# WESSEX STATIONARY ENGINE CLUB LIMITED

### NEWSLETTER



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## TATTON PARK & THE ANSON MUSEUM - Saturday & Sunday 25/26th June 1994.

My second time as an exhibitor to this event was once again just as exciting and interesting as my first visit, with almost 700 engines to view and ponder over plus everything else that goes with this show.

If you haven't been before give it a try, you won't be disappointed. Tatton Park itself reminds me a bit of Longleat with its large stately home, huge grounds and woodland that surrounds all the open spaces. There is even a continuous air display all day long as large passenger jets come low over the rally site as they climb up after taking off from Manchester

The engines here are all displayed in pens with camping only a stones throw away, I prefer to see a show laid out in this way as it looks more like an engine display without all the distractions that go with a camp site and I never heard anyone complain about this arrangement.

The magnitude of this event is just too big to really take to task and try to write a detailed report, but just about every make and model of engine was there, from the huge mounted on eight wheeled lorries to a pocket size model all busy chugging away and most driving something.

On Saturday evening three coaches were laid on to take around 150 exhibitors to the 'Anson Stationary Engine Museum', we were lucky to get two tickets for this trip as I am told they could have filled several more coaches and at only £2 per person, what a bargain itwas. The Museum was situated at a now closed down coal mine, which I would imagine stopped working many years ago as most of the area has now reverted back to woodland. The Museum is about a half an hour journey from Tatton and situated at Poynton just south of Stockport it houses one of the largest displays of internal combustion engines in Europe which is open to the public. A predominantly working display of early combustion engines with particular emphasis on oil and gas engines made in the Manchester area and also including engines made throughout the country. The Anson Museum also contains a small and growing section covering Poynton's past much of it relating to the coal mining industry which was once Poynton's main activity. A large selection of engines can be seen working in a huge purpose built shed, all engines are plumbed in with water for cooling and all their exhausts pass through the walls to a long line of cast iron silencers all with tall pipes to carry the fumes away. Most of the engines are on the large side ranging from 10 to 40 hp and tick over like watches with only the occasional click to be heard as cams rotate and valves open and close. Some well known makes are here including Ruston & Hornsby, Hornsby Ackroyd, Campbell, Crosseley, Gardner, Tangy's, National, Blackstone, Robinson and more unusual ones were Bates & Scholes, and Furnival. Narrow paths disappeared into the surrounding woodlands where more engines and very interesting workshops were to be found all over the place, including the sites power station which was a large 4 cylinder Gardner engine driving an alternator.

Sadly after approximately 2 hours and a nice cup of tea in the restaurant it was time to return to our coaches and make our way back to the rally site. Admission to the Museum was free, but donations were very welcome and no doubt much needed to help run and maintain this superb collection. ROB.

"ENGINE NIGHT" - 23rd June.

On a warm sunny evening we filled the car with bodies, Don and Chris with William, Brother-in-law Brian, the wife and myself and headed for John Kytes garden at Market Lavington. An array of various engines greeted us with some 40 people. The engines ranged from Listers, Rustons and Blackstones, with the main attraction being a "Brush" engine which was housed under cover. This engine was so large it was mounted on 30 tones of concrete. It used to be in a Mill. It took two people six months to restore. It is a 1938 engine which runs a generator using 12 dry belts. The flywheel alone weighs 6 tons. It starts with compressed air and then uses 5 gallons of diesel per hour. Also housed was a 1923, 25hp Ruston Proctor which ran very nicely all evening. There was also a Aveling Barford 1946 running a Adamson Steam Engine 1900. The Blackstone oil engine, 1924, 8hp ran nicely. It was purchased by John in 1968 for £50 and is now worth approx. six thousand pounds.

There was also an old caravan, with bed readymade, tractor, Rolls Royce engine and a fire engine at the back of the garden which many including myself climbed up the ladder for

a spectacular view of the village and Salisbury Plain.

Johns' wife brought out a couple of very large trays laden with bread rolls, sausage rolls and pizza. Very nice supper. With John living in between a Pub and a Fish and Chip Shop everyones needs were catered for.

It was a very enjoyable evening which ended on a "Smokey Note". Not I may add from the engines. The army had caught Salisbury Plain on fire and the whole area was covered in a

smog of smoke.

Thank you John for opening your garden to us and letting us enjoy an evening with you and your engines. Wonderful display.

ROGER PIKE.

PEDAL POWER.

Has anyone ever seen a stationary engine delivered to a Rally site by bicycle and trailer? Having found ourselves a spare weekend in June, a phone call to Bob Hatcher, steward of the Swindon Group soon rectified the situation. We arrived at about 8.00 am on Saturday morning, set up the caravan then sat down to a cup of tea and watched the various exhibits arrive, then I saw a bike coming over the rise in the field and as it got closer I could see the man had a large rucksack on his back and in the trailer he had an engine and all his camping gear plus a tent. The engine turned out to be a lhp Villiers which ran like a sewing machine believe it or not, talk about environmental friendly— hey!!!!!

Nice one Adrian, I bet you thought you were seeing things when you first clapped eye on this chap. Perhaps he ought to run the engine in his trailer and slip a belt around the bike's rear wheel to give him an extra push up the hills. ED.

MEMBERS NIGHT - Old Down Inn - Monday 27th June.

Vice-Chairman Eric Gay opened the meeting with 22 members present, and invited those present to voice their opinions on our annual Club Rally. Bill Appleby said he thought that the engine lines looked a shambles with all the caravans parked behind and Dennis Hodges thought there were too many caravans taking up a lot of space. Tom Randall said perhaps in future it would be better if the engine line was extended around the perimeter of the field. This discussion continued for some time and the general opinion was that too many caravans turned up (probably owing to the nice weather) and the space made available had to be doubled hence all this steam being let off!!

Thanks were given to Leekes of Melksham for advertising the Rally and donating some raffle prizes and also to the majorettes plus Robert Coles for his racksaw and showmans

engine and Gould Brothers for their Sentinel Steam Lorry.

Raffle prizes at this meeting were won by Roger Pike - Model Showmans engine, Dave Chinnock - Sherry and Dave Cook - cans of 6X. The meeting closed at  $9.25 \, \mathrm{pm}$ . ROY POINTING.

FOR SALE - Winget Concrete Mixer, new drum. Villiers engine driven - £75

Contact Ron Torr on 0749 840413 (Gurney Slade)

FOR SALE - Water Container & Carrier on wheels - £20 Cyril Hinks on 0373 471349 Frome.

CLUB EVENING - September 26th (Monday) - Richard Maggs talk on Radstock Museum.

#### RALLY DATES.

September 10th - Lackham Vintage Tractor & Agricultural Rally, a fun day for all the family at Lackham College, Lacock, Chippenham, Wilts.

September 24/25th - Classic Bike Show at the Bath & West Showground, Shepton Mallet.

Stationary engines wanted - Contact Roy Pointing 0749 344222.

September 25th Full Quart Crank-Up, Hewish, Nr. Weston-super-Mare.

Having been approached by a Club member at a recent event and heavily criticised for 'writing about work', I have been reluctant to continue my Newsletter series on 'Engines at Bath University'. However, the rest of the Club, especially those who attended the August 1993 meeting to hear Paul Revell from Kingfisher Diesels of Ferndown, Dorset, may find this 'article about work' more interesting, than blank pages, so here goes....!

Shortly after Paul's talk, I was approached by a lecturer wishing to know if I knew of any manufacturers of a small diesel with a view to asking them to supply an engine to propel a vehicle to enter in the 1994 event at Silverstone. The Mileage Marathon has been an annual international event for eighteen years, and as much of our research centres around diesel economy and emissions, it provides natural scope for such a project vehicle. The class for a diesel engine was only introduced for the 1993 season so we were able to get our feet in the door early on. The diesel engine generally is not easy to scale down due to fuel metering problems so it presents a greater challenge to fuel economy designers. Ours became known as BUMM (for Bath University Mileage Marathon); it ran as a final year student project, split into two groups - 1) engine and transmission and 2) body and chassis design. Paul had already hinted that his KDA4 of 230cc's was the smallest commercially available practical diesel on the British market, albeit a stationary type, and it had the advantage of having a horizontal cylinder, so a phone call was made and soon an engine was made available to us.

The students eagerly pounced on the engine, bench tested it on a small dynamometer to find its characteristics, and then stripped it down, discarding the air cooling cowling completely and the fan. They removed the cylinder head and designed some modifications to the porting to allow the air to enter and exit in much more of a straight line. The valves too were subjected to machining, thinned down around the neck and lightened. A new silencer was designed, this time it was to be of the 'straight through type' with some sound absorption material inside. After some calculations, we removed 16mm from the diameter of the flywheel and the oil control and lower compression ring from the piston in order to reduce frictional power losses. A local agricultural engineering firm supplied a centrifugal clutch from a Ransomes mower which was modified slightly, lightened, and adapted to fit the Kingfisher output shaft. Most Mileage Marathon vehicles adopt the 'fire-up and coast' method of operation making use of the car's inertia to keep up the momentum. To this effect, we obtained a small self-starter and ring from a Briggs and Stratton engine and adapted it to fit the flywheel of the Kingfisher. It was linked to the decompressor, which in turn was modified, to allow ease of the stop-start proceedure. Before modifying the head and again after the mods were carried out, airflow tests were performed which proved the advantage of our modifications to the cylinder head. The engine was then assembled ready for the first start up, meanwhile the chain-drive and layshaft for the rear drive was designed, built and assembled. Oil feed to the valve mechanism was effected in true stationary engine style by a small wick feed sight-glass oiler.

The other pair of students, by this time, had completed the chassis and steering design, and produced a rolling chassis. The engine was bolted into place and started on the handle surprisingly readily. Soon it was ready for its maiden trip around the car park; not least of the hazards were the low tubular gate and the cooling pond. This trip however was uneventful, but successful in proving that the gear ratio had to be raised slightly to achieve the minimum average speed of 15mph laid down in the regulations.

The vehicle was by now almost ready for Practice Day in early June, when it was trailered up to Silverston Circuit and acquainted with the proceedures of scrutineering, fuel metering and general 'circuit training'. We were pleased enough to achieve 530mpg on our first attempt and this set the team in high spirits for the eagerly awaited event of July 15th. A fibreglass tail and nose cone were moulded, an aluminium sub-tray to fix them to was produced and further trials based on the practice day experience got underway. At this point disaster struck.....!

The engine refused to start, both on the self-starter and on the handle and smoke was puffing out from under the cylinder head. A strip-down revealed a cracked cylinder barrel, believed caused by some misalignment on assembly following the air flow tests. A phone call to Kingfisher was made, but due to trying to get the car running in time for Graduation Day and its inevitable media attention with HTV and local newspapers, it was decided to quickly get a liner fitted. Hurley Engineering of Bath were contacted; ten minutes later the barrel was with them and next day returned to be assembled. This was fantastic service, and a company to be highly recommended to engine restorers.

Another attempt at starting resulted in a broken starting handle, quickly repaired and made 'student-proof'. We made another tour of the car-park whereupon the crack reopened, the liner moved, hit the crankshaft and shattered! The annual Design Exhibition was upon us, the car was displayed on the show stand where it gained a lot of attention and interest despite the unknown fact that the engine was wrecked.

Morale was now at rock bottom, however, suddenly Kingfisher responded to our original plea and suggested that if we paid them a visit, they had a scrap engine which we could take away and cannibalise for parts. Next day we were back in business, the vehicle was fit and well again and we were on course for the Graduation Ceremony and the filming and interviewing by Graham Purches of HTV. This all sounds very grand but in fact it was two hours spent in the roasting midday sun, resulting in a minute and a half spot on the News West

programme.

Two days before race day (July 15th) the car was loaded onto my trailer (Yes, the same one that regular readers of the Newsletter will remember from my Campbell story article!) and taken to Silverstone where we were allocated the Benetton pit used by Schumacher in the British Grand Prix the previous weekend. We also had lucky number 13, - well someone had to.....! We had four attempts allowed, each being seven laps of the modified 'club circuit' totalling ten miles, at an average speed not less that fifteen mph. The best run of the four was the one to count. The diesel fuel used was carefully metered in by the stewards and its tempature recorded. When the final results were announced we found we came fourth in the diesel class and twentyfifth overall; with a best figure of 1197 miles per gallon. Out of over sixty starters this was a pleasing result for a first attempt and a novel use of a stationary engine.

The Class winner, a French team, recorded a best run of 3492 miles per gallon - a

very good figure indeed.

Next year, with 200cc's less and the experience gained, who knows? - we could beat the French teams and perhaps win a top award. ERIC BRAIN.

### SEMINGTON RALLY - 18th/19th June 1994.

Thursday evening had seen the committee members and helpers working late on in the evening and also in the darkness putting in the stakes around the field because the machine was needed Friday morning and had to be returned to its owner.

Alan and myself arrived on Friday morning and set up our 'home at 12.45am to be there and ready for all the early arrivals and entries which we had been anticipating. It turned scorching hot and the entrants began to arrive steadily throughout the day.

I was on "gate duty" for most of my weekend but did wonder at the sizes and displays going on all around the area of the field which was visible to me including the erection of a chalet bungalow directly opposite, this frame was the biggest and turned out to be none other than Mr. Brian Baker and family!

We were fortunate to have on site this year Mr. Robert Coles with his "General Gough" showmans engine (built in 1921), and a display I particularly liked although never seen up close until I visited the Bath Steam Festival, which was Jen and Lofty Coles with their

breadmaking demonstration and farmhouse bread oven.

John Kyte's 1968 fire engine could be seen all around the field especially when the

ladders were up and with the flag flying aloft.

Although never seen myself I was told that Philip Thornton-Evison's Ransomes Wizard was by far the rarest engine on the field, a superb restoration as was "running like a clock." Wessex members Mr. and Mrs. Corp were also exhibiting a beautiful restoration of a Lister

'L' type.

The list of cup winners and rosettes were presented this year to:-

Mr. Holloway with an Amanco Gas Engine. Best Horizontal Engine

Mr. R. Harris with a Wolseley WD and Bracket Pump. Best Working Engine Mr. P. Thornton-Evison with a Ransomes Wizard Engine.

Best Vertical Engine

Master K. Baker with a Lister 'D' and Pump. Best Junior Entrant

Mr. B. Lovell with a Fordson Model 'N'. Best Tractor

Robert Coles - 1921 Burrell Engine. Best Steam Exhibit

Mr. D. Burgess with a Morris 8 Best Car Entrant

Best Commercial Entrant Mr. M. Jones with a Morris.

Mr. R. Smith with a display of Model Ploughs.

The Committee wishes to thank all members and people who helped to keep the rally functioning over the weekend and are very grateful to you all; without all your hard work there would be no rally - hopefully we shall see you all again next year. ANNE CARNEY - SECRETARY.