 2007 Llanelli - Steve Eaton 5" Britannia
- 2008 Southport - Brian Remnant 5" N.G. 0-4-2ST
- 2009 Bristol - Neil Mortimer Freelance Polly III
- 2010 Bournemouth - Steve Eaton 5" Britannia
- 2011 Bromsgrove - Ben Pavier 5" Britannia

IMLEC 2012

Friday 13 July 2012

Run	Time	Locomotive	Gauge	Wheel Arrangement	Entrant/Driver	Club/Society
1	15.00	NER 'Netta'	5"	0-8-0	David Tompkins	Guilford
2	15.45	L&Y 'A' Class	5"	0-6-0	Mike Firth	Nottingham
3	16.30	LNER B1 'Gazelle'	5"	4-6-0	Paul Tompkins	Guildford
4	17.15	BR Class 9F No 92219	5"	2-10-0	Mike Richardson	Bristol

Saturday 14 July 2012

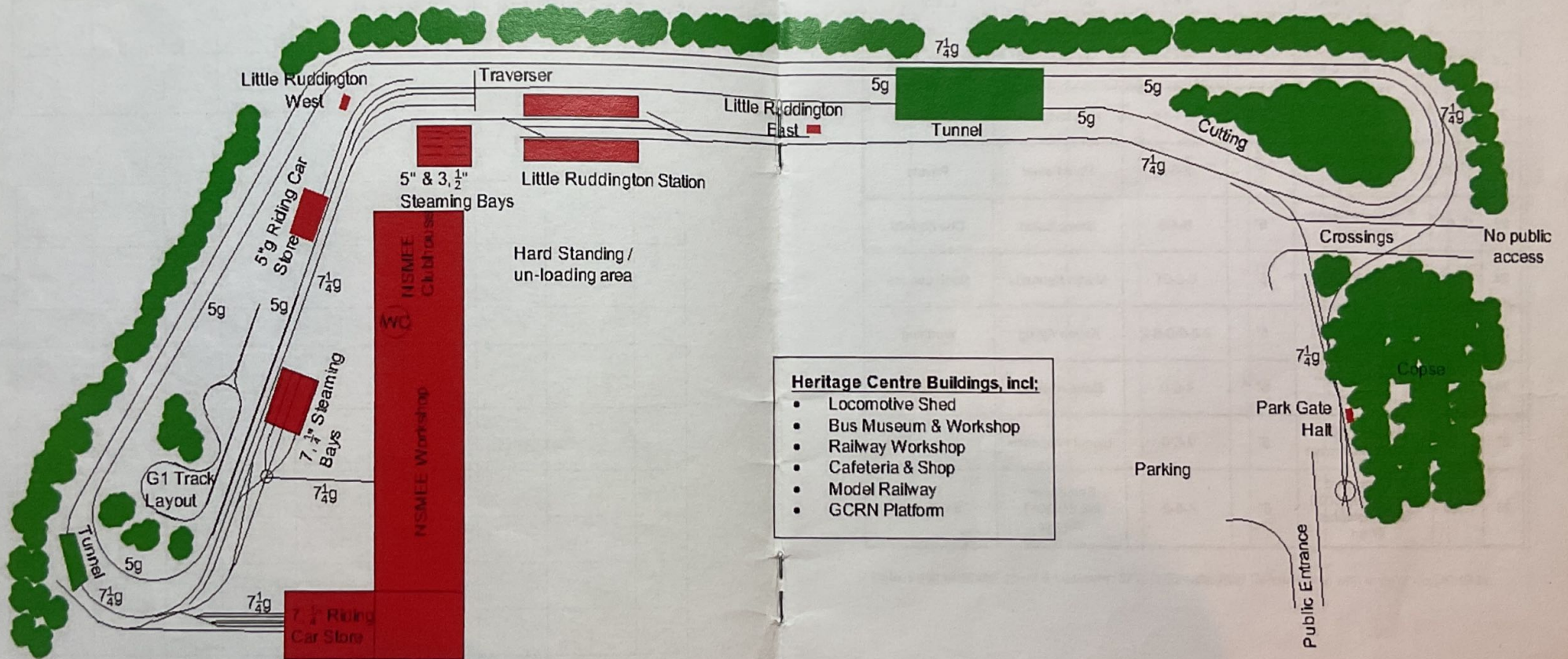
5	09.25	LNER A1 Pacific No 60113 'Great Northern'	3½"	4-6-2	James Kendrick /Nick Elliott	North West Leicestershire
6	10.00	LNER B2 Royal Sovereign	3½"	4-6-0	Marcus Peel	Southport
7	10.40	SR Merchant Navy	3½"	4-6-2	Tim Jenkins	Southport
8	11.20	BR Standard Class 7; No 70051 'Firth of Forth'	3½"	4-6-2	John Cottam	Chesterfield
9	12.00	GWR Manor No 7817 'Garsington Manor'	5"	4-6-0	Michael Topham	Private
10	12.40	LNER 'N2' Tank No 4750.	5"	0-6-2T	Les Pritchard	Harlington
11	13.20	LMS Black Five No 45136.	5"	4-6-0	David Beale / Stephen Botterill	Leeds
12	14.00	Quarry Hunslet 'Holy War'.	5"	0-4-0T	Glynn Winsall / George Winsall	Rugby
13	14.40	GNR Class 'O3' 'Worsfold'	5"	2-8-0	Craig Weatherley	Worthing
14	15.20	Polly V	5"	2-6-0	Keith Tilbury	Urmston
15	16.00	BR Peppercorn 'A1' Pacific No 60136. 'Alcazar'	5"	4-6-2	David Gregson	Private
16	16.40	GWR Manor No 7803 'Barcote Manor'	5"	4-6-0	Alan Crossfield	Leyland
17	17.20	BR 9F No 92245	5"	2-10-0	Neil Skellon	Urmston

RUNNING ORDER

For Sunday running see pages 16 and 17.

Load (Adult)	Running Time (mins.)	Distance (ft.)	Total Work (ft. lbs.)	Average Drawbar HP	Coal Used (lbs.)	S.F.C.	Efficiency (%)	Position

Site Plan



Nottingham Society of Model and Experimental Engineers Ltd

IMLEC 2012

Sunday 15 July 2012

Run	Time	Locomotive	Gauge	Wheel Arrangement	Entrant/ Driver	Club/ Society
18	09.20	LMS Class 5 'Doris'	3½"	4-6-0	John Barr	Leyland
19	10.00	South African Railways (SAR) Class 14 F	3½"	4-8-2	Bruce Hope	Guildford
20	10.40	BR 9F No 92220	5"	2-8-0	David Kerry	Chesterfield
21	11.20	Freelance 'Tomking'	5"	4-8-4T	Karl Midgeley	Gravesend
22	12.00	GNR Class '03' 'Smuggler'	5"	2-8-0	Paul Pavier	Private
23	12.40	Freelance based on Polly	5"	0-4-0	Steve Eaton	Chesterfield
24	13.20	GWR 1500 Class	5"	0-6-0T	Martin Kennedy	North London
25	14.00	Kitson Meyer Freight	5"	2-8-0-0-8-2	Kevan Ayling	Worthing
26	14.40	LMS Black 5 No 5428	5"	4-6-0	Dave Roberts	Urmston
27	15.20	Proposed BR Freight Locomotive	5"	2-8-0	Lionel Flippance	Worthing
28	16.00	BR Standard Class 7 No 70039 'Sir Christopher Wren'	5"	4-6-2	Ben Pavier IMLEC 2011 Winner	Southport

RUNNING ORDER

Load (Adult)	Running Time (mins.)	Distance (ft.)	Total Work (ft. lbs)	Average Drawbar HP	Coal Used (lbs.)	S.F.C.	Efficiency (%)	Position

Note: Load excludes driver & observer. SFC is Specific Fuel Consumption with units of lbs/DBHP hr.

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The 2012 IMLEC Competitors

James Kendrick

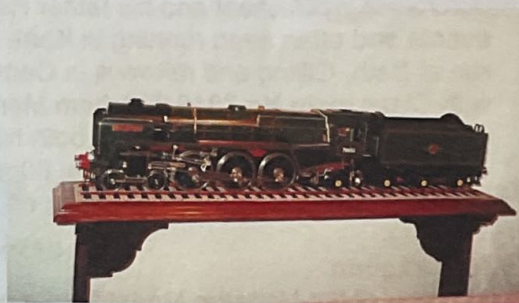
Member of North West Leicestershire Society of Model Engineers.

3½" gauge Thompson A1 Pacific 'Great Northern' built by Norman Lowe and completed by him in 1960. The engine was acquired by James in 2010. 'Great Northern' has 3 cylinders with water feed by axle pump, injector and hand pump in the tender. The locomotive is used for passenger hauling at its home track and makes visits to numerous clubs around the country. James has been interested in railways from a very young age and he learned to drive at the age of 16 and has been driving ever since. Due to James having an accident Nick Elliott will be driving this locomotive..

John Cottam

Member of Chesterfield & District Model Engineering Society. 3½" gauge winner – IMLEC 2011.

3½" gauge BR Standard Class 7; 4-6-2 No 70051 'Firth of Forth'. This Britannia class locomotive was built by me from 1986 to 1994 and has won awards at major exhibitions. It was taken off its display stand in the lounge in 2011 to compete in IMLEC at



Bromsgrove. I enjoy building and driving steam locomotives. I have also built in a Merchant Navy Class in 5" gauge which runs regularly and has taken part in IMLEC. I am presently building a 5" gauge LNER P2; 2-8-2 that I hope to finish in 2013.

Paul Pavier

Private Entry.

5" gauge GNR Class 'O3' 2-8-0 'Smuggler' This locomotive has only just been finished. It is to the Martin Evans design. It is painted dull black with mixed traffic red lining. The locomotive is named 'Smuggler' because I am hoping to smuggle the Trophy from my son Ben who was the 2011 IMLEC Winner. I am hoping for a better placing this year – 5th is best to date.

David Kerry

Member of Chesterfield & District Model Engineering Society.

5" g BR 9F 2-10-0 No 92220. This locomotive and boiler is built by me to the Les Warnett design plus added details. I have competed in IMLEC four times previously. In 1992 and 1993 I entered with a 5" gauge 0-6-0 Tank 'SIMPLEX' and twice with a 3½" gauge LMS Class 8F 2-8-0.

David Beale and Stephen Botterill (Driver)

Members of the Leeds Society of Model and Experimental Engineers.
(Leeds SMEE)

5" g LMS Black Five 4-6-0 no 45136. The driver Stephen Botterill is a relatively new member of Leeds SMEE. He is 16 years old and a junior member but has shown himself to be a complete engineman. He will be driving a locomotive built by another Leeds SMEE member; David Beale. The locomotive is built to Don Young's drawings and has a radiant superheater and two home made injectors. It was built in 22 months as therapy for illness, laser cut parts and a commercially built boiler facilitated this timescale. The tender construction incorporated ZINTEX for construction of the tank and although protected with 2pack epoxy rust is starting to show.

Les Pritchard

Member of the Harlington Locomotive Society.

5"g LNER 'N2' Tank 0-6-2 No 4750. This locomotive was built from Don Young's design. It is fitted with balanced slide valves and Joy valve gear. The locomotive came 6th place at Bournemouth in 2011; came 4th place at Bromsgrove in 2011 with me driving and 2nd place with Andy Siddell driving.

Michael Topham

Private Entry

5"g GWR 'Manor' 4-6-0 No7817 'Garsington Manor'. 7817 Garsington Manor was purchased by Michael and his father Hugh Topham. A frequently used engine at GL5 events and often seen running in Kent. It has travelled all across the country and has run at Bath, Gilling and railways in Cambridgeshire and often seen double heading with Class mate No 7816 'Frlsham Manor'. This is this locomotive's first IMLEC competition. Michael is representing both himself and his father who can't make it to the event on this occasion. Running at 80psi the locomotive has recently been converted to sitting on the tender when driving on ground level railways.

Neil Skellon

Member of the Urmston Model Engineering Society

5"g BR 9F 2-10-0 No 92245. This locomotive is built to the Les Warnett design. It was Bought in 1994 from an engineer in Kent when new from an advert in the Model Engineer. Lots of teething problems ensued, new regulator, injectors and pipework, return cranks and safety valves along with bits of detail. The locomotive had a full rebuild and overhaul between 1998 and 2011 following derailment due to vandals. It was originally painted green as 92220. A full repaint in black as 92245 was done at the same time. I came 6th at Northampton in 1996 and 3rd last year at Bromsgrove.



Karl Midgeley

Member of Gravesend Marine & Model Engineering Society

5" gauge 4-6-4 Freelance Tank 'Tomking'. This locomotive was designed and built by Grandad Ben Healey. It was built alongside and on a similar design to a 'Jubilee' that is now in its final stage of completion. The pair were started in 1985. This will be the eighth IMLEC I have entered; the fifth one with this Locomotive.

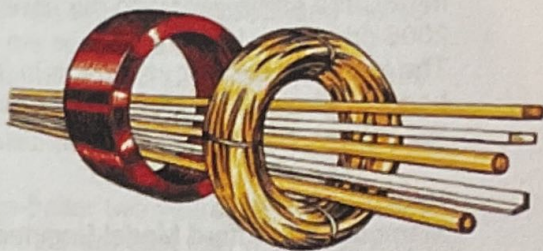


David Gregson

Private Entry but a member of Southport Model Engineering Club

5"g BR Peppercorn 'A1' 4-6-2 Pacific No 60136. 'Alcazar'. The locomotive was built by me over a period of three years from drawings produced by Michael Breeze. 49 locomotives of this class were built after nationalisation during 1948 and 1949 at Doncaster and Darlington works. None of these have survived into preservation with the exception of the new build 60163 'TORNADO' now running on the main line. The locomotive has three cylinders 1¹¹/₁₆" bore by 2⁵/₁₆" stroke. The boiler has a combustion chamber, cross tubes, and a grate surface of 49sqins The livery is turned out in 1951 BR blue.

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David Tompkins

Member of Guildford Model Engineering Society.

5" gauge NER 0-8-0 Goods Engine 'Netta'. This locomotive was built by me, based loosely on the LBSC 'Netta' design. It has Stephenson valve gear to my own design and the boiler was built by Len Steel. The locomotive first ran in 2003, competed in IMLEC the same year with my nephew, Paul, driving, 2005 with myself driving and in 2006 driven by J Middleditch.

The locomotive was overhauled in 2010 when the cylinders were replaced with over bored $1\frac{7}{8}$ " diameter bores. The locomotive was entered by nephew Paul in the 2010 IMLEC finishing sixth.

Paul Tompkins

Member of Guildford Model Engineering Society.

5" gauge LNER B1 4-6-0 No 61003 'Gazelle'. This locomotive was built by my Uncle, Dave Tompkins, from a purchased chassis. The boiler is to our own design and built by myself. The locomotive first ran in April 2008, then finishing first in WIMLEC (Wales) 2008, fifth in IMLEC 2008 and second in IMLEC 2009.

Alan Crossfield

Member of Leyland Society of Model Engineers

5" gauge GWR Manor 4-6-0 'Barcote Manor'. This locomotive was completed in 1994 after a 9 year building period. It was exhibited in the Midlands Model Engineering exhibition when it was awarded the 'Myford Trophy'.

The locomotive has been entered in three previous IMLECs:-

1995 at Kinver	2 nd Place
1996 at Northampton	'Winner'
2011 at Bromsgrove	Disqualified – Speeding!!

Lionel Flippance

Member of Worthing and District Society of Model Engineers

5" gauge BR Proposed 2-8-2 Freight Locomotive. The proposed 2-8-2 heavy freight locomotive would have been built around a BR Standard Class 7 boiler. Built to my own design including the boiler as I have a particular interest in British Rail.

I have three similar locomotives under construction with different elements in the boilers to, hopefully, improve efficiency.



Ben Pavier

Member Southport Model Engineering Club. 2011 IMLEC WINNER

5" gauge BR Standard Class 7; 4-6-2 No 70039 'Sir Christopher Wren'. This will be my seventh entry into IMLEC. I was $3\frac{1}{2}$ " gauge winner in 2010 with my GNR 4-4-2 Atlantic 'Maisie'. I was second overall in 2008 driving Frank Nixon's 5" gauge LNER B1 4-6-0 'Bongo'. Then in 2011 IMLEC Winner at Bromsgrove and taking home the trophy driving Rod Ainsworth's 5" gauge BR Standard Class 7; 4-6-2 No 70039 'Sir Christopher Wren'.

This locomotive was built by Rod Ainsworth of Southport from a Modelworks kit. A highly modified version, built over a period of six years. The original brass valve and piston rings have been replaced by ptf rings, the grate has been rebuilt and working dampers have been fitted to the ash pan. This locomotive won the 'Polly Trophy' at the 2010 Model Engineering Exhibition held at Sandown Park. IMLEC is a good event and brings together many model engineers. If you are not entering it's still worth watching with a 'Bru'.

Derek Perham and Martin Kennedy

Member of North London Society of Model Engineers. (NLSME)

5" gauge GWR 1500 Class 0-6-0 Tank to LBSC design. This locomotive was the first of five steam locos to be made by Derek Peckham and was started in 1978 with a family of young children and only a garden shed and hand tools to cut and make the frames. This soon became an evening hobby after the kids were in bed, and the 10 o'clock news signalled time to stop, and return to the real world.

After some 7 years of enjoyable toil the '1500' was ready to test run and paint. This was done and no mods or rectifications were needed. The locomotive was built to the LBSC design and a few fancy bits were incorporated along the way copied only from photos and line drawings.

The '1500' has been running for 26 years with a re-boiler two years ago and the axle bearings re-scraped and set at that time. The cylinders are cast iron with rings and the piston valves are hard phosphorous bronze in cast iron sleeves as per the drawings. These valves were measured and found to be only 0.0015" down on original size when first made so they were put back in service.

Many miles have been run, too many to list, tracks visited from Edinburgh in the north to Bournemouth in the South, with NLSME and the GL5 Society.

Model Plans Handbook for 1995/96 front cover shows the builder/owner of the locomotive at the LBSC Memorial Bowl competition at the NLSME tracks and after many years the bones and muscles are not willing to lend themselves to myself driving like they use to. So the driving in this year's IMLEC competition will be taken on by NLSME junior member Martin Kennedy, who has already had a taste of competition with driving my Rob Roy in the 2010 Little IMLEC at our NLSME tracks.

Keith Tilbury

Member of Urmston & District Model Engineering Society.

5" gauge Polly V 2-6-0 locomotive. This locomotive was built six years ago and entered IMLEC with James my son and now by myself. The locomotive has been modified during this time with a new grate, better super-heater, steel fire arch, balanced slide valves and modified blast in the hope that the results get better!! The locomotive is a regular passenger hauler at the Urmston Club.



Steve Eaton

Member of Chesterfield & District Model Engineering Society.

5" gauge 0-4-0 Freelance locomotive. This locomotive is an experiment to see what can be achieved with modified Polly Model Engineering and other commercial parts. Steve has entered IMLEC on many occasions over the past twenty years with his own built locomotives in 5" and 3½" gauge. He has won IMLEC twice with his 5" gauge 4-6-2 Britannia and has had several best 3½" gauge wins.

Dave Roberts

Member of Urmston & District Model Engineering Society

5" gauge LMS Black Five 4-6-0 No 5428.

This locomotive is one of two built jointly by Jim Mayle and myself to our own design.

Construction started before Don Young's design appeared and are of a basic 'no frills' design..

The Locomotive has run hundreds of miles on the Urmston track and had 'heavy repairs' about eight years ago but is now in need of refurbishment.

My best result at IMLEC was third place at Kinver in 2004 with this locomotive.





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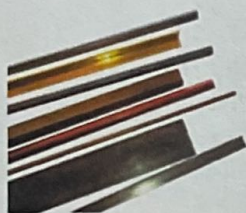
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John Barr

Leyland Society of Model Engineers.

3½" gauge 4-6-0 Black 5; LBSC designed "Doris". The locomotive was purchased by the present owner, a keen advocate of the restoration project approach, in 2005. Little is known of the model's prior history only that it had been offered in lieu of a debt to an Irish haulage contractor sometime in the late 1970's. It was retained by him until coming into my possession having never been steamed, used but occasionally as a push along toy by his family then as an ornament in his houseboat sailing the canals of Britain.

Under John's ownership the locomotive has been fitted with a new all silver solder copper boiler as the original soft soldered stay variety did not withstand the tests of time. My personal preference has seen the introduction of a four element concentric radiant super-heater of the double-do variety grouped in pairs i.e. up and down one element then up and down the next before entering a cylinder, a stainless steel ash pan and grate, cast iron piston rings, cast iron bobbins, modified top feed to accept O-ring clacks, cross drilling of the driven wheels to enable lubrication from the wheel face, new plumbing all round and, if he says so myself, a fairly respectable whistle! In summation, fun and easy to drive, which John suspects is just what the designer hoped for.....



Marcus Peel

Member of the Southport Model Engineering Club
3½" gauge LNER B2 4-6-0 Royal Sovereign. The Locomotive was built by J Chivers and completed in 1978. I have competed in every IMLEC with this locomotive since 2006.



Craig Weatherley

Member of the Worthing & District Society of Model Engineers. (WDSME)

5" gauge 2-8-0 'Worsfold'. This locomotive is to the Martin Evans 'Nigel Gresley' design and originally started by the late Jim Worsfold of WDSME. After he passed away other WDSME members finished the locomotive and it was named 'Worsfold' in memory of Jim. The locomotive was completed in 2008 and has been a strong club locomotive ever since.

Jim Jenkins

Member of Southport Model Engineering Club

5" g Polly IV, 0-6-0 tender locomotive. The locomotive is an older model from the 1980s from Polly Model Engineering with some minor modifications. I completed a major overhaul of this locomotive in May 2012 whilst at the same time completing my 'A' level examinations.

Mike Richardson

Member Bristol Society of Model & Experimental Engineers

5" gauge BR Class 9F no 92219. The locomotive was built by Jim Vass to the Les Warnett drawings and completed in 1991. The boiler was made by Norman Spink. I purchased the locomotive in 2002 and have fitted a twin axle pump in the tender. The regulator is fitted with plastic slides that reduce the tendency to stiffness at full boiler

Bruce Hope

Member of Guildford Model Engineering Society.

3½" gauge South African Railways (SAR) Class 14F 4-8-2 tender locomotive. This locomotive is a model of a South African Class 15F built to 1" to 1 foot scale; the prototype being 3'-6" gauge. This makes for a very large 3½" gauge locomotive measuring 6ft long, 10ins wide and 13ins high. The model is built to 'craftsmanship' drawings but with lots of detailing from the works drawings added. This locomotive was built over a period of six years but is still having details and upgrades added to improve its looks and performance! This is my first locomotive and I can't wait to see how it will perform in such a competition.

The locomotive's name is "MOSI OA TUNYA" which is the native name for Victoria Falls but translates to "the smoke that thunders". Under the headlamp she carries the name "Clare" as SAR drivers always put their wife's name on their locomotives.

Mike Firth

Member of Nottingham Society of Model and Experimental Engineers Ltd.

5" gauge L&Y 0-6-0 'A' Class. The locomotive was built by the late Graham Davenport of the Nottingham Society to the design of Don Young and was completed in January 2006. I purchased the locomotive in 2010. This is my first attempt at IMLEC.



Glyn Winsall

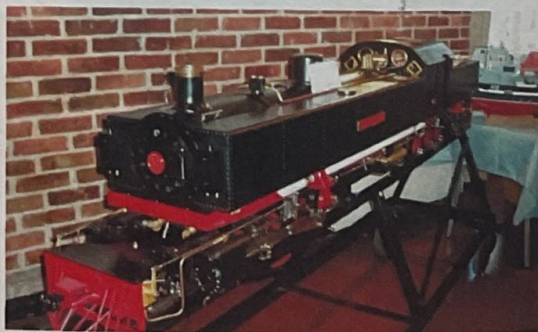
Member of Rugby Model Engineering Society Ltd.

5" gauge Quarry Hunslet 'Holy War'. The locomotive was completed in 1986 to the design of Don Young; the second built by Glyn. First entered in IMLEC in 1987 at Birmingham and achieved 9th place. The locomotive is as built and has required no major maintenance in that time. George drove the locomotive at last year's IMLEC at Bromsgrove 23 years after the locomotive last entered IMLEC. Unfortunately torrential rain spoiled any chance of a decent run, hopefully, this year the sun will shine on him.

Kevan Ayling

Member of Worthing and District Society of Model Engineers

5" gauge Kitson Meyer 2-8-0-0-8-2 Freight Locomotive. The prototype was built by Kitson of Leeds for use on the 3 foot gauge Columbian National Railways. The model is 8ft long and weighs approximately 720 lbs. It has a welded steel boiler with 55sqin grate area. It has four 2" diameter cylinders driving 16 driving wheels. I have competed in six previous IMLECs resulting in:- Two



wins, two second places, one ninth place and one retirement.

Tree Planting

After the end of the competitor run on Saturday, the Nottingham Society of Model and Experimental Engineers Ltd. will invite Mike Crisp, the 2012 IMLEC Judge to plant the 'Jubilee Tree'.



Acknowledgements

The Nottingham Society of Model and Experimental Engineers Ltd. extend their thanks to the following for their assistance in staging this event.

- Guildford MES for the loan of their dynamometer car.
- Bristol SMEE for the advice and guidance and the loan of their dynamometer car.
- Birmingham SME for the loan of their dynamometer car.
- Leeds SMEE for the help and encouragement.
- Countesthorpe Blinds, Countesthorpe, Leicester.
- John Taylor Bell Foundry, Loughborough.



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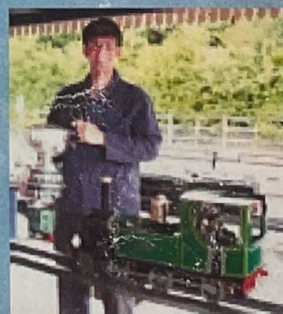


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