

FORTHCOMING EVENTS

June

Club Meeting: Wednesday 5th June - **The Marshall Tractor: A slide show by Bridget Laycock.**

Club Visit to North Sea Winches and Unison ~ Eastfield Scarborough. Thursday June 13th. Meeting 10.15am.

Workshop Morning: Tuesday 18th June 10-12noon.

Club Visit to Welburn Hall School: Tuesday 25th June.

July

Club Meeting: Wednesday 3rd July – **Mike Sayers' Trophy.**

Club Visit To Alne School (York): Wednesday 10th July.

Workshop Morning: Tuesday 16th July 10-12 noon.

PEEMS Railway at the Ryedale Show: Tuesday 30th July

CLUB MEETING: Wednesday 1st May

• Introduction.

Chairman Colin Bainbridge welcomed everyone to the May meeting. The main purpose of the club meeting was to discuss the arrangements for the Doncaster show (see later). Jonathan Milner had brought an item for scrutiny in the mini 'Bring and Brag'.

• **PEEMS visit to Ivan Shaw's workshop at Hutton le Hole to inspect the 'Merlin' personal aircraft.**

Since the last club meeting, members and guests have visited Ivan Shaw's workshop where he is building 'Merlin', his personal light aircraft. The photos and the description of the visit were published in the April newsletter. and what a marvelous visit it was. Ivan is creating something quite astounding, assisted by a few people, including our own Neville Foster who is looking after the stress analysis and making sure the necessary information is being recorded for the Light Aircraft Association (LAA). The LAA oversees the construction and maintenance of homebuilt aircraft, under an approval from the UK Civil Aviation Authority (CAA).

Colin said that for him, one of the more fascinating aspects of the project is the way that Ivan is manufacturing all the carbon composite body structure using his own curing oven inside the workshop.

The engine runs on ordinary unleaded petrol (Mogas) and not aviation fuel. One of the problems he has identified is that some of the additives used in modern 4-star petrol (such as ethanol), chemically attack the bonded joints in the fuel tank, an interesting problem! However, judging by the way he has already overcome various issues, Colin is sure Ivan will find a solution, and we all wish him every success for the future.

Postscript: As of writing the newsletter, Ivan has reported that the electrics and avionics have been completed and the engine started for the first time!

• **Club Visit to North Sea Winches and Unison (Tube Bending Machines) in Scarborough.**

Colin was pleased to announce that the next PEEMS Club outing, this time to Scarborough, can now be confirmed. The date for diaries is Thursday June 13th.

First there is a visit to *North Sea Winches* at 10.30am, followed by a 2.30pm visit to the *Unison Company*, which makes machines for pipe bending. Both companies are located on the Eastfield Industrial Estate which is on the Filey side of Scarborough. Again, car sharing is suggested where possible, in order to reduce the number of cars. A fish and chip lunch is proposed between the two visits, the venue of which will be confirmed at the June meeting.

Unfortunately, there is a restriction to a maximum number of 15 people for the Unison visit and names may need to be drawn if the visit is oversubscribed.

It was suggested that visitors meet in the car park on the Industrial Estate at 10.15am.

- **Mike Sayers and the *The Bentley Drivers' Club's 'Whitlock Trophy' for "Engineer Of The Year"***

Colin had some very good news. He was sure all members were aware by now that our own Mike Sayers is a very fine engineer and will recall the superb model Bentley engine he showed us at the March Club Meeting. It should come as no surprise that others have also recognized Mike's engineering prowess, and '*The Bentley Drivers' Club*' have awarded Mike the '*Whitlock Trophy*' which is the '*Engineer of the Year*' award. So hearty congratulations to you Mike for an award well deserved.

- **School Visits.**

- i) ***Welburn Hall School.***

The *Welburn Hall School* visit will take place on Tuesday 25th June, where the plan is that PEEMS will be providing the railway and there will be two traction engines supplied by Charles Hill and Mark Angus. Tony Leeming and Colin will be visiting the school soon to discuss the day with staff, just to make sure there are no changes to the way the event usually runs.

In the past this event has been well supported by members and Colin asked members to continue to support it and to put this date in their diary as it is a very worthy cause. He thanked everyone in advance.

- ii) ***Alne School.***

The second event is at *Alne School* and is an educational fun day for the children. It is the same type of scientific event as provided for *Amotherby School* in the past and is due to be held on 10th July.

This event does need a minimum turn out of eight members to cover everything. Colin wanted to gather twelve names before the day. There would be ten members in attendance with two as spares. If there are twelve members available then that would be insurance for any last minute changes if someone needs to drop out.

Colin requested that members consider helping. He already had about seven people who have offered help, but extended the offer to everyone. Colin will remind everyone at the next couple of meetings as the date draws nearer.

- **The Workshop**

Since the last meeting when Colin announced that the surplus stock from the workshop and a couple of items were for disposal, he was pleased to tell everyone that £71.70 was raised to go into the workshop funds. At the last committee meeting, it was decided that the small pillar drill which was not sold, could be donated to the '*Next Steps/Men In Sheds*' group that meets at the RVS on Thursday mornings, as their own was in poor shape.

The workshop is available for anyone that may wish to use it. Please contact either John Powell or George Gibbs first if you wish to use it. George and John wish to emphasise to members that the milling machine can be used in the horizontal mode which is very useful for certain tasks, and it is also provided with very useful ancillary components.

For any help and advice, George is available and has given permission for his mobile number to be published for this purpose. It is: 07534379617

- **Safety Officer**

The role of '*Safety Officer*' still needs to be filled, so if a member felt this is something they would like to do then please do come forward.

- **Club Officers**

Colin requested that members think about standing for one of the '*Officer*' positions.

The AGM is some way off yet, but it is important for these things to be considered well in advance, as the Club needs to keep the various posts covered in order to keep the club running.

The Chairman's role is one that needs refreshing, preferably annually, and there is still a need to find a first reserve for the year after next, to take over from Jonathan Milner in 2021.

The Doncaster exhibition will require a stand organizer next year as Mike, who has done this for many years, wishes to have a break. Mike, however, has kindly agreed to help us through this year. David has taken on the role of administration and model organiser, but the club will need to cover these roles in 2020.

Tony Leeming, our Club Secretary for many years, also wishes to take a well earned break and will not be standing next year. If you feel you would like to take on one of these roles, please give it some thought and in the meantime if you like to know more, please just ask and Colin will be happy to give you information as to what the role entails.

- **Mini 'Bring and Brag'.**

Jonathan Milner showed the clamp he made for fixing a machine vice for extra support when in use.



- **A Note From Paul Windross Reporting From Elvington Airfield**

The Elvington Speed Events were on the 11th to 13th May ~ Saturday, Sunday and Monday.

On Saturday I decided to stay at home and told friends Andy and Helen who were there, that if any competitor breaks down, contact me if I can help. I then received a phone call from a competitor Mick Ellis to say that Will had a problem. Will's 2-wheel machine, when sorted, will be a drag racer. After months of trying to get it ready for testing at Elvington, he had a go at last month's speed trials, sorting and getting used to riding it.

On Saturday, a final drive bearing was moving and the chain looked like it had worn a groove in the outer race. A 50mmØ bore x 60mmØ x 6.5mm wide spacer was required. I was machining it when two visitors arrived. Will, the owner of the machine and his girlfriend, had just flown in from California. Will is an aerospace engineer and his girlfriend is an electronics engineer. They had brought the part that required modification. A large bearing had to be removed. Will sorted that with an angle grinder as it was hard to remove.

On Sunday all was ready for speed trials over a standing start half mile. Will did his fastest at nearly 140mph.

Monday was the mile terminal speed attempts. There were a few problematic runs, mainly stability issues when not under acceleration. Will's last run was 151mph which was his best yet. It's great to see competitors improving their times.

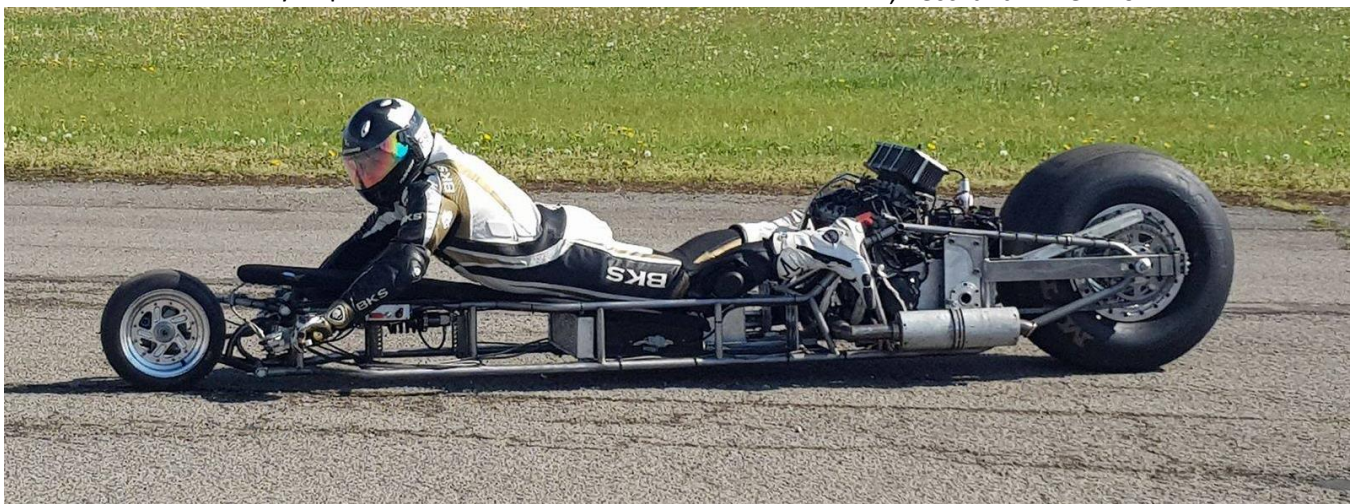
Here are a few pictures of Will's machine:



My Repair



Will, Becci and Mike Ellis



The 26th National Model Engineering and Modelling Exhibition at Doncaster ~ 10th to 12th May 2019.

Introduction.

The Doncaster Show is an important event in the PEEMS calendar, and doubly so this year, as our President Mike Sayers was putting on a display to commemorate the centenary of the Bentley motor car and twenty years work on his two models. The 1/3rd scale 3 litre and the 4 1/2 litre 'Birkin' Blower Bentley engine were displayed along with various spare parts. A selection of jigs and tools required to make the models were also displayed.

Permission had been granted by the exhibition organisers for the 4 1/2 litre model to be entered in the I/C engine competition while remaining part of the PEEMS club display.

The two engines 'headlined' the PEEMS stand which was well supplied with the usual eclectic mix of member's models. Excluding Mike's display there were thirty four models and thirteen exhibitors.

'Best Stand' this year, went to the *Grimsby and Cleethorpes* club, and PEEMS congratulate them on their win.

These are the PEEMS exhibitors and their models, as well as Mike's display components:

1 Brenda 2' Freelance 20cc OHV V Twin ICE	B Rees	2 Brenda 4' Freelance 24cc OHC Flat 4 ICE u/c	B Rees
3 1/3 1923 3 litre Bentley Engine	M Sayers	4 1/3 1929 4.5L Supercharged Birkin Bentley	M Sayers
5 3 Litre Piston	M Sayers	6 Pair of Carburettors for 4.5L	M Sayers
7 Rockers & Valves	M Sayers	8 Blower Casing	M Sayers
9 Blower Rotors	M Sayers	10 Blower End Plate	M Sayers
11 Water Plate Screws	M Sayers	12 Supercharger Drive Coupling	M Sayers
13 Cam Grinding Fixture for Astra 5E T&C Grinder	M Sayers	14 Gear Cutter Relieving Attachment for Hardinge	M Sayers
15 Dividing Head for Skew Gear Cutting	M Sayers	16 Tool Post Milling Spindle	M Sayers
17 Ring Rolling Tool	M Sayers	18 Blower Rotor Test Rig	M Sayers
19 Special Milling Cutters & Form Tools	M Sayers	20 Radiator Tooling & Press Tools	M Sayers
21 Valve Collet Machining Jig	M Sayers	22 3 Litre Piston Mould	M Sayers
23 S.U. HGV5 Carburettor Body Mould	M Sayers	24 Carburettor Body Machining Jig	M Sayers
25 Sump Plate Press Tool	M Sayers	26 Carburettor Float Press Tools	M Sayers
27 Silicon Moulds for ML Magneto Caps	M Sayers	28 Chassis Rail Forming Bar	M Sayers
29 Atkinson Cycle Engine	M Doran	30 Gardner Hot Tube Engine	M Doran
31 Rectilinear Cross Engine	H Hulse	32 Tender for G1 Project Loco	C Bainbridge
33 Stuart Turner Double 10	T Leeming	34 Speedy Rolling Chassis	T Leeming
35 Hypercyclode Engine	B Stephenson	36 Twin Cylinder Scotch Yoke Engine	B Stephenson
37 Half Beam Engine	B Stephenson	38 Twin Victoria Engine	B Stephenson
39 Twin Cylinder Marine Engine	B Stephenson	40 McOnie Angular Oscillating Engine	B Stephenson
41 McOnie Diagonal Steam Engine	P Bramley	42 Chelmsford Steam Car u/c	P Bramley
43 Pete's Folley (Wooden Wheel Fabrication Centre)	P Bramley	44 Set of Hobs DP Metric	P Bramley
45 Sine Plate	P Bramley	46 Rotating Milling Table	P Bramley
47 Ground Steel Plate - Bandsaw	T Fletcher	48 Small VEE Plate - Bandsaw	T Fletcher
49 Ground Rotary Table Adapter Disc	T Fletcher	50 Rotary Conical Stub Plate	T Fletcher
51 13A Steel Socket Outlet Box	T Fletcher	52 Heavy Modified Transformer	T Fletcher
53 Stub Plate For Myford Lathe	T Fletcher	54 Edwardian Steam Launch 'Miss Mini Madam'	R Baler
55 Speedboat 'Miss Britain III'	R Baler	56 3.5"g Freelance Steam Loco 'QB2'	J Heeley
57 Steam Boat	J Heeley	58 George Thomas Dividing Head	G Gibbs
59 Vertical Steam Plant 'Polly'	D Hick	60 1" Scale Minnie Traction Engine	D&A Hick

Setting Up The Stand

The set up and tear down went very smoothly - largely thanks to the logistical support from John Nesom and Jonathan Milner who both deserve special mention. Thanks also to David Proctor for taking over administration and organisation of the models, and to everyone who helped efficiently set up the stand.



Almost There.....



Member's Models.



From left to right : Steam Boat: and 3½" gauge freelance steam loco 'QB2': John Heeley.
Speedboat "Miss Britain III" and Edwardian Steam Launch 'Miss Mini Madam': Ron Baier.

Exhibits 35 to 40: Scale Models Of Industrial Steam Engines: *Brian Stephenson* plus Modified Transformer: *Ted Fletcher*. Bottom Right: Rectilinear Cross Engine: *Harold Hulse*.



From left to right top: McOnie Diagonal Steam Engine: *Peter Bramley*. Stuart Turner Double 10: *Tony Leeming*. Set Of Hobs DP Metric and A Chelmsford Steam Car Undercarriage: *Peter Bramley*.
From left to right bottom: Ground Rotary Table Adaptor Disc, 13A Steel Socket Outlet Box, Ground Steel Plate – Bandsaw, Stub Plate For Myford Lathe, Rotary Conical Stub Plate: *Ted Fletcher*. Rotating Milling Table: *Peter Bramley*. Small VEE Plate – Bandsaw: *Ted Fletcher*.



From left to right lower (also see below): 'Speedy Loco' Rolling Chassis: *Tony Leeming*. 1" Scale 'Minnie' Traction Engine: *Adrian and David Hick*. Gardner 'Hot Tube' Engine and Atkinson Cycle Engine: *Mel Doran*. Tender for G1 Project Loco: *Colin Bainbridge*..... and above that: Vertical Steam Plant 'Polly': *David Hick*.



In the foreground: Pete's Folley (Wooden Wheel Fabrication Centre): *Peter Bramley*

Some Model Details :

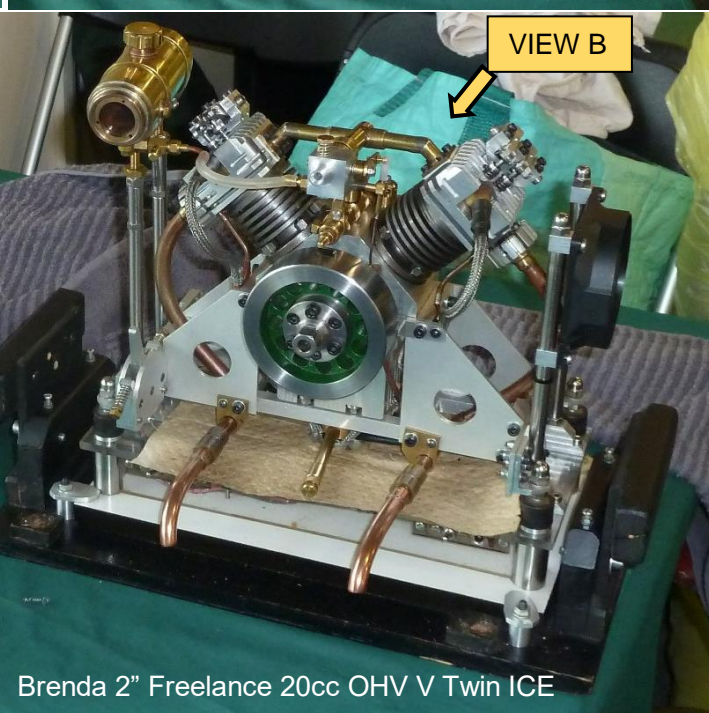
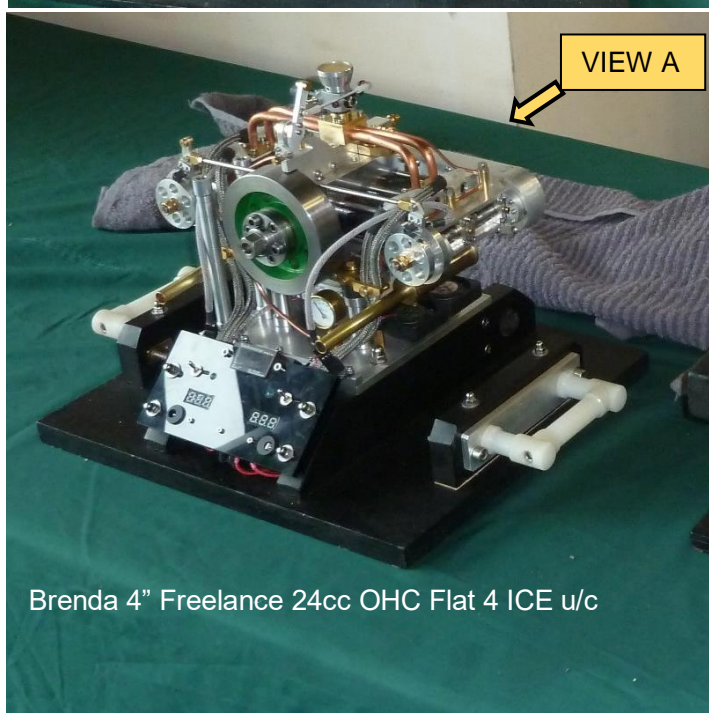
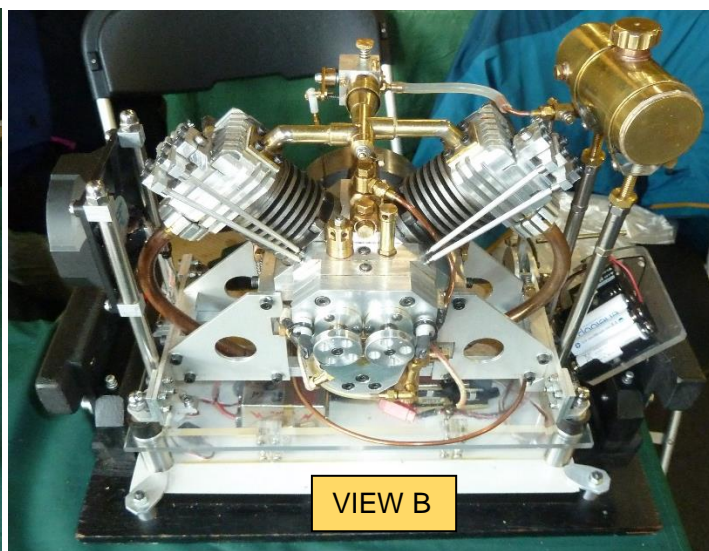
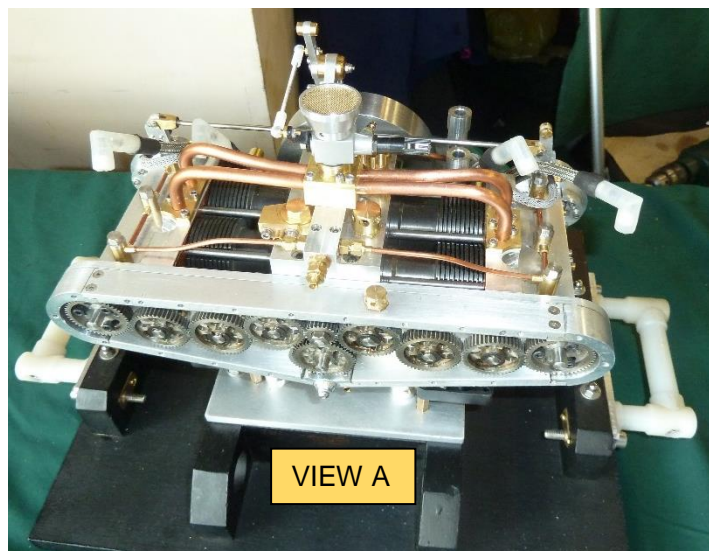


Detail of Ron Baier's Edwardian Steam Launch
'Miss Mini Madam'.



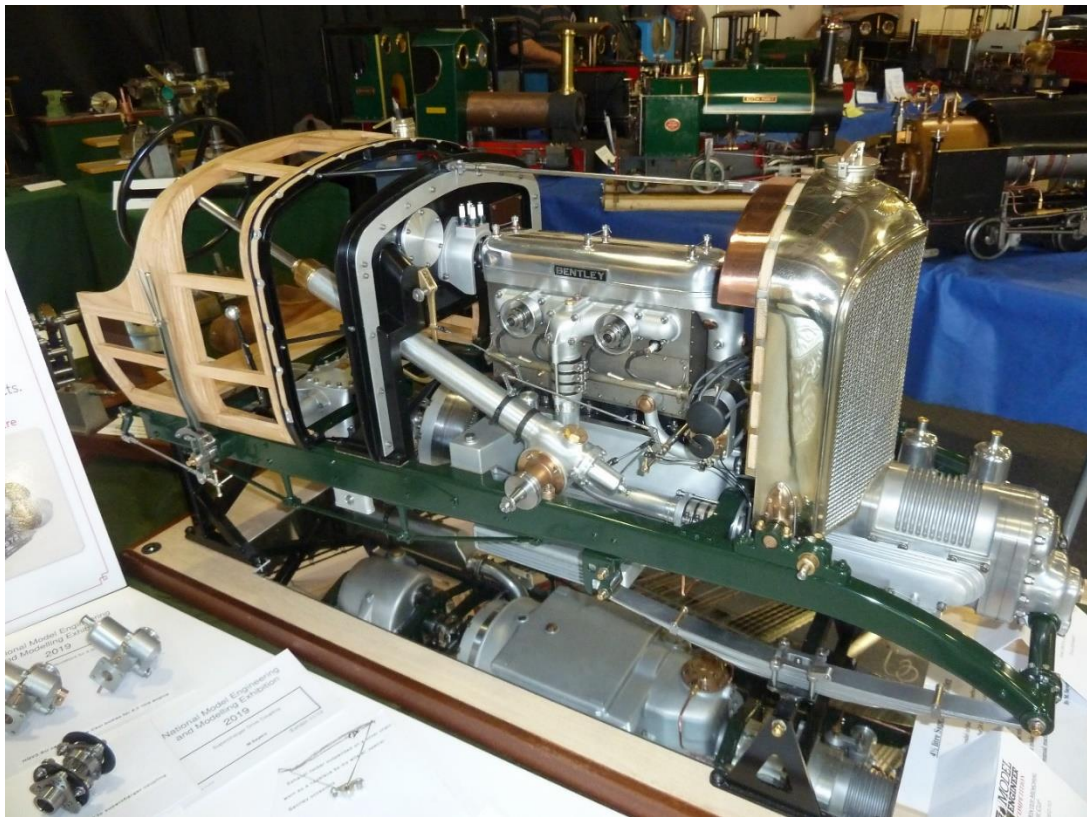


The Brian Rees Display: Brian is a regular PEEMS exhibitor at Doncaster, and this year is special because at his local Sutton-on-Hull Model Engineering club he was awarded the '*Sir Malcolm Campbell*' trophy for his new flat four I/C engine. Sir Malcolm was a past president and this is their highest award.



Mike Sayers' Competition 1/3rd Scale 4½ Litre 'Birkin' Blower Bentley Engine.





For clarity, the information board states:

The two models shown here show my own 20 year odyssey in celebration of the Bentley marque. Construction of the 1/3rd scale 3 litre engine began in 1999, modelled on the unit in my car, with the intention of following this with a similar scale model of the mighty 1929 Birkin 4½ supercharged "Blower" engine from the car built to contest the Le Mans 24 hour race that year. It did not succeed in winning at Le Mans but has become the ultimate and iconic image of Bentley. This centenary year sees the completion of these two projects. *Mike Sayers*



Spare Parts



For clarity, the information board states:

The array of items displayed here is an attempt to show the extent of jig and tool work necessary when building an I/C engine of this complexity. *Mike Sayers*

There was much interest in the engines:



Awards

Congratulations to Mike for winning two TOP awards and a Gold Medal at the 2019 Doncaster Show for his $\frac{1}{3}$ rd Scale 4½ litre Bentley 'Blower' engine. These were:

a) *The Barry Jordan "Best In Show" Cup.*

b) *The Bradbury-Winter Memorial Challenge Cup.*

Note: This cup is not awarded every year and is only awarded for outstanding craftsmanship.

The cup is inscribed with the following inscription:

Dr John Bradbury-Winter (1869-1950) "A skilled craftsman whose advice and help were freely given to his fellow craftsmen".



Registered Charity Number 1123252

A black and white line drawing of a steam locomotive pulling a passenger car. The locomotive is on the left, facing left, with smoke coming from its smokestack. The passenger car is on the right, also facing left. The train is on a set of tracks.

At Heath Park, Cardiff

* Boiler Certificates Required



Tel: 029 2025 5000

Raised track: 3.5", 5", 7.25". Electric lift for unloading. Club driving trucks and coal available.



Oswestry and North Shropshire Model Engineering Society

host the

NORTHERN ASSOCIATION of MODEL ENGINEERS

NORTHERN RALLY

at the

Oswestry Showground

on

10th and 11th August 2019

Running commences at 10am with a Fish and Chips supper
available on the Saturday evening

Caravans accepted on the showground by agreement from
Friday evening.

Raised track running for 3½" and 5" gauge locomotives only

For further details and to confirm your attendance for the event on the
Saturday or Sunday or both days, please register by contacting the Secretary

Glyn Davies on 01691 650352

or

Email glyn.davies@oswestry-mes.co.uk

Contact:

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